



THE CASBA JOURNAL

Newsletter of the California Straw Building Association

CASBA is a non-profit project of The Tides Center

Volume XIII Number 1

Announcing CASBA EVENTS

2008 Summer Workshops

INTRODUCTION TO STRAW BUILDING

Friday–Sunday; July 11-13.

INTRODUCTION TO PLASTERING

Friday–Sunday; September 12-14.

Excellent workshops. Both take place at Chartwell School, the first school in the country to achieve a U.S. Green Building Council Platinum rating for Leadership in Environmental and Energy Design (LEED). A strawbale structure fits right in with their existing buildings and beautiful grounds.

Workshop participants will construct a permanent and permitted, load-bearing strawbale building on school grounds. Measuring 16'x 22', the size of a small guest cottage or storage shed, the building will be used as an outdoor science lab for students.

Workshop hosts are Jay Tulley and Chartwell administration staff. Instructors for both the workshops are Greg McMillan of *Flying M Construction* and John Swearingen of *Skillful Means Inc.*, each an experienced strawbale contractor.

Workshop goals include the accomodation of every participant's interest and skill level. Each participant can expect to rotate through all strawbale wall construction and plastering activities, to ensure the broadest possible hands-on experience.

This will be a great learning experience and an opportunity to connect with others in the strawbale community.

For Information and Registration

<http://strawbuilding.org>

Space is limited--Register Soon.

CASBA Conference, Cambria by Kathy Gregor

We came from Oregon and Nevada. We came from San Diego. We even came from Pakistan. We came from the cities and countryside all across California, about a hundred strong, to meet at the breathtaking Pacific shore in Cambria.

If this is sounding like a Woody Guthrie song, he inspired many a follower, and so we were inspired by our gathering of CASBA members on the 14th, 15th and 16th of March. We came for knowledge; we came for camaraderie; we came to work toward our goal of learning and educating about straw bale and the related topics of natural building and sustainable living. Hopefully, every one of our members gained the experience they were hoping for from our annual meeting.

Thank you, Tim Rudolph, for presenting an overview of building with straw. We heard of straw building in Oregon, thanks to Jim Reiland and Joy Rogalla, and in Truckee, thanks to Bill and Darcey Donovan. We also heard of straw building in Pakistan thanks to Surkhab Kahn, Darcey Donovan and Martin Hammer. Thank you Ken Haggard and Polly Cooper for presenting passive solar utilization, and thanks to all of you on the roundtable discussion of window details; Turko Semmes, Scott Clark, Tom Moore, Tim Owen-Kennedy, Bob Theis and Greg McMillan.

Fire reports brought the importance of sound building and maintenance practices to our attention as well as the need to bring these to the people and agencies involved. We heard an engineer's report on the new building code and a report on straw bale home loans in California. We thank all these presenters too, Don Fisher, Craig Dobbs, and Terry Phenicie, for the time and effort they put into to bringing us this information. Our featured speaker, the debonair Chris Prelitz, gave a professional presentation on the state of our future after the petroleum age. Thank you, Chris!

Of course, Greg and Turko, the infamous D&D committee, came forth, making sure we had a fabulous time. Greg, thank you for barbequing the delicious local, grass-fed beef hamburgers. It gave those of us influenced

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CASBA THE CALIFORNIA STRAW BUILDING ASSOCIATION

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CASBA is a non-profit organization whose members are architects, engineers, builders, and people interested in straw building. Our mission is to "...further the practice of straw building by exchanging current information and practical experience, promoting and conducting research and testing, and making that body of knowledge available to working professionals and the public at large."

CASBA Conference-continued from page 1

by Michael Pollen's The Omnivores Dilemma and Barbara Kingsolver's Animal, Vegetable, Miracle a clear conscience for not supporting CAFO meat. It was fantastic! The oysters were great too! After dinner, the band got us rocking into an evening of merriment. We couldn't adjust to daylight savings time all week, so why worry about it on Saturday night? It was great to see so many straw lovers of many generations kicking up their heels! Thank you D&D, for the fun!

The Sunday morning membership meeting covered many topics. Thanks to CJ Cavet and Jay Tulley for the report on CASBA workshops to be held in July and September, and to Martin Hammer for the building code briefing, and Celine Pinet for the Detail Update Committee report.

Tracy Vogel Thieriot, your enthusiasm for earth plasters and tactile lime plaster is contagious! You inspire us! Thanks to you and Bob Theis for sharing some of your creative accomplishments. Finally, a great big thank you to our guy who keeps us moving and always puts up with herding us cats, Maurice Bennett.

It was hard to part ways but we had a home tour to view and needed to head off in our many directions. It is always awesome to see more examples of straw built structures, and the homeowners were very gracious and hospitable. Thank you, again, Turko and Greg, for setting up the tour.

At the membership meeting, we decided to hold our annual spring meeting in the middle of March and we want to know, Does that work for most of you who could not attend? We also decided to have a casual pow wow in the fall, to kick back and socialize, just to have fun.

The membership conference is for all members.

We want to hear your comments.

- Do you have any meeting sites to recommend?
- What would you like as topics or subject matter?
- Are there featured speakers you would like to hear?
- What do you want to gain from our conferences?
- What inspires you?

Let us know!

We would like to hear your comments, both positive and negative. In this way, we can grow, and you can help make our conferences events which continue to bring members from far and near; from Joshua Tree and Blue Lake; from the cities and the countryside...All for the love of strawbuilding.

The Cambria Conference Committee:

Joy Bennett mbenn1035@yahoo.com
Lesley Christiana jchristiana@sbcglobal.net
Kathy Gregor grelore@c-zone.net





NOTES FROM CASBA CENTRAL

by *Marice Bennett and Joy Bennett*

WOW!!!!

The Spring Conference in Cambria was a huge success. Many thanks are due to organizers Kathy Gregor, Leslie Christiana, Joy Bennett, as well as the solid

support and help from the infamous Dance and Decorating Committee otherwise known as Greg McMillan and Turko Semmes – these two outdid themselves once again – they just have a “can we top the last one” fetish..Thanks also need to go to our reluctant technical adviser, Jim Christiana. This Conference garnered the largest attendance with some 106 people registered and we have 10 new members also!

Some definite CASBA goals for 2008 -

- Finish and publish the new “Field Manual for Strawbale Construction” (not the final title)
- Revamp and upgrade the CASBA Web site as our “window” to the world
- Develop a continuity plan for administrative succession

We especially need help with the Web site – CASBA does not have a lot of money to pay a web developer large fees to develop an exciting web site for us.

In case you haven’t noticed, The Detail Book (with disclaimer about age) and Ken Haggard’s new book FRACTAL ARCHITECTURE is now available on the web site.

There are prime upcoming events. The CASBA workshop on Monterey Peninsula this summer, the work of our workshop coordinator, C J Cavet. The site, Chartwell School, is located on the old Fort Ord property. CASBA also hopes to have a booth at WEST COAST GREEN in San Jose in late September. We are waiting to hear about pricing for non-profits before we make a definite commitment (regular booth is \$3000 – a bit steep for our budget). CASBA is also teaming up with another Foothills non-profit, Foothills Collaborative for Sustainability (FOCUS) for a significant presence at the Calaveras County Home and Garden show. We have four booth spaces for lots of display room (and they are free to us!).

Brian Ceraban, architect from Sonora and a CASBA member is on a six week trip to Tasmania sponsored by Rotary International – he has an ample supply of CASBA info with him and he also has been in contact with two former CASBA members, Troy Daniels and Graham Richmond relocated to Tasmania and are in the process of building a SB.

At Cambria, the membership decided to have only one formal conference/meeting each year in March – and to hold an informal “Pow Wow” gathering in the fall of each year in different parts of the state. The Pow Wow would be an unstructured gathering with probably more fun than serious SB business.

A friendly reminder – Our ability to communicate with you is only as good as the contact information you provide for us. When changing e-mails,



CASBA 2008 SUMMER WORKSHOPS ON CALIFORNIA'S CENTRAL COAST

INTRODUCTION TO STRAW BUILDING

FRIDAY–SUNDAY JULY 11-13

INTRODUCTION TO PLASTERING

FRIDAY–SUNDAY SEPT 12-14

**A GREAT LEARNING EXPERIENCE
AND OPPORTUNITY TO CONNECT
WITH OTHERS IN THE STRAWBALE COMMUNITY**

Space is Limited-Register by June 15th for Discount
Information and Registration_ <http://strawbuilding.org>

BALE RAISING WORKSHOP

Friday Evening, July 11th 7pm

CASBA hosts an evening slide show program featuring the history of strawbuilding, with examples from previous CASBA workshops. The presentation will be held in Chartwell School's media room. Plenty of chairs are available.

Saturday, July 12th

Morning meal, project review and instruction, final foundation detailing, bale stacking including cutting, notching and bracing. Mid-day meal, build and install window/door bucks, continue bale stacking. Clean-up, followed by evening meal and social time.

Sunday, July 13th

Morning meal, finish bale stacking, construction of beam roof plates and place on top of bales. Install strapping and buckles, tighten over walls. Mix and apply earthen slip plaster as fire retardant coating to walls. Mid-day meal, finish odds and ends, clean up and prepare for departure.

PLASTERING WORKSHOP

Friday evening, September 12th

The CASBA-hosted evening slide show program features plastering options and issues, and details of the building construction to date.

Saturday, September 13th

Morning meal. Tour of the structure, discussion of natural plaster options, plastering tools and techniques and review of sample plastered bales. Review or complete window sill and door details. Begin preparing, mixing and applying scratch coats on both inside and outside walls. Mid-day meal. Continue prep, mixing, and applying

plaster coats. Clean-up, followed by evening meal and social time

Sunday, September 14th

Morning meal. Discuss finish coat options for exterior and interior walls and additional ways to protect walls. Prep, mix, and apply final plaster coat to exterior walls. Mid-day meal, finish odds and ends, clean up and prepare for departure.

DETAILS AND FEES

July •BALE RAISING •2 day Workshop: \$250.00

Sept •PLASTERING •2 day Workshop: \$250.00

Register for **both workshops** save \$50.00: \$450.00

Participants signing up for both Bale Raising and Plastering before June 15 receive a free one-year subscription to *The Last Straw*, quarterly journal of straw building issues and events. All participants receive a free one-year membership in CASBA.

Cost includes meals Saturday and Sunday. For Friday evening presentations eat before you arrive, bring something, or enjoy one of the numerous restaurants, stores in Seaside, just minutes from the workshop site.

To reduce using disposable paper and plastic products, please bring your own service wear; plate, cup, utensils, water bottle etc. for meals.

Accommodations

The school grounds will accommodate camping in a protected area near the building site for those wishing to do so. There is no additional charge to camp on site, in fact we encourage it as it provides more time to relax and chat with other attendees. You will want to arrive early Friday to set up your tent during daylight (Friday 4pm is earliest) and make sure to bring a flashlight besides your tent, sleeping pad, sleeping bag and other necessities. Showering and toilet facility will be provided.

There are many hotels and motels in [Seaside](#).

There is a [Hostel](#) in Monterey.

Registration. Download a [registration form](#). Be sure to include a phone number, email, and mailing address when you register, so we can send you driving directions and more details.

A phone call or email does not guarantee your registration. Send your check and completed registration! Space is limited, and participants will be accommodated on a first come, first served basis. Paid registration is your only guarantee of admission.

Strawbale Construction Goes to Washington

by Catherine Wanek

This is a hands-on workshop taking place at a building construction site. Safety is discussed and monitored, and proper use of simple hand and power tools will be demonstrated and practiced, but each participant is responsible for their own safety.

Mail registration with fee to:

CASBA, P.O. Box 1293

Angels Camp, CA 95222-1293

For more information about registration, contact Maurice & Joy Bennett at mbennjr@mac.com or 209-785-7077

For questions about these workshops workshop, contact CJ Cavet at cjbwvp@sbcglobal.net or 530-559-6275 or the host Jay Tulley at jayt@danielsandhouse.com

Summer Work Parties. Several informal weekend work parties will complete interim tasks that will ready the building for the late summer plastering workshop: e.g. roofing, window and door detailing, etc. This is not part of the class; no fees are charged. All workshop attendees are welcome to participate in these weekend opportunities to exchange labor for experience.

If you are interested in these weekend work parties be sure to leave your contact information with CASBA organizers and the workshop host during the workshop.

Builders Without Borders, a worldwide network of natural builders, will create a straw-bale demonstration building at the U.S. Botanic Garden in Washington D.C. Joining a summer-long exhibition, the BWB ecohouse will demonstrate energy-efficient design and green building techniques including straw-bale, bamboo, timber-frame, cob, and earthbag construction, and decorative earthen plasters. The exhibit will be on display May 24 through October 13, 2008.

The U.S. Botanic Garden is on the National Mall, across from the U.S. Capitol. The USBG is producing this exhibition, One Planet - Ours! Sustainability for the 22nd Century to showcase earth-friendly techniques and technologies including edible schoolyards, urban orchards, a solar greenhouse, photovoltaic panels, a vertical wind turbine, a green roof and rainwater harvesting.

The Builders Without Borders display will focus on affordable construction with natural materials. Visitors will step inside a small structure with walls of stacked straw bales, finished with smooth clay plaster.

They may also relax under a bamboo shade trellis to view informational panels tracing America's green-building heritage through regional traditional building, including century-old straw-bale homes and a historic straw-bale church still standing strong in the Nebraska sandhills.

The eco-house exhibit will also showcase the versatility of "earthbags," a low-tech rammed earth system, which can be used structurally, decoratively, and below grade for foundation stem walls.

Days hosted by the USBG. Dates are June 21, July 19, August 16, and Sept 27. Kids of all ages will be invited to stack some straw bales and get their hands dirty plastering with mud. Just follow the aroma of cookies baking in the solar oven.



The BWB team will also offer hands-on workshops during the summer on special Days hosted by the USBG. Dates are June 21, July 19, August 16, and Sept 27. Kids of all ages will be invited to stack some straw bales and get their hands dirty plastering with mud. Just follow the aroma of cookies baking in the solar oven.

The dozens of other exhibitors at the Botanic Garden include the Department of Energy (DOE), National Renewable Energy Laboratories (NREL), The Nature Conservancy, the American Horticultural Society, the SmartGrowth Network, and many more.

USBG horticulturist and event coordinator Ray Mims says, "Our hope is that this will be a fun, interesting, thought-provoking experience for our visitors. Our goal is to provide the public with 'take home messages', empower them with knowledge, and motivate them to get involved in some manner."

For more information on the One Planet - Ours! Sustainability for the 22nd Century Exhibition, visit www.builderswithoutborders.org and www.usbg.gov

The Year of the House: Stacking And Modifying Bales

by Jim Reiland

We had planned to build a small straw bale workshop first, then live in it while we designed and built the house. It was a good plan, but things didn't work out that way. We found ourselves instead building both post and beam structures simultaneously, but generally working on the workshop first to refine our techniques. The two buildings sit across a small courtyard from each other, so when the bales were delivered in late August, the truck parked between them and we stacked bales anywhere under a roof—the porch, the garage, the house and the workshop. Timing is everything, because it rained that very night!

On simple structures, bale stacking can be quickly handled by a large group of volunteers. We have seen whole buildings go up in a day with twenty or more people helping out—it works well even if just a few of them have experience stacking bales. However, our buildings had lots of posts and other support members, and we knew that many bales would need to be notched. We also wanted to run electrical conduit in some of the bales, another time consuming bottle neck ill matched to a volunteer bale raising party.

We determined to plug away with just our own labor, and the welcome assistance of the occasional friend or neighbor who happened by. We began stacking our workshop and house walls in early September, the two of us working weekends and evenings as our day-jobs allowed, and finished about a month and a half later. For reference, we had a little over 200 linear fit of bales to stack, and either seven or eight courses high. Since our building experienced covered mostly load bearing structures at workshops, we expected a post and beam bale stack to take longer because the majority of our bales needed to be re-tied or notched.

If you've ever watched someone persuade a bale to fit into the wall, you suspect they're trying to avoid slicing those bale strings and re-tying the bale to a different size. I've seen people pound a bale with a "commander" to the point of exhaustion, the deteriorating expression on their faces covering the range from hope to exasperation: "This will fit!" "Will this fit?" "I will make this fit." "Fit dammit!" "Ahhrggggg!"

I have been that person.

Re-tying a straw bale takes some practice and a bit of luck; many folks seem to measure the "ease" of construction by how many bales need retying. In fact, the ISBCRR (International Straw Building Committee on Rules and Regulations) Code Section 12, paragraph 1, subsection 7 allows "one "whoopie" to be exclaimed when a full length bale can be inserted into the wall assembly with no customizing or re-tying." It also permits "a half whoopie"-- a "whoop"--if you have half-

bales, and can place one into the wall without modification." OK. I made the ISBCRR part

But there were no "whoopee's" or "whoos" heard during the bale stacking on our workshop, and a total of three "whoopees" and four "whoos", exuberantly exclaimed, while stacking the house.

At one extreme, the hands-down fastest way to stack bales is to work on a house with no windows, doors, or support posts, and make sure the footing dimensions are a multiple of the average bale size. With some luck, you'll never need to re-tie a bale, and you'll never get into, or out of, the house.

We found ourselves nearer the other extreme. Our house wasn't designed specifically with the bale module in mind, although we took bale height into account for window seats, and located doors and windows approximately a bale length from any corner. Like many folks, we arrived at our design through many compromises. We balanced lot line setbacks, tree preservation, solar orientation, and bale size. We reasoned that we might spend a few extra days (or extra weekends as it turned out) customizing the bales, but we expected to live in the house for a long time, and that the house would live on for many generations. What were a few extra re-tied bales? To modify our rice straw bales we used an electric chain saw and two hay knives we'd collected from antique shops and honed razor sharp.

Preparing. Every bale that went into our walls had its "ears" trimmed off. Because we had only one chain saw, we decided to do this task with the hay knives. Using a bale workbench to

keep from bending over too much, we each trimmed one end of the bale, our sawing movements countering the movements of the other. When one of us worked alone, the sharp knives cut easily through the straw while one hand steadied the bale. When the bales were mostly square, there were ready for notching, or resizing, and more rarely, simply setting into the wall.

Re-tying. Many bales needed to be re-tied, and we used the same bale needle, knot tying techniques we learned at CASBA and Canelo workshops. Although we managed to use most of an entire spool of brand new baling twine, we also re-used a lot of the original twine we cut from the bales, too.

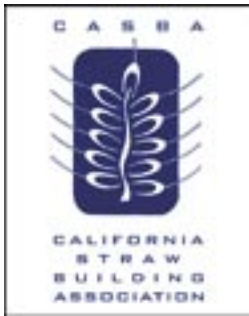
Notching. Borrowing a technique from my woodworking bench, we built a miter box of plywood scraps to hold the bales on edge while we notched for posts. The box kept the bales from wobbling back and forth with the knife's sawing action, or allowed us to keep both hands on the chain saw, particularly helpful when either of us worked alone. Using a timber framers technique, we used



Greg McMillan and Turko Semmes with the TSDA (*Traveling Straw Dawg Award*) Cambria California, March, 2008



Tim Kennedy, Dan Smith and Bruce King.
CASBA Conference
Cambria California, March, 2008



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