

Green Building Institute E-Newsletter

**Learning by doing: Straw-bale construction**  
**Upcoming Classes & Local Events**  
**Get Involved**  
**Resources**

**LEAFHouse Solar Decathlon Workshop**



Dear Lynn,

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**Learning by doing: Straw-bale construction**

*Sam Droege talks about his experience building his own straw-bale home in Maryland.*



Straw that would typically be discarded after the harvesting of wheat, oat, barley, and other crops is being used more and more in construction.

Straw-bale housing is a building method that uses straw bales as either insulation, called "infill," or as part of the structure itself, called "load bearing." The straw is usually covered with a stucco or adobe layer.

Benefits of straw-bale construction include:

- Energy efficiency
- Low cost of materials
- Decreased heating and cooling costs
- Healthier for inhabitants-typical houses use



Intro to PV



Greenovation Home Expo



insulation and wall materials containing harmful chemicals

- Straw is a fast-growing renewable resource

**Danya French**, a Green Building Institute intern from Wilde Lake High School in Columbia, Maryland talked with **Sam Droege**, who built his own straw-bale home in Maryland (photo taken during construction).

**Danya:** What exactly is your house made out of? How did you make it?

**Sam Droege:** There are two parts to the house. The original house was built in the 1920s as a very simple one-story gabled country house and we have added a small addition. In the original house we removed all the interior walls, replacing the load bearing wall with heavy timbers and lined the interior of the building with strawbales. We plastered over the walls with adobe, a mix of local clay and sand that we dug from the house site.

The addition is a traditional timber-frame, built from timbers I milled from trees that were being cut for housing developments and powerline rights-of-way and placed on a foundation of local stone. The north wall of the addition is all plastered strawbales, in this case attached to a framework of saplings that are visible from the interior.

**Danya:** Why did you decide to build it this way?

**Sam Droege:** Ecologically, I feel that my impact on the world is lessened. The wood was all scavenged, destined to be chipped or destroyed. Materials were gathered locally, in many cases right in our yard. Transportation costs were minimal and I involved many friends and neighbors in the process, building my connections to them and to the local environment. Unlike many modern plastics, composites & glue products, mud, straw, stone, and wood readily return to the earth with positive to minimal impacts.

**Danya:** Would you consider this a feasible project for most homeowners/builders?

**Sam Droege:** Yes, for the right type of person. It takes a lot of time. Time to get to know the local area and make connections. Time to learn

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about material. Time to learn the trades. Time to work with the materials. Money can replace time in some of these instances, but then there is a loss in connections to the work being done which may diminish the final product.

**Danya:** What experience or education was necessary?

**Sam Droege:** I started out with no skills. I grew up in the suburbs and had no training in any of the trades. I learned from books, woodworking magazines, and from tradespeople, but most importantly, I just went ahead and did it and learned on the job.

**Danya:** What other aspects of your house are "green"?

**Sam Droege:** We have tried to integrate recycled and energy efficient materials in all aspects of the house. We have a composting toilet, heat with wood, and have an outdoor wood-fired oven.

**Thank you Sam!**

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### Upcoming Classes & Local Events

#### Green Building Institute class titles in BOLD.

Please click on link for more information and register on our website.

**Saturday, December 2, 2006**

8:30 a.m. - 5:00 p.m.

**[HOW TO BE GREEN](#)**

Introductory seminars on:

- Efficient and healthy buildings
- Solar hot water for your home
- Rainwater collection for garden use
- Solar electric for your home

Green Building Institute  
7761 Waterloo Rd. (Rte.175)  
Jessup, Maryland

**Monday, December 4, 2006**

[Buy Local Week Kickoff Celebration](#)

Chesapeake Sustainable Business Alliance  
Baltimore, MD

4:00 p.m. - 6:00 p.m.

[Finding Common Ground for the Future of the Earth](#)

Greater Washington Interfaith Power and Light  
& Kennedy Political Union of American Univ.  
Washington, D.C.

**December 4-7, 2006**

[EcoBuild Federal Conference & Exhibition](#)

Washington Convention Center  
Washington, D.C.

**December 4 - 8, 2006**

4:00 - 6:00 p.m. each evening

Green Week

Montgomery College TC#235, Rockville Campus

Contact: [randy.steiner@montgomerycollege.edu](mailto:randy.steiner@montgomerycollege.edu)

**Tuesday, December 5, 2006**

8:30 a.m. - 5:00 p.m.

USGBC LEED for [New Construction Technical Review workshop](#)

Timonium, Maryland

7:00 p.m. - 10:00 p.m.

USGBC - Baltimore Regional Chapter  
[2nd Annual Green Leadership Awards Celebration](#)

B&O Railroad Museum

901 West Pratt Street

Baltimore, MD

6:30 p.m. - 8:30 p.m.

[Green Building Network Meeting](#)

Maryland Department of Natural Resources

The Enviro-Center

7761 Waterloo Rd.

Jessup, MD 20794

[Green Tie Affair Holiday Party](#)

6:00 p.m. - 8:00 p.m.

COTEdc, NCR USGBC, IIDA, and AEE

Haworth Showroom

Terrell Place, 575 7th Street NW

Washington, D.C.

**Wednesday, December 6, 2006**

7:30 p.m. - 9:00 p.m.

[William McDonough \(world-renowned architect and eco-designer\) Lecture](#)

@ Roland Park Country School

5204 Roland Ave.

Baltimore, MD 21210

RSVP: Free, 410.323.5500

**Tuesday, December 12, 2006**

6:15 p.m. - 8:30 p.m.

[AIA/Committee on the Environment \(COTE\) DC meeting](#)

1215 Connecticut Ave NW

Washington, D.C.

**Wednesday, December 13, 2006**

7:00 p.m. - 8:30 p.m.

[Movie Night: THE END OF SUBURBIA](#)

Green Building Institute

7761 Waterloo Rd. (Rte.175)

Jessup, Maryland

RSVP (443) 733-1234

**Thursday, December 14, 2006**

[Green Advantage® Certification training](#)

Arlington, VA

**Saturday, December 16, 2006**

11:00 a.m. - 2:00 p.m.

Free Tour of Solar Home in Arlington, VA

Chesapeake Climate Action Network

Contact: Bram Groen

gerbrandg@gmail.com or (703) 830 3735

**Thursday, January 11, 2007**

7:00 p.m. - 9:00 p.m.

[Movie Night: AN INCONVENIENT TRUTH](#)

GW IPL & Green Building Institute

7761 Waterloo Rd. (Rte.175)

Jessup, Maryland

RSVP (443) 733-1234

**Tuesday, January 16, 2007**

7:00 p.m. - 9:00 p.m.

[INTRO TO PASSIVE SOLAR DESIGN](#)

- Healthier indoor air quality
- Lower energy bills, increased freedom from utilities
- Low maintenance & reduced operating costs and repairs
- Sunny interiors & open floor plans

Green Building Institute

7761 Waterloo Rd. (Rt. 175)  
Jessup, MD 20794

**Green Building Institute classes:  
To be Added - Save the Date**

Saturday, February 10, 2007  
**GREEN HOME RENOVATION workshop**

Saturday, March 10, 2007  
**HOW TO BE GREEN**

Saturday, April 21, 2007  
**DAYLIGHT TUBE INSTALLATION workshop**

Saturday, April 28, 2007  
**RAINGARDEN & RAINWATER workshop**

Saturday, May 19, 2007  
**GREEN ROOF BUS TOUR**

[Register for a Green Building Institute class](#)

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### Get Involved

There are many opportunities to get involved with the Green Building Institute. Please contact us if you are interested in any of the following:

- Interning
- Serving on a committee
- Staffing a class
- Sponsoring a seminar or workshop
- Volunteering

[Get Involved](#)

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### Resources

[American Energy Report](#)

American Energy Report, by the Worldwatch Institute, is the most comprehensive overview

of renewable technologies and how they can help curb environmental damage caused by fossil fuel emissions; increase national security through decreasing dependence on imported oil; create a more decentralized and efficient energy economy.

The Green Building Institute, a 501 (c) (3) non-profit organization, fosters sustainable building practices through education and example.

**Sincerely,**

Hannah C. Wood  
Executive Director  
Green Building Institute

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web: <http://www.greenbuildinginstitute.org>

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