

## **Window Preservation Standards Collaborative**

### **Narrative**

Editor- Bob Yapp

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In the Fall of 2010 the top preservation trades people in North America and Europe gathered for the International Preservation Trades Workshop in Frankfort, Kentucky. Among this astounding group of artisans were some of the top window restoration experts in the country. Five of these window experts, Bob Yapp, John Leeke, Jim Turner, David Gibney and Duffy Hoffman met and decided it was time to create national standards for the repair and weatherization of old and historic windows. We call this endeavor the Window Preservation Standards Collaborative (WPSC).

### **Why Now?**

There is an immediate need for standards that include well researched energy data as well as a menu of proven methods used to repair and restore historic windows. We cannot wait for years or decades for a standard to “evolve” since the replacement window industry is now actively destroying millions of historic and perfectly functional old windows every month.

Based on the replacement window industry's claim in Glass Magazine that 8 billion dollars is spent every year on replacement windows, it seems fair to say that if each replacement window opening costs an average of \$500, we could be seeing as many as 32 million classic, old growth, upper and lower wood window sashes end up in our landfills yearly. If we assume these numbers are inflated by the industry, say only 2 billion dollars per year, that would still be 8 million wood sashes in the dump every year. Obviously there is nothing green or environmentally sound about this tragedy.

The other part of the urgency stems from the reality that the quicker we put this effort into play, the less time the replacement window industry has to spent their tens of millions in marketing money to try and discredit this critical and objective effort.

As a result of the window replacement industry's dominance in marketing and pursuing relationships with architects, specifiers, consultants, contractors and property developers, they have hijacked the narrative. Just because they claim their products are superior does not make it true and in most cases, their comparative claims are not based on facts or independent research.

Over the last 30 years there has been a small group of window restoration experts, teaching, repairing, restoring and weatherizing historic windows. For years we all seemed to hear a collective yawn about one of the most important architectural and functional elements of historic properties- windows.

Things have changed. From the National Trust for Historic Preservation to statewide preservation groups to State Offices of Historic Preservation to local preservation groups and Historic Preservation Commissions, saving historic windows has risen to the top of the agenda.

As a result, more and more architects, specifiers, consultants, contractors and property developers are interested in specifying the weatherization and repair of historic windows with little information on standards they can use to do so. It is our purpose to change this by providing definitive energy testing data as well as standards for sustainable window repair, restoration and weatherization.

The bottom line, if we don't act now, historic windows lose.

## **What Needs To Be Done**

### **Step #1 Draft Window Preservation Standards**

The founding members of The Window Preservation Standards Collaborative will create an initial draft set of standards for the repair, restoration, preservation and weatherization of historic wood and steel windows. We estimate each founding member will contribute over 300 hours of time researching, writing, meeting and demonstrating. This amount of time exceeds the honorarium for each member we have listed in the funding budget.

The purpose is to document the "means and methods" that are used to arrive at a known and recognizable result. Specific methods, procedures and materials will be included, we will not, however, include specific brand names or products.

This will be done with communications among the founding members by emails, phone conferences and two, face-to-face meetings between January 2011 and June 2011. One of these meeting will be at The Pine Mountain Settlement School. We can then pick the openings to be restored, take the sashes back to our shops and prepare them in advance. We can also measure for the storm windows each will use so they can be ordered or made in plenty of time before the Summit.

### **Step #2 More Collaboration**

A website is being set up in order to expedite the participation of a group of 100 to 200 stakeholders. Stakeholders will be anyone with a direct interest in window preservation, including:

- Specifiers
- Architects
- Facilities managers
- Educators and trainers
- Contractors who will be working to meet these standards
- Homeowners and building owners, who hire contractors and trades people
- Independent Trades people, who will be working to meet these standards
- Government agencies & other not-for-profit stakeholders

One month before the summit the "Draft Standards" will be posted at the website so advisors and stakeholders can easily post questions and comments. These comments will be incorporated into the "Draft Standards".

### **Step #3 National Window Preservation Summit**

Once the "Draft Standards", with comments incorporated, are completed, WPSC will sponsor a National Window Preservation Summit at The Pine Mountain Settlement School (PMSS) in Pine Mountain Kentucky. The Kentucky Heritage Council (KHC) has agreed to be a partner and assist with planning and implementation of the summit. The three day summit will be held July 26, 27 & 28, 2011.

PMSS is the location of the Pine Mountain School for Practical Preservation founded in 2002 by KHC and collaborative member Bob Yapp. The property is a National Historic Landmark with every variety of wood and steel windows. The PMSS has facilities to feed and house up to 60 participants.

We will invite 25 to 35 key advisors from across the country to attend this summit. We will also open the Summit up to 25 to 35 stakeholders as Observers. While Observers will not be involved in the day to day commenting on the demonstrated standards, they will be able to witness the process and be key to the promotion of the Standards. We will also video and voice record all proceedings.

**Friday, July 22:** Travel day for founding Collaborative members, their assistants and the energy testing organizations. Arrive by 5:00 p.m. with a meet and greet/ planning dinner at 6:00 p.m. This constitutes six Collaborative members, six assistants, up to 6 energy testing personnel and 3 additional Advisors = 21 people.

**Saturday July 23:** The Energy testing participants will then set-up to conduct air infiltration testing on all four window units before restoration and weatherization in order to create a baseline. After lunch Four of the Collaborative members & their assistants begin the restoration and weatherization of the four selected windows. Three will be wooden double hung units and one a steel casement unit.

**Sunday, July 24:** Collaborative members and assistants continue the restoration and weatherization of the four window units.

**Monday, July 25:** Collaborative members and assistants finish the restoration and weatherization of the four window units by 5:00 p.m..

Advisors & Observers travel day to Pine Mountain. At 6:00 p.m. dinner, orientation and power point describing the four restored window openings finished that day as well as the agenda for the next three days.

**Tuesday, July 26:** All morning long, the Energy testing participants will be set-up to conduct air infiltration testing on all four weatherized window units as Advisors and Observers watch.

All afternoon, Collaborative members, with an assistant for each, will demonstrate the various methods of window restoration & weatherization for the attendees. Questions and comments by the advisors at the end of each afternoon session.

After a 5:30 dinner, Collaborative members and the energy testers will provide the energy testing results as well as all the existing, well researched studies on U-Values and solar/thermal performance etc. for attendees. Attendees discuss strategies for refinements of the draft standards.

**Wednesday, July 27:** Collaborative members, with their assistants, will adjust the weatherization systems of their window units based on the initial energy testing and comments from the advisors on Tuesday. Window demonstrations of the restoration & weatherization process continue until 3:00 with comments by the advisors at the end of each morning and afternoon session.

3:00 Tour the Pine Mountain Settlement School with staff.

After dinner meeting to present Draft Standards #2 with additional discussion.

**Thursday, July 28:** Energy testing takes place all morning to establish the efficiency of the various standards that have been adjusted according to the Advisors comments and recommendations.

Added value events like a blue grass band etc. all afternoon and while the Collaborative members make the final draft for presentation after a 5:30 dinner.

The registration fee for Advisors and Observers will be \$350 to participate. Lodging and three meals a day at Pine Mountain will be \$180 a person. The additional \$170 of the registration fee will help offset the other costs associated with the entire endeavor. We are negotiating contractual arrangements with the national Preservation Trades Network, a 501-C3, to take all the money and be the recipient of grant funds.

#### **Step #4 Edit and Publish the Standards Document**

Editing and publish the standards document will be done by a writer and editor with experience in preservation trades publications. John Leeke, a founding collaborator, has agreed to be the editor and publisher. The Collaborative and the editor will finalize the standards document. Publishing will be done with a Print on Demand (POD) service that has zero upfront costs. We will submit the edited Standards to our advisors for final comment before the final version goes to print.

#### **Sales and Revenue**

Sales of the standards document will support ongoing printing, fulfillment and future development of the standards project. Printing and fulfillment will be fully funded directly by users of the standards when they purchase copies of the standards from the POD service at retail pricing.

Users will be able to purchase copies of the standards from the POD by ordering online, through the not-for-profit. These purchases can be made by credit card, Paypal, or other online payment services. They may also be able to buy copies directly from the non-profit partner and pay by check or credit card.

The non-profit partner will be the recipient of and control all funds. They will also be the recipients of

any profits from the sale of the Standards. The founding Collaborative members only compensation are the honorariums and reimbursement for material and supply expenses incurred during the project.

There are two sources of revenue: payments from the POD service, and sales made by the non-profit partner. The non-profit partner will disburse project monies to support ongoing marketing and development of the standards, to include support for the website, and a project to revise the standards after one or two years. The non-profit partner will provide a statement of the standards project revenue and payments to the Collaborative members every six months.

**Funding**

The WPSC intends to raise \$119,500 to properly support this project. The Summit will pay for itself by clearing around \$9,000 in revenue for 60 people at Pine Mountain paying \$350 each. So, we need to raise an additional \$109,500 for all the expenses including the energy testing companies. Bob Yapp has agreed to write grants and assist our not-for-profit, national partner organization. It should be noted that after the initial fundraising, the project will be self supported through sales of the Standards. No additional grants or funding will be needed.

Honorariums to 6 founding collaborators for 300 hrs plus to research, develop and write the Standards and demonstrate @ Summit	\$60,000
Materials & supplies for window restoration & weatherization	\$7,500
Documentation of the Summit-audio, video, transcription etc (low tech)	\$4,000
Setup and manage the website for one year	\$2,500
Edit and publish the Standards	\$9,000
Initial printing and mailing of 250 Standards	\$2,500
Marketing & Summit travel expenses	\$14,000
Energy testing firms	\$20,000
<b>Total Gross Funding Needed</b>	<b>\$119,500</b>

**Founding Collaborative Members**

The six founding members of the Window Preservation Standards Collaborative have over 170 years combined experience repairing, restoring & weatherizing historic wood windows. Additionally, when you add up the years they have taught these techniques, it's over 100 years.

**Bob Yapp**



Bob Yapp planted the seed that began his involvement in historic preservation when

he was a youngster working side by side with his dad in his woodworking shop. Then, as a teenager, progressed to helping his Dad with the renovation of their family's Craftsman Era home in Des Moines, Iowa.

From the beginning, Bob has dedicated his career to community planning, historic preservation, central city revitalization and woodworking. In the mid-1970s he spent several years as an apprentice to a German furniture and cabinetmaker. Soon afterward, he opened a business designing and building custom furniture and also bought his first house--a craftsman bungalow--to renovate. Since that time Bob has been involved in the restoration and rehabilitation of over 150 historic properties, many of them award winning. He usually has multiple ground-up restorations/renovations going on at any given time and has restored & weatherized over 6,000 historic windows.

In the 1980s he continued to restore homes and build furniture for clients from California to Chicago. His efforts in neighborhood revitalization of historic areas in the Midwest are renowned. Bob has been a historic property Realtor, owned a home inspection business and in 1991 was appointed the *Housing Director for The Rock Island Economic Growth Corporation* in Rock Island, Illinois. At *Rock Island High School* he started and taught a new voc-tech program to give students hands-on-experience in rehabbing historic homes. Bob, his wife Pat and their dog George live in Hannibal, Missouri. Their 1859 home is a brick Italianate located in the Central Park, National Historic District and is the headquarters for Bob's new school, *The Belvedere School for Hands-On Preservation*.

Bob's media career began in 1980s with a weekly column in the *Des Moines Register* as *The House Doctor*. He has written and co-written many woodworking and preservation articles in national magazines including; *Meredith Publishing's Wood Magazine and Renovation Style Magazine*. Currently Bob writes and self-syndicates a monthly feature story on historic house restoration.

Soon after the *Register* column premiered he began a syndicated radio show also called *The House Doctor*. In 1996 Bob began production of the national, weekly PBS program, *About Your House with Bob Yapp*. Bob was executive producer, writer and host for this National Trust for Historic Preservation sponsored, 52 show series. Currently, Bob and his wife Pat are developing, producing and hosting a new weekly, public radio program for national distribution called, *About Your House with Bob & Pat Yapp*. Bob also has a blog at his website, [www.aboutyourhouse.org](http://www.aboutyourhouse.org).

Since leaving PBS Bob has dedicated himself to preservation education. In September 2002 Bob partnered with the Kentucky Heritage Council and the Pine Mountain Settlement School to found a hands-on training school to teach practical, cost effective restoration methodology. He has helped establish and taught at numerous preservation trades programs around the country in high schools and colleges. In addition to operating and teaching at *The Belvedere School for Hands-On Preservation* in Hannibal, he founded and teaches *The Historic Preservation Trades Program* for at-risk students at Hannibal High School.

Bob is the president of Preservation Resources, Inc. and travels America as a historic preservation and planning consultant. He gives keynote speeches, conducts seminars and hands-on workshops on just

about any subject having to do with preservation, housing and community. In 2006, 2009 & 2010 Bob was a member of the Design Panel for the National Endowment for the Arts in Washington D.C.

Bob's first book, *About Your House*, was published by Bay Books in December 1997. He is finishing up his second book and hopes it will be in the bookstores by the end of 2011.

## **John Leeke**



John Leeke is a nationally recognized historic building specialist who helps owners, trades people, contractors and architects understand and maintain historic buildings. He has been restoring historic buildings in New England for over 40 years and still spends a good part of his time "with hammer in hand."

John has a national reputation as a consultant and writer on restoration and preservation topics in preservation, with over 200 articles published in the preservation journals and popular restoration magazines.

He has taught window preservation methods for the:

- \* National Parks Service's Historic Preservation Training Center
- \* Preservation Education Institute, Restoration & Renovation Conference
- \* National Trust for Historic Preservation Conference
- \* Windows Conference and Exposition for Historic Buildings
- \* Traditional Building Conference
- \* Many state and local historic preservation organizations.

John's past window projects include:

- \* Preserving wood windows at the Sabbath Day Shaker Community at Sabbath Day Lake, Maine
- \* Writing the specifications for preservation of the windows at the Maine Collage of Art's Porteous Building in Portland and training work crews in special window preservation techniques
- \* Contributing to the window specifications for the Philadelphia City Hall restoration project
- \* Solving window preservation problems at the Library of Congress's Jefferson Building in Washington, DC
- \* Training carpenters in special window preservation methods at Carnegie Hall in New York City

John wrote the book, *Save America's Windows*, that was published in 2009. His publications are used as a training manuals by several preservation trades schools and training programs in the United States and Canada. In 2010 the book was distributed to hundreds of preservation professionals and organizations

by the Michigan Historic Preservation Network as part of their state-wide window preservation initiative, and used by the City of Kalamazoo Development Center to train dozens trades people in window work.

Leeke has been active on the internet for over 15 years, producing content for the National Parks Service website, hosting discussion forums and a four-year series of live interactive video conferences at his own website ([www.HistoricHomeWorks.com](http://www.HistoricHomeWorks.com)), and producing a series of videos on preservation topics, including windows, that is distributed to dozens of websites.

John Leeke's motto: By hammer and hand great works do stand, by mind and heart we share the art

### **David Gibney**



David Gibney has been a practicing restoration craftsman and technician for the past thirty five years. Raised in South Bend, IN he was first trained and mentored in new construction by James Sherry, a local contractor. He then branched out, forming The Old Building Recycling Company to restore historic homes, including Frank Lloyd Wright's De Rhodes House.

In South Bend, he also worked for Renew, Inc. and Neighborhood Housing Services trying to restore and provide housing for low income families. He has an abiding interest in helping less fortunate people and has been to New Orleans seven times since Katrina hit, working in the 9<sup>th</sup> Ward District. Here in MD he has been active in many Habitat for Humanity builds.

He was a student in the National Trust for Historic Preservation's Workshop Study Program from 1980 to 1982. During his apprenticeship there he worked on many of the Trust's finest properties including Lyndhurst in NY, Drayton Hall in SC, and Decatur House in Washington, D.C. He also attended various art schools and is a painter and sculptor.

David is one of the few restoration contractors in the USA who can deal with almost every aspect of a major restoration. His areas of expertise include carpentry, masonry, plaster, decorative plaster and timber framing, but his specialties are window and porch restoration. In 1990 He formed Historic Restoration Specialists Inc. in Smithsburg, MD. Since then he has worked on many historically important homes, churches, barns and museums in the MD, D.C., VA and PA. Some of them are listed on his resume.

He has lectured at the National Building Museum, the Association for Preservation Technology's International Conference and the Restoration and Renovation

Conference. He has given extensive workshops at the University of PA, Shepherd University, the Smithsonian Studio Arts Program, and for many state and local organizations including Preservation MD, Preservation PA and Historic Alexandria. He has taught preservation courses at Harford Community College and Allegany College in MD. He is currently writing a course *The Proper Restoration of Porches* for Thaddeus Stevens College in Lancaster, PA.

David was published in the Winter 2001 issue of *Period Homes* and the March 2004 issue of *Fine Homebuilding* in articles on window restoration. He has been featured in the television programs *Restore America* and *Old Homes Restored*. Recently his credentials were sent to all fifty State Historic Preservation Officers as an expert historic restoration contractor.

He served for many years on the Board of Directors of Preservation Trades Network (PTN), a national non-profit that promotes education in historic methods to preserve the original historic trades. He has participated in most of the International Preservation Trades Workshops across the US and Sweden, teaching window and porch restoration. In 2008 he was the recipient of the Askins Award, PTN's highest honor for his extensive educational work. Many of his employees have gone on to work for the National Park Service, restoring our nation's historic treasures.

David enjoys any challenge, large or small. Recently his company was honored to work on the windows and large portico of Homewood Museum, the Charles Carroll country home that became Johns Hopkins University in Baltimore. David has helped save many original windows by installing, or by teaching people how to install, weatherization components that stop air infiltration. He and his employees look forward to every new challenge.

### **Jim Turner**



Jim Turner, owner of Turner Restoration specializes in the restoration of wood and steel windows. He is an advisor to the National Trust for Historic Preservation, a member of Preservation Action and the Preservation Trades Network. Jim indulged his passion for historic buildings and set aside his corporate career in order to master the art of practical preservation through intensive training in Pine Mountain, Kentucky. His philosophy is that practical preservation is a viable tool for sustainability, community and cultural development as well as an economic driver for work force development and training. He is sought out by organizations across the Midwest and southern areas of the United States as a consultant, presenter and trainer on window restoration techniques.

Jim was instrumental in the restoration of the original store front at the Richmond CenterStage© in Richmond, Virginia. He is currently working on a variety of projects including, the First Park Congregational Church in Grand Rapids, MI, the recently reopened Isaac Agree Synagogue in downtown Detroit, the Hartland Historic Museum in Hartland, MI and the Ray Township Historic Library. Over the past ten years the work of Tuner Restoration has been equally divided between the restoration of both steel and wood windows sustaining the historic value and architectural significance of structures in the communities that appreciate their historic resources.

### **Duffy Hoffman**



Hoffman Preservation and Restoration, Inc. is owned and run by Duffy Hoffman, a third generation craftsman. Duffy is the founder of the standards collaborative. He has a deep knowledge and technical experience in painting and wood issues. Many of his projects have been high-end, requiring distinctive restoration execution and focused attention to detail. These projects have included the following landmark buildings: The Highlands (in Fort Washington, PA), The Sheldon House and Tusculum (the home of John Witherspoon, signer of the Declaration of Independence, in Princeton, NJ, and the Cornwall Iron Furnace (in Cornwall, PA).

Duffy is a presenter at many historic preservation events, expos and shows in the Northeast. He promotes saving windows and has done so for 10 years at the Tradition Building Shows and The Greater Philadelphia Historic Home Shows, with a large percentage of his time dedicated to volunteering. He has been featured in numerous newspaper and magazine articles, and twice on the *HGTV* television show *Restore America*. Duffy specializes in combining traditional techniques with modern technology for the ultimate in aesthetic accuracy and safety. He is regularly a consulting expert on the safe removal of lead paint.

The scope of Duffy's work includes: paint removal for a good substrate; highest quality interior and exterior painting; plaster wall restoration; shutter, door, window sash restoration and window weatherization. He also specializes in historic restoration carpentry, repairs and millwork fabrication.

Hoffman has used his 25 years of seasoning in this field to develop a comprehensive and efficient system for mechanical removal of paint and glazing. Duffy works extensively with infrared paint removal (a lower-heat, safe and fast alternative for paint removal) and steam powered paint removers for sash, doors and architectural woodwork. He is also has extensive experience in all phases of wood repair with architectural epoxies. These techniques are used in restoration of sash, sills, doors and shutters. Duffy is adept at cutting old crown and cylinder glass, and draws from his own collection of old glass as a source for restoration.

Duffy has served as a consultant, project manager and master craftsman on many historic projects. He has many contacts with the masters of the traditional trades. He has volunteered his time and life to PTW, and workshops all over the US-teaching the hands on trade of sash restoration and the painting of historic structures. He is now donating a lot of time to rural America through Youth Build/AmeriCorps saving significant structures in the community. Most of Duffy's focus is on window sash restoration.