The Economical Historic Home

Energy Efficiency Basics for the Old House Owner

The following is a hierarchy of some simple things that YOU can do. Start at the top of the list with the cheap, easy to do items and work your way to the bottom where a little more investment and expertise may be needed.

The Basics

- Reduce your AC costs! Put windows to work – cross ventilate, adjust blinds, etc.
- Install programmable thermostats and set as recommended by manufacturer. Adjust the settings appropriately as seasons change – Ron Popeil was wrong, don't "Set it and Forget it!"
- Regularly clean or replace filters in forced air systems and AC units.
- Set water heaters to 120 degrees, and even less in Summer.
- Use thick or padded rugs to insulate bare floors.
- Read Preservation Brief #3, "Conserving Energy in Historic Buildings".

Stop Air Leaks

- Weather-strip exterior doors and attach "sweeps" to the bottom.
- Caulk cracks and joints around door and window frames.
- Seal leaks in ductwork – that's what REAL duct tape is for!
- Weather-strip or seal attic doorways and hatches.
- Use appropriate spray-foam to seal cracks in foundations and crawlspaces.
- Use foam backer rod to fill large gaps.

Moisture Control

- Use vapor retarders where appropriate.
- Consider ventilation and moisture escape paths
- Read Preservation Brief #39, "Controlling Unwanted Moisture in Historic Buildings".

Insulation

- Different types of insulation for different applications
- Understand R-values
- Attics first, walls second, basements and crawlspaces third!
- Plaster walls can be adequate – leave them alone unless other work is needed.

Windows

- Exterior storms – worth the investment for energy savings, but also to protect your wood windows!
- Interior "insulating panels" – lower cost alternative, doesn't impact historic character of exterior facade, but beware potential moisture issues.

WINDOWS IN HARD TIMES:
DO THE MATH AND SAVE SOME REAL MONEY

by Pieter Nicholson Roos, Executive Director, Newport Restoration Foundation

I want to sell you some windows. Unlike many big companies that are also trying to sell you windows, the ones I want you to buy are the old ones that are already in your house. I can't tell you that my product will cost you nothing, repairs cost money, but I will promise that the price will be less than my competition, the giant window company with the massive marketing budget and a load of hogwash to match.

I recently saw a commercial suggesting that replacement windows would save me a lot of cash on heating over those inefficient old clunkers in my house. It's a nice concept but the logic is so flawed that one wonders why the company doesn't get sued for misrepresentation. The math, if you stop to do it, is so outlandish that it defies reason.

Before we go further, a word from your National Trust for Historic Preservation- the old windows in your house are one of its **primary, character-defining features**, if you get rid of them, your house will lose much of its authenticity and charm, in short your house probably won't look much like your house any more, and once completed you really can't go back- end of argument. Let's get on with the savings part.

One fact which I will readily admit to, is that windows *are* a major cause of heat loss in a house. What the window companies won't tell you is that *any window, whether it is a brand new argon-filled-triple-glazed-wonder-of-modern-engineering or a two hundred year-old single glazed piece of sash will cause heat loss.* Glass is a marvelous conductor of heat, and no window is ever perfectly sealed, so even the best and newest windows are going to cost you money- if you can't abide that then live in a house without windows.

Now let's do the math on a window project's savings in an average house. Even the best (and most expensive) replacement windows will only save you about $50 per month on heating in an average size house and even then they only will do that in the coldest five months of the year and will save that much *only* if your current windows are truly dreadful. By dreadful I mean that they have cracks or noticeable drafts around a majority of windows in the house. This is a savings of about $250 per year for the whole house which is a noticeable percentage of your seasonal heating bill but an insignificant fraction of the total expense of a window replacement project.

Now consider the real cost of the replacement windows. This is the 500 pound gorilla in the room that the window company "forgot" to tell you about: The average two-story historic house has between twenty-four and thirty windows. Decent quality replacement windows are between $500-1,000 installed which is a total of $12,000-30,000 to do the whole job for an average home....and you're going to save $250 a year!!???

Unless my calculator is broken, with 24 of the least expensive windows that's about 48 years before you pay off the project and start to see a "savings". (If you go with the most expensive options it takes 120 years to see a return.) Even if you are alive after 48 years, statistics say you

probably will have sold the house long since*, so you are really passing the "savings" on to future owners and if you swallowed the window company's marketing I think that is not why you undertook the project. This also assumes that your new windows will be of a quality and appearance that is equal to the originals, which may not be, and often isn't, the case.

Another word from the preservationist. Modern replacement sash is a complex system utilizing a number of materials sandwiched into a small package that experiences the full range of your local weather conditions. Some of these materials are durable and will last for a long time, others are not so durable and many of those materials do not live comfortably with each other over the long term. My friendly local window salesman (who I believe has a very high-quality product) does not believe that his windows will pass the forty-year mark. Your old windows, on the other hand, are a simple and repairable system that may have, if properly cared for, been around for over a hundred years and more. There are some old sash that have been on the job since before the Civil War and even earlier. Your current windows may be ready to give you at least forty more years if you give them some TLC. Even custom made wooden replacement sash can be had for a cheaper price than a whole replacement window and it is very unlikely that every sash in your house is in irreparable condition. It is much greener (environmentally and monetarily) to replace a few sash and repair the rest than to throw away everything and start over new. All of the embedded manufacturing energy that is built into the existing windows is being discarded for a window that is likely to have a much shorter life cycle. Since replacement windows are not likely to last much more than forty years and you don't start seeing a savings until around 48 years, even if you were still in the house you might need to get all new windows before the others had really realized a savings. Ouch! Reflect too, that you are the one who owns the new windows. The window company is unlikely to give you much attention after the warrantee expires.

Now some good news, the fact is that you ***can*** save money on your heating bill. Any of the following could save you ***more*** than the $50 a month that you might save with replacement windows:

1. Lower your thermostat to 68 degrees (cost: free)
2. Buy a programmable thermostat (cost: $60)
3. Tune your furnace (cost: $150)
4. Buy a high efficiency burner for your furnace (cost: under $1,500)
5. Improve your attic insulation (varies a lot, but let's call it $4,000)
6. Buy a whole new furnace (cost: $7,000)

Most people would laugh if I suggested that they buy a new $7,000 furnace in order to save $50 a month on their heating bill, yet all too many people nod their heads wisely about the far higher cost of replacement windows and without much further consideration they write an enormous check.

The funny thing about my list is that nothing on it has anything to do with windows. It is a well-recognized fact among building engineers (although window manufacturers won't necessarily tell you this) that one of the *least* cost effective ways to save on heating is to throw gobs of money at replacing your windows. In fact energy auditors frequently ignore windows as a means of improving performance in their audit because the cost benefit is so deeply flawed. This is not to say that advances in window technology are bad, or that new buildings shouldn't have new windows. Recent improvements in window technology are many and they are recommended for the appropriate application.

It is also worthwhile to note that the less expensive replacement windows (as well as some pricey ones) generally come in set sizes and require you to change the dimension of your current window openings. This change not only requires expensive carpentry that will further exaggerate the costs, but the new dimensions can have a significant aesthetic impact on the overall appearance of your house, changing the proportions of one of its primary features. This is an impact that you will have little means of previewing before an unalterable change has been made.

So why do we have this strange concept that replacement is better? It's pretty simple- there are a lot of companies out there with very big marketing budgets that, like me, want to sell you some windows and they've put some pretty clever spin on their marketing. They make money on new windows, but with all the old windows out there, and with rising heating costs and a declining economy they have plenty of public anxieties that they can play on. The more windows they sell, the happier they are- it's their job, but don't be fooled. Theirs cost more. It's cheaper to repair or tune-up the ones you've got.

*The average historic homeowner stays in a house for an average of about twelve to fifteen years (owners of modern homes stay for much less time).

www.newportrestoration.org

ANNOTATED SOURCE LIST TO WEB CONTENT ON
ENERGY UPGRADES IN OLDER AND HISTORIC HOUSES

Start Here:
"Weatherization Guide for Older and Historic Buildings"
(2009) National Trust for Historic Preservation
http://www.preservationnation.org/issues/weatherization/

Redesigned, reorganized, expanded and newly launched in the summer of 2009, the National Trust for Historic Preservation's web destination should be the first stop in your quest for knowledge about making buildings more energy efficient. Easier to navigate, with headings for windows, roofing, insulation, and mechanical systems, a blog, a building owner's forum, a guide to information on funding incentives and energy upgrade tax credits, the Weatherization Guide also clusters related links, news, articles, and guidance in six main subject areas (energy audits, windows, systems, roofing, insulation, historic design) from agencies, organizations, researchers, and individuals around the country and posts them here for quick access.

The Trust's web site is a clearing house of information more than a how-to guide for the novice, but it provides the newest and most comprehensive overview of energy issues from a preservation perspective.

Local Connections on Preserving an Historic Home:
In addition to the resources available on line through the National Trust for Historic Preservation, there are many online sources for preservation information closer to home. The following private non-profit historic preservation organizations provide online information and links to other local resources for homeowners.

Historic New England
http://www.historichomeowner.org/services/FAQ.asp

Newport Restoration Foundation
http://www.newportrestoration.org/preservation/

Preserve Rhode Island
http://www.preserveri.org/content/toolbox

Providence Revolving Fund
http://www.revolvingfund.org/about.php

Green Remodeling for Existing Homes:
REGREEN Program (2008); American Society of Interior Designers and U.S. Green Building Council
http://www.regreenprogram.org/

In 2008, the ASID and USGBC collaboratively published "Green Remodeling for Existing Homes" identifying "green" strategies for the top ten most common home remodeling projects. Their free, downloadable, online guidelines are the best individual source of green remodeling information available to date, and include detailed technical sources and specifications for sustainable home improvement projects in existing homes.

The guidelines, geared to design and construction professionals but written and illustrated to be accessible to homeowners, provide case study examples of the ten most common home remodel projects (kitchens, baths, additions, landscaping, energy upgrades, etc.). Projects identify links to sustainable strategies based

on the LEED (Leadership in Energy and Environmental Design) for Homes Rating System; strategies are explained in detail in a Strategy Library section. A thorough glossary and a Strategy Image Appendix provide a primer for owners, contractors, and designers on green terminology and how to work green techniques into typical home improvement projects.

The only drawback to "Green Remodeling for Existing Homes" is that it does not address historic preservation impacts. Because the suggested strategies can impact the integrity of a historic or older home's architectural fabric and materials, owners of old houses need to consider how to reconcile certain strategies with preservation concerns.

Sustainability and Preservation

Climate Change and Your Home (2008); English Heritage
http://www.climatechangeandyourhome.org.uk/live/homepage.aspx

"Climate Change and Your Home," prepared by English Heritage, the government agency charged with protecting and preserving historic resources in the U.K., contains three main sections dealing with the impacts of climate change on historic homes. Just one of these ("Saving Energy") is directly relevant for American homeowners, but because it is based on historic preservation (or as they are called in the U.K., heritage conservation) practices, "Saving Energy" provides one of the best overviews of appropriate energy conservation retrofits for existing houses currently available.

"Saving Energy" offers clear, comprehensive, and well-illustrated summaries on reducing energy consumption in existing homes (including insulating roofs, walls, and floors, repairing windows, and upgrading lighting and heating), generating energy domestically (including wind, solar, ground sourced, or geothermal, energy generation), and minimizing water usage (rainwater and gray-water collection). Even though specific regulations and terminology differ, the English Heritage guide collects in one location all of the basics on energy reductions in historic houses.

Energy Upgrades Threaten Older Homes (May, 2009); *Fine Homebuilding Magazine*
http://finehomebuilding.taunton.com/item/6812/taking-issue-energy-upgrades-threaten-older-homes

Owners of older and historic homes face a juggernaut of public service and marketing messages on the growing imperative to reduce the energy footprint of an existing home but there is almost nothing to indicate how upgrading for energy efficiency can affect an old house. This online editorial piece from the annual "Houses" issue of *Fine Homebuilding Magazine* lays out some of the concerns owners of older and historic houses may confront in making decisions about energy upgrades and suggests the need for preservationists to work with energy advocates to develop historically appropriate methods for upgrading old houses.

Making Your Historic Building Energy Efficient; Volumes One and Two (2007)
http://www.preservationnation.org/issues/sustainability/additional-resources/boulder_sustainability_volone.pdf

http://www.preservationnation.org/issues/sustainability/additional-resources/boulder_sustainability_voltwo.pdf

This two-volume set prepared for the City of Boulder, Colorado, as a collaboration of the city's Historic Preservation Division and its Office of Environmental Affairs, represents the most comprehensive examination of energy retrofit impacts and opportunities for older residential buildings available to homeowners in the U.S. The formatting, an 8.5 x 11 illustrated text report scanned as a pdf file, and the two-volume length of the publication make the report somewhat cumbersome to use online and less

engaging graphically than it would have been if it had been formatted for online use originally, but as a resource on specific interventions for energy efficiency as they relate to preservation concerns in an older American home, no other online publication matches the detail and scope of the City of Boulder's guide.

Renovating for Energy Savings: Pre-World War II Houses (2004); Canadian Mortgage and Housing Corporation http://www.cmhc-schl.gc.ca/en/co/renoho/reensa/loader.cfm?csModule=security/getfile&pageid=38798
(see also http://www.cmhc-schl.gc.ca/en/co/ for general homeowner information)

The Canadian Mortgage and Housing Corporation, the country's national housing agency is a government-owned corporation that provides mortgage loan insurance, sets housing policy and programs, and undertakes housing research. Its website, www.cmhc-schl.gc.ca, includes well-researched consumer information pages on the whole range of home maintenance and ownership issues.

The CMHC site is especially useful for questions relating to heating and cooling systems and the effects on building materials of energy retrofits in existing homes. Canada's severe winters coupled with strong government support for scientific research into climate effects have encouraged its building materials scientists to conduct exacting studies of construction materials and systems operations and the impacts on materials and systems of various energy retrofits. The CMHC puts this data into simple, readable graphics and easily followed homeowner guidelines on its extensive and easily navigated website.

Special Issue on Sustainability and Preservation (2005); Association for Preservation Technology International
http://www.apti.org/publications/Past-Bulletin-Articles/bulletin-PR-36-4.pdf
To date, the only source of scientific data specifically dealing with sustainable design and historic preservation is the 2005 APT Bulletin (volume XXXVI, No. 4) of the Journal of Preservation Technology. Ten articles reporting on various aspects of sustainable design in older and historic buildings cover topics including the use of wall insulation in historic buildings, reducing energy usage in historic buildings, enhancing durability of construction materials, analyzing embodied energy and life cycle costs and benefits in historic buildings, comparing real costs of replacement windows, and case studies on energy retrofits to historic buildings. Reflecting APT's mission to promote conservation technology, the Special Issue on Sustainability constitutes the best single source of technical data on energy profiles in historic buildings available to the public to date.

Repairing/Preserving/Maintaining Wood Windows

Top Ten Reasons to Restore or Repair Wood Windows; New England Restoration Window Alliance
http://www.windowrestorationne.org/topten.pdf
NEWRA's "Top Ten" list on retaining wood windows is the best handout available for general audiences: local regulators of historic or architectural districts can count on this list to quickly make the case for keeping wood windows with skeptical applicants or the general public.

Testing the Energy Performance of Wood Windows in Cold Climates; National Center for Preservation Training and Technology
http://www.ncptt.nps.gov/wp-content/uploads/1996-08.pdf
The study, published in 1997 and based on a master's degree thesis from the University of Vermont, quantifies the variables at play in the question of retaining and upgrading historic wood windows versus replacing them and finds that replacement windows do not necessarily reduce energy costs.

Wood Windows Tip Sheet; National Trust for Historic Preservation
http://www.preservationnation.org/about-us/regional-offices/northeast/additional-resources/Wood-Windows-Tip-Sheet-July-2008.pdf

The National Trust for Historic Preservation produced this comprehensive, well-designed and graphically accessible tip sheet laying out the reasons for retaining and repairing wood windows. The Trust's tip sheet describes in detail the "anatomy" of a wood window, summarizes the data supporting the repair and restoration of wood windows, provides basic maintenance and seasonal use information, offers advice on managing lead paint hazards in wood window installations, and includes a long list of online and published references for further research. The Tip Sheet should be part of every old house owner's "home maintenance" information folder.

Guidelines for Preservation and Replacement of Historic Wood Windows in Cambridge; Cambridge (MA) Historical Commission
http://www.cambridgema.gov/Historic/windowglines_final.pdf
Historic district and preservation commissions will find the Cambridge Historical Commission's online guidelines governing the regulation of window replacement a valuable document in understanding the issues and options at play in regulating window replacement. The guidelines provide an overview of the history of the wood window and the range of options available in the marketplace for replacing wood windows, as well as the considerations that may be taken into account when determining when window replacement may be preferable to repair.

Rhode Island Historic Homeowner Tax Credit
http://www.preservation.ri.gov/credits/homeowner.php
The Historic Homeowner Tax Credit helps owners of historic houses by making preservation work more affordable. If your exterior restoration project is approved, you can receive a substantial credit on your state income tax return. The credit equals 20% of the cost of exterior restoration work. The maximum credit per year is $2000, and unused credits can be rolled over to future years, so long as you continue to live in the house and maintain its historic features.

Rhode Island Historic Preservation Loan Fund
http://www.preservation.ri.gov/credits/loans.php
The Historical Preservation Loan Fund is available to preserve properties listed on the State Register of Historic Places by providing low-interest loans to public, non-profit, or private owners. Loan money may be used for needed restoration work or, in some cases, for acquiring and rehabilitating an endangered historic property. Work must meet the Secretary of the Interior's Standards for Rehabilitation. Work that has already been completed is not eligible for loan funding. The Historical Preservation Loan Fund Program is an adjustable rate program. The interest rate for the current round of applications is 2 percent less than the prime rate with a floor of 5 percent. Adjustments to rates are made in January of each year. The interest rate is adjusted according to the prime rate at the time of review. This review results in an increase of no more than 3 percent over the life of the loan. The applicant must grant a mortgage on the property as security. Total mortgages, including the proposed loan, may not exceed 75 percent of the after-rehabilitation appraisal. The maximum loan is $200,000, and principal and interest must be repaid in quarterly payments within five years, but the Commission may approve different terms under special circumstances.

Energy upgrades threaten older homes

BY SALLY ZIMMERMAN

For much of the past 20 years, the major threat to old houses and historic neighborhoods has been teardowns for McMansions. But rising energy costs and the bursting of the housing bubble have dampened the teardown phenomenon. More people are hunkering down in their existing homes, which has slowed the wholesale replacement of our historic housing stock. Unfortunately, an even greater threat is suddenly looming.

> **"Existing homes represent a vast storehouse of embodied energy far too valuable to discard."**

As gas prices fluctuate and household budgets shrink, as our country struggles for independence from foreign oil, attempts to improve the energy efficiency of older houses could put them on the endangered species list. To date, the green-building movement has focused largely on new construction, and certainly the stories of superinsulated houses and net-zero houses offer great examples for reducing energy consumption. But if we apply the lessons of these leading-edge projects to all existing houses without taking historic architecture into account, we risk losing something of great value.

Preservationists and environmentalists can agree on the need to reduce energy consumption in our homes. By some counts, there are an estimated 58 million uninsulated, pre-1970s houses in the United States, and these houses must be part of any viable energy strategy. Existing homes also represent a vast storehouse of embodied energy far too valuable to discard. We must fit these houses for a new energy future, but we can't afford a one-size-fits-all approach. We need something more nuanced, particularly for those houses we consider historic.

Older homes weave a historic tapestry

Let's consider older houses first, say, those built after about 1870 when central heating be-

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came standard. These are often the background buildings in established communities and neighborhoods—the streetcar suburbs, the 1920s speculative subdivisions, the GI Bill-sponsored housing developments. Many were simple houses to begin with, but have been altered and updated, perhaps not sympathetically. Although they're not "historic" by the standard definition, that doesn't mean we can afford to tear them down because they're outmoded or inefficient.

These houses define whole neighborhoods with their presence, the rhythm of their rooflines, the regular spacing and setback of porches, side yards, and driveways. Less architecturally distinctive individually and often built with stock components, these houses are significant in the aggregate as attractive and often affordable dwellings, and as a reflection of the great historical movements of the 19th and 20th centuries.

"Perhaps the most likely outcome of a large-scale push toward deep-energy retrofits of older homes is an increase in whole-house teardowns."

More than just cultural artifacts, these houses may also offer some of the best opportunities for "greening." Many of them start off green because they're in densely settled, urban neighborhoods still relatively well served by public transit. They're built with more or less modern platform framing, and incorporate more or less modern heating, plumbing, and lighting systems. Even though they're outmoded, these systems were designed to support a lifestyle not all that different from today's. These homes can adapt gracefully, sustaining extensive upgrades for energy conservation. They may be prime candidates for blown-in cellulose wall insulation, for example, or for gut rehabilitation, which would allow for sprayed-in-place foam insulation.

Up-front costs may be prohibitive

More problematic for a modest older house is superinsulation, which doubles the code-required R-values of walls and roofs. *The Boston Globe* recently reported a pilot case of superinsulating an 80-year-old, two-family house outside Boston. The cost of applying several inches of rigid-foam insulation to the exterior sheathing and roof, and installing the ventilation controls needed to maintain proper moisture levels, topped $100,000 (much of it picked up by an energy-company sponsor). Even if we factor in potential incentives, economies of scale as these projects become more common, and steeply rising energy costs, most people still couldn't afford a six-figure bill.

The "deep-energy" retrofit goes even farther than superinsulation, adding renewable energy to reduce home-energy usage to net-zero. Interventions often require the complete removal of siding, trim, windows, plaster, and finishes, stressing landfills, wasting embodied energy, and stripping away much of the charm, character, and historical value that attracted people to these houses in the first place. Superinsulation and deep-energy retrofits also involve comprehensively modifying the entire building envelope, conditioning (heating and cooling) the whole interior space from attic to cellar as one seamless and integrated system. This work requires a comprehensive understanding of building science. Done incorrectly, as it is sure to be in many cases, it can lead to mold, rot, and indoor-air pollution. But perhaps the most likely outcome of a large-scale push toward deep-energy retrofits of older, less well-maintained homes is an increase in whole-house teardowns, as owners and developers weigh the costs of new construction against these modifications.

Historic houses are a greater responsibility

For truly historic homes, however—those that are older, rarer, more fragile, or more culturally significant—balancing preservation and environmental considerations is even more delicate. When you look at the historic house built 150, 200, or 250 years ago, then the question of energy efficiency must be weighed against the potential for cultural loss.

The great 19th-century English architectural writer John Ruskin said that we are the stewards of certain old buildings and have no right to harm or destroy them. Ruskin admonished that old buildings "are not ours, they belong partly to those who built them and partly to all the generations of mankind who are to follow us... What we ourselves have built we are at liberty to throw down; but what other men gave their strength, and wealth, and life to accomplish, their right over does not pass away."

For certain houses—the hand-hewn timber-framed 1728 Georgian saltbox; the board-and-batten Gothic Revival

cottage with its bargeboards, finials, and crockets; the intact, oak-paneled Sears & Roebuck mail-order bungalow—we need not just a different approach to rendering the dwelling more comfortable or energy efficient, but a whole different attitude toward ownership. If an old house has survived with its finishes, structure, and character intact, it is an increasingly precious and irreplaceable artifact.

"When these houses were originally built and occupied, they were far greener than much of what is built today."

From an energy standpoint, a house built in the 1840s or 1850s just as furnaces were being developed (and certainly those constructed earlier) operates on entirely different principles than the houses we build today. To expect that old house to adapt to us and to our needs and current-day comforts, without our making any concessions in return, is presumptuous and disrespectful. At the very least, we need to accommodate our needs, and those of the environment we have brought into crisis, in ways that ensure no permanent or irreversible damage is done to the historic structure. We would do well to remember that when all of those houses were originally built and occupied, they were far greener than much of what is built today.

Perhaps the preservation approach to insulating historically valuable houses should be called a "shallow-energy" retrofit, limiting insulation to easily accessible spaces such as attics and using removable materials such as loose-fill cellulose or fiberglass. Through comprehensive but reversible treatments, including careful caulking of interiors and exteriors for air-sealing; wrapping heating ducts and hot-water pipes; repairing (rather than replacing) historic wood windows and adding high-quality storm windows; as well as upgrading, maintaining, or installing mechanical systems and appliances for peak performance, a reasonable level of comfort, savings, and conservation can be achieved. And perhaps "reasonably green" should be

good enough for old and historic homes.

Preservationists need to step up

To date, the work of preservationists has not been as practical as it now needs to be. We can't complain about invasive energy upgrades if all we're doing is advising homeowners about historically accurate paint choices. Rather, we need to provide options for achieving reasonable energy improvements that work within the parameters of an older house. We need to develop a sliding scale of appropriate energy interventions based on a house's age and architectural merit.

> **"Preservationists can't complain about invasive energy upgrades, if all we're doing is advising homeowners about historical paint choices."**

A detailed, user-friendly source for sustainable preservation would be a huge boon to owners of older and historic homes, and to contractors working on energy upgrades to those houses. Such a resource could follow the example set by the ReGreen guidelines (www.regreenprogram.org) recently developed by the U.S. Green Building Council and the American Society of Interior Designers.

Older and historic houses stand on the brink of a new era of scarce energy resources and stringent new conservation demands. But old houses have adapted before—to new mechanical systems, to new architectural styles, and to new ways of living. If they are to adapt yet again for a greener world, old houses need to be respected for their character, for their precious materials, for the historical significance of their construction methods, as well as for the humanizing contribution they make to our communities.

They need to be protected from energy "cures" that are worse than the colds they seek to alleviate.

Sally Zimmerman is a preservationist with Historic New England. She lives in Lexington, Mass.