JOINERS' QUARTERLY NEWSLETTER Summer 2003

The Newsletter of Joiners' Quarterly & Fox Maple School of Traditional Building No. 15

In Search of a New Vernacular Architecture

I have always been intrigued by vernacular architecture. What intrigues me most is not necessarily how or what ancient peoples built, but as importantly, why they built what they built. What is vernacular architecture, you might ask?

Just as vernacular language is the unique regional expression or idiom of a group, class, or tribe within the confines of a broader society, so also, vernacular architecture is the unique regional expression that incorporates the environment into the daily pattern of life through the act of building. In both cases, the actual forms evolved in direct relationship to the social and environmental conditions at hand. The result being, cultural identity. If we wish to study a culture, we most often begin by studying their architecture.

Trabajador laying out green tejas to dry in the Nicaraguan sun. Notice the curved paddle that is used to both form the tejas and carry it to the drying yard.

Specifically, vernacular buildings are those built by common people, molded in direct relationship to the environmental conditions at hand and constructed with the resources found within the immediate environment. It is largely an instinctual architecture. Necessity being the primary impetus, coupled with the collective creative will of the social unit. In its purest sense, it is the natural result of the symbiotic exchange between people and their environment.

Traditional building patterns were all developed through a combination of evolution and experience. The vernacular buildings that have survived from the middle ages are testament to the symbiosis between man and the environment. Learning to live in accordance with the environment was a first essential to sustaining life. We can learn a lot by studying these structures, not only through the construction methods, but also by understanding the socioeconomic conditions and mind-set that allowed them to evolve.

As people, we can never really separate ourselves from the architecture that we collectively produce. The fact that we all need a structure in which to dwell is evidence of this. The question is, what are we going to build? Are we going to build in a conscious way? And if so, how can we develop a new vernacular architecture that fulfills our modern needs, while at the same time cultivates a more symbiotic exchange between man and the environment?

Vernacular architecture, however, also implies necessity, need, and to some extent, limitation. It results directly from the need to provide shelter, but is limited only to the materials and resources found directly within the immediate environment.

The wigwam, the plains tipi and the Mongolian yurt are all examples, but so are the medieval English cottage, the Japanese minka, the southwestern pueblo, and the New England village. All resulted directly from the need for shelter, in context with a shared social and cultural identity, and the surrounding environment.

Today, in all but the developing nations, vernacular expression has all but vanished. In the developed nations we seemingly no longer have the social need that traditionally cultivated vernacular expression. The operative word here, developed, implies homogenization—the lack of cultural diversity. In the U.S. we have arrived. We have achieved an homogenized building infrastructure. Houses in California are constructed with the same materials as those in Maine. Regional variations exist only in designs attempting to mimic the traditional vernacular designs of the region, but the materials are all the same, produced by the same handful of corporations, and purchased under the same roof at the Home Depot. In this current environment, it is difficult to cultivate a new vernacular architecture because we lack the sense of social need.

> *"...vernacular buildings are those built by common people, molded in direct relationship to the environmental conditions at hand and constructed with the resources found within the immediate environment."*

The fact is, our need is as great today as ever, perhaps more so. The long term socio-economic well being of our planet is tied directly to our ability to create a sustainable dwelling industry. The housing market is the top economic indicator in the U.S. and perhaps all of western society. Our current consumption of renewable natural resources far exceeds the annual rate of replenishment. The corporate commodity building material manufacturing giants dictate the materials we use and fix the prices as well. We are at their mercy, and given an economic downturn, another oil crises, or one too many wars, we will one day soon be facing shortages of materials, and those available may be too costly for the average family. We must understand that corporate profits are the first priority. And then, of course, there are the environmental issues of living in toxic homes,

From the Ground Up

19th Annual Eastern Timber Framers Guild Conference returns to Montebello, Canada
October 31-November 2, 2003

The 2003 Eastern Guild Conference will take place at Le Chateau Montebello, 90 km east of Ottawa, Canada. Le Chateau Montebello is a remarkable example of Canadian log architecture. Said to be the largest log hotel in the world, it was constructed in 1930 in just 90 days with 5,000 carpenters and uses over 10,000 logs. Certainly an inspiring site for a gathering of timber framers.

The conference will have an international flavor with carpenters from France and Germany coming to demonstrate traditional roof framing systems, including traditional scribe rule hip and valley.

Keynote speaker, Patrick Hofsummer, from Belgium, will describe the typology and evolution of roof structures in Europe from the 11th through the 18th centuries.

A continuous track on Natural Building techniques including straw bale, straw/clay, cordwood enclosures, living roofs and interior finishes related to timber framing will be ongoing throughout the weekend. Presenters in this track will include John MacFarland, Curtis Milton, Boris Noel, Michael Bergeron, Patti Southard, Paula La porte, Robert Laporte, Steve Chappell, Norbert Senf, and Rob Roy.

In addition, a special forum focused on community based building initiatives will explore the educational, practical and social benefits of working in the context of community. The forum titled: *Building Buildings that Build Community* will bring together a diverse group of people to discuss systems, approaches, philosophy and practical aspects of making community building projects successful. This will be an open forum with questions and comments.

There will also be a number of presentations on the business of building, design & engineering, problem solving and more. All revolving around timber framing and traditional building. The conference boasts the largest number of presentations *ever* at a Guild Conference.

For more information contact:
The TF Guild, PO Box 60,
Becket, MA 01223
413-623-9926
888-453-0879
www.tfguild.org

Green tejas being laid out to dry in the sun in the drying yard. Averaging drying time is two days. Tejas are in the foreground and bricks and floor tiles in the background.

Typical framing of the work sheds covering a kiln. The system is a combination of joinery and lashing, with the tejas laid on top with no fasteners.

Jacinto Toruno showing a fired teja to Olivier Garro.

constructed with toxic materials. Some of the largest manufacturers of building materials are also the largest chemical manufacturers.

Following our current patterns, the likelihood of rising prices due to raw material shortages and environmental health hazards become more of a possibility every day.

Developing a Sustainable, Local Dwelling Industry

There is a need to begin to decentralize the manufacturing of commodity building materials and begin to develop regional, micro industries that utilize more sustainable local resources—resources that are currently not being utilized or under utilized. By supplementing these locally available sustainable resources into the fray, the possibility of creating stable and sustainable local and regional dwelling industries, immune from national economic trends, has a good chance to evolve. This will not only spur local economies by creating employment opportunities within small communities, but also help to incite creativity in the context of building. It is this creativity, coupled with the inherent economic benefits, that may indeed, through necessity, evolve one day into a new vernacular architectural renaissance of the 21st century.

Fox Maple's educational efforts over the past several years have been geared toward working with and developing systems that will help to facilitate a new vernacular. But, it is difficult to integrate this pattern into our world of plenty. This, in part, is why we have developed our community building program. It allows us to actually work and develop patterns for a new vernacular with people who really do have the need. In developing these patterns, they can then be applied to any community in any region with the same level of success and satisfaction. Simply studying the past may insufficient. To really make any headway, it is best to step back into the past.

Community Building Initiatives

One of the primary objectives of Fox Maple's educational and community building programs is in developing employment opportunities for the community members with whom we work. This includes the cultivation, harvesting and processing of local sustainable natural resources, such as clay and earth, agricultural waste products, timber and wood, etc., that can be transformed into viable and durable building products. The goal is to develop efficient, low tech, micro businesses that can supply the local community and beyond with needed natural building materials and employment opportunities. The by-product of our program is that a dwelling or community building is constructed in the process of training.

On all fronts we have had great success developing efficient systems for the framing and wall enclosures. Timber framing sparks individual and group creativity, an essential aspect of vernacular building, while at the same time providing a durable and artistic structural framework. Demonstrating that clay and fiber can make durable wall systems in virtually any environment (significantly reducing the need for manufactured products in a building) is readily accepted and obtainable. However, developing natural roof systems has proven to be a bit of a problem. The traditional choices have been wood, slate or stone and thatching. These are all viable, but require the right wood, the right stone or the right reed. Finding the right materials in any given location is often difficult.

We have hopes to begin using a stone very similar to slate that grows throughout Costa Rica, but the most promising after all is the use of clay roof tiles. Clay is abundant practically everywhere in the world, and the production process required to transform the raw material into viable building components is extremely low tech, requiring little more than the clay to create a complete manufacturing facility.

Fired Clay Production in Nicaragua

In an effort to learn more about traditional fired clay production, I recently traveled to Nicaragua to research the production of clay roof tiles (*tejas*) and bricks in the rural countryside. The production of clay products, both fired and unfired, is abundant in Nicaragua, but there is no brick or tile manufacturing in Costa Rica. My hopes were to find a way to import the technology back to Costa Rica to integrate it into the communities with whom we are currently working.

Nicaragua is an extremely beautiful country, rich in volcanos and natural resources, but due to decades of war and political unrest, it is one of the poorest countries in Central America, perhaps the western hemisphere. Due in part to the dire economic conditions, the people have maintained many of their traditional ways of building.

The common houses in the small towns and countryside are for the most part shanties, built with clay and adobe, and many scraped together with found materials. The poverty is apparent. But strikingly,

almost all houses are roofed with clay roof tiles, *tejas*. This adds a striking architectural element even to the most disheveled hovel.

One of the major tile and brick producing regions of Nicaragua is in the central plains, midway between Managua and Leon, near the small village of La Paz Centro. As one approaches within 3 kilometers of the village the road sides become lined with a myriad of beautiful, small and some large, open walled tile roofed structures. They are timber framed with poles and saplings, held together through a combination of joinery and lashing. In a 3 to 4 kilometer stretch, there must be over 30 different brickyards (plantels). Each are small family run operations, with anywhere from 4 to 10 people working in each one. There is no mechanical equipment to be seen—no trucks, cars or machinery—just the occasional horse drawn cart piled high with wood, delivering firewood to the kilns.

The Process

The process is as simple as it gets, and it's doubtful that it has changed much in the past 300 years in this valley. Most of the plantels have been run by the same families for generations, using the same pits to mix the clay and sand and soil, barefoot, into the thick paste-like mix, then formed swiftly by hand in the wooden forms into tejas, bricks or floor tiles, then laid out to dry in the sun. Most of the small plantels make an equal number of bricks, roof tiles and floor tiles.

The yards are spread full with fresh green and half dry tejas and a variety of various shaped bricks and floor tiles. The geometry and symmetry is quite beautiful, and also the quiet, but rapid, pace of the people working. They were like bees tending to the building of a hive, each with a specific job, carrying it out relentlessly and with a mission. No hum or whine of machinery, only the sound of clay squashing through toes, the occasional whinny of a horse, the splatter of clay into the mold, the laughter of a group of trajabadoras taking a short break from the steady pace of work, and the thud of firewood being thrown from a cart onto a pile. Peaceful and harmonious.

I made the trip with Olivier Garro, one of our students from San Luis, Costa Rica. We stopped at several plantels, and eventually ran into Jacinto Turuno.

Jacinto was in his mid 20's, and had grown up making tejas in his family's plantel, as had his father, and his father before that. He approached with a broad smile, wearing a bright florescent Terminator 3 tee shirt (a reminder that we were in fact in the 21st century). He was more than happy to give us a tour and explain the process. They had two kilns, the main one here on the carretera, and the other a kilometer away up a dirt side road. The main kiln fired mostly bricks and floor tiles and the smaller one on the side road fired only tejas.

Our main goal was to learn about making tejas with the hopes of starting two small production facilities back in Costa Rica. One in the small village of Pinella, near the central coast on the Peninsula de Nicoya, and the other in the small, north central mountain community of San Luis. Our hope was to find someone to come back to help set it up and teach the local people how to do it. So, we headed down a bumpy dirt road to Jacinto's other kiln to see the process of making tejas.

Bombero (fireman) loading wood into the kiln.

Firewood being delivered to Jacinto's kiln by horse drawn cart. The lack of machinery and power equipment was striking, but very pleasing.

The tejas are made by hand by working the clay tightly into 9" x 16 " x 1/2" wooden forms, which are then placed on a curved paddle to be carried to the drying yard.

The site was slightly smaller, with 5 people working. There was one small shed to cover the mixing and forming site, and another to cover the kiln. One person stomped around in a shallow pit mixing the clay and soil with bare feet. Another kept wheelbarrows of material delivered to the pit man, and one man worked at forming the mixture into a small rectangular wooden frame on a small table. Two other people scurried back and forth picking up the formed clay and spreading them out on the ground to dry in the sun.

The tiles were formed first by working the clay into a flat rectangular wooden frame. The curved shape was formed by a small, curved paddle that the carrier used to transport the tile. The person forming would slide the flat 9" x 16" x 1/2 inch thick blank onto the paddle, and the curved teja was instantly formed. The two carriers in succession would lay the tiles out evenly on the ground, and return immediately to retrieve another tile blank. The pace was nonstop, and in this manner a little more than a 1,000 tiles could be produced in a day. The average roof cover requires 3 tejas per square foot of coverage.

Clay Mixture

The tejas are made by mixing 20% clay with 80% regular soil. This was quite surprising to hear that such a small percentage of clay and no sand was required—also good news—as there is plenty of soil and clay throughout Central America at your feet, but sand is hard to come by. It can be found on river banks and the beach, but usually needs to be trucked to the site, which poses a problem in the rural countryside. The bricks and floor tiles required from 20% to 40% sand, but other good news was that you could use regular beach sand—salt residue was not a problem.

The tejas required two days to fully dry in the sun before firing. The 3 by 5 meter kiln at this site could hold up to 3,000 tejas, so a firing took place twice a week on average.

The Kilns

The kilns were all wood fired, and required 24 hours for a full load combined with bricks and tejas, and 18 hours for tejas only. The kiln at Jacinto's was covered with a pole framed, tile roofed open shed, but many of the kilns did not have roof coverings. Those without a permanent roof were covered for each firing with a makeshift temporary roof using old and broken tejas. The roof was evidently only required to protect the contents from rain, as water would shatter the hot contents and ruin the batch. Each firing produced enough tiles for three average sized houses in this area.

Jacinto turned out to be the man we were looking for, as he said he was more than happy to travel to Costa Rica to set up a kiln and to train a community of people in all aspects of making and firing clay tejas and bricks. We hope to begin the kiln near the small village of Pinella, this November, and one in San Luis the following February.

The construction of a kiln, according to Jacinto, takes about two weeks with three people, and it could be made directly from the soil and clay from the site, built with green bricks, which would themselves be fired in the first firing. A well constructed kiln would last for 10 years or more.

It is comforting to know that there is a world beyond Home Depot. Working with people who's need surpasses desire is a breath of fresh air. The perspective one gains is priceless.

We'll be working to implement fired clay into our community building projects in Costa Rica, Kauai, and the Pine Ridge reservation over the coming months. I hope you can join us in our efforts. —Steve Chappell

Workshop & Seminar Overviews

Design Seminars

One day design seminars precede all of our multi-day Introductory workshops held at the school in Maine. Design seminars offer a great opportunity to gain a working understanding of all aspects of building a timber frame house, from basic design and joinery, to the completion of the home. With the help of slides, chalkboard and CAD drawings, we'll walk through all of the steps of building a timber frame home and along the way, unravel some myths and solve some mysteries.

The design seminar explores the history and development of timber framing in addition to addressing problems which are likely to confront a contractor unfamiliar with contemporary timber framing. From foundation through completion, our focus is on assisting aspiring owner-builders in solving their own design problems, and allowing experienced builders to expand their expertise.

Introductory Timber Framing

The best way to learn how to build a timber frame is to do it. In hands-on workshops, we do just that. The primary focus is on appropriate joinery design and layout, with particular attention paid to *perfect execution*. Each joint will be systematically laid out and cut by the students, allowing the opportunity to gain firsthand knowledge of joinery design, and the feel of cutting a timber frame in the traditional manner.

The workshop frame is designed specifically for instruction, combining a broad variety of joinery details, with close attention paid to setting up systems and approaches that will result in perfect joinery, every time.

Advanced Timber Framing

For those who have some basic timber frame experience, our advanced workshop is the place to hone your joinery skills and expand your repertoire to include compound hip & valley roof framing. As with our introductory course, we pay special attention to creating systems and techniques which may be applied to any framing situation, with the same results every time. Perfection!

Compound roof framing is nothing more than a combination of simple right triangles. By first creating a visual image, then translating this mental image to paper using simple sketches, each triangle can be isolated, allowing the builder to determine its physical dimensions and angles through trigonometry. This approach allows even the most complex roof frames to be understood.

In the hands-on workshops we apply systems and theory to the construction of a hip & valley roof frame designed specifically for instruction.

What's Included, What's Not

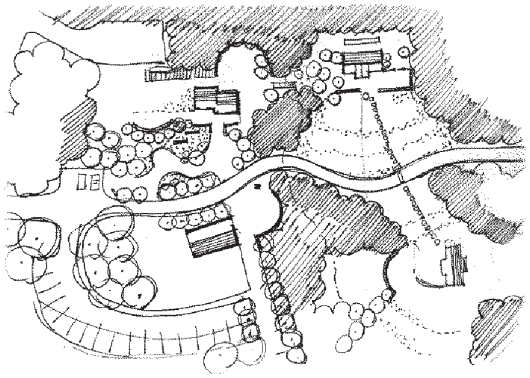
All workshops at Fox Maple include light breakfast and a hearty lunch, a Fox Maple T-shirt, and a copy of *A Timber Framer's Workshop*. Camping is available on the grounds, and equipped campgrounds are close by. Local Bed & Breakfasts offer special rates to all students (about $30 per night). A wide choice of restaurants and motels are within 10 miles. Complete info will be included in all confirmation packets sent to workshop registrants. Traveling workshops include the basic meal/T-shirt/Book package, and lodging info will be available upon registration. All meals are vegetarian.

The Library at Fox Maple Campus

The Library is designed after a medieval Japanese minka. The walls are straw bale finished with clay plaster. The roof is thatch harvested primarily on the Maine coast. The timber frame was cut in our summer 1996 workshop. To receive our 40 page Fox Maple School Booklet describing the construction techniques used in all of the buildings on our campus, workshops and educational seminar overviews, please send $5 to cover postage and handling.

The Fox Maple Campus

The FMSTB campus is situated on 40 acres of southeasterly sloping wooded land on the Corn Hill Road, in West Brownfield, Maine. The rural location of the site provides a wonderful space to develop an infrastructure made up of natural and traditional building models. At the same time, providing hands-on building projects for our students to gain insight and experience. The evolution that has taken place since the ground breaking in April, of 1996, has been exciting, if not miraculous, in its unfolding. We look forward to many exciting workshops in 2004, and hope you can join us as a participant, or as a visitor.



Fox Maple Workshop Schedule 2003/04

Timber Framing at FMSTB

Introductory Timber Framing
September 8-13, 2003 & June 7-12, 2004

The frame project will be a traditionally joined timber frame. Joinery, design and execution will be the primary focus, culminating with the raising on the final day. This workshop is hands-on, comprehensive and intensive, Limit 20 students. Tuition: $775

Advanced Timber Framing
September 15-20, 2003 & June 14-19, 2004

The theory and mechanics of hip and valley roof framing are covered in-depth in this 6 day, hands-on workshop. Previous timber framing experience or Fox Maple Introductory Course required. This is a very advanced class. Limit 15 students. Tuition $775

Combined Intro & Advanced Workshop
September 8-20, 2003 & June 7-19, 2004

A comprehensive 2 week session including both Introductory and Advanced Timber Framing, back-to-back. This course is required curriculum for those wishing to apply for the Fox Maple Apprenticeship Program. Tuition $1,450.

Traveling Timber Framing Workshops

Kauai, Hawaii Timber Framing Workshop
December 8-13, 2003

We will continue the development of our community building program on the north shore of the Garden Isle in this workshop. The project will be an eclectic mix of eastern and western timber framing traditions using native timber in the construction of a structure to cover a traditional emu pit for the Waipa Gardens. Waipa is a community garden/educational initiative that serves to instill and embrace traditional Hawaiian culture within the local community through the education of traditional Hawaiian lifestyles. All meals and camping with bathing facilities is included. Tuition: $975, 6 day session. Limited to 12 students

Lakota Timber Framing Workshop
Pine Ridge Indian Reservation, SD
October 6-11, 2003

The workshop in 2003 will take place in Slim Buttes as a continuation of the development of a community gardening and learning center. A group of students from the Red Cloud School will be joining the workshop. The six day course will include lodging (tipi's) and meals. Tuition $775.

Costa Rica 2004
February 23 - March 5, 2004

This workshop will be held in cooperation with Coope de Santa Elena and Finca la Bella, a CSE cooperative community farm. CSE is a coop made up of local farmers and coffee growers from several communities in the north central mountains of Costa Rica, surrounding Santa Elena. Tuition includes home stay lodging and all meals. Tuition 12 day course $1,350.

Fort Dodge, Iowa
May 3-8, 2004

This workshop will be sponsored by past student Brad Bendickson. Regular course fare included. Tuition $775.

Natural Building Workshops

Natural Clay Building Systems
June 5-6, 2004

In this 2 day workshop we will work with a broad variety of clay/fiber based systems that are appropriate for enclosing timber frames. Tuition $300.

Keep posted for future Workshops

This is a partial listing of workshops at FMSTB in 2003/04. The final and complete schedule of workshops will be posted on our website as soon as they are confirmed. To receive information and updates on these additional workshops in 2003/04, please write, or call us at 207-935-3720.

Check our website for the latest updates: www.foxmaple.com
email: info@foxmaple.com

What's Included, What's Not

All workshops at Fox Maple include light breakfast and a hearty lunch, a Fox Maple T-shirt, and a copy of *A Timber Framer's Workshop*. Camping with bathing facilities is available on the Fox Maple school grounds, and equipped campgrounds are close by. Local Bed & Breakfasts offer special rates to all students. A wide choice of restaurants and motels are within 10 miles. Complete info will be included in all confirmation packets sent to workshop registrants.

Traveling workshops include the basic meal/T-shirt/Book package. Specific lodging info will be available upon registration.

Dining Hall at Fox Maple

For more information and updates about these and other workshops and special events you can visit our web site. This site lists all current events, and complete information about each workshop, what to bring, tools and tool recommendations, and more. Check it out!

www.foxmaple.com

Register on-line at: www.foxmaple.com/Registration.html

Workshop Registration Form

Please reserve space for_____ person(s):

❑ Six Day Intro T.F. - $725. Dates: _____

❑ Six Day Advanced T.F.- $725. Dates: _____

❑ Combined Intro & Adv T.F.- $1,350. Dates: _____

❑ TF in Pine Ridge 2003- $775. Dates: _____

❑ TF in Kauai, Hawaii 2003- $975. Dates: _____

❑ TF in Costa Rica, 2004 - $1,350. Dates: _____

❑ Natural Clay Building 2004- $275. Dates: _____

❑ I have enclosed a 50% deposit for each participant.
I understand that my deposit is non-refundable if I do not attend.

Name(s) _____

Address _____

City_____ State_____ Zip_____

❑ M.C. ❑ VISA # _____

Exp. date_____ Phone #_____

Email: _____

Signature _____Specify T-shirt size____

Indigenous Peoples Community Building Initiative

Fox Maple began developing its training program with indigenous peoples on the Pine Ridge Indian Reservation in the Fall of 2000. In the interim, the program has expanded to include projects in the mountains of Costa Rica and Kauai, Hawaii. Future projects in Ecuador and Nicaragua are currently under study. The *Indigenous Peoples Community Building Initiative* (IPCBI) was founded as a direct result of these efforts.

IPCBI's primary goal is to develop sustainable building infrastructures within indigenous communities by utilizing local natural resources and traditional construction systems. Initially, we go into a community and analyze the natural resource base, traditional building patterns, traditional cultural life-style, current life patterns and economic conditions. Through this we are able to develop a training program that uniquely embraces the communities environmental, cultural and architectural identity.

Pine Ridge, SD

After completing a thorough survey, we then organize a formal workshop in which a community building is built for and with the people in the community. This includes active participation of from 8 to 12 community members (though a much greater number participate), coupled with 8 to 12 students from outside the community. A unique, multi-cultural educational exchange results, training people in not only the craft of timber framing, but also a variety of natural and traditional building systems that readily uses their local resources. Through the process a needed structure that embraces these cultural elements evolves. Primary funding for the project is generated directly through the tuition paid by outside students. There is no cost to the local community. The long-term goal is to create employment and economy by developing a core group of craftsmen who can offer both materials and services within the community and also to more affluent regional communities.

Milling timbers with chain saw in Costa Rica

Additional funding for IPCBI's work projects on the Pine Ridge Reservation have come through grants from Running Strong for American Indian Youth. Running Strong is a nonprofit devoted to helping Native American people meet their immediate survival needs—food, water and shelter—while supporting programs designed to create opportunities for self-sufficiency. To find out more about Running Strong, visit their website: www.indianyouth.org.

To find out more about IPCBI's program and projects, how you can help and participate, or to request a newsletter, please contact us by email.

Re: IPCBI projects, to: foxmaple@foxmaple.com.

Upcoming IPCBI Workshop Projects

Pine Ridge Reservation Oct. -11, 2003

We'll be returning to Pine Ridge in October to continue work with the community of Slim Buttes. Slim Buttes is in the extreme southwestern corner of the reservation, in one of the remotest and poorest areas of the reservation. For the past three years we have been working with Tom Cook, founder and director of the Slim Buttes Agricultural Development Program (SBAG).

SBAG is a community-based organic gardening initiative in which community members are encouraged to create their own solutions to reservation-wide problems of malnutrition and hunger by planting vegetable gardens. SBAG actively engages with the community by sprouting over 20,000 seedlings, tilling and planting nearly 500 gardens each spring.

Fox Maple's IPCBI projects on Pine Ridge to date have included two 12'x36' timber framed greenhouses, one in 2000 and another 2001, and a 24'x32' equipment repair garage/workshop in 2002. One on the greatest problems Cook faces is keeping at least one of their 7 tractors operational at any given time. They need a new tractor, preferably made outside Russia, and after 1960.

We will return to the Pine Ridge reservation this October as a continuation of the development of the Slim Buttes site as a community gardening and learning center.

Kauai, Hawaii, December 8-13, 2003

We will return to Kauai in December 2003 to solidify our community based educational program that began in Fall 2001. In the upcoming workshop we will be working with the Waipa Foundation to construct a small structure at the Waipa Gardens, in Hanalei.

The Waipa gardens are a community garden on the north shore of Kauai located on a

Nailing the green tea leaf roof tree, Kauai 2002

1,400 acre site which is the last remaining grant from the King of Hawaii to the people. The Waipa Foundation, a Hawaiian community based non-profit group, has an opportunity to restore the 1400 acre ahupua'a of Waipa as a Native Hawaiian learning center and community center.

"The vision of the Waipa Foundation is to restore the Waipa watershed as a Hawaiian community center and learning center. To create a sustainable, culturally and community-based model for land use and management, inspired in part by the traditional values of ahupua'a. In ancient times, ahupua'a were communities that originated in the interdependence between the land and the people. Such was a mutuality in which use of land, water and economic, social and cultural choices flourished in balance."

We will be working with the Waipa Foundation to help fulfill some of their long-term goals as follows.

To empower our Hawaiian community through educational, cultural, and community-based economic development projects, with a special focus on kalo, the traditional food of our people.

To restore the health of the natural environment and native ecosystems of the ahupua'a, and to involve our community in the stewardship, restoration, and management of the land and resources within the ahupua'a of Waipa.

To practice and foster social, economic and environmental sustainability in the management of Waipa's natural and cultural resources.

San Luis, Costa Rica, Feb 23-March 5

IPCBI's first two projects in Costa Rica took place in the winter of 2001. In that year we worked with the cooperative farming community of Finca la Bella to construct a community meeting hall. As a follow up, we constructed a park pavilion in the Children's Park in Playa Tamarindo. Successful workshops also took place in 2002 and 2003.

We'll return in February 2004 to work again with the Coope de Santa Elena and Finca la Bella (a CSE cooperative community farm) in the construction of two projects. We are also working out details to construct a new church for the small community of Pinella in the central cost of the Gaunacaste.

Our efforts in Costa Rica have been very successful, with the fulfillment of our original vision of creating employment opportunities all but realized. Work on a full scale timber frame project will begin this coming November. The project will employ 6-8 of our past students directly for several months, with many more working to harvest and prepare construction materials.

IPCBI's efforts on all three fronts have been extremely successful and rewarding on many levels. To the students who participate, it offers a great opportunity to learn timber framing and to share in a rich cultural exchange and experience. We hope you can join us.

Fox Maple School of Traditional Building

Above: The finished frame in the Kauai 2002 workshop. Posts were scribe fit to stones. Below: Student paring a jack rafter foot in the May 2003 Advanced Timber Framing workshop at FMSTB in Maine.

"It would be part of my scheme of physical education that every youth in the state should learn to do something finely and thoroughly with his hand, so as to let him know what touch meant…Let him once learn to take a straight shaving off a plank, or draw a fine curve without faltering, or lay a brick level in its mortar; and he has learned a multitude of other matters…"
—John Ruskin

Above: The Kauai Timber Traming workshop last fall included round and square timber joinery.

Left: Raising the first bent of the octagon pavilion in the Costa Rica 2003 Timber Framing Workshop.

JOINERS' QUARTERLY
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Fox Maple School of Traditional Building

Upcoming Workshops

Introductory Timber Framing
FMSTB, Brownfield, ME
Sept. 8-13, 2003 • June 7-12, 2004

Advanced Timber Framing
Sept. 15-20, 2003 • June 14-19, 2004

TravelingTimber Framing
Lakota TF Pine Ridge • Oct. 6-11, 2003
Kauai, Hawaii • Dec. 8-13, 2003
Costa Rica • Feb. 23-March 5, 2004
Ft. Dodge, Iowa • May 3-8, 2004

Natural Building 2004
Natural Clay Systems
June 5-6, 2004

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