

TIMBER FRAMING

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Will Becmer

Texas Conference



Dismantling Barns



Chris Madigan



Dale Lehmer

TIMBER FRAMING

INCORPORATING TIMBER FRAMERS NEWS

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CALENDAR

Celebrations

Rendezvous '94

Timber Framers Guild

July 29-August 7, Penetanguishene, Ont.

Timber Framers Guild

Box 1046, Keene, NH 03431

603-357-1706

Workshops

Upper Loft Design

Introductory Framing and Enclosure

June 13-25, Highlands, North Carolina

Upper Loft Design, Inc.

Rt. 1, Box 2901, Lakemont, GA 30552

706-782-5246

Heartwood School

Dave Carlon and Will Beemer:

Square Rule Framing,

June 27-July 1 and July 26-29

Jack Sobon and Ed Levin:

Advanced Framing, August 15-19

Washington, Massachusetts

The Heartwood School

Johnson Hill Rd., Washington, MA 01235

413-623-6677

Tedd Benson

Six-day Intensive

July 25-30, Alstead, New Hampshire

Kathy Nerrie, Benson Woodworking Co.

Box 224, Alstead Center, NH 03602

603-835-6391

Pacific Timber Frame with

Hamil Creek Timberwrights

August 22-27, Vernon, British Columbia

Debbie Smith

Box 151, Meadow Creek, B.C. V0G 1N0

Canada

604-366-4320

Hancock Shaker Village

Jack Sobon and David Carlon

Traditional Timber Framing

September 21-25, Hancock, Massachusetts

David Carlon

Box 223, Windsor, MA 01270

413-684-3223

TIMBER FRAMING, Journal of the Timber Framers Guild of North America, reports on the work of the Guild and its members, and appears quarterly, in March, June, September and December. To assure publication, Calendar notices must be received six weeks before the date of issue. TIMBER FRAMING is written by its readers and welcomes interesting articles by experienced and novice writers alike. Contributions are paid for upon publication at the rate of \$125 per published page.

BOOKS

Build a House

Build a Classic Timber-Framed House, by Jack A. Sobon, Garden Way Publishing, Storey Communications, Inc. (Pownal, VT 05261), 1994. \$29.95 US, \$39.95 CAN, hardcover.

THROUGHOUT my 15 years of teaching housebuilding and timber framing, one of the most commonly asked questions from students has been: "Where can I find plans for a timber-framed home I can build?" Jack Sobon's new book, *Build a Classic Timber-Framed House*, answers this question and quite a few others.

This book is written for owner-builders, but anyone concerned with the evolution of our craft and building affordable timber frames will find a valuable resource here. When an owner-builder who may be very competent at stick framing faces the prospect of creating an economical and visually-pleasing timber frame, the level of craftsmanship can be intimidating, as can the prospect of errors that no amount of dry-wall will cover up. Designing a frame around a floor plan, or vice-versa, is a formidable task. Here in New England we are fortunate to have many archetypal examples of house designs which not only work well, but which can also be expanded easily. This is one of the major design principles in an owner-builder's program: build small and add on. Sobon chooses one such design, the hall-and-parlor house, for the project outlined in this book.

After a historical perspective on timber framing in America, particularly Dutch and English influences, the author relies on his architectural background to explain the preliminary design process and the reasons the hall-and-parlor design was so ubiquitous. He then reprises the themes in his earlier book, *Timber Frame Construction*, and narrates the journey of the tree to the sawhorse, including a short course on hewing. A description of the layout process follows; the Square Rule system is ideally suited for novice timber framers as it does not require the mental gymnastics of mapping nor the physical contortions of Scribe Rule. It also accounts for timbers which are off square or dimension, which is how they will come from a sawmill or the hewing trestle. (Four-sided planing to exact dimensions is here an unnecessary efficiency.)

The main body of the book consists of step-by-step instructions for cutting and assembling every member of the frame, including large-scale details of each joint. The use of traditional tools and raising procedures is emphasized; a gin pole is described in case you don't have lots of friends. Sobon then makes simple and affordable recommendations for the enclosure, plumbing,

electrical and finish systems, using local materials wherever possible. The reader should be cautious here, however, and recognize the whole house as an integrated system. Taking the author's suggestions piecemeal could cause problems. For example, he suggests rough-sawn boards for roof sheathing, then recommends wood shingles. If the owner opts for fiberglass shingles, applying them over boards can be a problem if the knots start popping up.

The last chapter of the book describes almost a dozen variations for expanding on the basic hall-and-parlor design. Two appendices deal with structural design and resources for tools and materials. A little knowledge can be a dangerous thing when it comes to the structural complexities of timber frame design. The lack of accurate tables and engineering resources for the owner-builder was one reason the author chose a classic house design and worked out the numbers for the reader. Appendix A goes through some of these structural calculations for Eastern White Pine.

As I look over my own timber framing library I see Tedd Benson's two books, his first concentrating on technique (including a simple house design) and the second a more comprehensive coverage of the systems and decisions affecting timber frame home design. Jack Sobon's first book was an overview of traditional timber framing with less of the "how-to" specifics of *Build a Classic Timber-Frame House*. Here now is a book one can actually take to the timber.

—WILL BEEMER

BRIEF REVIEWS

The Art and Science of Carpentry Made Easy, by William E. Bell, Philadelphia, 1857. Out of print.

BELL'S "Carpenter" is at once the most sophisticated and pragmatic of the 19th-century carpenters guides, and one of the few devoted primarily to framing. Schematics, lumber lists, commentary on erection and discussions of material properties are provided for houses, barns, mills, industrial equipment and bridges, including long-span railroad bridges. This is the only guide I know of that discusses the erection of tall steeples by telescoping from within the tower. (*Intermediate-Advanced*.)

Early Connecticut Meeting Houses, by J. F. Kelly, two volumes, Columbia University Press, New York, 1948. Out of print.

A SURVEY of the style and structure of 89 pre-1830 churches in Connecticut. Included in each discussion is an elevation drawing of each church's roof truss, making this a rich source for truss design. Some of the discussions contain passages from old parish documents describing erection, funding and cost

of construction materials. This work was done by academics rather than framers and thus the analysis of joinery is unsophisticated. They also, unfortunately, stayed out of the steeples, finding the cobwebs, bat guano and lack of flooring in the attics hazardous enough. (*Intermediate*.)

General Theory of Bridge Construction, by Herman Haupt, Appleton and Co., New York, 1856. Out of print.

THIS is certainly the most knowledgeable treatise ever written on wooden bridge construction, by a person with unparalleled experience. Haupt was the head bridge engineer for the State of Pennsylvania during the railroad construction era. Haupt simultaneously pioneers the quantitative analysis of timber bridges and presents invaluable empirical observations on modes of deformation and failure, the likes of which cannot be found in any modern texts and in few modern brains. Many measured drawings of existing bridges along with their lumber lists and illustrations of important structural details are included. (*Advanced*.)

—JAN LEWANDOSKI

TOPICS

Six Paradoxes

THE Swiss psychologist C.G. Jung spent three decades building a stone retreat house. He only discovered why after completing the house.

Canadian architect Witold Rybczynski (author of *The Most Beautiful House in the World*) dreamed of building a boat. But first he needed a place to work. While building a work shed he discovered he actually wanted a house to dream in more than a boat.

Both Jung and Rybczynski show paradoxes of the do-it-yourself builder. If the next chapter in your personal story is building a timber frame you might want to know about these paradoxes before you begin.

A paradox is a statement that apparently contradicts itself. In building a dream you never really know what the future holds until it is past. When you create a house you make thousands of decisions. With a timber frame your decisions may last for hundreds of years.

So far I've been able to identify six paradoxes you must face in creating a timber-frame house. Four are straight-line paradoxes and two are circular. With a straight-line paradox the outcome follows directly. Straight-line paradoxes are constraints you only see written on the wall right before you hit it.

First we have the Accountant's Paradox: How do you know if you can stay within

your budget until after you run out of money?

Second, the Engineer's Paradox: How do you know if the structure will stand until after it falls down?

Third, the Purchasing Agent's Paradox: How do you know if you bought the right materials until you run out?

And fourth, the Builder's Paradox: If you build the timber frame yourself how will you know if you have the skills until after you fail?

With straight-line paradoxes the solution is to learn the skills or hire them. With the fifth paradox you can also hire a person to do the job. This one, the Designer's Paradox, says, "How do you know a design meets the client's needs until after the client dwells in the house?"

With this paradox you start to see circularity. A designer must know the client's needs and tastes before creating a solution. But clients must know what they really will want before being able to explain the requirements.

This leads to a true circular paradox, the Dweller's Paradox: How do you know the real requirements of your dream home until discovering them while living in the completed house? Making changes at this point is costly especially when surrounded by a frame of rigid timbers.

Circular paradoxes are the paradoxes of creators. John Briggs in *Fire in the Crucible* says creative people have inexpressible inner visions they attempt to distill out by creating. Only after they see the creation can they know if it expresses their inner vision. The British writer E.M. Forster said it this way: "How do I know what I think until I see what I say?"

Dreaming is cheap but change orders are costly. Architects use drawings and models to create a likeness of the real building. The model has some features of the real product while ignoring others (like size). Using models means using metaphors. The model is like the real thing.

I have often wondered if timber frames are metaphors for something many middle-aged knowledge workers seek. Baby Boomers are immersed in a sea of ever-changing details. To them could a timber-frame home be a metaphor for one thing in their lives that is stable and enduring?

Finally, there is one last paradox—the Reader's Paradox: When you began reading this article how could you know if it was worth your time until you reached the end?

—BRUCE PANKRATZ

IN SEPTEMBER'S TIMBER FRAMING

“Capitals and Scarfs”

By C. A. Hewett

Taking Down Timber Barns

WE have dismantled several hundred barns as well as numerous log cabins and early houses throughout Pennsylvania and surrounding areas, thus discovering what works for us, what doesn't and what isn't even safe to try. Since we are a business, we have to keep an eye on efficiency, and since much of the work with these old timber frames is, as ever, done high off the ground by hand, we must be ever mindful of safety. As joinery type and timber frame structure and style vary, so will, to some degree, the dismantling process; our experience relates largely to the vernacular architecture indigenous to southeastern Pennsylvania, but an overview of what we've found to be the safest, fastest and least destructive dismantling techniques may prove useful to timber frame salvagers and barn lovers everywhere.

We initially categorize our barns in one of four ways: "Trash" barns, "Parts" barns, "Barn" barns and "Barn-Home Conversion" barns. Your first task before dismantling a barn is, of course, choosing the structure you want down, and that, in turn, is determined by your objectives for it—what are you going to do with the barn?

If you are dealing with a Trash barn, you can push the frame down with a dozer and bulldoze and burn the debris, local regulations permitting. If there are only a few reusable components, your approach should safeguard those pieces at the expense of the rest. If the frame is destined to be re-erected elsewhere and converted into a home or studio (as many of ours are), your criteria for an appropriate barn have escalated, and your uppermost concerns will be meticulous documentation and very sensitive dismantling—almost piece-by-piece picking apart. The Barn barn will need to be sound enough to function as an agricultural building.

The Trash barn is almost completely lost. Typically, the roof went years ago, and the progressive water damage to frame and foundation render it a sad shadow of what it once held and promised. Often these barns are unsafe to enter, and the only safe approach is to crash them in sections, using cranes or dozers and cables. Often workers must be suspended in harnesses and baskets at the end of the crane boom, just to chainsaw free the most dangerously compromised parts such as half-collapsed roofs and walls.

The Parts barn may offer a number of salvageable pieces, or it may be a building which structurally has just crept past the point of no return: there's now more that would need replacing to keep it intact as a whole than there is that remains sound. This barn will offer re-usable components. At the least, a few of the chestnut or white oak beams will not have succumbed to the elements; the hand wrought hardware—hinges,

hasps, rollers, hooks, handles—will be all that is left of what they once secured; the lightning rods may remain, some siding may have survived to just the right degree of "weathering", and the dressed stone, so labored over and painstakingly laid, retains its intrinsic value, even in a tumbled heap. Often a large portion of the lumber is valuable, including flooring, siding, rafters, sleepers, center beams and surviving architectural details.

Barn barns are structures intended to continue to be used as such, that is, as housing for livestock and storage for fodder and farm machinery. Obviously, it's important that such a barn be sound and serviceable, well laid out and tight against the weather. Pretty is as pretty does when the barn is a working structure, and timbers must be especially strong and rot-free to support tons of forage as well as the weight of modern farm machinery.

The *crème-de-la-crème* is the Barn-Home Conversion barn. Here, looks *do* count, and small details and conservation of original elements go a long way. Large barns, those over 40x60 ft., for instance, are not so attractive for conversion as smaller, tidy barns. But paradoxically, large, heavy, hand-hewn timbers, common to very big barns, are usually preferred by clients for conversions. For this reason, as well as to manage heating and insulating the living space, it is common to re-use only two or three bays of a larger barn, providing that the proportions can be kept pleasing, and the resulting structure doesn't look like a chopped-off school bus, too high and wide for its length. The Conversion barn should be as intact as possible, from as many aspects as possible. Usually, a few timber frame repairs are necessary, but if performed with like materials and techniques, they become invisible. It is also very desirable to have maximum height, 18 ft. if possible, in the side walls to allow adequate room for a first and second floor.

NOW we're ready to break the barn down into its various components. We'll be dismantling from the top down, so let's go at it that way.

The roofing may be slate, cedar shingle, asphalt shingle, galvanized sheet tin, standing seam tin, asbestos or any combination of these. Slate is usually too brittle to re-use. It is very heavy, difficult to remove without damage, and difficult to get down to the ground. If it is good slate and you plan to save it, have a crane available with a skid attached to the cable to stack the slate on for transport to the ground.

Cedar (and sometimes chestnut) shingles are relatively easy (if very dirty) to remove, but are then unusable. If they are to be burned, be sure to separate them from asphalt or asbestos before doing so. Asphalt

shingles can't be burnt because of the excessive smoke and smell they produce, nor can they be reused. They must be hauled out and landfilled, at considerable cost.

Galvanized sheet "tin" (actually steel) and standing seam tin can both be reused in numerous ways, and should be considered an asset. Sheet tin, if it is in good enough condition, can be installed again, provided it was removed carefully using cat's paws. The sheets can be offered to farmers to use on their many outbuildings. Failing that, sheet tin is terrific to put under your dismantled frame if it is stored outside, as it forms a barrier between it and the damp earth and keeps the grass and weeds from coming up underneath it. Standing seam tin can be cut into 10- or 15-ft. sections with a hatchet. Starting at the ridge, workers with wrecking bars can pry up and kick the tin down the roof in front of them until it drops off at the eaves. These pieces are useful both underneath and as a cover for the stored frame. All tin and other junk metal that is not reusable can be taken to a recycling center.

Asbestos shingles can pose a problem for disposal. There are two kinds of asbestos, friable and non-friable. Friable asbestos will disintegrate into dust upon manipulation with your hands and poses a serious health hazard and disposal expense. It was once commonly used on heating ducts and for pipe insulation and must only be handled using appropriate techniques and adequate protection. Though non-friable asbestos, the kind made into shingles, does not easily disintegrate into fibers, still it must be landfilled and masks should be worn when removing it. Non-friable asbestos usually does not have to be transported in sealed bags, as does friable asbestos. Regulations, however, vary from area to area and landfills often charge more to take asbestos.

The roofing of the barn will generally be attached to nailers (strips of 1x3 or 1x4) or solid sheathing. It's not uncommon to have relatively new nailers on an old barn, and straight, undamaged nailers can be re-used. Sheathing is often pleasantly weathered and often consists of wide white pine boards which can be re-used as sheathing (again), siding or flooring.

Rafters will have incurred the most damage from a bad roof, along with sills and rafter plates. Hand-hewn rafters, often flattened only on one or two sides, are usually considered the most valuable. Ornately scrolled rafter tails are also desirable.

Flooring on the threshing floor of the barn is typically 2 or more in. thick, and is usually tongued and grooved or splined to keep debris from falling into the basement between the floor boards. Boards may be found laid loose or purposely gapped on hay mow floors to allow the air to circulate,

insuring a properly cured crop. These floors were sometimes nailed down later, after green boards had a chance to shrink over a season.

Floor joists, which we call "sleepers" because they lie on the sills without being secured by anything more than their own weight, are very useful. Usually hand-hewn top and bottom, with bark on the round sides, they are literally whole trees that were selected for straightness. Even more massive are the center beams, or stringers, that support the sleepers in the basement ceiling. These run the length of the barn, sometimes in one piece, and a single barn may have up to three of them.

Granary wood, which forms the sides of the hay mows and the area where grain was stored, is often the most prized lumber in an old barn. It is often exceptionally wide (24 in. and more), tongued and grooved and beaded. Years of burnishing by oats, wheat and barley have worn it smooth, and softly worn hand-holds and foot-holds reveal generations of use. Valued for its rich patina, granary wood is sometimes reused in primitive furniture reproductions.

Details like barred windows with shutters, Dutch doors with long strap hinges, date stones, "spriguel" bars (wooden bars about 4x4 that recess into a pocket in the wall and pull out to bar the doorway to livestock at their chest height), pulleys, harness racks and curry boxes give a barn its flavor and should be valued and certainly preserved.

Last, the stone (and sometimes brick) in a barn foundation should be saved if at all possible. Look for particularly large, dressed and squared stones on the returns in the front of the barn and in the corners. These are called "quoins" (French for "corners"), and they are more valuable than the rest of the stone. Small rubble stone, about 8-10 in. and less, was intended to be stuccoed over. Don't assume that a stuccoed barn contains stone of a quality to re-lay and re-point; some of it was never meant to be exposed. Dressed stone has already had its exposed surface chipped by masons to approximate a smooth surface; there are different degrees of dressing and their relative desirability remains a matter of taste. Barn stone makes an excellent 8-10 in. veneer and should be laid as it was originally to simulate a traditional look.

THE upper timber frame as a whole must be evaluated for soundness, size and degree of damage. The more substantial the timbering, the more possible reuses it will have. Some species of wood hold up better than others, chiefly American Chestnut, which is naturally rot-resistant. Hemlock seems to contain some form of bug discourager, which inhibits powder-post beetle, carpenter ant and other bug infestations. Red and white oak, particularly white, though not bug-free, are characteristically durable and dense, and desirable in timber frames. Yellow pine is particularly prone to insect infestation. Poplar, unless completely protected from moisture, is notorious for rotting through quickly

and should be considered suspect.

Identifying old timber can be difficult because of the deepening of color and patina. Chestnut and oak, for example, can be nearly indistinguishable from one another. One test is to examine the end-grain of a timber. Oak will exhibit distinct "rays" radiating from the center of the tree; chestnut does not have these rays.

Wood can be more or less accurately dated by how it was processed, that is, hand-hewn, pit-sawn, gang-sawn or circular-sawn. For our purposes, older is generally better. After cross-grain scoring cuts, hand-hewn timbers were generally squared with broad axes cutting large chips along the length of the tree, on all four sides. In some areas an adze might be used instead, or to smooth the surface further. Scoring and broad axe marks are very obvious. Pit-sawn timbers were cut by a pair of men, one standing above the timber and the other in a pit under the log. Characteristic saw marks comprise irregularly vertical and slanted indentations, from the different cutting angles assumed by the sawyers. Gang-sawn lumber evolved with the extensive use of the waterwheel in sawmills, and the saw marks, made by a frame-saw with three or four parallel blades working at once, are straight up and down; the log moved and the saw remained stationary. The circular saw naturally produces parallel arcs on the timbers, and makes very straight and precise cuts. It is not uncommon to find a variety of tool marks in one frame, indicating repairs made over the years with newer lumber. (In restoration, however, it is better to replace timbers with others cut using the original technique.)

A final word on frame evaluation: do some crawling around and poking with your pocketknife. Trouble spots for rot are often in the rafter plates. These can collect water from the roof in the rafter pockets and become "canoes," timbers that have hollowed out over the years, but appear sound from the sides and bottom. Check lower sills, anywhere that grade comes into contact with the frame and anywhere there is evidence of water damage (stains, rot, mold). Your pocket knife will quickly diagnose cases of rot or severe insect damage. Carry a hammer and tap a doubtful beam; if it rings, you're in business, if it thuds be suspicious.

YOU'VE made your final inspection, and now you're ready to begin dismantling. Adhering to a logical sequence will greatly facilitate the whole undertaking.

First, make a general evaluation of the whole structure for working purposes, taking special note of any problem areas. A rotten section of timber frame that won't support your weight, for instance, will have to be reinforced or, if possible without compromising the whole structure, entirely removed before proceeding. Remember that you will be working on the roof and, noting any framing that exhibited water damage, visualize where the associated weak areas in the roof might be. The extent of the decay

may not be obvious until you are right on top of it, so exercise special caution.

Shut off all mechanical services to the barn. Be particularly aware of overhead wires, especially if they are live and continue to service other parts of the farm. If you use a crane, your operator should be able to judge how much clearance he needs to work safely.

Once sure that all services are disconnected, you can remove any junk and materials stored in the barn and rip out old wiring, added partitions, etc., and remove windows and doors. If the barn is to be reassembled and the frame reused intact, now is the time to photograph it inside and out, while it still looks whole. Establish a coding system and mark all your beams. We have found that washers stamped with code letters and numbers can be tacked on in inconspicuous places. A frame tagged this way can be stored indefinitely without fear of the code numbers fading or washing off. (Of course the tags must not be removed for any reason before the frame goes back up.)

Before any of the internal frame pieces come off, measure, mark and document the frame for re-assembly. For a true picture of the barn's dimensions, measure the purlins and rafter plates for the length, and take the width on the bents at the upper tie, end to end. Allow for any gaps in the joints. Over the years foundations may crack or shift yielding inaccurate measurements at the bottom.

To dismantle, start at the top, removing the roof and rafters. You will have decided what is worth keeping, so proceed accordingly. Always use caution when working high; move slowly and deliberately, tie yourself off if you feel you need to, and keep your ground people apprised of falling material.

Next, remove the siding. To take the siding off without splitting or marring it, you will have to pry it from the timbers very gradually, using wooden blocks to protect it from the pry bars. Don't remove the floor until the roof and siding are off, otherwise you have no bearing for ladders or scaffolding.

With the frame completely stripped, photograph the "skeleton" again. This is the first and last time you'll see just the frame standing complete by itself, so be thorough. You may want to double-check your measurements now as well.

Once the roofing material is removed, with the nailers still on, pop all the pins in the rafter peak joints and do all other work accessible from the nailers (for example, pry the gable-end siding loose from the end rafters). Be very thorough about this—it's hard to get back up there with the nailers gone. Then, using a 2x4 as a lever and starting at the peak of the roof, pry up the nailers as shown in Fig. 1 (next page). You can remove a large area of nailers very easily without moving a step. Work out the nailers down to your location and throw them off to the side of the barn, alerting your ground crew to down-coming debris.

If the roof is framed with a principal purlin, nailers below it need to be retained

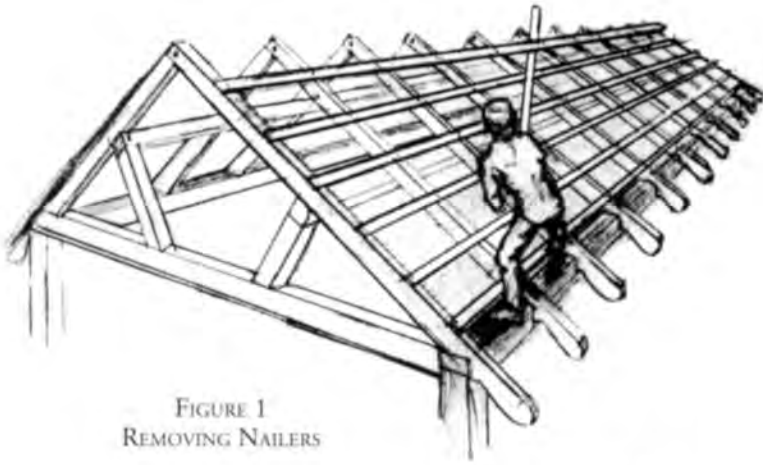


FIGURE 1
REMOVING NAILERS

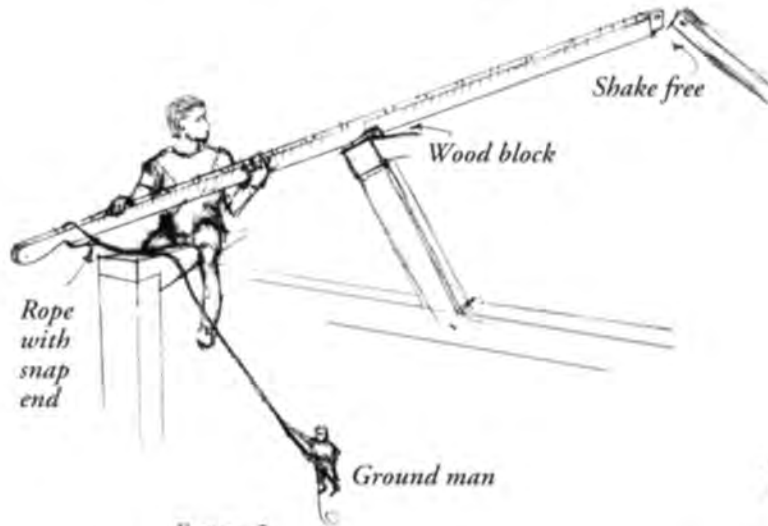
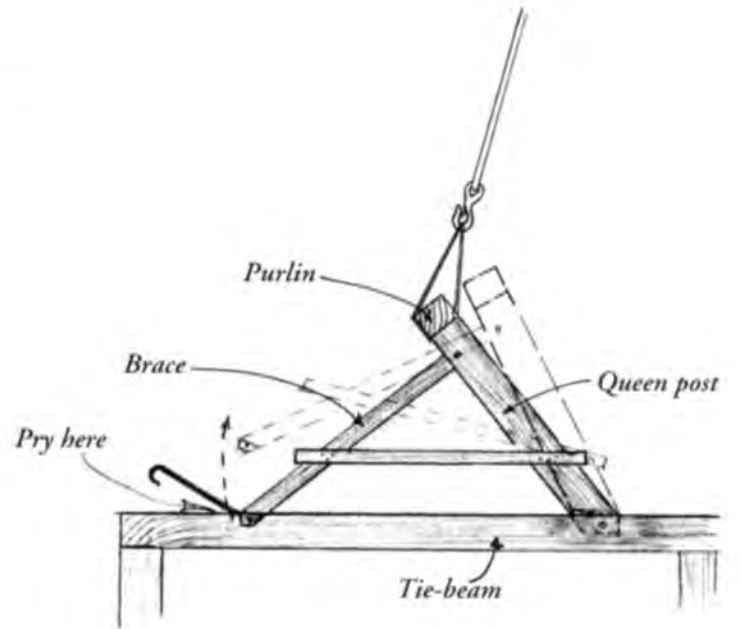


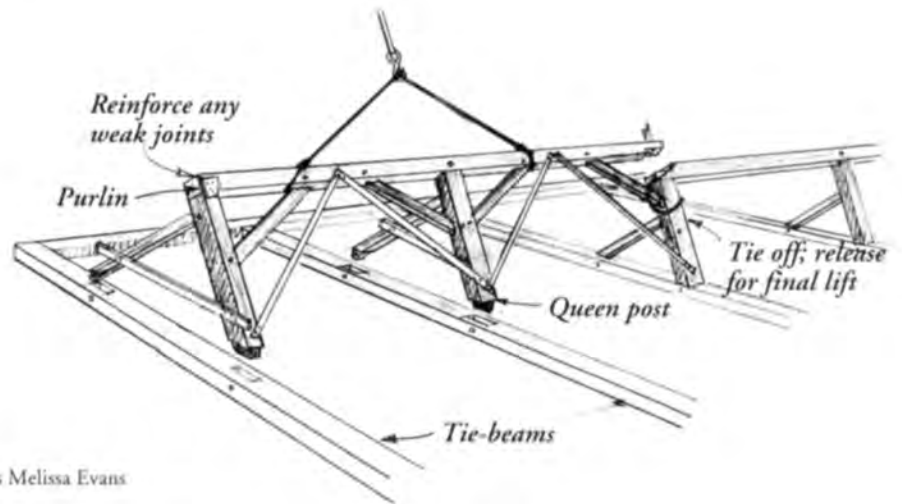
FIGURE 2
REMOVING RAFTERS



FIGURES 3 & 4
LOWERING RAFTERS



FIGURES 5 & 6
REMOVING PRINCIPAL PURLIN ASSEMBLY



Drawings Melissa Evans

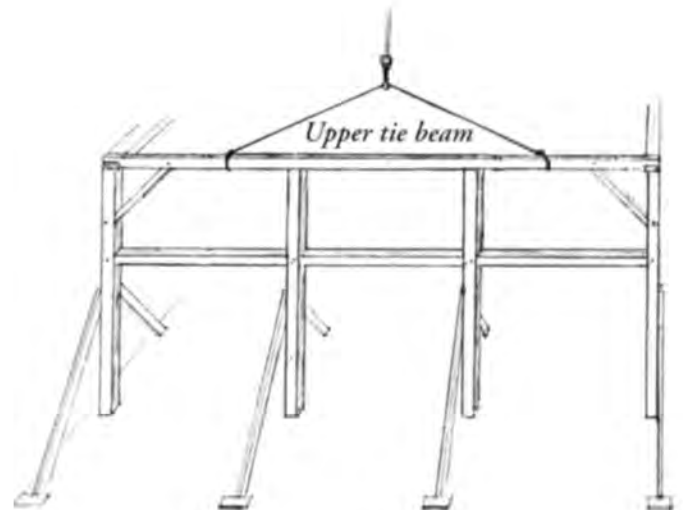


FIGURE 7
REMOVING UPPER TIE-BEAM

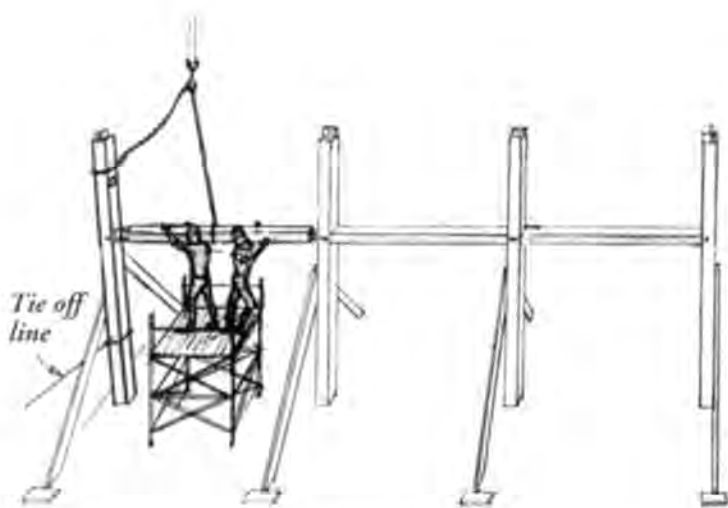


FIGURE 8
BENT DISASSEMBLY

to stand on until the rafter-to-purlin fastenings are removed or freed, and leaving one or two nailers above the purlin serves as a balcony railing for safety. If the rafters are nailed to the purlins with large cut nails, two men with crow-bars can pry a rafter up off the purlin, breaking the grip of the nails, and then place a block between the rafter and purlin to prevent the nails' resetting.

Removing rafters by hand is one of the more dangerous jobs in barn dismantling. Once sure that all nailers are removed and the rafters free at the top and blocked or denailed at the purlin, straddle the rafter plate and pry the bottom of the rafter out of its pocket to free it from the plate. Grab the rafter and lift it upward, freeing it from the purlin and peak. If you did a good job of removing the pins and nails at the peak and blocking the rafter at the purlin, vigorous shaking is all that is needed to free the rafter (Fig. 2). Once it's free, lay it on its side on the plate; unless the roof is very steeply pitched, friction will hold the rafter in place. Securely choke a rope around the rafter tail and take the rope over the plate and down to a worker on the barn floor. Then lower the rafter as shown in Figs. 3 and 4. At a certain point, the rafter will see-saw to an upright position and the ground man must take all the weight through the rope. The climber simply balances the rafter in an upright position as the ground man lowers it until the tail hits the ground or is grabbed by another ground man. When the rafter is low enough, the climber will put a half-hitch on the peak end (Fig. 4) and continue to lower it until the tail hits the ground. Then the tip is lowered to the ground with the rope. Repeating this process on down the line, the climber must watch for nails that catch at clothing (as well as splinters), keep the remaining rafters to his back for additional support and, most important, sit while working.

Purlins and queen posts are perhaps the most awkward frame members to remove and handle. We remove these in assemblies,

as shown in Fig. 5 and 6. Note the knee brace tied off loosely until the final lift. Situate the crane boom directly above the center of gravity, but back towards the queen post mortises in the tie-beams. Raise the cable slowly and be prepared to pry apart the various joints by hand, as they often bind because of the load torquing. Be careful, because if the boom is not centered properly the load will swing to the center. Use long crow-bars and stay as far away from the load as possible. Once the load is on the ground, remove bracing and disassemble the unit.

FOR purposes of dismantling, there are two different types of typical Pennsylvania bank barn frames—upper tie-beam and lower tie-beam. When the tie-beam is one piece and joins the rafter plate (see Fig. 7), we call it "upper tie-beam" and cannot take the bents down without first removing the tie-beam and plates. This is safely accomplished by temporarily strapping off all the bent-posts and any braces that will be left dangling during a lift. Once the plates and ties are removed, you have all the bent-posts and intermediate wall-posts standing upright connected by girts. Each post and beam must come down individually at this point, because the bent is generally too unstable to lower as a unit. The easiest way we have found is to slug the post over and sling the beam and, assuming you still have the barn floor, set up scaffolding and pry both the joints apart as the crane takes the weight (Fig. 8).

When the tie-beam is one-piece and mortised into the exterior principal posts, we term the frame "lower tie-beam" and the bents can easily be taken down in units.

After bracing all the bents as shown in Fig. 9, and adding appropriate exterior bracing from bent to bent, remove the rafter plates, then rig to the crane as shown and remove the end bent. (If the bents are very wide you may have to use a splitter as shown.) Then remove any intermediate posts be-

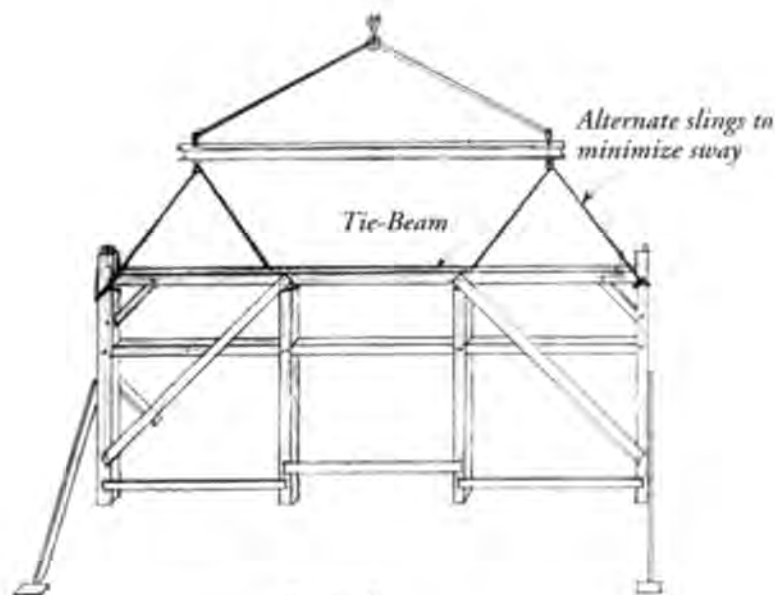


FIGURE 9
RIGGING A LOWER TIE-BEAM BENT

tween the bents in the same fashion as Fig. 8. Once the end bent is removed, each successive bent is laid down on the barn floor and disassembled for removal.

It is useful to have your trucks available at the site and have the crane loading during times when it isn't needed for the dismantling. It is also very helpful to have a crane with two independent cables and a small basket to carry workers around in order to sling up the purlins and perform other high work.

IN view of the dangers that are normally a part of our work, here are the general safety guidelines that we observe.

1. All workers check out complete barn frame for distressed areas.
2. Mark them.
3. Use experienced climbers.
4. Know your crane signals. One person gives the hand signals.
5. Ground workers are responsible for staying out of the way of climbers. Ground men always make climbers aware when they are entering a designated work space. All workers stay out from underneath suspended loads.
6. Get all high work done when you are up on the roof the first time.
7. Wear safety glasses for denailing.
8. Use good sound wood for bracing and lots of duplex nails.

Dismantling barns can be dangerous and difficult. The inherent risks of working with heavy timbers, rigging and climbing are obvious. Compounding these dangers is the fact that there is some degree of deterioration and timber decay in most old barns. All these factors must be thoroughly thought through and considered while dismantling. There are endless situations and variables that need special planning and strategies to accomplish dismantling safely.

—DALE LEHMER
Dale Lehmer operates Recycle The Barn People in St. Peters, Pennsylvania.

Design Contest Awards 1994

EIGHT entries only appeared for this year's design contest at the Guild's 1994 International Conference in March, and the voting for the People's Choice Award, already reduced in proportion to the remarkably-small conference attendance of 150, was nearly equal for three candidates, the Fukagawa flower-arranging school, the Phelps House and the Derrick House, which last actually won the vote. The Jury—Gail Lindsay A.I.A., timber frame house architects Andrea Warchaizer and Kevin Rasmussen and architect, author and Japanese

carpenter Michael Anderson—meanwhile delivered two Honorable Mentions and one Design Award, shown on these pages. Not shown is a work-in-progress, designed by Brian Shumaker and framed by J Squared Timberworks (Seattle), to which the jury gave special recognition for its "attention to site and climactic conditions" and "quite sophisticated" floor plans. Much of the photographic documentation in this year's exhibition focused on interiors and that emphasis is reflected on the next three pages.

Design Award



Views of the Hahn House, 1512 sq. ft., designed by Steve Buckle and framed in white pine by Thistlewood Timber Frame Homes (Markdale, Ontario), with interior finish (including the stairway) by the owner. In giving this house a Design Award, the jury "appreciated the sense of balance exhibited in this project. The elevations are neither overly



symmetrical nor chaotic; the use of differing windows reflecting the hierarchy of the rooms within was especially noted. The timber frame is a harmonious part of a well-articulated whole. This is a charming house, naïve in an appealing way." The house is intended to resemble a traditional rural Ontario Victorian farmhouse.



People's Choice



Interior views of the Derrick House, 2,720 sq. ft., designed by David Bryant and built of oak by Stephen Amstutz Woodworking (Upper Jay, New York). Closely trailed by two other entries, this house won the People's Choice Award and an Honorable Mention from the jury, which "applauded the high level of finish in the entire house—the timber frame exists as one refined element within a refined whole. A good sense of modulation between large-scale and small-scale elements. There was some concern, however, about the integration of the timber frame with other architectural features (conflicts between braces and windows, for instance, that felt unresolved)."



Honorable Mention



Front and back views of the 4,000-sq.-ft. Phelps House, designed by Peter Reynolds and built by New Energy Works of Rochester, N.Y., using reclaimed Douglas fir. In awarding an Honorable Mention, the jury observed: "This project provoked the most discussion among the jurors as it inspired us to consider the rules and limits of borrowing

be Japanese, or merely borrowing from a range of traditions in the manner of Greene and Greene and others? Stylistic ambiguity aside, the jurors admired the mixed palette of materials, the high level of attention to varying levels of scale, and the high degree of finish throughout the project." The garden side is meant to appear as a small village that has grown over time.



Interior of the 1,900-sq.-ft. Ervey House, designed and built of oak by Ian Ellison of Harwichport, Massachusetts. The jury praised the "handsome but modest exterior" (a five-bay cape) "which belies the expansiveness of the interior," but objected that "the great room hammer-

beam trusses, while a technical tour de force, exhibit a lack of gradation of scale. . . The asymmetrical proportioning of the fireplace end-wall, while pleasing as a stand-alone element, is in conflict with the strong symmetry of the hammer-beam truss above."



Interior of the 3,889-sq.-ft. Fukagawa flower-arranging school in Nagano Prefecture, Japan, designed by Kimihiro Myasaka and built by Yoshimoto Ringyo of Japanese cedar and Douglas fir. The jury mused: "Technically intriguing. . . The hyper-articulation of the frame is appropriate

for a public space, especially a place of instruction, but one juror wondered if the mental composure necessary for the arrangement of flowers would be possible to achieve with such busy-ness above. The warmth and attention to human scale in the interior is not as apparent in the exterior. There was some concern that the clerestory lighting would be too glaring."



White oak frame under assembly and, at right, finished lantern for the lighthouse at Rattlesnake Island (Lake Erie), designed and built by Dennis Orre of Kabec Custom Homes. Though not quite sure what it was seeing, the jury expressed "much enthusiasm, however, over what we could see—a gem-like structure, a worthy cap to this lighthouse tower. The jurors would have liked to see a more clear articulation of the progressions up through the tower, either by increasing the complexity as one rises up, or by a clearer hierarchy of materials and joining methods."



GUILD NOTES AND COMMENT

THE NACOGDOCHES fireman was standing next to me with his young son. "I had to bring my boy down here to see this," he said. "We may never see anything like it again." It was St. Patrick's Day in Texas and raising day for the Sterne Park Gazebo, and John Miller and I were trading off the job of hand-planing the facets on the peak of the kingpost. We had moved the cutting stations for the unfinished rafters to the actual Gazebo site so we could simultaneously commence assembly of the lower members of the octagonal structure. Although we had originally intended just to raise today, the additional work being done in the Park gave the hundreds of observers a hint of the many hours of meticulous layout and cutting that must be done prior to the glory of raising.

The Gazebo Project really began over three years ago when Nacogdoches resident Kathy Wilson dreamed of erecting a bandstand in Sterne Park, a part of the town's historic district sorely in need of a focal point. She approached Tim and Wynter Chauvin, owners of Red Suspenders Timber Frames located just outside of town, about how they could help. Tim approached the Guild's Board of Directors, and in May of 1993 the workshop format was adopted along with the nearby Fredonia Hotel as the venue for our 1994 International Conference.

Over the next few months the design and instructor teams were put together. Ed Levin and Joel McCarty, with assistance from Mssrs. Ben Brungraber and Chauvin, jumped on the opportunity to design the "prototypical" gazebo. As the Guild's workshop coordinator, I felt that the Gazebo design should be generic enough so that the students could reproduce the project with their own crews in other climatic conditions. We could also do more gazebo workshops (such as the one tentatively planned for Ontario in August) and thus reduce the many hours of volunteer time the designers inevitably put into Guild projects. This was

accepted by the design team, but became quite a challenge; the resultant complexity was probably the largest single reason we were behind schedule on raising day. In retrospect I realize this constraint was probably unwise; we used more material than was necessary for the conditions in Texas, trivializing the relationship of site to structure. In addition, we probably compromised the ability of some students to reproduce the gazebo. The designers created a beautiful, extremely strong and well-analyzed design, however, and all the students stated in their evaluations that they loved the challenges it presented, especially in the cutting of the spline mortises.

WHEN assembled the instructional team turned out to have an appropriate southern drawl. It included Mark Brandt (former instructor at Upper Loft in Georgia and now working on the Globe Theatre project in North Carolina), John Miller (shop foreman at Dreaming Creek in Virginia), Mike Goldberg (logcrafter extraordinaire from Georgia), Mike Langford (Boston Island Boatworks in Arkansas), and Ed Levin (a Yank from New Hampshire, but fond of New Orleans). Tim Chauvin and I would act as workshop coordinators, keeping materials, tools, meals, drawings and other amenities close at hand during the week. Dennis Hambruch and Mafell generously agreed to reprise their role from the Rindge Pavilion workshop and brought their tool trailer to the site for folks to try out the demo models.

The Friends of the Park Committee in Nacogdoches, along with Tim's help, got most materials for the projects donated and delivered. These included concrete and steel for the slab foundation, cypress for the posts, yellow pine for the rafters, ties, braces and splines, recycled pine (from a rice mill in Houston) for the kingpost, tongue-and-groove decking and wood shingles for the roof. Guild member Scott Northcott made

and contributed the pegs. The Committee got our lunches delivered, lined up ladders and other equipment as it became necessary, and even opened their stores on Sunday when we needed something pronto. For anyone planning a workshop or public service project in a location far from home, a dedicated group of local volunteers seems essential.

Ed Levin and I arrived on March 10th and met up with Mike Langford and Tim at the Fredonia that evening. Mark, John and Mike Goldberg drove in pulling a U-Haul trailer full of tools about 10 p.m., and we all prepared for a busy next day by washing down the road dust with a pitcher of beer. After toasting a safe and timely arrival (some of the workshop participants had already arrived), we headed to the various bed-and-breakfasts which had volunteered to be hosts for the instructors.

On Friday morning we headed out to the Red Suspenders shop, a ten-mile drive which became very familiar over the next week. Tim's shop proved ideal as the workshop venue, with plenty of space inside and out. We proceeded to take up every available square foot, leaving enough only for the Red Suspenders crew to continue working on Tim and Wynter's house frame, which was to be raised after the conference. The covered space was welcome more for shade than protection from the rain; the weather proved to be ideal with temperatures every day in the 80s and not an overcast day for the workshop or the conference. The only cloud was Tim's mother passing away unexpectedly in Massachusetts on the 11th. Tim and Wynter left the next day for the funeral, not to return until the day before the raising. All of our thoughts were with them and their family during the week. Tim had prepared well for the Gazebo project—we had everything we needed to carry on in his absence and he had no qualms about leaving his shop in our hands.

The 20 students who showed up the next morning proved to be fairly experienced with

Photos: Will Beemer



Getting started at the workshop: "This is how you do it..."



A day or two later, hard at work on the rafters.



First bent goes up with tackle and poles.



The other cardinal "bents" hold the first in place.

woodworking and timber framing, a major reason we got the job done with a group smaller than we had anticipated. Some connection designs had evolved at the last minute, and the cutting and assembly required all the ingenuity instructors and students alike could muster. Eight of the participants were current Guild members, (four more joined after the workshop), and more than half had never taken a timber framing workshop before. All were male, hailing from as far away as British Columbia, Florida, Hawaii and Ontario.

A set of nautical code flags spelling T F G N A (with skull and crossbones as exclamation point) greeted us, good wishes sent by Marcus Brandt back in Pennsylvania, who later was instrumental in getting pike poles to Texas for the raising, although he couldn't make it himself. It soon became clear that things were not as simple as they seemed and mental gyroscopes had to be activated and calibrated. The octagonal gazebo has four bent sections, post pairs connected to the central kingpost by hip rafters, ties and braces. In plan, two of these bents run at 90 degrees to each other, and the other pair of bents at 45 degrees to them. The two bents running principally North/South and East/West we called the Cardinals, and the remaining two we termed the Orioles. We then tackled the subtleties of the tie and brace layouts. In order to avoid all of the spline connections at the kingpost occurring at the same elevation, the four cardinal ties rise two degrees above level while the orioles drop the same amount below, after leaving the posts all at the same height. Each is connected across to its mate by a "gull wing" spline. The 16-ft.-long, 6x8 braces are also offset for the same reason, with the cardinals rising at 45 degrees and the ordinals at 42.5 degrees (these have tenons pegged at the kingpost). Everyone soon became very careful during layout with the realization that angles *close* to 45 and 90 degrees were more difficult to keep track of than those which were way off. The braces and ties also cross each other with a half-lap, and even this simplest of joints caused some head scratching. The girts were also started on the first day, and while they looked simple enough the observation was quickly made

that a 2-ft.-long spline mortise was the equivalent of six 4-in. mortises, and took a corresponding amount of time to finish with the tools at hand. As dusk settled in at the end of the first day, the Chamber of Commerce and the Friends of the Park hosted a Texas barbecue at Red Suspenders to welcome us. It was a pleasure to meet all those who were to be such helpful and gracious hosts for the coming week.

Over the next two days compound joinery was the focus; the next pieces to be tackled were the wall braces which meet the rectangular posts at 45 degrees and the jack rafters which run up to the hips. John Miller demonstrated the brace layout by lofting it out on the floor of the shop, trying to stay away from calculations as much as possible and relying on visualization and graphic methods. Ed Levin continued this theme during the next two evenings with classes at the Fredonia. With everyone armed with coffee and the appropriate tools he led the group through folding models and developed drawings to derive the backing angle and jack mortise on the hip as well as the jack tenon. It would become clear by the end of the week that the compound joinery was a piece of cake compared to other parts of the Gazebo.

BY Tuesday we realized that despite everyone's best work we were falling behind. A bit of time was lost trying to determine how to make the bent splines connecting the girts through the posts, which would make the girts into a tension ring and allow the rafter peaks to be connected at the kingpost with simple stub tenons instead of deeper connections, problematic with all occurring at the same elevation. The spline material was not on the original order, but jigs were made up to laminate strips of dry red oak we were sure could be found in East Texas. This was not to be, and eventually each spline became a 4-ft. strip of stainless steel abundantly screwed to two separate 2-ft.-long wood splines; these were pegged to their respective girts while the steel bent around the turn inside the post.

The posts were going to be the most difficult pieces in the frame, with twin tenons at the top and gunstock spline mortises

going through on an angle much greater than 45 degrees. We decided to keep working after dinner for the next two evenings, and a quick phone call to the Fire Department got us halogen lights set up on tripods in the yard. The Chief also brought out candy bars and soft drinks, but a stiff price was paid as he wrote up a mock citation on Mike Goldberg for his router smoking as he plunged out a housing. Everyone cracked up. Undaunted by his ticket, Mike also set up the Sperber tenon cutter to cut the twin tenons on the post tops, and impressed all with his deft touch as he cleaned up the inch-and-a-half space between the tenons with the chainsaw. The mortises for the gunstock splines going into the principal braces showed the evolution of timber framing tools come full circle. The Mafell slot cutter, which did such a good job on similar but less steep splines last year on the Rindge Pavilion, bottomed out early on the side of the posts here. The best tool for finishing these long through-mortises proved to be the ancient biseau, and luckily we had two of them on site.

By Wednesday evening the cavalry had arrived in the form of the International Conference campers preparing "Timbercamp" in the field behind the Red Suspenders shop. Curtis Milton brought the pike poles for the raising and led a crew in to help us in the final hours. Rudy Christian organized the loading of the timbers out at the shop Thursday morning since most of the workshop participants were staying in town and went directly to the raising site. As the frame was spread out in Sterne Park, some pieces went directly to the slab for assembly while the hips went to cutting stations to be finished. Mike Langford and Calvin Rice laid out and carved the Guild logo and date on the interior of one of the girts. Kathy Wilson drove the first peg, and by noon the first bent was ready to raise. After a brief moment to give thanks for a safe week with wonderful weather, Mark Brandt organized the raising crew and made sure everyone understood the procedure. With the help of block-and-tackle hitched to a tree just off the slab, the bent went up easily on the pike poles, accompanied by a salutatory blast from the fire engine parked nearby and cheers



Will Beemer

The Gazebo complete, with workshop students and instructors joined by many who lent a hand along the way.

from the assembled throng.

By now the conference had begun at the Fredonia four blocks away. Some of the workshop participants had not planned on attending anyway and were able to stay on the site to finish the job. Over the next two days a crew of 8-10 (including most of the instructors) completed the frame, and while it's unfortunate for some that projects may overlap and detract from conferences, others find the respite from the seminars and the chance to get outside and do a bit of work refreshing. In the waning daylight of Friday evening, Tim Chauvin nailed up the wetting bush, a perfectly formed little cedar which had sprouted at the base of the rigging tree and would have been doomed to the landscaper's saw. Group photos followed.

Saturday morning a crew finished pegging off the frame, removing the come-alongs and cleaning up the site for the dedication. Most of the conference-goers had taken a break from the seminars to participate as guests of honor at the head of Nacogdoches' annual rodeo parade. As the parade approached the Gazebo, Mark Brandt held up his mallet and exclaimed "Here goes the last peg!" and drove it in. Everyone gathered around the Gazebo for the dedication, which included a summary of the history of Sterne Park, of which the Gazebo is now the jewel. Gratitude to the Guild was expressed by the Friends of the Park, the Chamber of Commerce, the Downtown Business Association, State legislators, and the Gazebo was continuously referred to as a work of art. Although the mayor was out of town she had signed proclamations presented to all workshop participants and instructors making them honorary citizens of Nacogdoches. Scott Murray spoke on behalf of the Guild, thanking the folks of the town for their warm hospitality. As we broke up to head back to the Fredonia, the first concert was already taking place in the new bandstand—a barbershop quartet sang a few tunes followed by a virtuoso on the bow and crosscut saw.

In their evaluations the students who at-

tended the workshop were unanimous in their praise and satisfaction with how well the project turned out. All liked the challenge but felt it was too ambitious a project for the time allotted. The presentation of compound joinery worked well but was overshadowed by the complexity of the rest of the project, and at times the instructors were forced to engage in, rather than supervise, layout and cutting. Overall I consider the workshop a success: teach-

ing a wealth of skills, raising some money for the Guild, bringing in some new members, making new friends and giving a fine example of timber framing to a park in Texas. Lessons learned here will help us improve workshops in the future; a similar Gazebo workshop is tentatively planned for Georgian Bay, Ontario, in August. The quality of the work in the Sterne Park Gazebo is an excellent testament to our craft, and will serve as a legacy to that fireman's son and others like him who may wish to be the timber framers of the future.

—WILL BEEMER

WHETHER it was too far away, or too early in the year, or just that people are tired of big conferences, the fact is that four-fifths of the Guild membership didn't come to the '94 International Conference, and the financial consequences—no net income for the 1994 budget—will have to be dealt with by a board of directors already frustrated by a preoccupation with money. A grand total of 150 souls made their way in March to Nacogdoches, Texas, to take in six workshops, 21 seminars and three featured speakers (including two with national reputations and fees to match)—and the concluding days of a partly-concurrent workshop project (see Will Beemer's report above). Last September in these columns, Mark Witter mused over the evident decline in conference attendance since the heady years of 1989 (Habitat) and 1990 (first Troy conference), when some 600 people came, to the level of Rindge '93, which brought 325. The latest one-year decline, another reduction by half, could be glossed a number of ways. If this year's result was not largely an effect of an obscure, hard-to-reach location, but instead fits the trend (if in an exaggerated way), then conceivably the era of the large general conference is over. Will the Western Conference, which over the years has worked up to 200 in attendance, hold its own this fall? If so, then perhaps an annual conference in the East will be seen likewise as a regional confer-

ence, and organized accordingly. And the traditionalists' annual symposium has now grown into a small conference. However all of this sorts itself out, conference revenues—which once formed the solid second leg of Guild income, standing beside company and individual membership dues—can apparently no longer be counted on to pay the bills. Projects and fee-paying workshops have been making an increasing contribution in the last two years and may grow in importance. Grant money is under discussion.

If the 1994 conference was an expensive feast at which few came to sup, in spirit and stimulus it was no less good for those who were able to get to Nacogdoches, a mid-19th century town set amidst the low rolling hills and oak and pine forests of East Texas. Economic philosopher Paul Hawken shone a clear, bright light on the problems of the moment—"Why is it so hard to do the right thing in this culture?"—and sketched in the near future: "We are already in this age of reformation." Contrarian architect Pliny Fisk (a materialist in the radical sense of the word), describing his methods of resource-organizing and community-organizing, observed how often politics is involved in architecture: "Our work has taken a full swing—we are very involved with the AIA committee on environment. I never thought I'd set my toe in those hallowed halls." If both thinkers are cynical, finally, about the virtue of public policy, they are on balance slightly optimistic about the possibilities for improved human behavior.

Architects Michael Anderson and Gail Lindsay, living a world apart, brought remarkably different views of the profession. Both offered hands-on workshops and, separately, talks about their work. Anderson, who has always been a craftsman and a scholar, lives and works in Osaka, where he designs houses that are certainly Japanese in technique but also embrace western spatial ideas. "To wake up with the intention of building something beautiful, naturally tempered by the materials and the conditions": his advice sounds oddly simple in our era of socially-responsible business and enhancing the lives of clients, and reminds us of an older point of view—maker-centered—on the enterprise of bringing new objects into the world. Anderson's workshop demonstrated the layout of the koya-bari, a curved principal beam in the roof system of a Japanese house.

On the other hand, Gail Lindsay, who practices in North Carolina, used residential and commercial examples to demonstrate her thesis that "every construction project affects our natural environment," that we must look at the five critical issues of site, energy-efficiency, indoor air and water quality, materials and waste, and that "partnering" with other interests in the immediate community can yield solutions to these issues. Her workshop, appropriately, had would-be designers working in teams on the problem of a 1,000 sq. ft. dwelling, with 14 separate considerations, from solar



Chris Madigan

The Gazebo is duly dedicated, Texas-style, and the local barbershop quartet (or quintet) wastes no time starting up.

aspects of the site to health factors in the mechanical systems.

ELECTIONS, rather unusual since the mere 205 ballots (including write-ins) that were cast represented only a quarter of the membership, yielded small differences among the large slate of well-qualified candidates. Of these, Tim Chauvin, who had organized the Nacogdoches end of the Gazebo workshop and done the groundwork for the conference, and John Palmer, who seemed to be everywhere at once helping out, now join the board, as does Rudy Christian, who previously served as a director from 1987-1991. Incumbents Will Beemer and Doug Lukian were re-elected. Along with sitting directors Sandy Bennett, Christine Benson, Joel McCarty and Mark Witter, they now take on the administrative and financial challenges of the Guild. For this year Joel McCarty will serve as president and Will Beemer vice-president; Mark Witter and Christine Benson will maintain their respective posts as clerk and treasurer.

Scott Murray, elected to the board in 1990, and president since 1992, now joins the ranks of retired Guild presidents Madigan, Reed, Arvin and Gardner. From his first speech at Poultney '87, appealing for documentation of our disappearing North American barns, through the endless vicissi-

tudes of the grand Guelph Bridge project in '92, and then for the last two years while patiently overseeing Guild affairs, this quiet and sympathetic Canadian has left much good feeling behind him. Gone from the board as well—if unceremoniously so, in mid-term—is Nancy Wilkins, who put together the riches of the Nacogdoches conference in the thorough, decisive and competent style which marked her tenure on the board (and her direction of a large Montana framing company), but then pulled up stakes to move with her family to a South Sea island, passing the actual administration of the conference to Brenda Baker, who carried the ball very well. Nancy too will be missed.

A seminar on how the Guild might help its member businesses crystallized into an enthusiastic Gang of Four who later approached the board for permission to form a sort of business council “on the TTRAG model”—that is, to operate under the Guild administrative aegis but to enjoy a certain degree of autonomy. TTRAG, the Traditional Timber Framing Research and Advisory Group, has achieved much in linking the Guild to the world of preservation and restoration, and perhaps this new group (Frank Baker, Ben Brungraber, John Koenig and Bob Morrison) might perform equally valuable service in another direction—though it was unconvinced by the obvious sugges-

tion to call itself BRAG. First task is to establish reasonable national appraisal standards for timber-framed houses, reflecting their correct market value.

The Guild's Annual Meeting, at which the directors report to the membership on the year's work and accept comments and criticism, and a designated seminar, “The Future of the Guild,” that immediately preceded it, flowed together, not in the expected wide-ranging discussion of diverse Guild interests, but in an examination, first of the deepening problem of funding, and then of the development and costs of this journal. The Guild has grown in ten years from an organization of 200 whose directors met occasionally over pizza in someone's workshop, to an institution of 800 whose treasury has handled an average of \$280,000 annually over the last three years, with an appropriate increase in complexity of operations.

No one wants to raise annual dues, now at \$60 for individuals and \$230 for companies. No single item on the disbursement side seems entirely—or even largely—doubtful, but the unit cost of producing a high-quality journal with a circulation of fewer than 1,000 copies, which worked out last year to \$27 per Guild member, or nearly half of an individual membership, strikes some people as questionable. For others that's a bargain price for a professional journal, and if ours is assigned a value of \$20 per annum (the subscription price to non-members), then the Guild subsidy amounts to \$7 per member, less than the cost of producing the eight-times-yearly newsletter *Scantlings*, which has no face value. However the numbers may be viewed, a larger circulation for the journal is certainly indicated, as is a broader editorial range.

Ken Rower



Sterne Park now with Gazebo during Saturday's rodeo parade.



A hop and a skip from the park, the Adolphus Sterne House, ca. 1850.

THE social events of the 1994 conference fell out at three separate locations—the Fredonia Hotel in downtown Nacogdoches, the Gazebo site several blocks away at Eugenia Sterne Park, and the splendid fields of Tim and Wynter Chauvin's farm several miles out of town, where an ambitious and scrupulously-organized camping operation had been mounted by Laura Saeger and Rudy Christian. Here the bulk of the work had been accomplished on the Gazebo; here also the Saturday night Texas-style barbecue and square dance unrolled in fine fashion, and the concomitant hoopla concluded with the firing of potato-gun salutes, the last of which destroyed Ed Levin's Hewlett-Packard calculator, the machine that had calculated all the angular dimensions of the Gazebo, last year's Pavilion at Rindge, the Bridge at Guelph in 1992 and many more dimensions too numerous to mention—in short, the machine that knew too much and had kept too many people waiting.

At Eugenia Sterne Park, a small square of ground bounded on two sides by tree-shaded houses from the last century and on the remaining sides by a Phillips 66 station and a one-story check-cashing service—a perfect piece of American urban chaos—cutting and assembling the last pieces and then raising the frame of the Gazebo offered plenty of diversion and fellowship for conference-goers needing the relief of action. The dedication ceremony for this small and decidedly chunky structure followed an equestrian parade, segregated by the color of the rider, and recounted a good deal of local and Texas history (identical through the friendship of Adolphus Sterne and Sam Houston), assuring all, finally, that the Guild has left another good work behind it.

At the Fredonia Hotel, where all personnel stoutly denied any connection with the Marx Brothers, and where all but campers stayed and all conference seminars and workshops were held, one event stood out: the



Chris Madigan

Honors for man of the hour Tim Chauvin.

fund-raising auction, organized by Sandy Bennett, at times an uproarious spectacle in which Guild members freely gave of their possessions and expressed their disdain for money (or their affection for the Guild) by bidding individual bottles of beer to \$45—iced and ready to drink, to be sure—and paying princely sums for modest if more useful articles, such as Michael Anderson's donated ink line, which fetched \$385. In true Sotheby's fashion, one bidder, unable to attend in person, authorized an agent to spend \$500, and is now enjoying, among other acquisitions, a very expensive baseball hat. Much food, drink and clothing, tools, certain design, engineering and legal services, one sailboat cruise and one timber framer doll with supernatural powers—these and the *pièce de résistance*, Jean Palmer's Guild quilt, raised \$16,000 which saved the conference from a paper loss. —KEN ROWER

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At the auction, Scott Murray shows memorabilia from Guelph '92...



Photos Ken Rower

While Jim LeRoy rises to bid. Glasses on table contain iced tea.