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French Apprentices Visit New England

French Apprenticeship Tour

AT the Guild's first Western Conference, at Timberline Lodge in 1986, French carpenter Frédéric Brillant attended from his redoubt on Vashon Island, Washington, and pointed out simpler, better ways to deal with compound angles than our own learned presenter offered. Later he appeared at Eastern conferences, in one case in a parking lot, unannounced, to demonstrate layout techniques most of us had never seen before, and in 1990 at Troy, New York, Frédéric formally demonstrated what he called "traditional Continental roof layout." Since then, the Guild and some of its members have sought to learn more from our French *confères* through work exchanges and tours in France and by inviting French *compagnons* to present at our conferences and workshops. We reached a new level of cooperation in July when 20 students and three masters of the Compagnons du Devoir came to the United States for the first time in an educational work program.

An ancient guild of craftsmen, the Compagnons du Devoir (roughly, companions of duty) share a passion for building excellence and architectural history. Dating back to the 13th century, the *compagnonnage* system in France provides training, guidance, housing and meals for young workers. In all there are 21 different trades within the brotherhood, including the building, metallurgy, transport, leather and food industries. One hundred *compagnon* houses throughout the country and abroad serve as bases for training, providing lodging, meals and classroom space for all in the program, from the youngest apprentice to the master craftsman.

In France, *compagnons* historically built the great châteaux, forged the iron for the hardware and the gates, wove the silk for clothing, and so on—and they continue to build today in all the trades. Surprising examples of their work include the Statue of Liberty, prefabricated of copper at Gaget, Gauthier & Cie in Paris to the design of sculptor Frédéric-Auguste Bartholdi, and later assembled section by section in New York Harbor, as well as the assembly and erection of the Eiffel Tower, raised by carpenters (*charpentiers*) who understood the techniques required to build tall structures.

In the time-honored *compagnon* system (see TF 97), *lapins* (rabbits, or apprentices), some starting as young as 14, spend two years following a rotation of six weeks in workshops and two weeks in school. They endeavor to become *stagiaires*, who travel for three years (or more) working six months at a time in different shops on their *tour de France*, and then, as *aspirants*, strive to become *compagnons* (masters) by completing a *chef d'œuvre* (masterpiece). A *compagnon* must take it to heart to pass on the knowledge, as well as the values and ethics of *compagnonnage*, by teaching for three more years. Only one in 20 apprentices makes it to the level of mastery.

The tradition of travel remains and is the best way to extend the apprentices' knowledge of their trade, of languages and of other cultures. Each year the Compagnons du Devoir sponsor tours for their rabbits, sending them abroad for three weeks to see the scope of another country's trade and prepare them for their travels as *stagiaires*. Usually up to 1300 apprentices from throughout France are on tour each year.

The 20 rabbits came to New England for three weeks from Rouen led by one of their own *compagnon* instructors, Christophe LeMerre, himself accompanied by *compagnons* Boris Noël and Martin Lorentz, who work ordinarily at Valentin, S.A.R.L. (LLC), builders and restorers in Troyes. Boris, with long experience, supervises 25 workers at Valentin and led the 2003 Guild tour of northern France, and worked as well in the US at Bensonwood in 2004. Martin has been traveling and working at different shops since completing his *tour de France*.

Following is a log of the American trip, constructed from apprentice reports and participation in their travels.

July 7 Departed Rouen on buses for the Paris airport. Flight arrived at the airport in Boston around 10:00 PM. local time. Took the bus to youth hostel downtown.

July 8 Boston. On Sunday morning, visited the Museum at MIT to see robots and holograms; attended lecture in English on DNA. Lunch at Subway. In the afternoon, shopped in the city and procured two 15-passenger vans for the rest of our trip.



William Holz



Katie Hill



Martin Lorentz

Facing page, French apprentices on tour at Bensonwood, Walpole, N.H., cutting sills and plates indoors for a replica of Thoreau's cabin near Walden Pond and outdoors laying sills and joists. The cabin will be raffled off to raise money for the Fall Mountain Foodshelf, a local charity. Above left, apprentices cool off in the Sugar River under the massive 122-ft.-span Wright's railroad bridge (1906) at Newport, a Town-Pratt double lattice with clasped arch. Above right, inside the 62-ft.-span multiple-kingpost truss Dingleton Hill Bridge (1882) at Cornish. Keyed sisters on braces are oversized to meet posts above failed original joinery, invisible in photo. Below, learning the dropcut at Bensonwood.

July 9 New Hampshire. We rose at 5:00 AM and departed for the Bensonwood company in Walpole, N.H. We arrived at 9:00 at the *atelier* (workshop) and were received by Dennis Marcom and Tedd Benson. Toured the design offices that used CADwork and the various workshops that built walls, floors, roofs, stairs and timber frames. In the afternoon we prepared to design and build a replica of the cabin near Walden Pond in Concord, Mass., immortalized by American author, philosopher and naturalist Henry David Thoreau, to be completed on Wednesday and Thursday. We then went to our lodgings at Rochambeau Lodge nearby, where we will sleep and prepare our own meals for the next week.

July 10 After breakfast, we visited a Bensonwood project (annex of a nature school) and then returned to the shop for lunch. In the afternoon we went to visit the former Bensonwood shop and to a project finished about three weeks ago for filmmaker Ken Burns. We then went to Northcott Woodturning, which manufactures 600,000 *chevilles* (pegs) a year, and were admirably received. We then went to a pizza party, where there was a folk dance and a very good atmosphere. The wood-fired oven weighed 20 tons, and the baker was inspired by French crafts.

July 11 On this day we were in three groups, a *compagnon* instructor with each group, two in the panel shops (one for the walls and the other the floors and roofs) and the last group preparing the timberwork for Thoreau's cabin. We returned to the lodge at 4:00 PM to cool off in the pond, then had dinner.

July 12 We rose at 5:30 AM and had breakfast. We arrived at Bensonwood at 7:00 for a long 11-hour day. We continued our work in the company and began raising Thoreau's cabin. After lunch (pizza) we completed the raising and then had a barbecue at Bensonwood and played volleyball. To finish the evening, we bathed in the pond until 9:00 PM before entering the sauna, taking a shower and going to bed.

July 13 Today we visited six *ponts couverts* (covered bridges) with Ben Brungraber, also two timber-framed projects Bensonwood had built. Lunch at McDonald's. During the afternoon, we continued

our visits to the bridges with a swim at the last one before returning to the lodge and the meal in the evening before going to bed.

July 14 Bastille Day! Today we hiked to the top of Mount Monadnock for magnificent views of the hills, then cleaned the lodge. We rehearsed the songs for this evening's festivities. After a pizza dinner we passed a super evening at Burdick's in Walpole where we sang the "Marseillaise" and several *compagnonnage* songs for the community.



William Holtz

July 15 Massachusetts. We rose at 7:00 AM, had breakfast and packed our suitcases. Dennis Marcom came to see us off, and at 10:00 we departed, stopping in Northampton, Mass., for a lunch of fish and chips. We arrived around 3:00 PM at Bard College at Simon's Rock in Great Barrington, our lodging for the next week. We ate dinner at 5:30, then were released for the rest of the day to swim in the pool, play squash . . .

July 16 Arrived at the Heartwood School in Washington, Mass., where we received an explanation of American layout systems, square rule versus scribing. We erected a 12x16-ft. timber frame previously cut by a class and awaiting shipment. During the raising, the layout system was further explained along with peg locations and drawboring. We dismantled the frame after lunch and then cut braces (already laid out), made pegs with drawknife and shaving horse and brought out 12 pairs of rafters to lay out.

July 17 Hancock Shaker Village tour in the morning: saw machine shop with water power, round barn, woodworking shop, blacksmith shop (we liked the knives being made). Returned to Heartwood in the afternoon to finish braces and rafters; used Woodmizer sawmill to cut rafter tails; used axes, adze and spokeshaves to cut curves in rafters. Laid out and cut step-lapped rafter seats. Made more pegs. One team broke a shaving horse head and made a new piece. We really liked the hand tools, axes and saws.

July 18 Teams split up and went respectively to the David E. Lanoue shop and a work site in Stockbridge. In shop, peeled logs, scored and hewed, planed lots of timbers. Learned to sharpen smoothing planes. On site, used recycled roof boards for barn restoration, then roofing paper and plywood. We saw three intersecting barns and repair techniques with scarfs and learned to erect pipe staging. New tool we had never used: a cap nailer for roof covering.

July 19 Crews reversed between Lanoue shop and work site.

July 20 Working with Heartwood apprentices, raised a barn frame in Stockbridge designed by Jack Sobon and with joinery cut by Gordon Simmering, Dave Bowman and Neil Godden. This was a beautiful frame 30 ft. x 40 ft., with a clasped purlin roof and curved raking struts above the tie beams, and looked very European. We cut and planed rafters by machine and by hand.

July 21 We hiked Monument Mountain (great views), shopped in Great Barrington and went to a demonstration in East Otis by 2012 Husky World Chainsaw Carving Champion Ken Packie.



At left, French apprentices directed by Heartwood School student Ben Theriault (at right in bandanna) lay out rafters in Washington, Mass. At top, Martin Lorentz, seated at the Millers Falls boring machine, and Boris Noël, standing at right, compagnons who came from Troyes to help supervise the 20 French apprentices (or rabbits). Above, apprentices intently shaving pegs split out from block.

Facing page at top left, compagnon Christophe LeMerre of Rouen, the apprentices' instructor, takes his place at the end of a wall plate there, far left, and enjoys a witticism by French apprentice Marc Rabuteau (disguised as "Dave") before the outshot wall lift. At top right, earlier lift of exterior wall on opposite side of barn. English tying joint structures such as this barn are raised not in bents but in wall assemblies including the tenoned plate, which are then connected transversely by tie beams that drop over the tenon at the top of the post jowl and lap over the plate, providing a completed box for the erection of the roof frame members that follow. See back cover photo for view of completed frame.

Facing page at bottom left, French apprentices help sheathe barn under restoration in Stockbridge by Lanoue & Co., using 200-year-old roof boards. At bottom right, apprentices practice using American-style handplanes at the Lanoue workshop, after sharpening lessons.



Photos Will Beemer





July 22 Vermont, New Hampshire. Sunday is travel day, and we drove to our lodging for the next week at Lyndon State College, Lyndonville, Vermont, stopping at the American Precision Museum in Windsor, where we met with Guild Executive Director Joel McCarty and received souvenir Guild pins. We saw many antique machines that helped revolutionize American industry.

July 23 One group went to the Garland Mill near Lancaster, N.H., to see a water-powered sawmill demonstration, help replace some timbers under the mill, replace 100-year-old shiplap siding boards and clean out the diversion dam upstream.

Another group went with Jan Lewandoski (Restoration and Traditional Building, Greensboro Bend, Vermont) to see some of his nearby work. At the First Congregational Church (1829) in Lyndon Corner, we saw the building being cribbed and raised, and truss and steeple repairs. Students got to climb into the steeple and see how telescoping steeples were built. At the Freewill Baptist Church (1829) in Sheffield we saw more steeple repairs. Then we went to the Bread and Puppet Museum and barn (1860) in Glover. Saw giant papier-mâché puppets and uniquely decorated barns. At the Old Stone House Museum and new barn built by the Guild this summer in Brownington, we participated in a riving demonstration of white cedar fence rails. At the Fisher Railroad Bridge (1902) in Wolcott, we saw a double lattice truss with repairs. Last we visited Jan's own barn with its triple bypass joint for tie at plate.

July 24 Broke into two teams again. One went to Gilford, N.H., to help Josh Jackson and David Hooke (TimberHomes LLC). Laid out, cut and installed let-in wall girts and window framing for a newly erected frame, completely sheathed roof with shiplap boards and weatherproofing, laid tongue-and-groove decking.

The other group went to the Wooden House Company (John Nininger and Gerald David) in Wells River, Vermont, to peel white pine logs (massive, 24-in. dia. and very clear) and learn to notch and how to use a tower crane. Helped lay out and cut a small timber frame to be erected on a float in a town parade.

July 25 Groups reversed and repeated July 24 itinerary, completing shiplap siding at the TimberHomes site and the timber frame at Wooden House. Watched a soccer game at the college in the evening.

July 26 Groups reversed and repeated July 23 itinerary.

July 27 Departed Lyndonville at 9:00 AM for Boston and the evening flight home.

—WILL BEEMER

English–French Glossary

Wood Species

| | |
|----------|-------------|
| ash | frêne |
| beech | hêtre |
| cedar | cèdre |
| chestnut | châtaignier |
| fir | sapin |
| hemlock | pruche |
| larch | mélèze |
| locust | robinier |
| maple | érable |
| oak | chêne |
| pine | pin |
| spruce | épicéa |

Tools

| | |
|-----------------|----------------------------------|
| adze | herminette |
| axe, hewing axe | hache, doloir |
| bevel gauge | sauterelle, fausse équerre |
| bitbrace | vilebrequin |
| chalk line | cordex |
| chisel | ciseau |
| clamp | serre-joint |
| drawknife | plane |
| drill bit | mèche à bois |
| electric drill | perceuse |
| framing square | équerre de charpentier |
| handsaw | scie égoïne (slang: <i>zag</i>) |
| Skilsaw | scie circulaire |
| ladder | échelle |
| level | niveau à bulle |
| mallet | maillet |
| pencil | crayon |
| plane | rabot |
| plumb-bob line | fil à plomb |
| shaving horse | banc à planer |
| spokeshave | vastringue |
| tape measure | mètre à ruban |

Frame Anatomy

| | |
|-------------------------|---------------------------------|
| backing | débardement |
| birdsmouth | barbe |
| brace | lien |
| collar beam | entrait retroussé, faux entrait |
| dormer | lucarne |
| hip, hip rafter | arêtier, chevron d'arêtier |
| jack rafter | empanon |
| kingpost | poignon |
| level cut | coupe de pied |
| mortise | mortaise |
| peg, pin (trunnel) | cheville |
| plate | sablère (haute), panne sablière |
| plumb cut | coupe de tête |
| post | poteau |
| purlin | panne |
| rafter | chevron |
| ridge, ridge purlin | faîtage, panne faîtière |
| roof | toit |
| roof surface (inclined) | versant |
| sill | sablère (basse) |
| strut (in truss) | contrefiche |
| tenon | tenon |
| tie beam | entrait |
| truss | ferme |
| truss upper chord | arbalétrier |
| valley, valley rafter | noe, chevron de noe |
| wall | mur |

Measurement

| | |
|--------|----------|
| foot | pied |
| height | hauteur |
| inch | pouce |
| length | longueur |
| pitch | pente |
| width | largeur |



Facing page, apprentices try their luck in the log pond at Garland Mill in Lancaster, N.H. Above, apprentice keeps scribe plumb and level as he traces profile for saddle notch at the Wooden House Company in Wells River, Vt. At right, apprentices in the Fisher railroad bridge in Wolcott, Vt., a 103-ft.-span Town-Pratt double lattice bridge, pause during commentary by bridge and steeple specialist Jan Lewandoski, second from left. Below, an apprentice crew poses after a day sheathing the roof, decking the floor and fitting wall girts on a new frame by Josh Jackson and David Hooke, in Gilford, N.H.



Photos Will Beemer



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