

REHAB LAB

TIPS FOR OLD BUILDING
PROJECTS

Windows WOW!

Jonathan Hall, Field Services Manager
Maine Preservation

Laura Seaton, Director
WindowDressers

John Leeke
Historic Home Works

Housekeeping

- Feel free to have your video camera on or off – if your connection is unstable, turning it off may help
- Please be on mute when not speaking
- You can ask questions using the chat feature or wait until Q&A pauses and then unmute and ask it!

Today's session was made possible with the support of

Year-Long Industry Leaders



Year-Long Underwriters



Why fix these old windows?

Problems generally result from deferred maintenance.

Once the maintenance is caught up overall costs can be minimal and well managed.

90 Years Old



No Maintenance

180 Years Old



**3 Rounds
Maintenance**

Sustainable

- Save the window
- Save character
- Save embodied energy

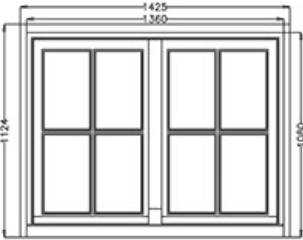
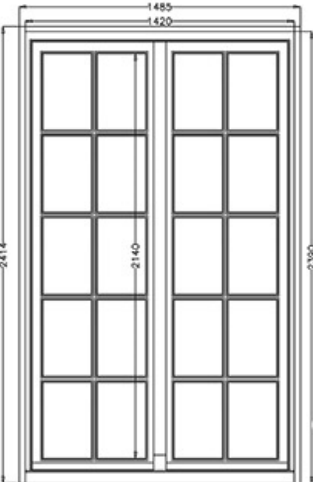
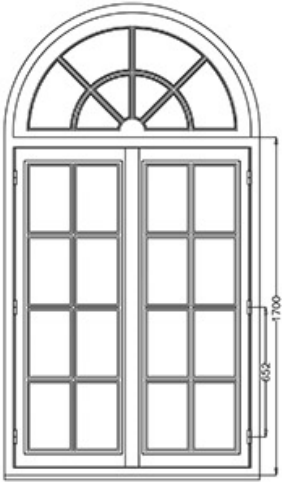
The Efficiency Gambit

But what about energy savings?

- The recovery period of the cost of new windows cannot be achieved in the lifetime of the new windows which cannot be repaired. Studies show 34-250 years!
- Historic wood windows can be repaired indefinitely
- When well maintained, historic wood windows can have a competitive U-Value with replacements
 - Properly air sealed w/storms .44-.49
 - Best replacement value .20
- Replacement materials are carbon intensive. Offsetting any GHG emissions saved through their perceived efficiency advantage
 - DOE recognizes only 7-12% annual energy savings or \$71-500!
 - Old growth materials are irreplaceable!
 - "Reduce, reuse, recycle"

Traditional Types of Windows

- Double Hung
- Casement
- Transom
- Steel sash
- Palladian



Where to Begin Inventory

- Window by window survey to assess conditions
- Each window will have unique maintenance issues
- Keep notes:
 - window location
 - condition of the paint
 - condition of the frame and sill
 - condition of the sash (rails, stiles and muntins)
 - glazing problems
 - hardware
 - overall condition of the window (excellent, fair, poor, and so forth)
 - functionality

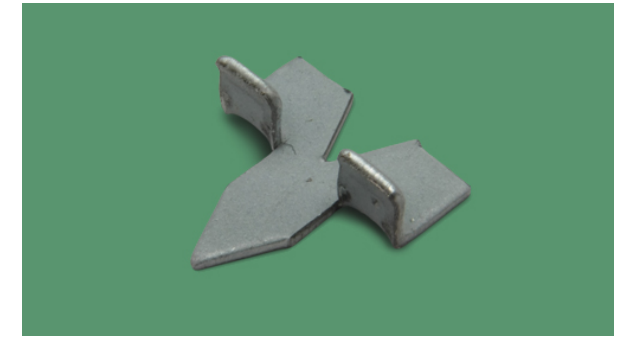
Secretary of the Interior Repair Categories

National Park Service Preservation Brief #9

- Designates three repair categories
 1. Routine Maintenance
 2. Stabilization
 3. Splices/Dutchmen/ Parts Replacement



Basic Supplies



Class I Repair Routine Maintenance



The routine maintenance required to upgrade a window to "like new" condition normally includes the following steps

- cleaning
- some degree of interior and exterior paint removal
- May not require removal sash
- repairs to the frame and jamb if necessary
- weatherstripping and air sealing for drafts
- repainting
- really just periodic care and feeding of a window in generally good repair

Class II Repair Stabilization

May involve repairing wood which is split, checked or shows signs of rot. Process may involve:

- removal of sash
- drying the wood
- treat decayed areas with a fungicide(boric acid or peroxide based) and allow to fully dry again
- waterproof with two or three applications of 50/50 formula boiled linseed oil and turpentine (applications every 24 hours),
- fill cracks and holes with putty, wood filler or appropriate epoxy
- once dry prime/reglaze according to manufacturers guidelines and repaint



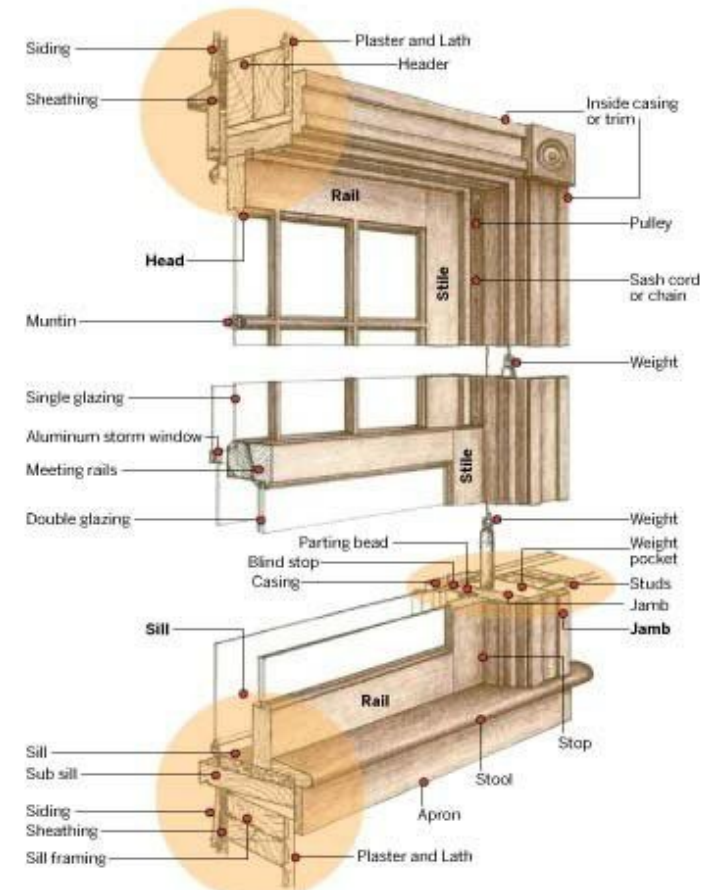
Sash Removal

- Most historic windows are designed to allow removal sashes for maintenance
- Remove stop and parting stop and the sashes can be removed



Rehanging window weights is a little dirty but not difficult!

DETAILS OF A DOUBLE-HUNG WINDOW



Source: Avatthan Pooty / The Old House Journal

Staff graphic

Class III Repair

Splices/Dutchmen/Parts Replacement

The goal is to not let your windows get this bad but if they are, or you inherit the problem, all hope is not lost!

- Basic shop tools and shop space may be required. Table saw, router, planer, sanders, etc.
- If not comfortable hiring a carpenter may be required
- If extensive jamb and frame repairs require removal of entire window unit proceed cautiously!
- While not complicated some additional, unforeseen repairs may be uncovered.
- The proverbial **Can of Worms!**
- Masonry walls can be especially troublesome



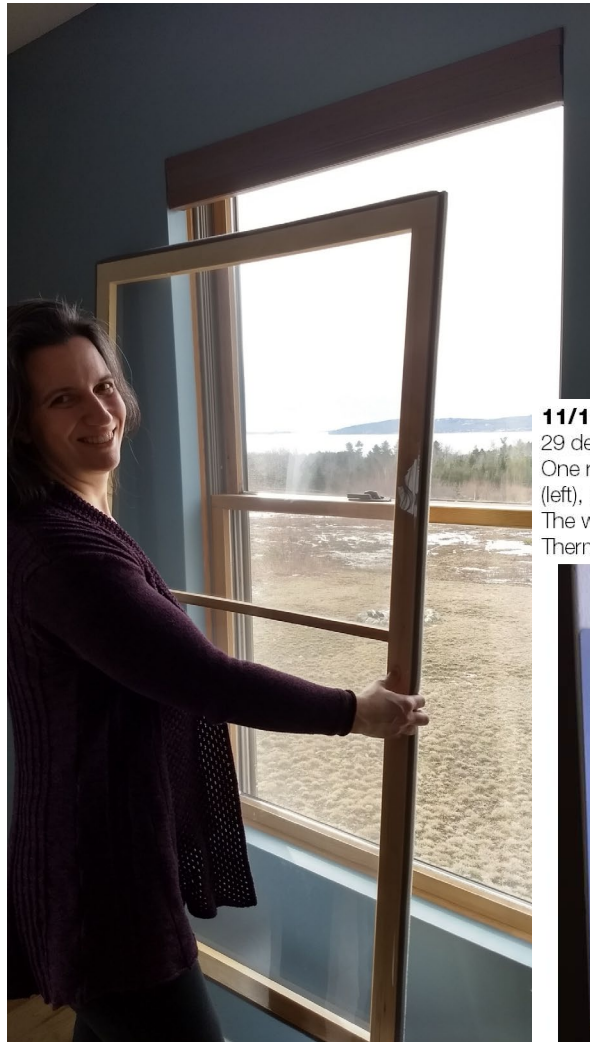
Dutchman Repairs

A competent craftsman can make repairs with basic hand tools



Interior Storms

- WindowDressers can help with interior storm design and manufacture
 - nonprofit that holds building cooperative insert-building workshops around the state
- Other sources
 - See our Preservation Professionals directory



11/14/18, 2pm, at the Wells Reserve at Laudholm:

29 degrees outside air temperature, and 20mph northwesterly winds.
One room on the west side of the Visitor Center without WindowDressers window inserts (left), one room on the west side with them (right).
The windows are ten feet apart, but in different rooms.
Thermometer left for 15 minutes in each room, out of the sun, on a window sill.



Exterior Storms

- Exterior storm windows are available in a wide variety of materials and styles.
- They should be chosen to complement the beauty of your home and windows.

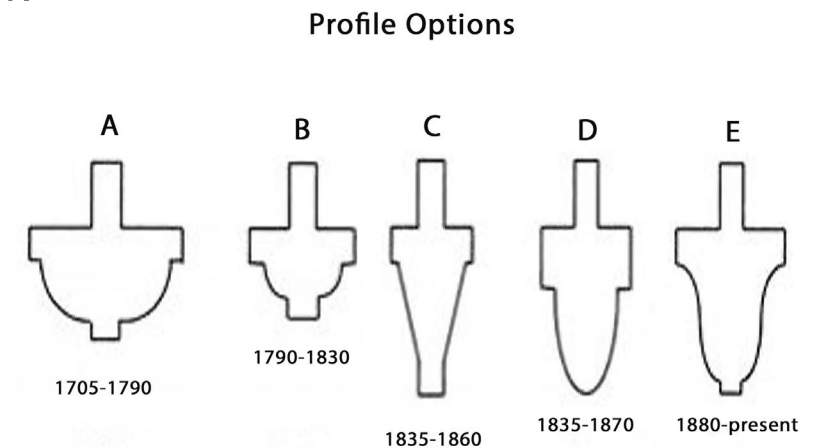


Window Replacement

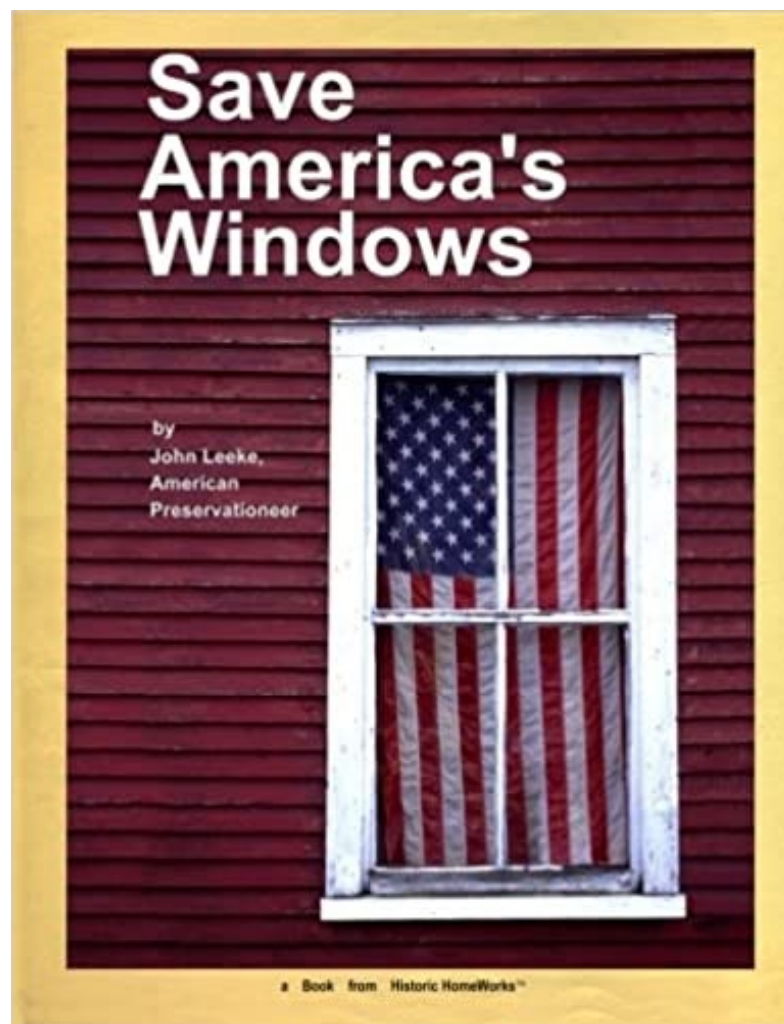
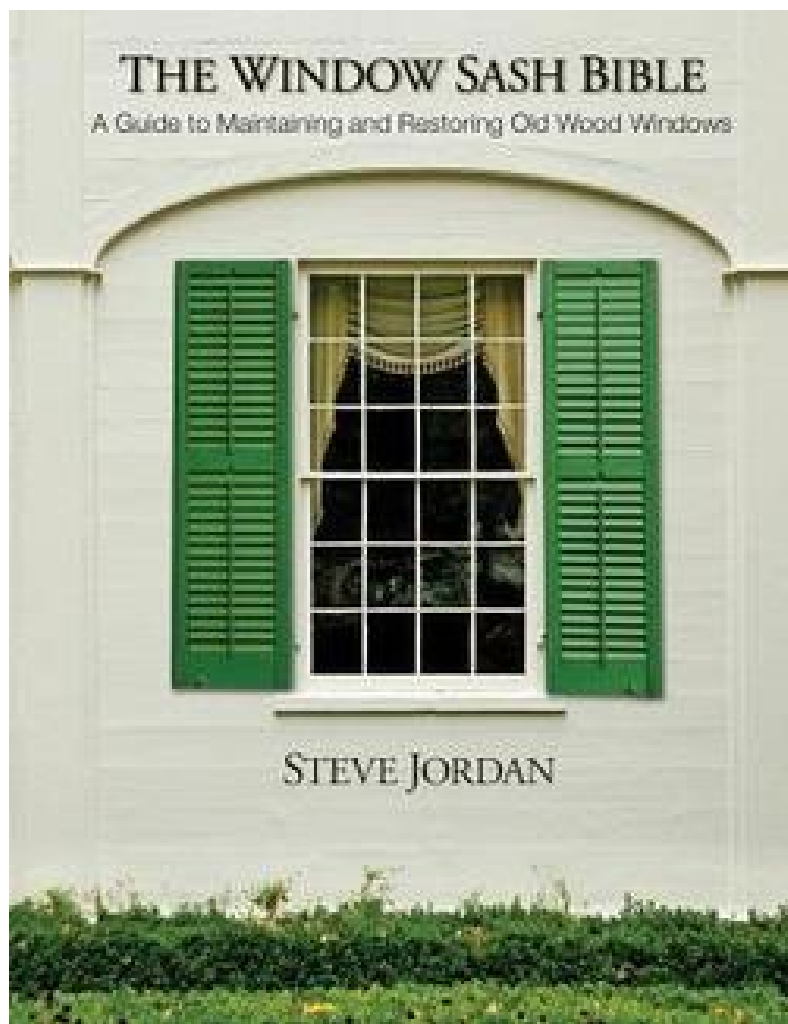
What to Look For

Although in most cases historic windows can be repaired and saved that is not always the case. Sometimes they are completely missing. What should you look for in replacements?

- Window muntin profiles have changed over the years and are not one size fits all
- Materiality is important
- Local millworks contractors can usually replicate historic windows.
- Larger window manufacturers may not - it never hurts to ask
- Ask for shop drawings so you know what you'll get
- Glass matters - "wavy" glass is available if desired



For Further Reading



Resources

- [The Old House Guy - Window Performance: Old Windows vs. Window Replacements](#)
- [The Spruce - Do Replacement Windows Pay for Themselves](#)
- [Forbes - Don't Buy Replacement Windows for Your Old House](#)
- [Fine Homebuilding - Should Your Old Wood Windows Be Saved?](#)
- [National Trust for Historic Preservation - 13 Things You Should Know about Retrofitting Historic Windows](#)
- [The Craftsman Blog - All About Historic Windows](#)

Resources

- [City of New Orleans - Guidelines for Windows & Doors](#)
- [U.S. Dept. of Energy - Guide to Energy-Efficient Windows](#)
- [National Trust Forum - Saving Windows, Saving Money Evaluating the Energy Performance of Window Retrofit & Replacement](#)
- [National Park Service TPS Brief #9 - Wooden Windows](#)
- [Landmarks Society - The Window Sash Bible: A guide to Maintaining and Restoring Old Wood Windows/](#)
- [Save America's Windows - Book](#)
- [Window Preservation Standards Collaborative](#)
- <https://windowdressers.org/>

Q & A

Upcoming Events



Historic Houses for Contemporary Lives with Scott Hanson

Wednesday, October 14, 2020

4:00 PM 5:00 PM

Scott Hanson author of the award-winning and best-selling book, *Restoring Your Historic House, The Comprehensive Guide for Homeowners* will talk about how to approach restoring a historic house in a way that identifies and preserves its most important character-defining features while making it livable for 21st century life.



Tips for Fall Maintenance & DIY Interior Storm Windows

Wednesday, October 28, 2020

4:00 PM 5:00 PM

In this session we review some key things you can do to get your old house ready for winter, and we'll show you how you can build interior storm windows to keep old man winter at bay.

Sign up: <https://www.maine Preservation.org/webinars-and-educational-programs>

Today's session was made possible with the support of

Year-Long Industry Leaders



Year-Long Underwriters



THANK YOU!

SUPPORT OUR
MISSION:

mainepreservation.org/give