



Chester County Ledger

The Newsletter of the Chester County Historic Preservation Network

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Green Preservation 101

It seems that everywhere you look these days there is some “green” product or sustainable initiative. We have all heard about climate change, and we all want clean water and air. But what does “going green” mean, and how does it apply to historic preservation?

Sustainability, simply put, is living within our means and the means of the planet. There is only so much water, wood, food, oil, and other resources available to us. Some are renewable and some are not. Plus, Americans are not the only people who need such resources, and the world itself, with all of its plants and animals, needs them, too. At the most basic level, living sustainably means using our share of these resources and saving some for everyone and everything else.

When looking at buildings, the two primary components that affect their sustainability are energy and resources. Energy is used in the operation of buildings, but also to construct them and fabricate their building materials. The resources are every raw and manufactured material that is used in their construction, maintenance, and repair. To give you a picture of energy and resources used in constructing and operating a simple house, just consider what goes into harvesting and milling the framing lumber, mining the copper for wiring, pumping and cleaning the water supply, making the paint, and generating and supplying the electricity. You begin to see of how any improvement in the energy efficiency of the construction industry, or reduction in the use of raw materials, can have an impact on our overall sustainability.

The Chester County Historic Preservation Network is an affiliation of local organizations and individuals dedicated to promoting, protecting, and preserving Chester County's historic resources and landscapes through education, facilitation, and public and private advocacy.

Despite the conventional wisdom, historic buildings are inherently sustainable. The biggest advantage they have is that they have already been built. No additional energy or resources are required to make those square feet of housing, work, or worship space. No one can justify a demolition permit on the grounds that a new building will be more “green” because the expense in energy and resources of new construction is so high.

Historic building techniques were sustainable, especially the farther back in time you go. Colonial houses were built of natural products that were gathered almost entirely from within 20 miles of the house. The trees and stone probably came from the property itself. Only a few items such as the paint, glass and any specialty hardware would probably have come from any distance. Plus, historic buildings were built with their environment in mind, maximizing ventilation, light, and heat retention.

Though old buildings are inherently green, they are not particularly energy efficient. Anyone who lives in an old house will have tales of the wind whistling through the windows, and how high their fuel oil payments are.

Energy efficiency is not the only sustainability concern, however. You also have to consider such issues as indoor air quality, outdoor air and water quality, and a host of others. Without even addressing lifestyle issues, the choice of products used in the maintenance and repair of our houses can have a positive or negative environmental impact. For example, vinyl products, such as windows, shower curtains, and garden hoses, release dioxin.

New furniture and rugs off-gas urea formaldehyde. Paints have volatile organic compounds. Outside the house, there are fertilizers and lawn-mower exhaust. All of these are sources of toxins for us, our kids, the neighborhood, and the landscape, streams, and air. As the adage says: the problem does not go away when it goes downstream, because we are all downstream from something.

Green Preservation is the effort to improve the ongoing sustainability of an old building. Previously, I have written about saving windows, caulking every gap, and adding insulation. Green Preservation also applies to the sources of the wood used for repairs (use FSC-certified or resawn old wood), the paints used in a restoration (low- to no-VOCs preferably), and even the countertops of a new kitchen (lots of green choices). There are so many opportunities to “go green” that you have a chance with almost every decision you make when planning and executing a project. And, the bottom line is that every little bit helps.

Green Preservation is also concerned with the sustainability of our historic towns, communities, districts, and sites. The National Trust poses the question: “How green is your Main Street?” which challenges us to think outside of the box of our buildings and to look at how sustainability intersects with preservation more broadly: where does the community get its electricity, does the downtown business improvement district have a recycling service, and should that Revolutionary War site have a rain garden? You can apply the same strategies and goals for greening your house as you can for the nonprofit organization you volunteer for, the commission on which you sit, and your professional practice. ...And, the candidates for whom you vote.

There also strong correlations between green preservation, landscape conservation, and smart growth. Each serves to help the environment, each can have the effect of preserving historic buildings, and each can improve the quality of our lives and communities.

To learn more, come to the CCHPN’s 2010 Spring Workshop on Green Preservation. You will learn the basics of green buildings and how to apply those to improving the efficiency of old houses through weatherization and other approaches. Green community preservation will be discussed, and you will learn how green preservation relates to broader issues of sustainability such as landscape conservation, smart growth, and planning. You will also learn about funding opportunities for greening historic preservation projects.

There will be plenty of time for questions. By the end of the workshop you won’t be an expert, but you’ll know how to proceed with projects of yours, your neighbors, or your municipality. We hope to see you there!

Workshop attendees will be provided with handouts, pastries and coffee, box lunches, opportunities to network, and free passes to the Brandywine River Museum for that day.

The pastries and coffee are donated by the Brandywine Conservancy’s Environmental Management Center.

We thank them for their co-sponsorship of this event.

- Matthew E. Roberson
Green Advantage-Certified
Restoration Carpenter

The Chester County Ledger

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Spring 2010 Workshop Green Preservation

March 13, 2010, Saturday
Brandywine River Museum
Rt. 1, Chadds Ford, PA
All are welcome!

Fees:

Member: \$25.00 either dues-paid individual or municipality/organization

Non-member: \$30.00

Fees include workshop registration, food, and refreshments. Register early to ensure your spot! No refunds can be given. Make checks payable to CCHPN. Mail registration form and check to CCHPN, PO Box 174, West Chester, PA 19381. For information about the Workshop, call: 1-877-44-CCHPN (1-877-442-2476)

All Attendees are provided with a free pass to visit the museum that day.

- 8:30a Meet & Greet/Coffee and Pastries
- 9:00 Welcome, Bruce Knapp, *CCHPN Vice President*
- 9:05 **The Need for Going Green & Green Building Basics**
Heidi Kunsch, LEED® AP, *PA Dept. of Environmental Protection*
- 9:30 **The Sustainability of Old Buildings, Sustainable Adaptive Reuse & Weatherization**
Anita Franchetti, *National Trust for Historic Preservation*
- 10:45 Break
- 11:00 **Landscape Sustainability: Planning, Ordinances, and Land Use**, Tara Tracy, CPSS, *Brandywine Conservancy*
- 11:30 **Funding Opportunities for Green Preservation**, Heidi Kunsch
- 12:00p Lunch with Panel Discussion
- 1:00 Wrap-Up, Matthew E. Roberson, *CCHPN Board Member*
- 1:30 Adjournment



This program is co-sponsored by the **Brandywine Conservancy Environmental Management Center.**



Registration Form

RSVP by March 5, 2009

Municipality/Organization _____
 Primary Contact Person _____
 Email Address _____
 Street Address _____
 City/State/Zip Code _____
 Telephone _____

If you would like to include your membership dues with your registration, please check below:

Individual (\$20.00)
 Municipality/Organization (\$85.00)

Make checks payable to CCHPN

Names of Registrants - Municipality/Organization
(up to four at membership fee, others at non-member fee)

_____ @ \$25.00
 _____ @ \$25.00
 _____ @ \$25.00
 _____ @ \$25.00

Names of Registrants - Individual Members

_____ @ \$25.00
 _____ @ \$25.00
 _____ @ \$25.00

Total amount of check for registration fee and/or membership dues \$ _____

Names of Registrants - Non-Members and additional registrants from Municipality/Organization

_____ @ \$30.00
 _____ @ \$30.00
 _____ @ \$30.00

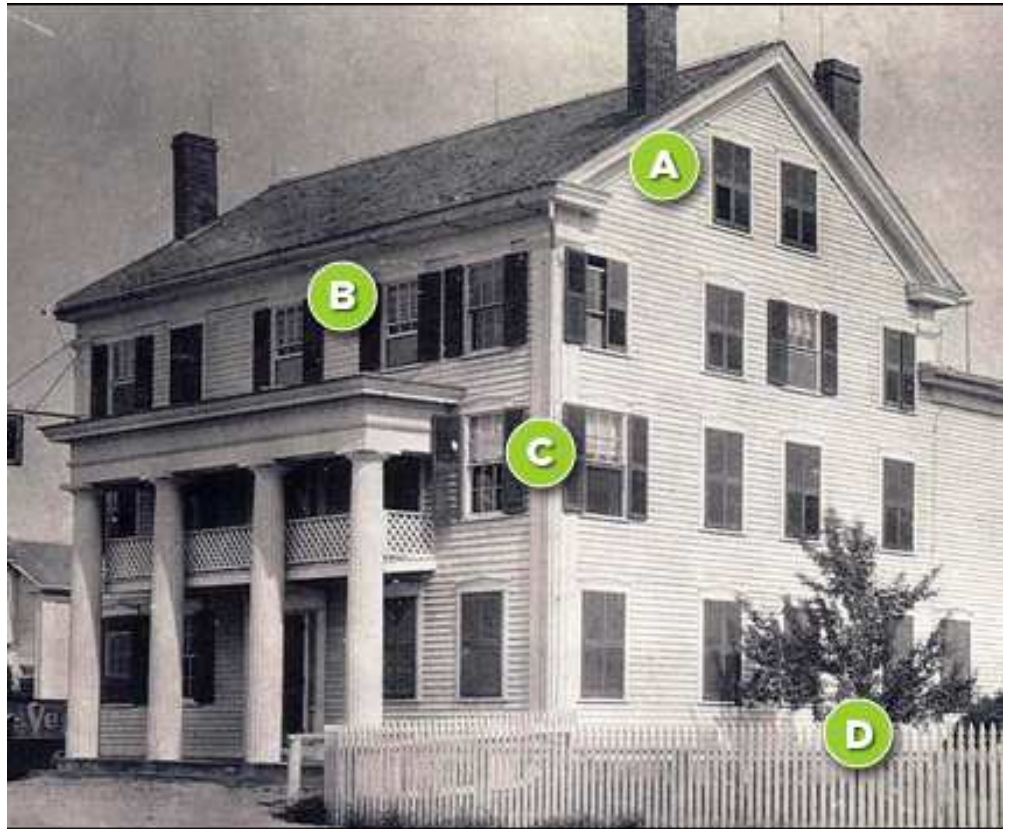
Mail form and check to: CCHPN, PO Box 174, West Chester, PA 19381. Thanks!

Historic and Useful: Some Sustainable Aspects of Old Buildings

The following article is taken from the website of the National Trust for Historic Preservation:

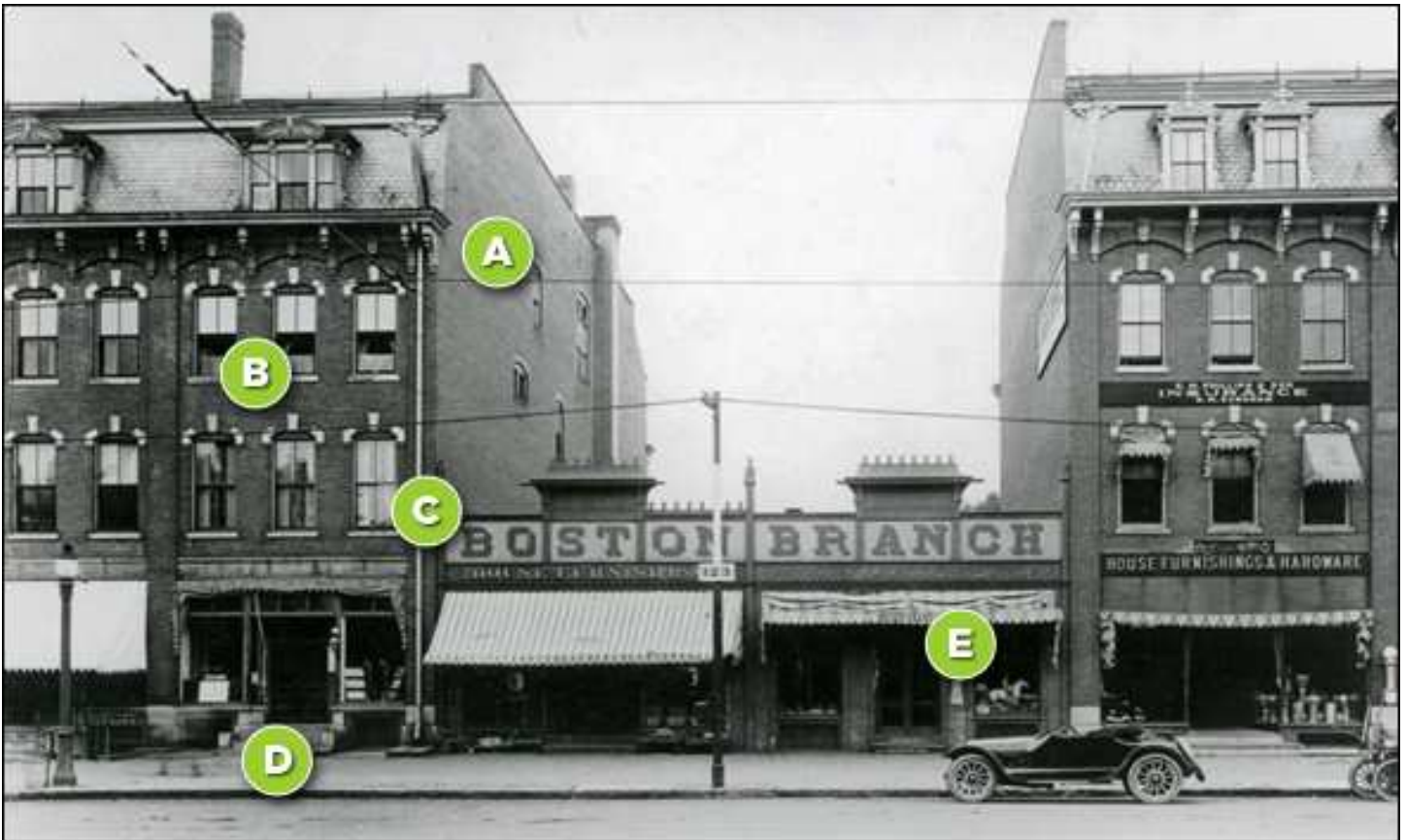
www.preservationnation.org/issues/weatherization/

New isn't always the answer! Though it might have been built many years before modern home systems and technologies, your older or historic home has something huge in its favor – good design. Explore some of the many "built-in" features that are intended to increase the performance of our buildings.



- A** The louvered slats of these shutters are adjustable to allow for air circulation while blocking solar gain on hot days.
- B** Used in combination with an open lower sash on the ground floor, opening the sash in double-hung windows on upper floors creates air flow to cool off rooms in warm weather without using air conditioning.
- C** These operable shutters open and close to regulate the amount of solar heat gain or loss, and to reduce drafts in the winter.
- D** This deciduous tree will grow to provide shade from sun in the summer when leafed out, and will let in warming winter sun.

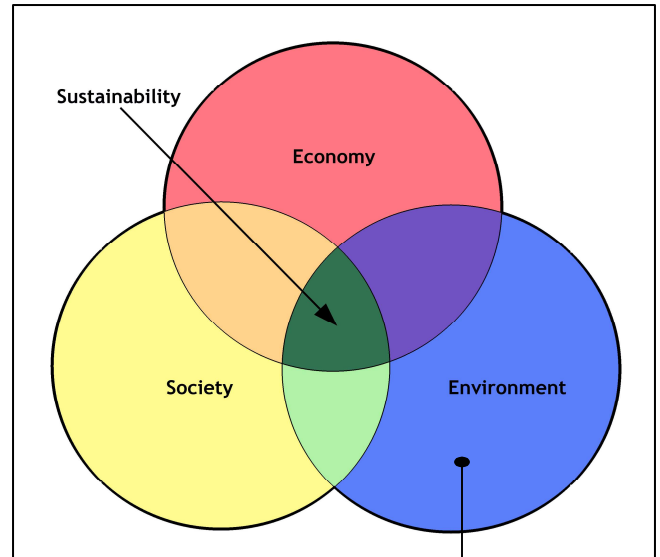
- A** Thick brick walls have greater thermal mass to reduce the amount of energy needed for heating and cooling.
- B** Like many historic Main Street buildings, these structures have many large, operable windows for natural light and ventilation.
- C** Shared party walls between buildings help conserve heat by reducing the surface area exposed to extreme temperatures.
- D** Compact downtowns, with wide sidewalks and streetlights, are walkable. Mixed-use upper stories reduce the need for cars.
- E** Retractable awnings used for storefronts and upper floors help regulate solar gain and loss, and provide shade from the hot summer sun.



Sustainability: A New Way to Appreciate the Old Relationship between History and Nature

Sustainability is the capacity to endure (in ecological terms); overall, it is best characterized as an approach that meets the current needs of a population while not compromising the environmental, societal, and economic needs of future populations. Those who appreciate Chester County's extensive historic resources clearly recognize that these very resources are also enduring. Our historic structures and sites can help to meet our future needs (albeit with support in some cases), and insure that we appreciate the significance of the past as we do so. The Brandywine Conservancy's Environmental Management Center (EMC) views Chester County's historic and other resources in a similar light – we believe that a healthy and secure environment is essential to meet the needs and aspirations of present and future generations. In fact, it is our very mission to “conserve the natural and cultural resources of the Brandywine River watershed and other selected areas with a primary emphasis on conservation of water quantity and quality.”

EMC's work pertaining to historic issues and consistent with our mission, falls into two principal categories. First, our municipal planning efforts include “Community Sustainability Assessments” which



- Cultural Resources
Historic structures,
Archeological sites,
Scenic vistas and viewpoints
- Natural Resources
Streams, ponds, wetlands
Prime farmland soils • Woodlands

consider how plans, ordinances, and policies may help to create a more sustainable community. This addresses, for example, whether the zoning ordinance incentivizes adaptive reuse of historic structures, or whether the comprehensive plan identifies and protects critical water resources such as stream headwaters. Where weaknesses are identified, recommendations are made to reduce obstacles, to create incentives, and/or to enact standards. Second, staff assist willing landowners and others with outright preservation of large sections of Chester County's historically agricultural and wooded landscapes using conservation easements, agricultural easements, and occasionally, outright purchase. In some of these same cases, or perhaps on a stand-alone basis, façade easements are specifically used to permanently preserve historic structures.

- Tara Tracy, Senior Planner and Sustainability Coordinator, Brandywine Conservancy, Environmental Management Center



BRANDYWINE CONSERVANCY
ENVIRONMENTAL MANAGEMENT CENTER

On Saturday, February 27th (8:30 am to 12:00 noon, Brandywine River Museum) the Environmental Management Center will sponsor the seminar,

“A New Decade for Planning in Chester County.”

Come learn why municipal planning, and plan implementation, should continue even in this economic climate, and hear ideas for funding this work in the face of reduced grants and municipal budgets. With a focus on Chester County's newly-adopted **Landscapes2** plan, this seminar is a must for both newly-elected or appointed municipal officials, as well as veterans interested in these new challenges. Contact Elissa Kall (ekall@brandywine.org, or 610-388-8340) to register.

Pennsbury Mill: A Link Between History and Energy

In 1918 John Danby, owner of Hilandale Farm in Pennsbury Township, Chester County, built a small hydroelectric mill on his property. The purpose of the mill was to produce 150 volts of DC current to supply lighting to his farmhouse located a few hundred yards away. The stone structure was designed to blend in with its environment and resemble a smaller version of local water-powered gristmills. The rustic design corresponded to the early twentieth-century "back to nature" trend. Its physical appearance is still thought to be a mature expression of the Arts and Crafts movement. The Danbys operated the mill for electrification until the 1930s when commercial electric power became available in their rural area. For the next seventy years, the mill remained locked up and unused.

In 2002 Mrs. David H. Dawson, the current owner of Hilandale Farm, gave the mill, and its contiguous 5.9 acres of land, to Pennsbury Township. The property includes the millpond, millrace, and access to Fairville Road. The gift was made with the understanding that the mill would be restored and used as both an historical and educational site for students from the local school districts. In 2004 Pennsbury Historic Preservation, Inc. was established as a non-profit entity and received its 501(c)(3) designation in order to effect Mrs. Dawson's desires for the restoration.

Luckily, the vandalism during the mill's dormant years was minimal and over the next six years, the mill was successfully restored. This included rebuilding the steel waterwheel, restoring the generator, belts and gears, replacing the roof, restoring the masonry, reestablishing the millrace, and dredging the pond. Local boy scouts contributed several of the wood site enhancements. Our restorer, Rob Howard, was able to locate electrical meters from the TVA that were subsequently altered in Chicago to replace our missing ones.

Our PVA board worked with elementary schools to incorporate field trips into their science curricula and for several years now, fourth grade students have been visiting our mill. We have also partnered with Exelon and the Williamson Free Trade School to demonstrate electrical power generation, core mathematics to compute the potential energy of the



Thanks to the efforts of Mrs. David Dawson, Pennsbury Township, Pennsbury Historic Preservation, Inc., and many others, the mill has been restored and water once again turns the old wheel.

water held in the millpond and the resulting amount of electrical energy generated. We plan to include indigenous flora identification in the future.

Pennsbury Township has provided a unique opportunity to preserve and restore an important piece of local history, and to enrich the education of our school children with a glimpse of our forebearers' way of life.

- Karen McKinney Wood, AJA



Chester County Historic Preservation Network

P.O. Box 174

West Chester, PA 19381

www.cchpn.org

PLEASE FORWARD

Please come and
join us for our

Spring 2010 Workshop

Green Preservation

Brandywine River Museum
Chadds Ford, PA

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Karen McKinney Wood, ALA

Matthew E. Roberson
Restoration Carpentry

610-620-4656 meroberson@gmail.com

www.meroberson.com

Board Member: CCHPN & Historic Yellow Springs, Inc.

An electronic version of this newsletter is available at:
www.cchpn.org/newsletters.htm

For Technical Information on Historic Preservation and Contacts to help you with your historic house or with your preservation efforts, and for information on preservation events around the county, please visit:

www.CCHPN.org