



ALABAMA

---

HISTORICAL  
COMMISSION

---

THE STATE HISTORIC PRESERVATION OFFICE



# ABOUT

*Located in historic downtown Montgomery at 468 S. Perry Street, the Alabama Historical Commission is the state historic preservation agency for Alabama. The agency was created by an act of the state legislature in 1966 with a mission to protect, preserve and interpret Alabama's historic places. AHC works to accomplish its mission through two fields of endeavor: preservation and promotion of state-owned historic sites as public attractions; and, statewide programs to assist people, groups, towns, and cities with local preservation activities. For a complete list of programs and properties owned and operated by the AHC, hours of operation, and admission fees please visit [ahc.alabama.gov](http://ahc.alabama.gov)*



# Great ~~Scott~~ Rot!

## Repair



Christy Anderson, National Register & Easements Coordinator  
(and old house rehabber)



# Best Practices for Historic Materials

The National Park Service recommendations for the treatment of historic materials are that one should:

- First, protect & maintain historic materials
- Second, repair historic materials
- Third, replace historic materials--usually in kind, although substitute materials may be considered

*The Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines for Rehabilitating Historic Buildings, Introduction to the Guidelines, p. ix-x*



# Protect & Maintain

Just as it sounds, protect and maintain requires the least intervention. Usually this will involve cleaning, recaulking, limited paint removal and repainting, as well as the installation of temporary protection measures.

That's all well and good, but what happens when you inherit a deferred maintenance problem, or you walk out the door to discover something has just fallen off your house?



# Repair

Again, with a thought of employing the “least intervention”, repair should not throw the baby out with the bathwater.





# Repair

- Patching, piecing in, splicing, consolidating or otherwise reinforcing historic materials according to recognized preservation methods.
- This may include a limited replacement in kind or a compatible substitute material.
- I inherited a repair issue and we'll step through the patching process after a brief mention of replacement.



# Replace

Sometimes historic materials are so deteriorated or missing that replacement may be warranted.

Replacement in kind is preferred (=using the same material and dimensions) but substitute materials may be considered.

Substitute materials may also be considered where a historic material is absent.





# The Problem:

Wood deterioration  
across the top of the  
window



Failure of a previous repair done  
with the wrong material



# Above the window

- The bubbling paint indicates a loss of adhesion, which probably means water has gotten in
- The previous repair failed, which contributed to the window taking on water



Now what?



# First, a word of caution

When dealing with historic materials, always be aware of the potential (and likely) presence of lead paint and take precautions to limit your exposure and contamination of the work area.

**For guidance on Lead-Safe Renovations for DIYers, visit the EPA's website**

**<https://www.epa.gov/lead/lead-safe-renovations-diyers#Protect%20Yourself>**



# Prepping the surface



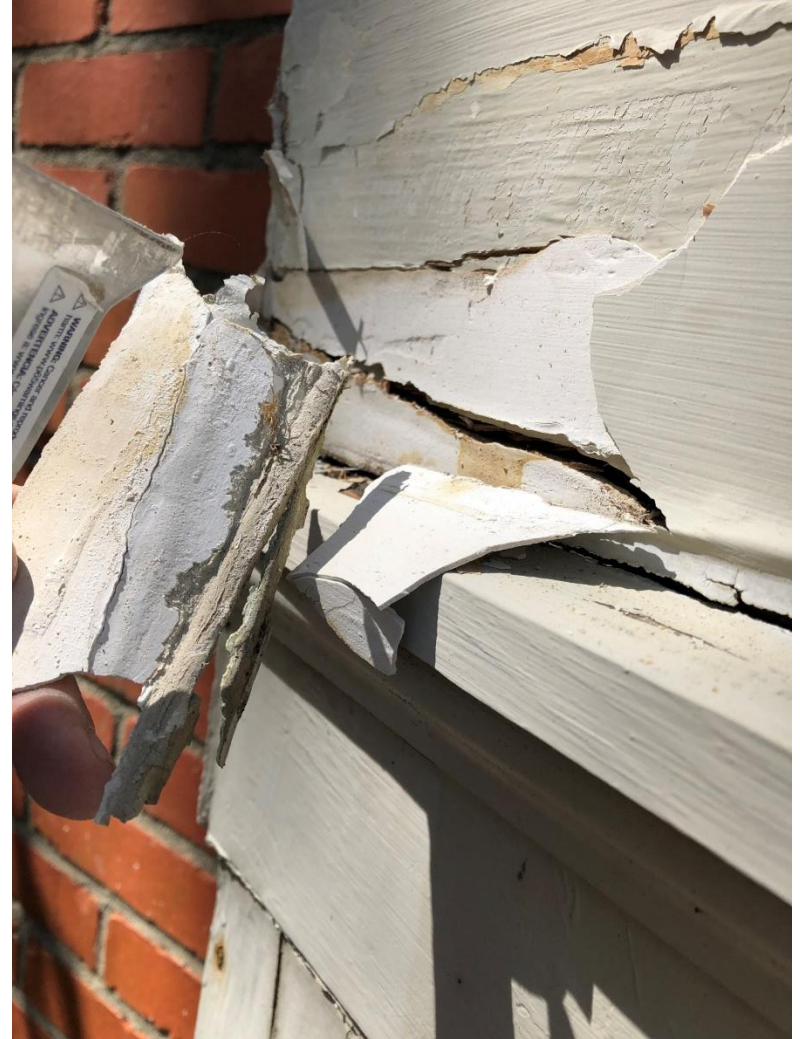
Remove the failing material (patches, paint, loose rotten wood)  
Removal of all rotten wood is not usually required, but you should probe the wood to find any hidden soft spots



# Prepping the surface

This is a failed surface patch. It is important to use the right material for the job. There is a wood filler product available from a company that also makes auto body filler (you know the name), it DOES make a difference which product you select. The auto body filler will not adhere to wood long term.

Trust me on that one!





# Prepping the surface

Once all material has been removed, clean all dust and debris from the spaces that need to be filled. For this task, I used a shop vac with a HEPA filter.

Next, apply a wood stabilizer. For my project, I used a two-part liquid wood epoxy available at my local paint store (if you get Old House Journal, you've seen their ads). Most big box hardware stores sell premixed products that also work. This will essentially petrify the wood that remains to give you a solid surface to patch to.



# Applying a wood stabilizer



Wood stabilizers are liquids and can be brushed on or poured on. I used a chip brush. I have also used a plastic syringe without a needle to inject it into cracks.



Temperature and product will determine how long it needs to dry. The two-part liquid wood epoxy is usually ready for its fill material within 1-2 hours.



**Rest**

**This isn't so bad, is it?**





## Next step: Fill

Most wood epoxies require mixing—the two-part system uses a hardener, which initiates a hydraulic set—relying on a chemical reaction versus air drying. Epoxies are different than wood fillers!

The thicker the application (more mass) the faster it tends to set.

Be sure to see what the working time of the product is before you start, some set very quickly (within 10-15 minutes). The system I've come to use after working with several has a 30-60 minute work time. Which is good when you work as slowly as I do.



# Fill

It's difficult to take pictures with gloves on and fill, so here's your one action shot:



Fill your prepared cavities with the epoxy wood filler



# Filled



More waiting....



Once the epoxy has set, the next task is to sand the patches to a smooth finish.

This can be done by hand, or with a small sanding tool such as a detail sander, orbital sander, or pad sander with a fine-medium grit sandpaper.

The smoother your patches, the less sanding you'll have to do. You may discover, as I did, once sanded that some spots may need additional fill to achieve an even surface.



As you can see here, my somewhat messy patches sanded down to a smooth finish





# The finished product

I now have a surface that is ready to prime, caulk and paint to complete the maintenance on the wood around the window.





# Ready to paint!

Most small repair and maintenance projects more time and patience than specific skills.

Proper preparation of wood and surfaces is important for not only insuring the protection of historic materials, but also giving longer life to the work you've just done.

