

# COB RESEARCH INSTITUTE NEWSLETTER

## CRI LETTER #1

from cri director - john fordice

Thank you for subscribing to the Cob Research Institute Newsletter ..... your interest in CRI and support of our mission is important to us! There is much to do towards the creation of a cob building code and actually creating a newsletter about our activities has been languishing. We will do it proper when time allows. In the meanwhile, I'm sending out this CRI LETTER #1 to share a few recent announcements of things we have going.

In July of 2016, Martin Hammer & Joe Kennedy who are both on our Advisory Council attended the CRAterre Terra2016 gathering in France. [http://craterre.org/actualites:terra-2016-11-14-juillet-2016-a-lyon/?new\\_lang=en\\_GB](http://craterre.org/actualites:terra-2016-11-14-juillet-2016-a-lyon/?new_lang=en_GB)

This is the CRI handout that was distributed at the conference.



COB is an ancient wall building system using a mix of clay rich earth, sand, straw and water

### **OUR MISSION**

To make cob legally accessible for all who wish to build with it.

**CRI** is dedicated to **three goals**:

#### **The scientific study of cob's material properties:**

compressive strength - lateral strength - seismic resistance - fire resistance  
moisture resistance - thermal properties - durability

#### **The development of cob construction standards.**

To assure safe cob construction - to make safe cob construction easily understood by designers, builders and building officials - to promote cob as an environmentally sound, sustainable and user-friendly building material and method.

#### **The development of a cob building code.**

Promote the adoption of a North American and International cob building code.

### **COB'S VALUES**

#### **USED THROUGHOUT THE WORLD**



#### **HISTORIC PROVEN SUSTAINABLE and ENDURING**



#### **VERSATILE MODERN and CREATIVE**



Current building regulations do not recognize cob as a legitimate way of building.

This is preventing cob from being used to its full potential.

CRI's MISSION is to make cob available to our modern world.

### **CURRENT CRI ACTIONS**

- 1. Cob Technical White Paper**
- 2. Cob Testing Program**
- 3. Proposal for a Cob Section in the International Residential Code**

### **YOU CAN HELP CRI MAKE THIS HAPPEN**

CRI needs

**Technical books and papers about cob and other earthen building systems**

**Volunteers: Publicist - Graphic Artist - Fundraiser**

**Collaboration with testing organizations, researchers and students**

if you are interested or have cob technical information , please contact us.

CRI is all volunteer - **PLEASE DONATE** to support this important work !

Cob Research Institute is a 501(c)3 California non-profit organization.  
510-206-8758 - 1828 Fifth Street - Berkeley, CA, USA 94710 - [www.cobcode.org](http://www.cobcode.org)

There will be photos from this event on our website [www.cobcode.org](http://www.cobcode.org) soon so keep an eye out for that.

In early May of this year, we began the process for shear testing of three cob wall panels, to be done at Santa Clara University. The tests will be in two parts. First will be to establish the cob mix to be used and test several mix samples for compression and rupture strength. This is happening this fall. After the mix is determined and tested, a group of engineering students at SCU will construct and shear test the actual wall panels in 2018. This is an exciting project and CRI is much much indebted to SCU Engineering professor Mark Ascheim for making this possible. Here is the announcement of the testing proposal we used at the start of the process.

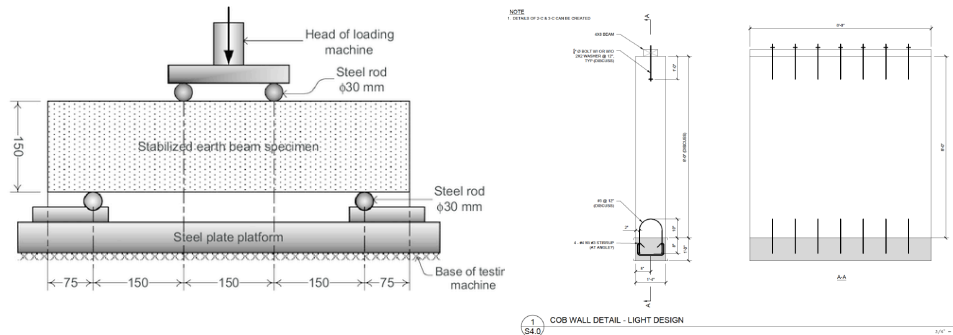


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## Santa Clara University

### Senior Civil Engineering Student Design Investigations

#### A proposal for testing of two aspects of Cob Earth Wall Building



#### COB MATERIAL TESTS

#### COB WALL TESTS

**COB MATERIAL TESTS :** Student investigators will prepare several cob mixes varying earth, sand, straw and water content. Dried rectangular shaped samples will be tested for compression and bending strength.

**COB WALL IN-PLANE REVERSE CYCLIC TESTS :** Student Investigators will prepare full scale cob wall panels of different reinforcing designs. Once dried, the panels will be tested for in-plane loading strength.

CRI members will provide on-site and other guidance and information to the students.

**These investigations are proposed by the COB RESEARCH INSTITUTE (CRI) to increase understanding of cob's material properties. Though used for thousands of years, cob is not recognized by modern Building Codes.**

**Join in the COB RESEARCH INSTITUTE MISSION**

**Help make cob legally accessible for all who wish to build with it.**

#### COB IS

##### USED WORLDWIDE



##### HISTORIC PROVEN



##### VERSATILE and CREATIVE



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Just this past weekend four of the six SCU students who will be doing the testing met with CRI Board members Massey Burke and Anthony Dente to begin the mix design process. Board member Michael Smith has been collaborating with Massey on the mix design.



Testing the mix proportions.





Bagging the mix samples, to take to SCU to make the cob Test Blocks. These will be 12" cubes for compression and 6"x12"x36" beam block for rupture.

Other accomplishments:

**In 2016** CRI entered in to an informal agreement to collaborate with The Earth Builders Guild (TEG) in New Mexico <http://www.theearthbuildersguild.com/> . The goal is for CRI and TEG to "coordinate on activities, research and programs that are mutually beneficial. Each organization will endeavor to promote one another's activities and mission via e-mail, websites, newsletters or other media as appropriate."

**Over the past year and a half**, CRI has been searching for existing cob relevant literature towards publishing a CRI Cob Technical White Paper. The objective is to find, as best we can, all that is known about the technical qualities of cob, and use this as a guide towards determining what cob technical information is missing. This will assist us in designing our future testing program towards the ultimate goal of creating a truly comprehensive Cob Building Code. Assisting in this research is PHD Candidate Lola Ben Alon. More about the results of this research in a future CRI LETTER!

**In this year**, CRI has joined as a partial sponsor with the EarthUSA2017 Earthbuilding Conference, this September, in New Mexico. [https://www.google.com/search?q=earth+usa+2017&spell=1&sa=X&ved=0ahUKEwjlx63Tj4\\_WAhWKqlQKHVqRBFEQBQglKAA&biw=1429&bih=759](https://www.google.com/search?q=earth+usa+2017&spell=1&sa=X&ved=0ahUKEwjlx63Tj4_WAhWKqlQKHVqRBFEQBQglKAA&biw=1429&bih=759) We will have an Interim Cob Technical White Paper included in the conference proceedings, plus an attendees conference CRI Poster.

The Interim white paper and poster will be sent out in our next newsletter.

**CRI Board Secretary, Yosi Almog** has taken on the role of running a CRI Facebook group page, <https://www.facebook.com/groups/817024191752521/> . This is an important step as we move to spread the word about CRI.

**Hiding in the wings** are Karl Shover, our diligent Board Treasurer, keeping our meager treasury in order (more about this in a moment), and Michael Baird our webmaster, guiding us through keeping CRI cyber.

**ANNOUNCING**

A COB CODE ROUNDTABLE DISCUSSION THIS  
COMING MONDAY  
SEPTEMBER 11th



**CruzinCobGlobal & Cob Research Institute**  
present



## **Cob Building & the Code**

A fundraiser for the Cob Research Institute, Berkeley, CA

A roundtable/forum including northern California Green Building/Cob professionals, cob homeowners, building officials & you!

**Learn about Cob as a building material, how you can build a "permitted" Cob house today and the work being done by the CRI & others to mainstream the legal Cob Building process in CA.**



**Monday, September 11, 2017, 5:30pm-7:30pm**  
Louden Nelson Center, Room 5  
301 Center St., Santa Cruz, CA.  
donations to CRI welcome

[cruzincobglobal.org](http://cruzincobglobal.org) [cobcode.org](http://cobcode.org) [claudinedesiree@gmail.com](mailto:claudinedesiree@gmail.com) (831)212-7225

This is being organized by Claudine Desiree of CruzinCobGlobal <http://cruzincobglobal.org/> . Thanks Claudine.

Please everyone spread the word, and attend if you can.

**A word about money.** Thus far CRI is all volunteer and devotional. This means that up to now, nobody in CRI has been paid for our work towards making cob legally accessible. Anyone wishing to build with cob should be able to do so in any location, rural or urban. But as you are probably aware, this is not now possible. The current absence of cob from the building codes, results in very limited choices for building with cob. Your only options are:

BUILD OUTLAW

BUILD SMALL (120 s.f. or less & not a legal residence)

BUILD IN ONE OF THE (very few) PLACES THAT ALLOW OWNER-BUILDER COB

BUILD WHERE PERMITS ARE REQUIRED WITH AN ENGINEER

(and this is the **only legal option** almost everywhere in North America)

CRI's goal is to change this and make it possible for **you**  
to get a cob building permit  
and build legally wherever permits are required.

CRI needs to be able to support a staff to do the work of making a cob building code a reality. The needed research, cob testing, and ultimate gaining of building code acceptance is expensive and **CRI is working to do this on your behalf**. But working for free is not sustainable and CRI cannot do this alone!

Please do your part and support the CRI effort !!!

DONATE TO CRI TODAY

go to [www.cobcode.org/donate](http://www.cobcode.org/donate)

Thanks, and cob on!