

GREETINGS FROM HISTORIC RESTORATIONS

Warmest winter wishes to you! These cold winter months, and the heating bills they bring with them, always focus our attention on how we can improve energy efficiency in our buildings, particularly our older buildings. Historic buildings are typically viewed as the stereotypical “drafty old energy hogs” that need retrofitted with the latest and greatest in technology and materials to be energy efficient, but this is simply not so.

The truth is that 18th and 19th Century buildings can not only be surprisingly energy efficient, they can even be more energy efficient than many modern buildings without compromising their historic integrity.

It's one of our favorite topics to provide education on, so we've devoted this month's newsletter to it. And in the spirit of “favorites”, we're shining this month's Preservation Spotlight on our favorite energy auditor – Tamasin Sterner from Pure Energy Coaches. For thirty years, Tamasin has been providing energy audits, education, and training based on solid building science technology.

As always, we welcome any questions, feedback, and/or suggestions – so please don't hesitate to contact us for more information or to discuss anything you read.

All the best,



Danielle Groshong-Keperling



PAOAGHIC4958



HISTORIC RESTORATIONS

341 East Liberty Street
Lancaster, Pennsylvania 17602

Phone: 717-291-4688

Toll Free: 877-461-6928

GO THE ULTIMATE IN GREEN

Conserve Energy by Preserving History. If we have learned anything from history it is that sometimes with all our modern advancements we do ourselves more harm than good. Advancements in technology do not always produce better results, and construction technology isn't exempt from that.

For most, it's an easy assumption that newer construction is automatically more energy efficient than historical buildings. It's also easy for most to assume that replacing historical architectural features with modern options increases the energy efficiency of old buildings.

Easy, but wrong.

Newer buildings are not automatically more energy efficient. Built in a time of readily available building materials and energy sources, modern building design typically make poor use of both. Historical buildings were built when neither was in abundant supply and early designers made the most of building materials and design options to construct buildings with a powerful combination of harnessed natural resources and innovative design that worked together to maximize energy efficiency.

Everything from exterior paint colors, to locations of balconies, to numbers and placement of windows, to physical placement of buildings on lots was carefully considered to maximize heating, lighting, and ventilation in traditional construction. Without central air, buildings in the South traditionally had large center hallways, tall ceilings, and balconies to maximize air circulation. Without furnaces, the thick masonry walls and floor plans centralized around chimneys traditionally seen on buildings in the North helped reduce heat loss and shared limited heating sources throughout a building.

The results are astounding and studies have shown that properly restored and maintained 18th & 19th century buildings can be just as energy efficient as new construction, and in many cases even more energy efficient. (Perhaps not surprisingly, studies have also shown that buildings built from the 1950's through the 1970's were the biggest energy consumers.)

But conserving energy in functioning buildings is not the only way we can tackle reducing our carbon footprint. We can make a big impact on the amount of energy we consume by repurposing old buildings no longer in operation.

Construction of any building is a huge energy investment in materials and the construction process. This investment can never be recovered, and adaptive reuse of historic buildings takes full advantage of this embodied energy instead of throwing it away with the demolition rubble. Demolition rubble that in itself represents a significant chunk of energy – we do not tread lightly on this earth when we tear down buildings so we can build new ones. We can save a significant amount of energy involved in tearing down buildings and starting from scratch and over the life of a building, rehabilitation and reuse uses less energy than demolition and new construction. Even when the newer building might have more modern features touting a higher energy rating.

Just because you can, doesn't mean you should.

What we all can be doing, and all should be doing, is rehabilitating and maintaining our historic buildings. It doesn't just make environmental sense, it makes social sense. Historic places and buildings give us a sense of connection with our past and help us maintain a national identity, so their preservation isn't just good for the environment – it's good for our souls.

RECENTLY COMPLETED PROJECT

Sealing up the 1700's one window at a time.

The Thaddeus Kosciuszko House in Philadelphia is our smallest National Park. At a mere .02 acres, this National Park is perhaps small in stature, but as the former home of one of the Sons of Liberty it's got a sizable spirit. According to Thomas Jefferson Thaddeus Kosciuszko was "as pure a son of liberty as I have ever met" and his efforts engineering forts and defense tactics up and down the East Coast quite literally helped fortify the Revolutionary War.

In September, Historic Restorations returned the favor and began fortifying the boarding house where he lived in Philadelphia with exterior woodwork repairs. Using solid wood and epoxy systems, we repaired and restored window frames and sashes, doors, and shutters to original condition. As well as painting the exterior and replacing the cedar shake roof. All of which help fortify the Kosciuszko House against air infiltration that would raise heating and cooling bills and could easily lead to deterioration from moisture creating more energy loss in the building.

Be sure to watch for our full feature on the finished project in an upcoming newsletter.



Historic buildings with restored and properly maintained architectural features are innately energy efficient.



BLEND CONSERVATION & PRESERVATION IN YOUR BUILDING

While modern construction technologies are not automatically better than those present in traditional construction, there are modern technologies that are complimentary to your historic building that can protect and enhance its energy efficiency.

To effectively maximize your historic building's energy efficiency, you should be working to maintain and augment its inherent characteristics by:

- **OBTAINING AN ENERGY AUDIT.** This should be the first priority to evaluate where energy is being lost. Choose your company carefully and evaluate how well they understand historic buildings.
- **REDUCING AIR INFILTRATION AND LEAKAGE.** Air infiltration and leakage increase heating and cooling costs and energy consumption. Reduce it with the proper installation of sealants and insulation.
- **USING THE RIGHT MATERIALS.** Not all materials used to insulate and seal your building are chemically and physically compatible with the existing materials.
- **PRESERVING EXISTING MATERIALS AND FEATURES.** Replacing existing materials and features can not only compromise a building's historic integrity, it can decrease its energy efficiency.
- **MAINTAINING ORIGINAL WINDOWS AND DOORS.** Original wood windows and doors that are properly restored and maintained can just as energy efficient as replacement windows and doors.
- **PREVENTING MOISTURE-RELATED DETERIORATION.** Remedial treatments of historic buildings should manage moisture movement patterns instead of trying to eliminate them.

You do not have to compromise your building's historical integrity to maximize its energy efficiency and you really can have the best of both the worlds of energy conservation and historical preservation.

EVENTS

CHARTER DAY

Sunday, March 11th Noon - 5 PM
Landis Valley Museum

GREATER PHILADELPHIA HISTORIC HOME SHOW

March 9th through 11th
Greater Philadelphia Expo Center

HISTORY OF PENNSYLVANIA BUILDING TECHNOLOGY PRESENTATION

Tuesday, March 13th 8:00am - 9:30am
Cork Factory Hotel

FRAKTUR CLASS

Saturday, March 17th 9am - 12pm
Lancaster Mennonite Historical Society

PHILADELPHIA INVITATIONAL FURNITURE SHOW

March 23rd through 25th
The 23rd Street Armory, Philadelphia, PA

For more information and events, visit
Historic-Restorations.com/Events.html

YOU CAN ACHIEVE AN ENERGY EFFICIENT HISTORIC BUILDING WITHOUT COMPROMISING ITS HISTORICAL INTEGRITY.

PRESERVATION SPOTLIGHT



“We care deeply about teaching people how to fix their houses so they can live in healthy buildings.

We want them to know how and where to fix their buildings so they can manage air flow inside their living spaces so they don't breathe bad air.”

A. Tamasin Sterner | Energy Extraordinaire. With growing concerns about sustainable energy sources, increasing costs of energy sources, and environmental impacts of energy consumption, energy efficiency is currently a hot topic for homeowners and professionals in the building industry. For A. Tamasin Sterner, owner and founder of Pure Energy, it's been a hot topic for thirty years.

A nationally recognized expert in energy efficiency, Sterner has devoted decades to creating energy efficient building environments that are safe, healthy, and affordable. With her seven-step, “No-Holds-Barred” energy audits, Sterner has helped over 40,000 buildings go greener with her energy testing, analysis, and retrofitting services.

But Sterner doesn't just help buildings go green, she helps people go green with educational programs that train participants to think green about energy use and waste, energy assessments, and building energy science. In 2010, Sterner opened an entire training center in Montana dedicated to training others in building energy diagnostics, efficiency, and conservation.

Sterner's expertise in building energy science and her dedication to passing along her knowledge to others is certainly something to take note of and in 2009 President Obama did just that with an invitation for Sterner to join his five-person roundtable discussion on the shift to a more energy efficient economy and the proposed federal “Home Star” program.

But don't make the mistake of thinking that Sterner's cutting-edge expertise and technologies are applicable only to new (or newer) construction. Sterner's knowledge and approaches are built on solid building science that applies to all buildings, of all ages.

For more information about how you can assess and improve your building's indoor air quality, visit the Pure Energy website at www.pureenergycoach.com.

PAINT WITH A PURPOSE

Did you know that the typical light, pale colors we associate with southern architecture and the darker, somber colors we associate with northern architecture are not simply a result of regional aesthetics?

In the 18th and 19th centuries, there was more to looks than met the eye – architectural features like exterior paint colors were one of the earliest forms of energy efficiency. The light exterior colors traditionally seen in the South reflected the heat of the sun and the darker exterior colors traditionally seen in the North helped reduce heat loss through the walls.

SUPPORT THE HISTORIC TAX CREDIT

With the federal government facing massive budget deficits, we are calling all preservationists to action to protect the Historic Tax Credit. For 32 years, the HTC has created jobs, supported communities and economies, reduced environmental impacts, and has paid for itself by generating more in tax revenues every year than it loses.

*Voice your support for this important legislation at:
preservationnation.org/issues/rehabilitation-tax-credits.*

Join the discussion as we delve more deeply into energy conservation on our blog this month.

BLOG

Historic-Restorations.
blogspot.com

Every other month our newsletter comes via email. Sign up for our email newsletter on our website.

WEBSITE

Historic-Restorations.com

Keep up with Historic Restorations' news and other preservation happenings on our Facebook page.

FACEBOOK

facebook.com/HistoricRestorations

