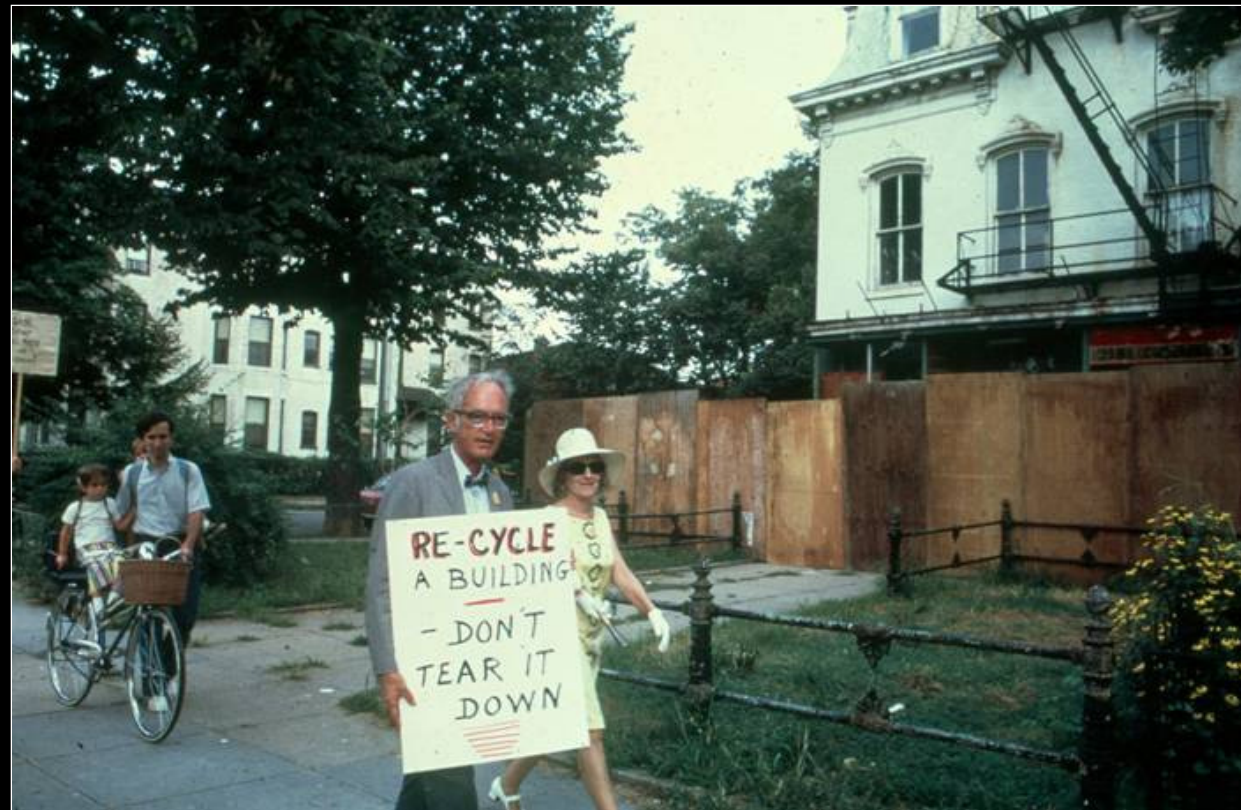


# SUSTAINABILITY and HISTORIC RESOURCES:

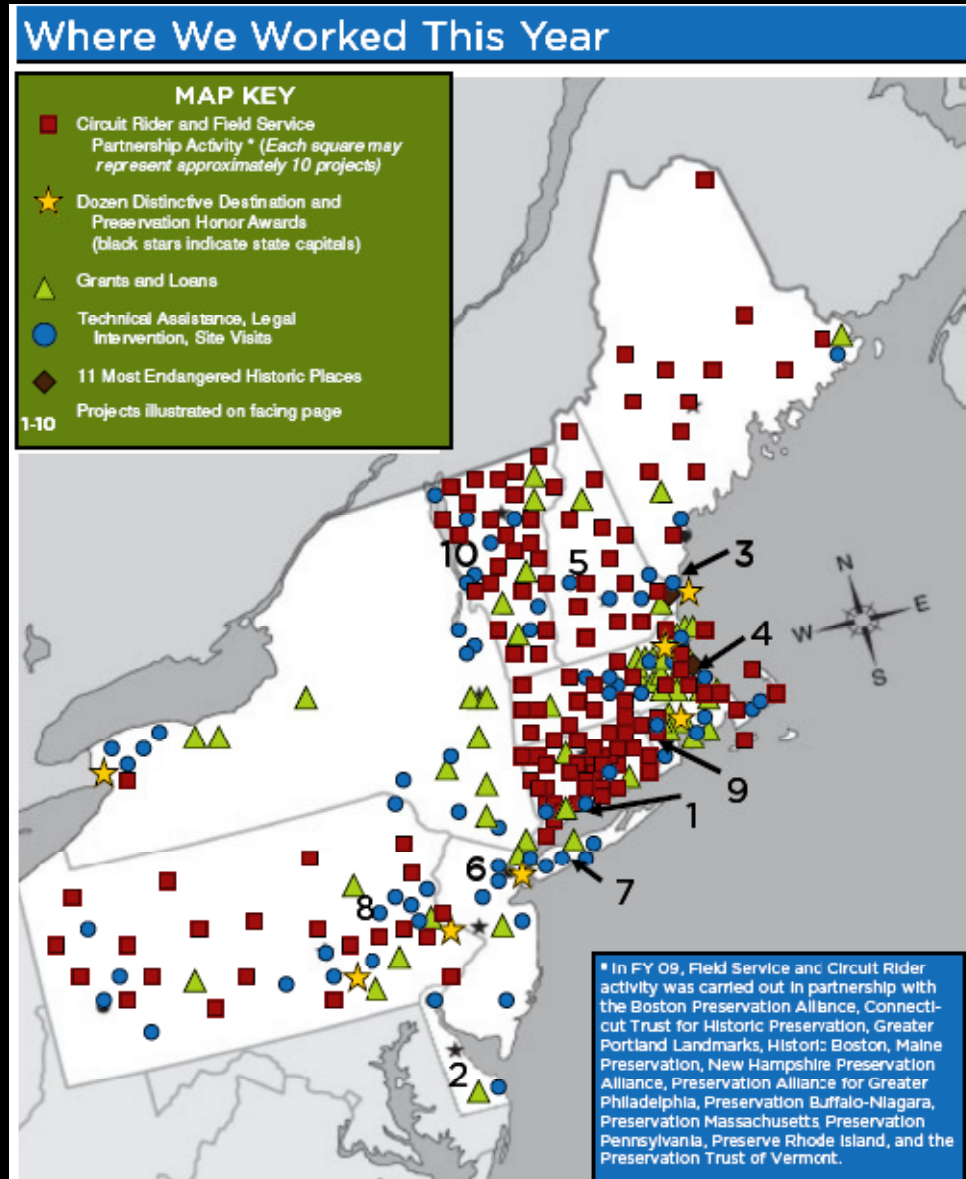
past + present + future



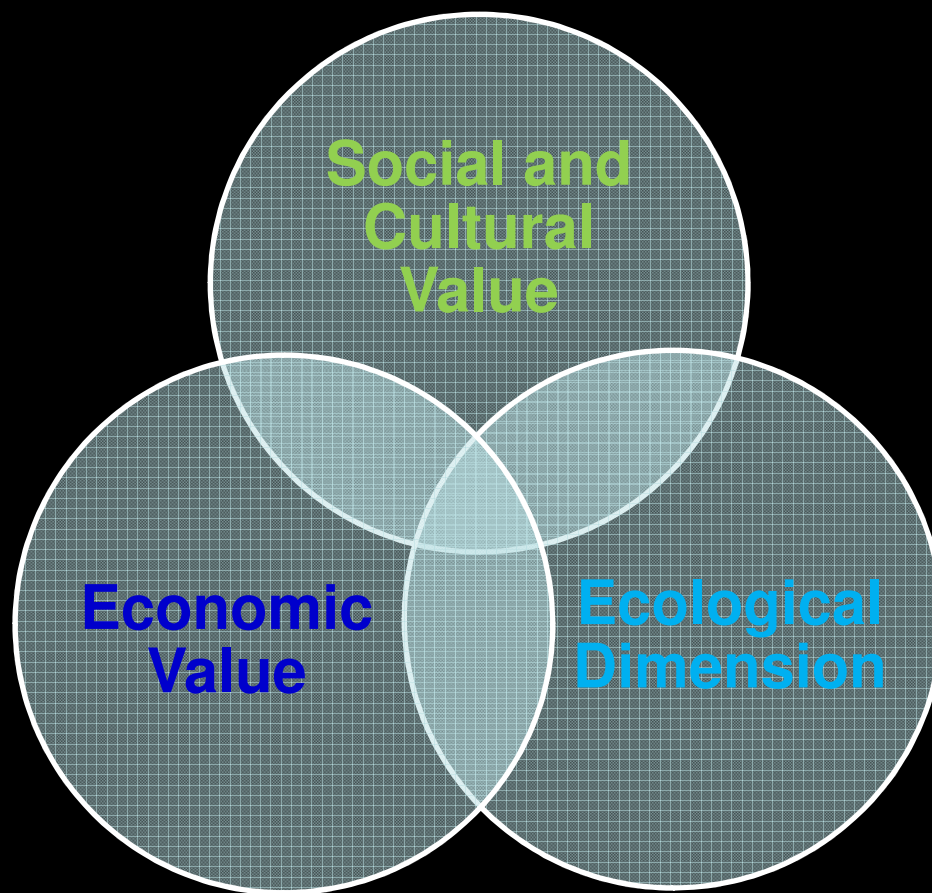
NATIONAL  
TRUST  
FOR  
HISTORIC  
PRESERVATION®

# THE NATIONAL TRUST'S MISSION

*“Helping people protect, enhance and enjoy the places that matter to them.”*



# CONNECTING THE DOTS: sustainability and preservation



# **HISTORICAL BACKGROUND**

## on Energy Policy and the Built Environment

- **1970** National Ambient Air Quality and Emissions Standards created
- **1973** Oil crisis
- **1974** President Nixon instructs American to curb energy consumption by turning down the thermostats and limiting vehicular gas consumption
- **1977** Department of Energy is established
- **1977** Alaskan oil pipeline opens
- **1978** President Carter institutes tax on inefficient cars
- **1979** Second oil crisis
- **1980's** Reagan Administration lets energy efficiency requirements pioneered in the 1970's expire, and encourages Americans to drive cars and shop

# WHY BUILDINGS MATTER

30% of waste  
(construction and demolition)

65% of electricity  
consumption

55% of natural gas  
consumption

39% of total  
energy  
consumption

30% of raw  
materials use

43% of carbon  
emissions

12% of potable water consumption

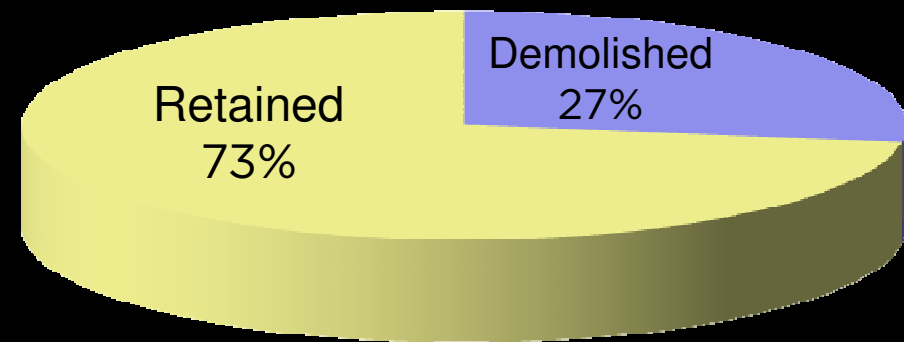
30% of greenhouse gas  
emissions

Source: USGBC and Pew Center on Climate Change

# THE DISPOSIBILITY OF BUILDINGS

- **300 Billion** square feet of existing building space
- **82 Billion** will be demolished or replaced by 2030

Demolition Projections: 2005-2030



Source: Brookings Institution

# OUR SUSTAINABILITY GOALS

To make the case for preservation as inherently sustainable development and crucial to controlling climate change.



# SUSTAINABILITY

## at the National Trust

- **Office of Sustainability**

Focus on Local, State and Federal Policy: The National Trust for Historic Preservation will work with several cities to develop model policies that encourage preservation as sustainable development.

- **Preservation Green Lab**

The Green Lab partners with cities and states to become a national clearinghouse for best practices and model policies to encourage municipalities and states around the country to fully consider historic preservation and the existing building stock in formulating their climate change action plans.

- ***The Weatherization Guide for Older and Historic Buildings***

Guidance on improving your building's energy efficiency.



# SUSTAINABLE STEWARDSHIP:

4 principles

- 1.) **REUSE** existing buildings
- 2.) **REINVEST** in communities
- 3.) **RETROFIT** older buildings
- 4.) **RESPECT** historic integrity

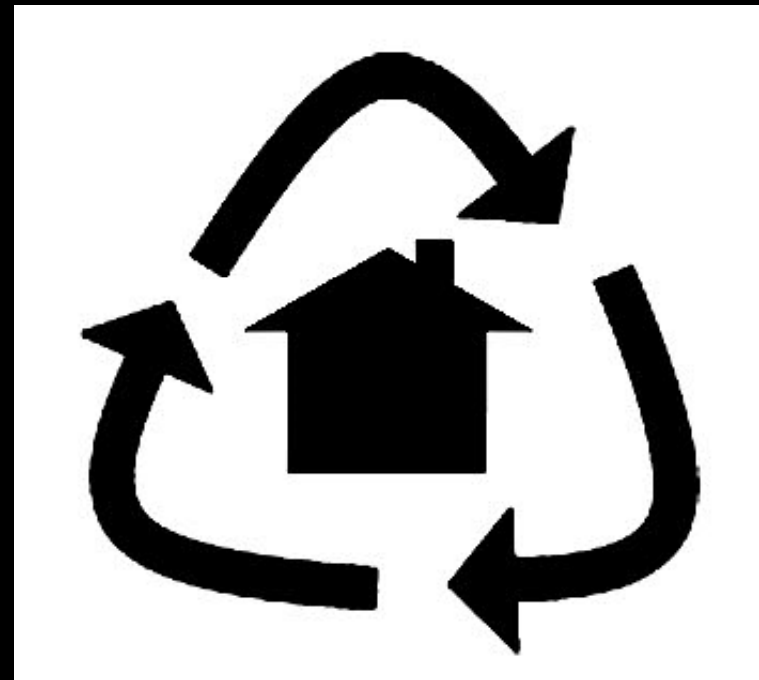


Image: Abby Martin

# REUSE

existing buildings

Demolishing this...



National Trust for Historic Preservation  
Headquarters Washington, D.C.

Negates the benefits of recycling  
78,000,000 aluminum cans



Photo: Planet Ark, 2008

# REUSE

existing buildings



STOP! Copyright protected. Don Pearse Photographers, Inc. All rights reserved.  
[www.donpearsephotographers.com](http://www.donpearsephotographers.com)

Memorial Hall, Philadelphia, PA

Photo: Don Pearse Photographers, Inc.

**REINVEST**

in older and historic communities



Brandywine Valley



**SPRAWL!**

Photo: USDA-NRCS

# RETROFIT green



Trinity Church, Boston, MA



Philadelphia City Hall

# RETROFIT

green

## The Secretary of the Interior's Standards

The Standards are meant to *“promote responsible preservation practices that help protect our Nation’s irreplaceable cultural resources.”* ~ NPS



**WEATHERIZATION  
GUIDE** FOR OLDER & HISTORIC  
BUILDINGS

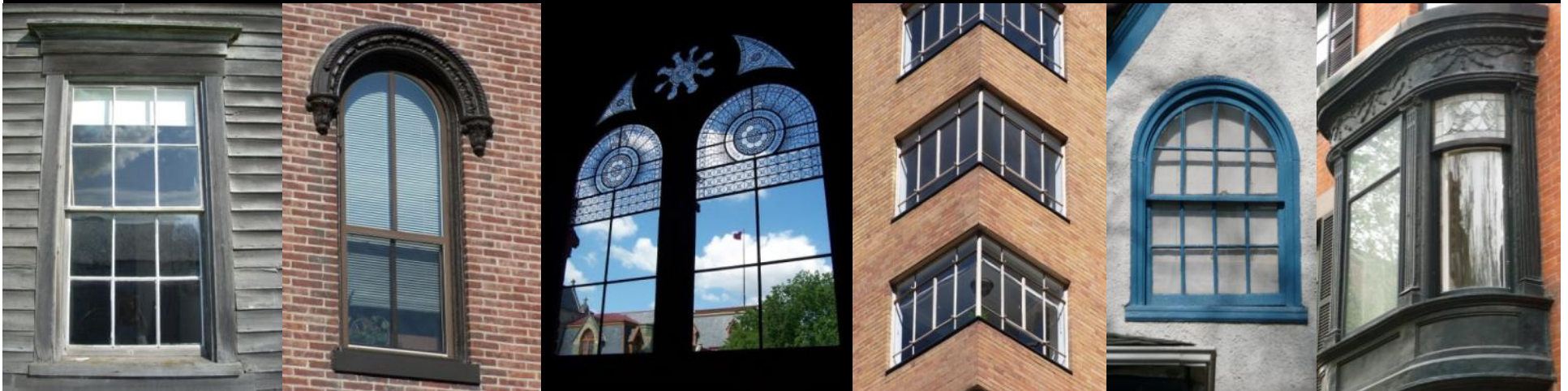
## Collision Points

- 1) Windows
- 2) Insulation
- 3) Mechanical Systems
- 4) Roofing

# RETROFIT windows

## Why windows matter:

- 1) Quality of materials
- 2) Custom fit to their openings
- 3) Performance
- 4) Repairable
- 5) Character



# RETROFIT windows



Bad replacement...



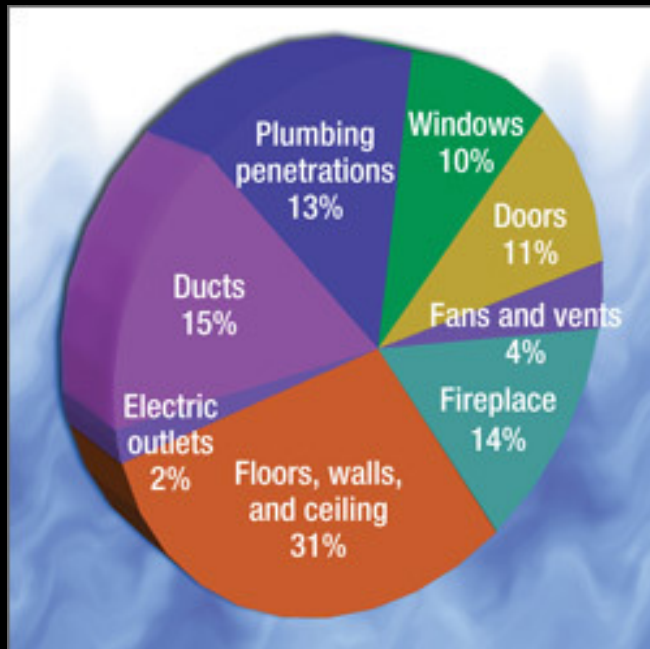
Good replacement.

**TIP:** The average person in the United States stays in the same house for between five and seven years. When it takes upwards of 40 years to recoup in energy savings what was spent to replace windows, many owners will never see the "savings" or fully recoup their expenses.



# RETROFIT insulation

## Where Heat Escapes



Photos: Department of Energy

**TIP:** Adding insulation in the walls of older and historic buildings is challenging for a number of reasons. Mainly, the process requires the disruption or removal of a great deal of material, and can therefore lead to the destruction of the historic details that make your home special.

# RETROFIT mechanical systems



**TIP:** Older and historic buildings without modern mechanical systems were designed with human comfort in mind, relying on building features operated by the occupant to keep the environment comfortable. There is no one-size-fits-all solution for upgrading systems. We recommend a more holistic approach – one that is specific to your home or building.

# RETROFIT

## roofing



**TIP:** From the elements to pollution and falling tree limbs, our roofs really take a beating! This is why all roofs eventually fail and need to be replaced. As with any other character-defining aspect of your older or historic home, be sure to that replacement materials and design elements are as close of a fit as possible.

**RESPECT**  
historic integrity



Lincoln Cottage Visitors Education Center  
Photo: National Trust for Historic Preservation

# WHAT YOU CAN DO

- Tell us about your case studies.
- Keep up with Federal, State and Local policy.
- Participate in state and local planning.
- Talk to an expert before making any dramatic changes to your building.
- Consider your options before spending a lot of money. Weatherization does not have to be expensive.



for more **INFORMATION**

## National Trust Links:

[www.preservationnation.org](http://www.preservationnation.org)

<http://www.preservationnation.org/issues/weatherization/>

<http://www.preservationnation.org/issues/sustainability/>

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