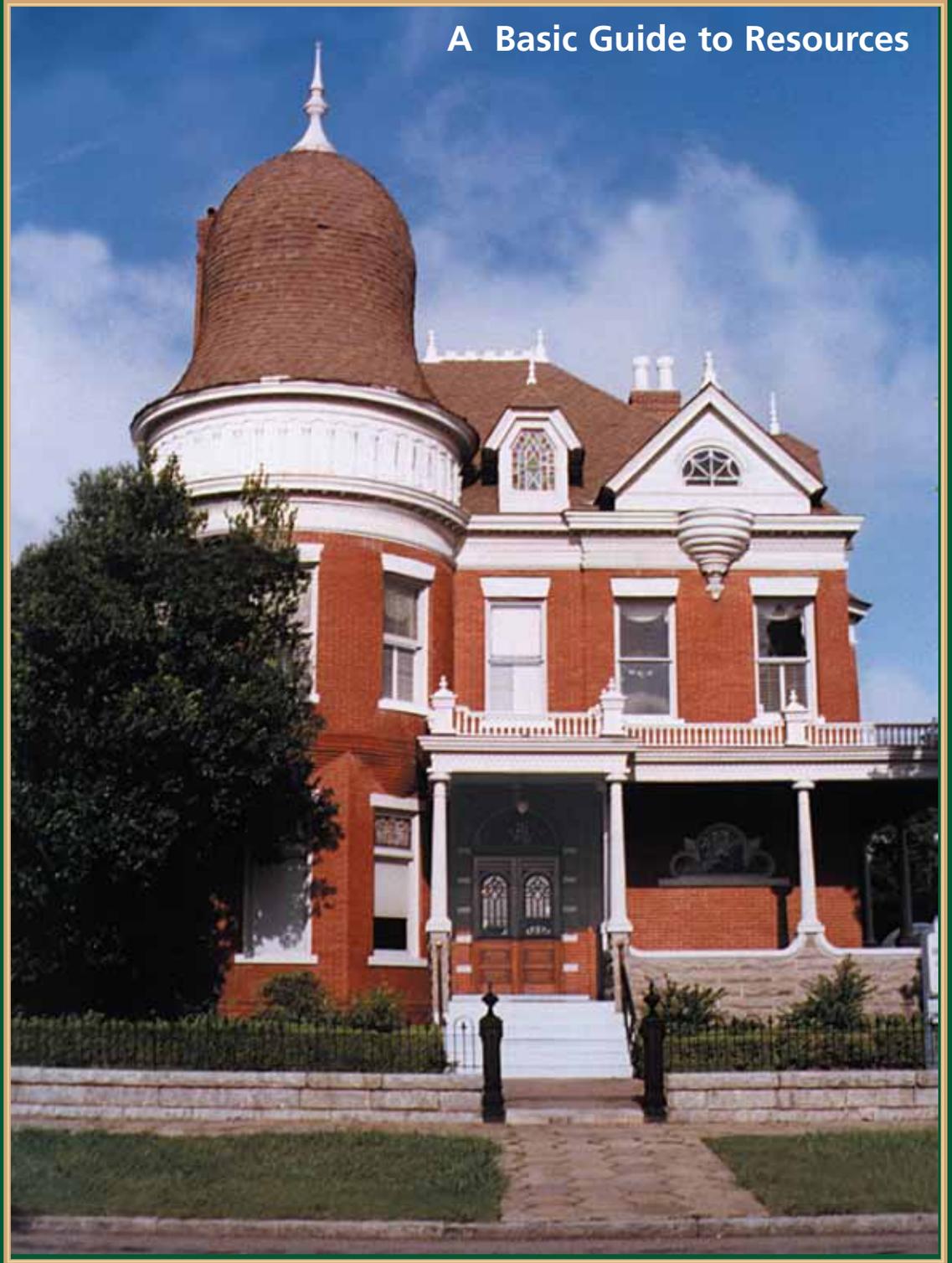


Handbook for Owners of
Alabama's Historic Houses

A Basic Guide to Resources



By Camille Agricola Bowman

Who We Are

Author **CAMILLE AGRICOLA BOWMAN** received her Master of Science in Historic Preservation from Columbia University's Graduate School of Architecture, Planning and Historic Preservation. Ms. Bowman has nearly 30 years of experience in the field of historic preservation, having worked in Virginia, North Carolina, New York City, and, finally, at home in Alabama. While in Alabama, she has worked in Birmingham for the Birmingham Historical Society, compiling research on downtown Birmingham buildings; in Anniston, as consultant to the city's local Historic Preservation Commission; and finally, with the Alabama Historical Commission. Because she is trained as an architectural conservator, her work in the field of historic preservation most often involves the understanding of building materials and how they deteriorate, solutions for their preservation, and maintenance as a prescribed prevention technique.

Copyeditor **MARY ELIZABETH, "SUNSHINE," JOHNSON HUFF** has worked in publishing for 30 years, with concentration most recently in the fields of decorative arts and historic preservation. She has published thirteen hard-cover books, the latest of which is *Mississippi Quilts*, from the University Press of Mississippi. Currently, she is researching Alabama quilts, in order that our state might have its own book celebrating our quilt heritage. She also has in preparation a book of "house" quilts for Habitat for Humanity.



Artist **CHRIS JACKSON** is a 16-year-old student at Prattville High School. He aspires to use his talents as an artist and would love to work with the Walt Disney Corporation some day. Chris' parents are Denise and Brian Jackson.

WITH SPECIAL THANKS to John M. Holloway, Jr. whose business currently occupies the Kennedy-Sims House at 556 South Perry Street, Montgomery. The Kennedy-Sims house, built in 1890, is listed in the National Register of Historic Places and lies within the South Perry Street Historic District.



Graphic Design and Production: Driscoll Design Inc., Montgomery, AL • 334-262-8047

Printing: State of Alabama Printing and Publications

Handbook for Owners of *Alabama's Historic Houses* A Basic Guide to Resources



Chapter 1. Introduction and Basic Resources 5

Developing a Way of Thinking about Alabama's Historic Resources.....	5
Alabama's Historic Home Owners' #1 Resource: The Alabama Historical Commission.....	6
<i>The Secretary of the Interior's Standards for Rehabilitation</i>	7
Resources	
<i>Recommended Initial Contacts for Owners of Historic Homes</i>	8
<i>Highly Recommended Books for Owners of Historic Homes</i>	8
<i>General Booklists</i>	8
<i>Popular Periodicals</i>	9
<i>A Few Recommendations for the Technically Inclined</i>	9
<i>Organizations You May Find Helpful</i>	10

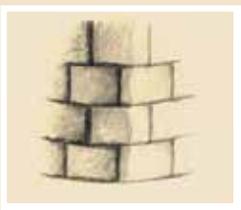
Chapter 2. Preservation Planning Beyond the Historic House 11



Understanding Historic Preservation Issues, Laws and Opportunities that Relate to Owners of Alabama's Historic Homes.....	11
A Brief Lesson in Alabama's Architectural History	11
Recognition: Markers, Alabama Register and National Register.....	12
Controls: Design Review and Certified Local Governments	13
Incentives, Assistance and Options for Historic Home Owners.....	14
Insurance and Appraisals.....	14
Additions to Historic Homes	14
Endangered Properties	15
Mothballing Historic Houses.....	15
Moving Houses	15
Archaeology	15
Resources	
<i>Alabama's Architectural History</i>	17
<i>General Architectural History</i>	17

Chapter 3. Planning for the Preservation and Restoration of Your Historic House 19

The Importance of Planning in Your Repairs or Restoration.....	19
Basic Guides for Approaching Repairs to Historic Homes.....	19
Where to Find the Quickest Technical Assistance	20
<i>Preservation Briefs</i>	20
Maintenance is Preservation	21
Water Issues.....	22
Design of Roofs and Roof Systems	22
Roofing Materials.....	22
Gutters and Downspouts.....	23
Valleys	24
Flashing	24
Chimneys	24
Basements and Foundations.....	25
Parapet Walls.....	25

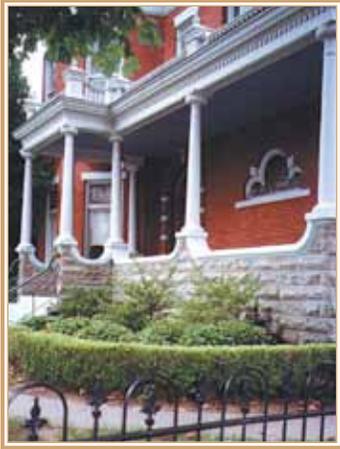




Masonry Issues: Know What You Have Before You Begin Work	25
What is Masonry?.....	25
Masonry Is Not as Tough as It Looks	26
Cleaning	27
Repairing and Repointing.....	27
Cracks.....	28
Sealers and Coatings.....	28
Wood Issues.....	29
Natural Material.....	29
Wood Repair Techniques.....	29
Historic Wooden Windows.....	30
Termites and other Wood-Destroying Pests	31
Paints and Finishes	32
Historical Paint Colors	32
Hazardous Materials	32
Surface Preparation	33
Compatible Materials.....	33
Aluminum and Vinyl Siding.....	34
Metals.....	34
Basic Considerations	34
Metal Roofing Materials	34
Hardware	35
Cast Iron Railings or Fencing.....	35
Landscapes and Back Yards.....	35
Maintenance	35
Ground Disturbance and Archaeology.....	36
Historical Plant Materials	36
Family Cemeteries.....	36
Interiors	37
Planning	37
Structural Systems.....	38
Insulation and HVAC Systems.....	38
Finishes.....	38
Fireplaces.....	39
Interior Decor.....	40
Wood Floors	40
Resources	
<i>Inspection and Maintenance</i>	41
<i>Roofing</i>	41
<i>Masonry</i>	41
<i>Wood Repair and Restoration</i>	42
<i>Window Repair and Replacement</i>	43
<i>Painting and Finishes</i>	43
<i>Metals</i>	43
<i>Landscape and Archaeological Issues</i>	43
<i>Cemeteries</i>	44
<i>Interiors</i>	44

Chapter 1

Introduction and Basic Resources



The goal for this handbook is to help owners of Alabama’s historic homes begin to understand their houses and to learn where to find the answers to protecting, preserving and maintaining them. This basic compilation of resources and explanations should help homeowners to understand, plan, investigate, evaluate, and carry out the most sympathetic and cost-effective repairs to their historic homes. It is meant to be a simple and readable technical manual, touching on recurring themes and questions that are repeatedly directed to the staff at the Alabama Historical Commission. All questions will not be answered in this publication, nor is it a complete restoration manual of resources or “how to” information. Additional topic-related resources follow at the end of each chapter or topic. All of these contacts—whether telephone, letter, or internet—can lead the careful investigator to more and more information and to additional resources that are not listed in the manual.

Developing a Way of Thinking about Alabama’s Historic Houses

“It is generally recognized that one of the most important duties of an enlightened society is the care and conservation of products of human genius.”

Lawrence J. Jajewski,
*Preservation and Conservation,
Principles and Practices*
(Smithsonian Institution Press,
Washington, DC, 1976)

Historic homes offer a sense of place that is otherwise fleeting in our mobile society. Not only are the architectural styles hard to find in construction today, but the superb craftsmanship and materials of yesterday’s buildings are unsurpassed in modern homes. The high ceilings, the abundance of real wood and/or plaster decoration, and the spacious arrangement of rooms in historic houses are added enticements to those of us seeking an affordable home in which we will enjoy living.

The reasons for being attracted to old houses may be as varied as the people who love them, but we become enchanted by these “products of human genius,” and we find ourselves wanting to live in them. In order to do so successfully, we must understand them as historic resources, and we should be prepared to invest ourselves and our sweat equity, our financial assets, and the goodwill of our families wisely. Restoring and living in historic houses can be economical, as long as we take the time to plan, research, and prepare the restoration and take advantage of the most up-to-date methods available. For example, repair of the original elements in buildings is much more economical than total replacement. Not only is it expensive to completely replace building elements (such as windows), modern materials are often inferior in quality to those originally put into the house.



In order to be a conscientious steward of your historic property, you must know, understand, and preserve it to the best of your abilities. Such knowledge and understanding comes from much reading and the asking of many questions. The most successful preservation projects take place when we understand the historic home in its broad context, when we are familiar with planning and incentive programs that are available, and when we study the technical issues that relate to historic building materials. Bear in mind that many modern treatments of historic materials are done with good intentions, yet they can affect the material adversely and often permanently, while the life span of the material is shortened.

Although this manual is intended to guide you toward sensitive preservation efforts, it is also intended to help you develop a *way of thinking* about historic home ownership. Therefore, this handbook covers broad issues of **comprehensive preservation planning**, as they affect the historic homeowner, so that you can better understand specific recurring issues of preservation repair and maintenance. Of primary importance is the will to find out the best course of action; this means that you must take the necessary time to analyze the problem and to determine what the best course of action should be.

As you go through the process, it is only common sense to avail yourself of opportunities for assistance. You can learn from those who have gone ahead of you on the restoration path; you can take advantage of their wisdom, much of which is readily available in the form of leaflets and other documents. As you study, you may glean support, sympathy, encouragement, and maybe even cost-saving solutions, along the way. This handbook presents resources for assistance to many of the recurring preservation issues that are faced every day by owners of historic homes in Alabama.

Alabama's Historic Home Owner's #1 Resource: The Alabama Historical Commission

The Commission is charged with owning and maintaining historic properties of significance; sixteen properties, ranging from military forts to archaeological sites to house museums fall under the AHC purview. The Commission is also the federally mandated State Historic Preservation Office (SHPO), overseeing laws that relate to the preservation of cultural resources. Its staff provides assistance to the public in its efforts to preserve our state's history.

The Alabama Historical Commission ("AHC") was created in 1966 as an Act of the Alabama Legislature, with the following purpose: "[Our] mission is to foster an awareness of historic structures, sites, and objects that reflect the heritage of all Alabamians and to facilitate the preservation and documentation of these resources for the use, enjoyment and education of present and future generations."

The AHC works with "cultural resources" (those produced by man), that are either located above ground (such as homes, whole districts, or even cemeteries) or

below ground (archaeological sites). Very often, these historic sites include specialized art, craftsmanship or design that is worthy of preservation, and it is the responsibility of the AHC to

Alabama's Own: The Survey and Registration Division of the Alabama Historical Commission

A GUIDE TO RESEARCHING OLD BUILDINGS
IN ALABAMA (ESSAY #24)

This is an invaluable introduction to the legal documents, tax records, and library resources that a property owner can use to date a historic property. *Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.*

Alabama's Own: Robert Gamble

ALABAMA ARCHITECTURE (ESSAY #1)

Gamble's brief essay on Alabama architectural history is worth checking. It describes not only the basic dogtrot, the I-house and coastal cottages, but also high-style Federal, Greek Revival, and Italianate, and twentieth-century styles popular in our state. Consult Mr. Gamble's essays and his own publications for more information about stylistic trends in Alabama. *Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.*

define what is significant or worth preserving in the context of Alabama's history.

Because the AHC is charged with such a comprehensive undertaking, it has identified the most efficient, yet the most sympathetic, ways in which to preserve historical cultural resources. To meet the need for a wide spectrum of knowledge, the staff of the AHC represents a variety of related fields ranging from archaeology and anthropology to architectural history, conservation and marketing. As a service to the people of Alabama, the staff of the AHC are available to assist property owners when any of Alabama's cultural resources are affected by alterations or change. It is important—and sometimes legally

mandated—that the AHC be notified of alterations to historic structures, or to the potential disturbance of a cemetery. It is always important that proper intervention is considered, and the AHC staff is available to provide direction. Remember that sometimes great harm can be done to our cultural resources, even with the best of intentions. For more information or for a packet of information for owners of historic properties, contact:

Alabama Historical Commission
468 South Perry Street
Montgomery, Alabama 36130-0900
Phone 334-242-3184
www.preserveala.org

THE SECRETARY OF THE INTERIOR'S STANDARDS FOR REHABILITATION

The following Standards are to be applied to specific rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility.

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

These Standards should be consulted when making decisions about historic homes. An Illustrated Guide to the Standards is available from the Alabama Historical Commission.

Resources

RECOMMENDED INITIAL CONTACTS FOR HISTORIC HOMEOWNERS

Alabama Historical Commission
468 South Perry Street, Montgomery, AL 36130-0900
Phone 334-242-3184
www.preserveala.org

Consult the AHC if you have any questions about your old house, archaeological resources, or if you need help getting started. The AHC will send a folder of information that should help.

Good Guides

<http://www2.cr.nps.gov/tps/care/index.htm>

Heritage Preservation's answer to an interactive rehabilitation experience.

National Park Service
Heritage Preservation Services
1849 C Street NW, Room 3128, Washington, D.C. 20240
Phone 202-208-7625
<http://www.cr.nps.gov/helpyou.htm>

National Trust for Historic Preservation
Historic Homeowner Program
Massachusetts Avenue, NW, Washington, D.C. 20036
Phone 1-800-944-6847
<http://nationaltrust.org/main/homeowner.htm>

An exhaustive resource for homeowners.

Old House Websites:

<http://www.oldhouse.com/preserve.html>

The interactive Old House Network offers many resources for the homeowner.

<http://oldhouse.web>

The Old House Web will introduce homeowners to many resources, including product literature and craftsmen.

American Association for State and Local History
www.aaslh.org
Phillips, Morgan W. **Technical Brief #118. The Eight Most Common Mistakes in Restoring Historic Houses (. . . And How to Avoid Them.)**

A "must read" for owners of historic homes.

Preservation Briefs

Over forty topics are covered in short, easy-to-read format. These are important topics for homeowners and are easily available from the AHC at phone 334-242-3184, from the NPS, or on the Internet. <http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

Illustrated Guide to the Secretary of the Interior's Standards for Rehabilitation

<http://www2.cr.nps.gov/tps/standards/index.htm>

Illustrated examples of rehabilitation approaches that are recommended and not recommended.

A free photocopy of the *Illustrated Standards* is available from: Alabama Historical Commission, 468 South Perry Street, Montgomery, AL 36130-0900
Phone 334-242-3184
www.preserveala.org

HIGHLY RECOMMENDED BOOKS FOR OWNERS OF HISTORIC HOUSES

Kitchen, Judith L. **Caring for Your Old House—A Guide for Owners and Residents.**

Preservation Press, National Trust for Historic Preservation, Washington D.C., 1991.
ISBN 0-471-14371-5
www.nthpbooks.org

Ms. Kitchen has written a brief, easy-to-read manual for homeowners.

Poore, Patricia, ed. **The Old-House Journal Guide to Restoration.** Dutton/The Old-House Journal; New York; 1992.
ISBN 0-525-93551-7
www.ohj.org

An excellent guide for homeowners, with a compilation of the magazine's articles about old houses.

Taylor, Julie. **Preservation Sourcebook—The Comprehensive Directory of Products and Services for Historic Preservation and Restoration.** Preservation Publications, LLC, 1998.
ISBN 0-9660570-0-7
www.preservationweb.com

An annual compilation of resources and businesses who specialize in historic preservation work or who sell specialized products.

Whelchel, Harriet. **Caring for Your Historic House.** Heritage Preservation, Harry Abrams, Inc., New York, 1998.
ISBN 0-8109-4087-6 (hardcover)
www.abramsbooks.com

A compilation of information by America's experts, this book reflects the best in state-of-the-art historic preservation philosophy today. Heritage Preservation and the National Park Service have collaborated on this publication, and the result is recommended as an excellent investment for any historic homeowner.

GENERAL BOOKLISTS

Preservation Press Catalog
National Trust for Historic Preservation
1785 Massachusetts Avenue, NW, Washington, D.C. 20036
Phone 800-944-6847
www.nthpbooks.org
www.preservationbooks.org

The National Trust maintains a list of books which may be purchased by mail or via the Internet.

Resources *continued*

Catalog of Historic Preservation Publications

National Park Service
1849 C Street NW, Washington, D.C.
20240
<http://www2.cr.nps.gov/bookstore.htm>

The Heritage Preservation Services Bookstore includes publications that are for sale as well as a listing of free publications that are available to the public.

POPULAR PERIODICALS

Historic Preservation

National Trust for Historic Preservation
1785 Massachusetts Avenue,
Washington, D.C. 20036
Phone 800-944-6847
www.nationaltrust.org

A quarterly publication of the National Trust, sent to all members.

Old House Interiors

PO Box 56009, Boulder, CO 80328-6009
Phone 800-462-0211
www.oldhouseinteriors.com

This new publication is edited by Patricia Poore, *The Old-House Journal* contributing editor.

The Old-House Journal

Hanley-Wood, LLC
One Thomas Circle, NW, Suite 600,
Washington, D.C. 20005
Phone 202-452-0800
www.ohj.com

An excellent compilation of articles about old houses, written by homeowners as well as by experts in the field of historic homeownership.

Period Homes, The Professional's Resource for Residential Architecture

69A Seventh Avenue, Brooklyn, NY
11217
<http://www.period-homes.com/>

Though intended for architects and other professionals, this publication

and related web page are excellent resources for finding suppliers of historically styled residential products.

Preservation Report

Alabama Historical Commission
468 South Perry Street, Montgomery,
AL 36130-0900
Phone 334-242-3184
www.preserveala.org

A free quarterly publication of the Alabama Historical Commission, this newsletter highlights preservation news from around the state.

Renovators Supply

www.renovatorssupply.com

This catalog, from a popular mail-order business, offers an extensive listing of hard-to-locate supplies, from plumbing fixtures to period wallpapers.

Traditional Building, The Professional's Source For Historical Products

69A Seventh Avenue, Brooklyn, NY
11217
www.traditional-building.com

A rich resource for suppliers of historic building trades.

A FEW RECOMMENDATIONS FOR THE TECHNICALLY INCLINED

Association for Preservation Technology Bulletin.

Published quarterly by the Association for Preservation Technology International, Chicago, IL, from 1969–present.
www.apti.com

This is the organization's journal of scholarly research into the field of preservation technology worldwide.

For membership information, see Organizations, page 10.

General Services Administration Readings on Technical Issues

<http://w3.gsa.gov/web/p/HPTP.NSF/Reading+Lists?OpenView>

The GSA maintains historic government buildings throughout the country, and they have published readings that are of interest to owners of historic homes and historic commercial buildings. These technical briefs are written in collaboration with the National Park Service.

Preservation Resource Group, Inc.

PO Box 1768, Rockville, MD 20849-1768
Phone 301-309-2222
Fax 301-279-7885
<http://www.prginc.com/pub-index/index.html>

PRG has everything that you ever needed or wanted in the way of hard-to-find tools, from molding profile gauges, to moisture meters, and its home page links to wonderful web sites and extensive book lists. Visit their website for in-depth information and resources.

Weaver, Martin E. and Frank Matero. *Conserving Buildings: Guide to Techniques and Materials.* John Wiley and Sons, Inc., New York, 1993.
ISBN 0-471-50945-0.

A technical publication, this book covers building materials, their deterioration, and what to do about it. Subjects range from wooden structures to paints and finishes.

ORGANIZATIONS YOU MAY FIND HELPFUL

National Trust for Historic Preservation

1785 Massachusetts Avenue, NW,
Washington, DC 20036
Phone 800-944-6847
www.nationaltrust.org

The National Trust is the clearinghouse for historic preservation advo-

Resources *continued*

cacy and assistance in our country. They maintain numerous informative resources, including the Historic Homeowner Program and Preservation Forum. Of course, they are a private organization that depends on private dollars to provide their numerous services, so generous membership support is appreciated.

Alabama Preservation Alliance

PO Box 2228, Montgomery, AL
36102-2228
Phone 334-824-2727
<http://alabamapreservation.tripod.com/>

Alabama's statewide non-profit organization advocates for preservation of the state's resources. They, too, depend on private dollars for their

existence, and their newsletter is a welcomed report on activities throughout the state.

American Association of State and Local History

1717 Church Street, Nashville, TN
37203-2991
Phone 615-320-3203
Fax 615-327-9013
www.aaslh.org

This organization information useful to the private homeowner, although they are oriented primarily toward house museums. If you want to pursue a pure restoration, it would not be a bad idea to find out how the experts do it!

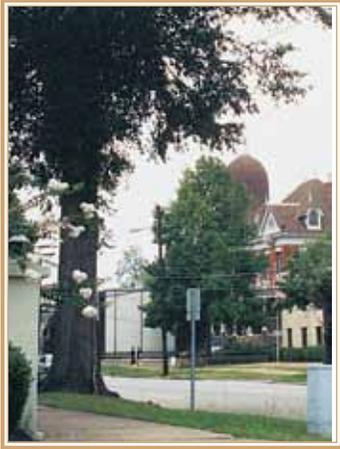
Association for Preservation Technology International

4513 Lincoln Avenue, Suite 213, Lisle, IL 60532-1290, USA
Phone 630-968-6400
Fax 888-723-4242
www.apti.org

APTI is a multidisciplinary organization dedicated to "advancing the application of technology to the conservation of the built environment."

Chapter 2

Preservation Planning Beyond the Historic House

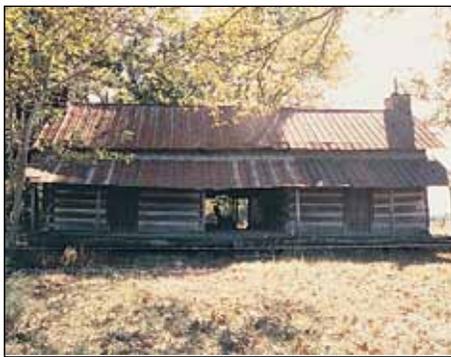


Understanding Historic Preservation Issues, Laws and Opportunities that Relate to Owners of Alabama's Historic Homes

In Alabama, we have vast and varied cultural resources, ranging from the built environment to rich archaeological resources, some of which are still undiscovered. It is important to know and understand that these resources exist before any planning or protection of them can take place. The value of historic cultural resources is recognized on the federal level, the result of which is the National Historic Preservation Act of 1966. This act mandated the planning and protection of cultural resources nationally, and gave a legal framework for each state to survey or search for its historic resources.

A Brief Lesson in Alabama's Architectural History

Shelter is paramount to man's survival, and our creative ability to build it is a study of its own. Throughout history, man used the most readily available materials to create his homes. Caves



Although often thought to be an early house type, this design was practical and many dogtrot and log homes were still built into the 20th century.

served just as they were, then such natural materials as mud, tree branches and hides were utilized; later on, our pioneer fathers and mothers hewed logs and assembled them into cabins; and finally, as we became more technologically advanced, our houses have come to be built of a stunning variety of man-made materials. Housing styles, materials, locations, and uses have changed. Changing taste dictated what houses looked like, and it is important to understand style and details when deciding what is important to preserve in our historic residential architecture.

Here in Alabama, stylistic trends followed those in the nation, though often later by a few decades. Early settlers

transplanted to Alabama built what they knew from their homelands. We still have residences erected by Virginians depicting what was familiar to them—a simple Tidewater Cottage, or a grand Jeffersonian Palladian, both brought straight from the Old Dominion. Our New Republic—and our booming cotton economy—was symbolized by copies of Greek and Roman columns that were discovered at the ancient



Many Greek Revival houses remain from the 1830's-40's when cotton was "king."

buried cities of Herculaneum and Pompeii in the early nineteenth century. Small “temples” appeared all across the country, spread by popular house pattern books distributed by migrating property owners and craftsmen. This grand style was prevalent across the thriving Black Belt of Alabama as well as in the Tennessee River Valley. The houses were symmetrical boxes with columns, and they were often painted white with green shutters. **See Architecture History Resources on page 17.**

Soon after the middle of the 19th century, architectural tastes changed dramatically. Books about style were being widely published; architects began to dictate the use of “natural colors,” asymmetry, and “craftsmanship” in widely distributed publications; and vast information regarding tasteful design was shared between cities and the frontier. Suddenly, there was a conscious effort to eliminate Greek temples. They were considered by the mid-nineteenth-century tastemakers as passé, or unsuitable for the trendsetter. In their place, colorful Victorian cottages sprang up, particularly in industrialized cities across the



Victorian neighborhoods can be very colorful.

entire country, including our state. The Victorian style was made possible by the newly developed machinery of the Industrial Revolution, which made everything from fine saw blades to sophisticated plumbing, so that finer, more comprehensive house plans, with more decorative craftsmanship, could be built. Toward the end of the century, a vast railroad system was developed

that connected the state with the rest of the nation, and whole houses could even be ordered through the Sears and Roebuck catalog and shipped into towns for immediate on-site assembly. Taste and technology were changing rapidly.

Just as suddenly as Victorian architecture took over the country, so the Chicago World’s Fair Exposition of 1893 inspired the revival of Grecian and Roman forms in government buildings, and large, columned temple-style “Symbols of Democracy” again were built. Because of this sudden change in taste back toward classicism, many colorful Victorian cottages were painted white in an effort to keep up with changing taste. Around the turn of the century, both Arts & Crafts and Eclecticism became popular. Whole neighborhoods developed in the 1920’s with architects outdoing each other. Spanish, Colonial, Mediterranean, and English Tudor revival styles were built side-by-side in the eclectic neighborhoods of the period.

In the 1910’s through the 1930’s, spacious Arts & Crafts bungalows were prevalent. Post-war baby-boomer neighborhoods popped up. And by the 1950’s, suburbia was born, in ubiquitous ranch-house neighborhoods. The trends continue today in whole, planned suburban neighborhoods, each reflecting the style of its period of development, each with its own theme, characteristics, materials, and design standards. Many of these planned neighborhoods today even have architectural review boards to guide those standards.



Revival styles often vary in 20th century eclectic neighborhoods.

The Architectural History Section and the Survey and Registration Section at the AHC can be contacted for more information about trends in Alabama’s architectural history.

Preservation Brief #17: Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character

<http://www.preserveala.org/intro1.htm>
<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

RECOGNITION: MARKERS, ALABAMA REGISTER, AND NATIONAL REGISTER

To be eligible for any official federal or state recognition, a property must be researched, and its significance must be evalu-



Historic markers are purchased and erected by interested citizens.

ated in the context of similar resources in the state or the nation. In our state, the first step in researching, or “listing,” a property begins with the Alabama Register of Landmarks and Heritage. Individual houses, or whole

neighborhoods that are at least 40 years old, can be researched and listed for this register. This does not limit or dictate what homeowners can do with their properties. It merely acts as a repository of research information on a property. However, list-

ing in the Alabama Register does provide property owners with valuable information about their property or neighborhood, and it can open opportunities and incentives for property owners. The Survey and Registration Division at the AHC coordinates research and evaluates Alabama's historic resources.

Listing in the National Register of Historic Places is a more difficult research project, and it is recommended that a consultant be hired to complete those applications. This listing establishes a property as important in the broader national context. Again, this listing is not controlling, nor does it dictate to property owners what they can or cannot do with their properties. It does, however, make possible certain incentives, as they become available to homeowners. See also <http://www.cr.nps.gov/nr/index.htm> for more information about the National Register.

Historic marker programs around the state differ widely. The AHC approves wording for markers that depict Alabama or National Register sites. The Alabama Historical Association can be contacted for information about their marker program (Dr. Norwood Kerr, Phone 334-242-4363, extension 258). Different regional historical commissions have marker programs, and other organizations have their own markers and wording requirements for sites they deem historic. Local representatives of those organizations should be contacted for information about their specific programs.

CONTROLS: DESIGN REVIEW AND CERTIFIED LOCAL GOVERNMENTS

Many people have heard about conflicts over historic home ownership, historic districts or registers, and there are fears of



Communities can protect their special character by proper preservation planning and even by implementing design guidelines.

“government involvement.” These fears are unfounded. Generally, districts and registers offer recognition and incentives while recognizing property owners’ rights. The federal government must review

federally funded projects that affect National Register or eligible properties (commonly called “Section 106”). Otherwise,

these registers provide more positive opportunities and incentives for historic homeowners than the regulation of properties.

There is one area in which controls do occur and, just as with the registers mentioned above, most involve recognition of significance and incentives for retaining and maintaining significance. A simple background explanation may help homeowners understand such controls and their related opportunities. In 1931, citizens of Charleston, South Carolina, realized that what they had in their town was very special. That which was special—historic homes, whole neighborhoods, commercial and residential resources—was threatened with rapid development and substantial change. So the citizens pulled together, worked with their local city officials, and together they wrote an ordinance, or “local law,” to protect what was special to them in their town. (Note that they were protecting what was special to them and not what their state or federal officials had already recognized in a register.) In order to enforce their local ordinance, they formed a commission of their own citizens to oversee what they considered to be special. They wrote design guidelines to govern what occurred in their defined boundaries, and “design review” became a planning tool that was adapted to historic neighborhoods. The city of Charleston led the way in “local district designation” and “design review.”

Cities across the country have followed Charleston's lead. Savannah and New Orleans were early followers, while Seaside, Florida, and modern subdivisions across the country have implemented “design review” in order to guide design decisions within their boundaries. State governments support the idea of local designation, and now there are even federal incentives to assist cities to set up local historic districts. The federal incentives come in the form of grant monies to cities that establish a “Certified Local Government” (CLG) and follow the guidelines of the National Park Service. CLG cities can apply for federal grants through the State Historic Preservation Office (or the



The results of early, comprehensive preservation planning show in Historic Selma's downtown.

AHC, in Alabama's case), and, if certified, they may receive the first 10% of the federal grant allotment that comes to the state of Alabama. The initial decision to designate local historic districts for protection is always made on the local level and is generated by citizens of a community and their own leaders.

Through their local ordinance, some cities guide or review alterations to exteriors of structures. Such a review process should result in a design or change that is compatible with the neighborhood and that will maintain the character of the neighborhood as determined by established design guidelines. These design guidelines are always tailored to the local district. Ideally, local standards correlate with the *Secretary of the Interior's Standards* as well. A board of qualified commission members, who are required to undergo continuous training, undertakes such review. The Commission follows due process throughout its entire decision-making process.

Alabama Historical Commission CLG Packet
Phone 334-242-3184
<http://www.preserveala.org/intro1.htm>

National Park Service, Certified Local Government Web site
<http://www2.cr.nps.gov/clg/index.htm>

INCENTIVES, ASSISTANCE AND OPTIONS FOR HISTORIC HOME OWNERS

Basically, historic homeowners must use their own resources to restore, remodel or repair their residential properties. Government involvement with private property is minimal, and, therefore, grants do not go directly to private property owners. However, there is hope, and there are ways for cities and neighborhoods to get financial assistance. These ways take some creativity and some ability to think beyond a single, privately owned historic property. In other words, they take *planning*.

Grants are available to cities through the aforementioned CLG program. Additionally, there is the Alabama Cultural Resource Preservation Trust Fund, a grant program administered through the AHC, and cities may apply for planning grants through this program. Local municipalities have other sources for federal grants through HUD, 203K or low-income housing programs. Be aware that none of these programs offer direct grants to help individuals repair or preserve their own houses. It is important that property owners know and understand all resources that are available through their city or county government, and creatively plan in order to dovetail the offerings of these varying programs. (Of course, it helps to have cooperative and enlightened government officials in the community.)

However, the AHC staff can also assist with ideas of who to contact, or who has helped in the past, and ways in which existing programs have worked to benefit homeowners.

Also, serious lobbying for assistance for historic homeowners is in order. There have been numerous efforts to pass the Historic Home Owners Tax Act, which is a potential tax credit that provides much-needed assistance for owners of historic houses. Find out more about this proposed legislation and get behind this effort to help homeowners preserve their homes, neighborhoods and cities.

For more information:
<http://capwiz.com/nthp/home/>

INSURANCE AND APPRAISALS

Historic home insurance and appraisals for historic homes have been challenging for some homeowners. Persistence pays, and the AHC can suggest names of persons in Alabama who have been able to assist in both of these areas. Additionally, the National Trust for Historic Preservation has literature and the names of national companies that can assist as well. Do not give up if a local contact is not able to provide services or products for historic buildings. People have the answers for your particular area of interest.

For more information:
<http://nthp.org/main/homeowner.htm>

ADDITIONS TO HISTORIC HOMES

There are several things that the homeowner must consider when adding on to an historic house. Homeowners are obligated to comply with building code officials and the requirements for safety in homes. Before issuing a building permit, inspectors

Alabama's Own: Nicholas H. Holmes, III, AIA CODES (ESSAY #2)

In his brief essay, Holmes outlines important aspects of Alabama's building codes and their application to historic preservation. Consult Holmes' essays for more information about these issues before undertaking renovation work. In addition, preservation architects at the AHC can guide decisions regarding code issues and their application to historic structures. *Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org*

will need to know that residents will be safe and that codes will be enforced in any proposed work. Again, it is important to work with architects and contractors who are familiar with old buildings, so that the rehabilitation work is both sensitive to historical integrity and complies with code issues. Sometimes, changes to structures may meet minimal code requirements in order to protect historic integrity. Do not hesitate to contact the AHC if questions arise.

The Secretary's *Standards* offer guides to decision making for building new additions on historic houses. Some points to consider are:

- ❑ Add onto the rear of the house or out of sight on the side of the house. Never alter the front of the house.
- ❑ New additions should not overshadow the old house, whether in color, size or material.
- ❑ New additions should blend with the original design, but they should not look historic.
- ❑ Ground disturbance destroys archaeological features. Assess the area before it is destroyed.

The Standards emphasize that old additions can gain significance in their own right. If it is over fifty years old, an addition is considered historic and should be evaluated before it is removed. Porch remodeling is an excellent example of historic alterations; nineteenth-century Victorian porches were very often changed in the 1920's to square-columned porches, but such changes in taste are considered to be significant in the evolution of architectural history.

ENDANGERED PROPERTIES

The AHC maintains a web page that lists endangered historic properties around the state. The purpose of the site is to market these properties to sympathetic buyers and to promote their significance and their preservation. If you know of anyone seeking an historic property, their dream home may well be one of Alabama's Endangered Properties.

AHC Architectural History Services

<http://www.preserveala.org/intro1.htm>

National Trust Endangered Properties

http://www.nthp.org/main/classifieds/historic_properties.htm

MOTHBALLING HISTORIC HOUSES

There are times when an historic home cannot be restored or put back into service immediately. For such situations, there are guidelines for "drying out" or "mothballing" a structure, protecting it from the elements until such time that it can be

rehabilitated or restored. Often, such measures involve new roofing, stabilization, and plywood over windows and doors.

Preservation Brief #31: Mothballing Historic Houses

<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

MOVING HOUSES

Moving historic properties is not a viable preservation option unless ALL other options have been totally exhausted. The AHC should advise a property owner about the move, should it prove



These winding stairs roll toward a new site, leaving behind much of the home's history.

inevitable. The building can lose its historic significance, and could be harmed irreparably. Archaeological resources are naturally lost in such an undertaking, thereby

compromising the property's historical significance. A property's history remains intact only when it remains on its original site.

ARCHAEOLOGY

Homeowners may not realize the full potential for discovery in their own backyards. Cultural resources consist of that which is under the ground as well as the readily visible. Archaeology



Homeowners should be aware of the history that lies just beneath the surface of their yards.

offers an opportunity to glean much information about the house itself and, perhaps, even more about its inhabitants. Historic property owners must realize that half of their property's history lies under the surface of the earth, and that such history is very fragile and easily disturbed. You should take great care when digging a sidewalk or a drainage ditch, for example, because evidence of an outbuilding, early kitchen, or smokehouse may lie just under the grass

layer of the lawn. There may be pieces of shingles, or siding, or clues to the house color or materials that could aid in renovation decisions about the house. Or, there could be nails, or screws, or porcelain shards that help date the property. And, of course, if landscape plantings or decorative features remain intact, they can give clues to the property's early landscape his-

tory. Do not be persuaded to pick up your house and move it to another location; much of its history is left behind in such a separation.

AHC Archaeological Services

Phone 334-242-3184

<http://www.preserveala.org/intro1.htm>

Resources

ALABAMA'S ARCHITECTURAL HISTORY

Bowsher, Alice Meriwether. *Alabama Architecture: Looking at Building and Place*

Published in cooperation with the Alabama Architectural Foundation. University of Alabama Press, Tuscaloosa and London, 2001.

This beautiful publication is a compilation of Alabama's architecture, presented in a unique format.

Burkhardt, Ann McCorquodale and Alice Meriwether Bowsher. *House Detective: A Guide to Researching Birmingham Buildings*. Birmingham Historical Society, Birmingham, AL, 1988.

Though specifically for Birmingham residences, this publication is an excellent guide to many resources that anyone in Alabama can consult for further information.

Gamble, Robert. *Historic Architecture in Alabama: A Primer of Styles and Types, 1810-1930*.

University of Alabama Press, Tuscaloosa and London, 1990. Published in paperback, 2001. ISBN 0-8173-0364-2.

Gamble's comprehensive survey of Alabama's architectural styles is an excellent book for anyone who wants to know more about their own house or about Alabama's architectural history.

Gamble, Robert. *The Alabama Catalog, The Historic American Buildings Survey, A Guide to the Early Architecture of the State*.

University of Alabama Press, Tuscaloosa and London, 1987. ISBN 0-8173-0148-8.

Robert Gamble serves as Alabama's Senior Architectural Historian, and his compilation of Alabama's architectural history remains an excellent document on Alabama's built environment. Currently out of print, it is available in most libraries around the state.

GENERAL ARCHITECTURAL HISTORY

Blumenson, John J. G. *Identifying American Architecture: Pictorial Guide for Styles and Terms, 1600-1945*.

American Association for State and Local History, Nashville, TN, 1981. www.aaslh.org

One of many excellent primers published by the AASLH.

Hale, R. W., Jr. *Methods of Research for the Amateur Historian*.

American Association for State and Local History, Nashville, TN, 1969. www.aaslh.org

Howe, Barbara J., Delores A. Fleming, Emory L. Kemp and Ruth Ann Overbeck. *Houses and Homes: Exploring Their History. The Nearby History Series* of the American Association for State and Local History, Nashville, TN, 1987. www.aaslh.org

Kyvig, David E., and Myron A. Marty. *Nearby History: Exploring the Past Around You*.

American Association for State and Local History, Nashville, TN, 1982. www.aaslh.org

McAlester, Virginia, and Lee McAlester. *A Field Guide to American Houses*.

Alfred A. Knopf, New York, 1984.

An excellent resource for the curious architectural historian.

Learn How to Read a Historic Building.

National Park Service, Heritage Preservation Services.

<http://www2cr.nps.gov/TPS/character/index.htm>

Nelson, Lee H., FAIA. *Preservation Brief #17: Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving their Character*.

National Park Service, Technical Preservation Services, Washington, D.C., 1988.

Poppeliers, John C., Allen S. Chambers and Nancy B. Schwartz. *What Style Is It?*

Preservation Press, Washington, D.C., 1983.

A good, concise, reference book.

Rifkind, Carole. *A Field Guide to American Architecture*.

NAL Penguin, New York, 1980.

An excellent guide to architectural resources and their styles.

Whiffen, Marcus. *American Architecture Since 1780: A Guide to the Styles*.

MIT Press, Cambridge, MA, 1969.

Another excellent guide to early architectural styles.

Chapter 3



Planning for the Preservation and Restoration of Your Historic House

The Importance of Planning in Your Repairs or Restoration

Most historic homeowners' understanding of good stewardship is that they must take care of what they have. Further, they respect the craftsmen and the handwork from an earlier time. The historic homeowner wishes to preserve that work, but often does not have enough information to make a sound decision. So, with every good intention, the wrong thing is done, whether out of haste, or from simply not knowing that there is a better way. It is difficult to educate one's self and to prioritize work items. And both tasks must be done up front, before the hammer is ever swung.

Ask a lot of questions; **listen** to the answers; **read** as much as possible; and be careful about who you listen to. Often, you must take into consideration the source of your advice. You should regard with caution a salesman who stands to gain from his/her advice. Of course, you will hear that his product is the best and that you need much more of his product than you figured. His business is to sell; yours is to **discern**.

Didron, the nineteenth-century archaeologist, describes a good general rule of thumb for historic homeowners: "The conscientious homeowner must respect, appreciate and preserve the special qualities of his property. As in the broader city planning context, where it is necessary to identify what is special and worthy of protection, the home owner must identify which features define the home as historic and are worth preserving." **See Preservation Brief #17 on page 17.**

BASIC GUIDES FOR APPROACHING REPAIRS TO HISTORIC HOMES

The preservation of buildings can be equated to the care of the human patient. Most often, as with medicine, it is imperative that the source of the problem be identified and addressed before a simple bandage is applied, or before the limb is removed. Patching a roof leak with liquid asphalt, for example, does not cure the roof leak. Identifying the reasons for the hole and taking care of the leak or roofing system will ensure a repair that will last longer than the quick patch. Buildings are made up of natural materials that require much care, understanding and fore-



"It's better to preserve than to repair, better to repair than to restore, better to restore than to reconstruct."

A. N. Didron, French archaeologist, 1839.

thought to prevent their being irreversibly damaged. All natural materials must be allowed to “breathe:” airborne moisture must be able to pass through the materials, escape and evaporate. When we unknowingly create a moisture barrier by slapping automobile putty on stone or by wrapping our buildings in plastic (in the form of siding), we accelerate deterioration of natural materials. Just as the human body breathes, grows over time, and experiences temperature changes, so do natural building materials. These natural conditions must be respected, as buildings must withstand the harsh elements of weather, temperature changes, and man-made hazards, such as acid chemicals or abrasive blasting machines.

Some slogans that you may wish to remember when approaching your repairs:

“Poverty is the best friend of preservation.” This old preservationists’ adage means that the lack of funds has prevented many well-intentioned mistakes. Even when the money is in hand, it is enormously important to wait and plan items of work, rather than rushing to finish quickly.

Take your time and think. Avoid the tendency toward a quick fix or instant gratification. Plan and research your work.

Respect the craftsmen who came before you. Many times modern materials and modern decisions destroy the handwork and craftsmanship of historic houses. It is important to realize that much time, energy and effort went into forming the details that make these homes special today.

Ask many questions. Ask questions both of modern craftsmen and those with experience in historic materials. Of course, those with experience are not afraid to bid or to specify work on historic materials, whereas those without experience often recommend total replacement. Additionally, those with experience are most often the most patient and careful of workers. By asking many questions, you can often find repair solutions that are much less expensive than demolition or replacement.

Read as much as possible. There are more resources available than can be studied;

however, the more you know, the better decisions you can make about preserving your old house.

Be discerning in what you read and hear. You must understand who is advising you. Again, beware of the local salesman who stands to gain from his/her advice. Of course, he will be selling his



Hasty decisions can obliterate historic craftsmanship and character.

product, but is his product really the best one for the project?

Plan your restoration. Very often, homeowners want to move right into their new home. Many times, homeowners address aesthetic concerns before major issues such as electrical or plumbing systems, even leaky roofs, are considered. It is advisable to consult an architect with experience in historic preservation to assist you with your planning and prioritizing. A general contractor who has experience with historic materials is also a valuable resource. It is easy to determine their experience. Just ask what they know about the *Standards* (The Secretary of the Interior’s *Standards for Rehabilitation*). Familiarity with state-of-the-art decision-making regarding historic materials and buildings is the key to a good architect and contractor. **See Standards on page 7.**

WHERE TO MOST QUICKLY FIND TECHNICAL ASSISTANCE

The Alabama Historical Commission can provide much information to the homeowner. Much of the work and technical decisions made by the AHC are guided by the National Park Service, as the imminent authority on managing and caring for historic properties.

NPS Technical Preservation Publications

<http://www2.cr.nps.gov/tps/tpscat.htm>

Alabama Historical Commission

<http://www.preserveala.org/intro1.htm>

1. Preservation Briefs

The most concise, state-of-the-art technical information regarding historic properties can be found in the *Preservation*

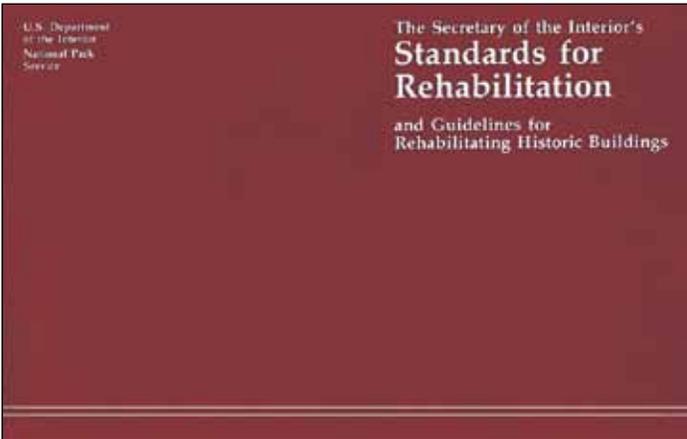


Over 40 topics are covered in the *Preservation Briefs*.

the quickest overview of priorities for the general examination of historic materials, is identified below.

Preservation Brief #35: Understanding Old Buildings, the Process of Architectural Investigation <http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

Briefs, which are referenced throughout this handbook. Each brief may be photocopied and mailed from the AHC, and they are easily accessible online (but often without helpful illustrations). The brief, which offers



The Standards are readily available to property owners, architects and contractors. See page 7 for the full list of 10 Standards.

2. Secretary of the Interior's Standards and Guidelines

The AHC uses Secretary of the Interior's *Standards for Rehabilitation* as a guide to all decisions that affect historic structures. These *Standards* list guidelines of “recommended” approaches to decision-making as well as “not recommended” approaches. There are certain circumstances where the property owner *must* follow these *Standards*—to receive tax credits, for some grants, and in local district designation, to name a few possibilities. If there is any doubt about having to follow the guidelines, check with the AHC before starting any major work. Certainly, before making any repairs or alterations to your historic property, you should clearly have a general understanding of the *Standards*, and you should clearly understand the following terms:

Using the Gentlest Means Possible: Start gently and slowly rather than quickly or expediently. Use test patches to determine the gentlest method of achieving the desired effect. For instance, in cleaning or in repointing, make several test patches with varying strengths of cleaning agents as well as with the design and color of joint material. This will aid your decision about which solution would be sufficient to accomplish the desired effect.

Determining Compatible Materials and Design: Old, soft building materials must have soft new materials or even handmade materials next to them in order for them to weather compatibly. For example, modern, cheap portland cement is very harmful to old stone or brick, because it does not expand and contract with thermal changes; consequently, the old, soft material breaks away with each expansion and contraction.

Reversibility: Whatever you do—add on or make repairs—be sure that you can undo the work in the future so that you will have an intact original. For example, a building addition should be “reversible” so that, in the future, the addition could be removed without harm to the integrity of the historic structure.

Repair rather than Replace: Always think in terms of repairing historic materials rather than wholesale removal of them. For example, window salesmen often convince homeowners that they need to remove all of their windows and replace them with new, “better,” windows. However, repair of historic windows results in superior and cost-effective qualities over the long-term. **See Historic Wooden Windows on page 17.**

These concepts are further explained in the *Standards*, and they can be better understood by consulting the recommended resources that follow:

Alabama Historical Commission

Free photocopy of *Illustrated Standards and Guidelines*
Phone 334-242-3184
www.preserveala.org

National Park Service

<http://www2.cr.nps.gov/tps/standards/index.htm>
<http://www2.cr.nps.gov/e-rehab/>
<http://www2.cr.nps.gov/tps/YESs/index.htm>
<http://www2.cr.nps.gov/tps/boilerplate/index.htm>

MAINTENANCE IS PRESERVATION

Preservation means maintenance—routine, disciplined, cyclical care and upkeep of the property. Usually, the property, or an element of the property, has lasted a long time with very

“Take proper care of your monuments and you will not need to restore them ... Watch an old building with anxious care, guard it as best you may and at any cost from every influence of dilapidation.”

John Ruskin, *The Seven Lamps of Architecture*, 1849.

little care or maintenance, especially the least accessible elements. Chimneys, soffits and upper floor windows are some examples of elements that are often neglected. Because it is most often constructed of materials that are far superior to those available today, an historic property can withstand neglect, but it responds beautifully to proper care. Proper care includes a maintenance program, imperative for all historic properties, whether residential, commercial, public or ecclesiastical. The maintenance plan serves as a detailed guide to routine upkeep. However, such a plan must

be implemented and followed in a disciplined manner, or it serves no purpose.

Alabama Historical Commission
Sample Maintenance Chart
Phone 334-242-3184
www.preserveala.org

National Park Service
<http://repair-home.com/info/maintenance.htm>
<http://www2.cr.nps.gov/tps/briefs/brief31.htm#>

WATER ISSUES

There are many factors that affect historic structures, but the effects of water (and of human neglect or lack of disciplined, routine maintenance) are often the most profound.

Concentrated attention to where water is going, to what path it takes, will generally offer clues as to what kinds of repairs need to be made and where regular maintenance attention is needed.

All moisture and water issues be identified and corrected before any repair or restoration work is undertaken inside the home. Many, many times, homeowners begin their restoration by installing interior creature comforts and taking care of aes-



Algae growth is a sure sign of water saturation.

thetic concerns, only to have water creep in and ruin their work. The easiest and quickest way to discover the source of water penetration is to get out in a pouring rain and watch where the water is going. Although much can be discovered from the ground, it is important that you examine every area of the roofing system (safely) during a heavy downpour. You need to determine where the water goes, and where you

need it to go. Generally, you need it to go far away from the house. You should inspect each part of the house—valleys, attic spaces and areas of chimney/roof junctions—in order to eliminate water from the home. Many recurring issues regarding water penetration and moisture control follow.

See Resources on page 41.

Preservation Brief #39: Holding the Line: Controlling Unwanted Moisture in Historic Buildings
<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>



Here is a complicated roof system which ultimately must shed water far away from the house.

Design of Roofs and Roof Systems

The roof and drainage devices of a house are planned as one large working system. It is important to understand the design of the original roof and drainage system before altering any part of it. Additions that join into an existing roof often cause problems at the junction of the two. Puncturing holes into a roof system for skylights or ventilation pipes may also create problems. Finally, redesigning a roof system can create new requirements of maintenance and upkeep; water will be collected in a different way, so the entire system must be redesigned. Be aware that when modern roofers are called in for repair or replacement, they often consider the materials that they are selling, rather than the entire system of drainage. **See Resources for Roofing on page 41.**

Alabama's Own: **Harvie Jones, FAIA** ROOFS (ESSAY #10)

Harvie Jones compiled an excellent concise history of Alabama's roofing materials and related issues, including gutters and downspouts. This historical overview includes not only various roofing materials and their origins within this state, but details about their weathering, repair details, and it refers to examples of various roofing types throughout the state. *Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.*

Roofing Materials

Roofing materials can range from modern asphalt shingles to pressed metal, pine or cedar shakes, clay tile, asbestos, tile, or slate, to name but a few. Generally, the older materials last much longer than modern composition or fiberglass shingles, as evidenced by comparing the known durability of roofing on historic houses and the warranties that come with the modern materials. A slate roof can last 50 to 100 years; a fiberglass shingle roof is guaranteed for 15 or 20 years. Replacing a superior, long lasting material (slate, tile or composite shingle) with modern fiberglass shingles does not make much sense economi-



This handsome cupola was originally covered in colored slate shingles.

cally when you consider the cost over the life of the roof. Composition or fiberglass shingles are an excellent, low-cost roofing material, but they are no substitute for a longer-lasting, durable, historic material such as slate, clay tile, concrete tile, or metal. Most homeowners do not realize that, although slate or tile stands up to weathering beautifully, the fasteners do not last as well. Corroded or broken fasteners are often the reason for slipping or breaking of otherwise sturdy tiles. If you need assistance to make repairs, search for a roofer that is experienced with these longer-lasting, more durable roofing materials. Fasteners can be replaced, and the roof can last many decades longer than any new 15- or 20-year asphalt roof. There are companies that still make metal shingles and clay tiles. Some salvage companies even specialize in recycling these historic roofing materials.

Alabama's Own: Elizabeth Brown

PAINTING A METAL ROOF (ESSAY #20)

Ms. Brown discusses the important steps to consider in preparing the surface of a metal roof, as well as appropriate stabilization and repair methods. Her essay includes a listing of recommended products for such repairs and repainting. *Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.*

Always ensure that flashing is properly installed and maintained, also. Just as fasteners corrode, the flashing materials at vulnerable joints often deteriorate over time. Historic roofs can be repaired, and they can last a long time if properly maintained after the repair.

An ill conceived, but popular, notion is that copper is the best, and the only really good roofing material. Copper is, of course, an excellent roofing material. However, it will fail like any other material if one of the following problems are present: the flashing is poorly planned and installed; the roof was installed in a manner that prevents expansion and contraction; or, if tannic acids are allowed to corrode the copper.

Very good roof systems that are not made of copper exist. Design and craftsmanship are more important than roofing materials. It behooves the homeowner to research historic photographs, find out what the historic roofing material was, and duplicate those materials where ever possible. Historic clay tiles, metal shingles, slate, and composite roofing materials are still made today, and the investment today for a long-lasting roofing material could pay great dividends. **See Resources for Roofing on page 41.**

Preservation Brief #4: Roofing for Historic Buildings

Preservation Brief #19: The Repair and Replacement of Historic Wooden Shingle Roofs

Preservation Brief #29: The Repair, Replacement, and Maintenance of Historic Slate Roofs

Preservation Brief #30: The Preservation and Repair of Historic Clay Tile Roofs

<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

Gutters and Downspouts

In order to preserve any historic building, it is imperative that the total roof system function properly. Roofs must shed water effectively, and gutters and downspouts must take water away from the building. Efficiency of these systems can be evaluated in your initial inspection during a hard rain. If water is going down the face of the house, if it overflows the gutters, or if it is splashing back onto the walls of the house or the windows, then



During a downpour, it is easy to watch rainwater pour over the drainage system rather than through the downspout.

it is not flowing **away** from the house properly. It is very simple to clean out gutters on a routine basis. If unsure about the proper flow of the water, place a hose in the gutters and downspout and watch where the water goes. In order to ensure that water is going far away from the house, simply install a plastic pipe and a plastic boot on the end of the downspout and channel the water off the house and away from the foundation.

It is important to consider that many old underground drainage systems (a standard facet of a well-built older house) no longer function to carry water away from the house. They may be broken or blocked, so their original purpose is defeated. They must be opened up or re-laid, if downspouts are tied into them. Amazingly, it can happen that entire roof systems are repaired, gutters and downspouts replaced, and underground drainage is never addressed. It is your responsibility to ascertain that water is flowing through all the systems properly—on a routine basis.

Alabama's Own:

Nicholas H. Holmes, Jr., FAIA, and
Nicholas Holmes, III, AIA

GUTTERS AND DOWNSPOUTS (ESSAY #12)

The Holmeses (father and son) have compiled an excellent resource guide for proper repair and replacement of gutters and downspouts on Alabama's historic buildings. It is particularly useful for dealing with wooden gutters or ornamental leader heads. *Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.*

Valleys

The junctions of roofs are called “valleys,” and are, most often, lined in metal. These areas are vulnerable to deterioration, thereby, providing an entry into the house for water. It is imperative that valleys be designed with low-maintenance materials. Also, they must be maintained and painted with rust-inhibiting paint to prevent their deterioration and corrosion. Leaking valleys should NOT be treated with liquid asphalt, which is the first thought of many modern roofing repairmen. Asphalt is highly corrosive to metal, and guarantees more rapid deterioration of the valley. A roofer with experience in historic materials may be able to replace leaking valleys or he can recommend an appropriate solution.

Flashing

Flashing is a metal connection between the roof and masonry walls or chimneys. Flashing is most often a galvanized sheet metal (copper is good but not necessary if flashing is correctly

installed), which is cut and tucked underneath the roofing material (whether asphalt, tile or metal shingles). Correctly installed, flashing should be stepped and folded into mortar joints (only; no bricks should be cut for installation), fastened with compatible fasteners, and sealed with a minimal amount of sealant. An experienced roofer will tell you that most roof leaks are flashing leaks.

If flashing is installed flush with masonry, and the joint merely sealed with a sealer, it will last a very short period of time. If flashing is coated with liquid asphalt, it will speedily corrode. If the fasteners that nail the metal into position are not a compatible material, the flashing will fail. It is very important that the flashing and its fasteners are made of compatible metals and that the system is properly installed. A watertight roofing system depends on well-executed details.

See Resources for Roofing on page 41.

Chimneys

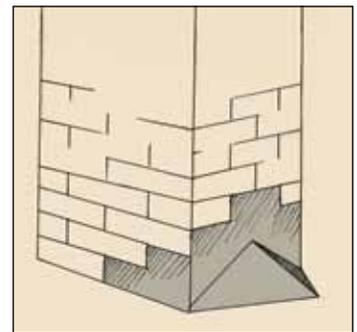
Chimneys are important design features of houses, and their preservation is necessary to protect the overall character of the property. In a hasty effort to eliminate water, many chimneys have been destroyed, either entirely, or by the removal of their stacks.

Most often, chimneys can be repointed and cracks filled, thus eliminating water penetration. A “cricket” can be installed at the junction of the roof and the chimney, thus diverting water away from the vulnerable junction of the roof and the chimney.

You should never build active fires in old chimneys until they are fully repaired and declared safe by a chimney specialist.



“Stepped” flashing is cut into mortar joints only, as shown above. No bricks are cut when installing stepped flashing.



A “cricket” can help shed water from the junction of the roof and chimney.

Alabama's Own: Robert S. Gamble

CHIMNEYS (ESSAY #6)

As Alabama's Senior Architectural Historian, Gamble has studied and documented Alabama's architectural history in depth. His essay on Alabama's chimneys illustrates the placement, materials, and characteristics of Alabama's chimneys over time. *Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.*

Often, old chimney flues can be relined and their use can be restored. Or gas log systems can be installed in chimney openings (with and without vents). However, old chimneys require a cautious approach before lighting a fire in them.

Basements and Foundations

Wet basements and foundation walls are frequently perplexing to the homeowner. Rather than observe and evaluate their historic drainage systems over time, they purchase a "waterproof" coating or paint from a big-box store and attempt to stop the water in the basement. Or, they buy an expensive consolidant to inject into the masonry wall of the basement, and install a fancy French drain system. However, no coating or consolidant or new drain system will correct drainage problems that have not first been addressed from above the ground. Check to see that all the drainage systems function properly, including any that are underground, and that the roof systems function in concert with the drainage system, before any expensive work is undertaken around the basement walls.

Alabama's Own: Harvie Jones, FAIA

FOUNDATIONS OF HISTORIC STRUCTURES
(ESSAY #4)

Harvie Jones compiled and generously shared his vast knowledge about historic structures in Alabama. His article on foundations and cracks can assist the homeowner in assessing the nature of cracking in historic structures. Often, as Jones points out, cracks are normal and are not to be alarmed about. Other times, of course, professional evaluation is necessary. *Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.*

Ensuring proper drainage away from the house is the most important step to take when dealing with wet basements. French drains and waterproofing applications should only be considered after all other corrective measures have been taken.

Parapet Walls

Many houses have masonry or wood walls that extend higher vertically than the roof system. Proper maintenance of these walls is often neglected, but they can fall victim to hairline cracks at their joints (or at missing mortar joints), which can allow water inside masonry walls. Additionally, because the roof structure and drainage systems generally bank off parapet walls, their joints and intersections become good candidates for deterioration. Just as with chimneys, good flashing is imperative. Again, liquid asphalt will not stop water penetration into parapet walls; it will, however, corrode any flashing that had been installed under it. Parapet walls are high maintenance items, and it is important that they be watertight.

MASONRY ISSUES: KNOW WHAT YOU HAVE BEFORE YOU BEGIN WORK

You must know what you are working with in order to correctly diagnose the problem and to prescribe a proper solution.

Our modern materials and the quick fixes so easily available can often do more harm than good. We, as good stewards, must all learn the difference between long-lasting solutions and instant gratification. Do not be like those people who sandblasted their family tombstone to clean it and then wondered why they could no longer read the inscription!



Brick, stone, and all mortar joints each has individual requirements for proper preservation.

What is MASONRY?

It can be any one of a number of different materials, or a combination of several.

Stone: Types of building stone vary significantly, but marble, limestone, and sandstone are members of the same family. All are soft, porous and highly sensitive to acids and chemical pollutants. They are formed in layers, which means they can break off in whole sheets if water gets into the layers.

Granite is commonly thought to be impervious to damage, but it, too, can be harmed irreparably by modern chemicals (especially acids and chlorine bleaches) or harsh blasting.

Brick: Bricks range widely in character from soft, old, hand-made clay units to modern and hard-fired ones. The exterior crust of soft, old brick is vulnerable to breakage or blasting, which leads to rapid deterioration. This happens when water seeps into the soft interior portions and freezes in winter; the expansion of ice causes the brick to crumble or “spall.” Hard mortars will also cause brick to spall.

Terra Cotta: Akin to brick, this fired clay material is poured as slip into molds; highly decorated detail is possible. Terra cotta may also be cast for roofing material and drainage pipes. Just as brick freezes and breaks, so can terra cotta. Its preservation must be carefully undertaken. Fortunately, many of the original companies are still in business, using the original molds to recreate their terra cotta masterpieces.

Preservation Brief #7: The Preservation of Historic Glazed Architectural Terra-Cotta

<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

Concrete or Cast Stone: These two materials are related, and they resemble stone when tiny pebbles are used in their fabrication. Being man-made, these materials vary in their composition; consequently, their cleaning or repair treatment varies as well.

Preservation Brief #15: Preservation of Historic Concrete

<http://www2.cr.nps.gov/tps/briefs/presbhom.html>

Stucco: Historically, this material is man-made, cement-like, and subject to weathering, just like natural masonry. Cracks should be closed with a soft, cement-like material that is softer than the original stucco. Modern “stucco,” which is composed

of rigid foam that is coated with a thin layer of cement, is not durable nor long-lasting and is not recommended for repair or remodeling of an historic home.

Preservation Brief #22: The Preservation and Repair of Historic Stucco

<http://www2.cr.nps.gov/tps/briefs/presbhom.html>

Mortar: This is the material that joins units of brick and stone, and it performs a second vital function—it keeps water out of the building. Old mortar is most often of a high lime content, which means that it is very soft, most often handmade, colored by local sands, and it expands and contracts with thermal changes. Modern, store-bought mortar is often high in portland cement, which does not expand and contract, so it can be very harmful to softer brick or stone. (A basic principle of historic masonry is that mortar must *always* be softer than the units that it touches.)

Preservation Brief #2: Repointing Mortar Joints in Historic Buildings

<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

Masonry Is Not as Tough as It Looks

The proper preservation of historic building materials will ensure their stability for many more (perhaps, hundreds) of years. In the end, slow, well-thought-out cleaning and repair



Alabama limestone “spalls” as a result of hard mortar joints, harsh chemical cleaning and salted steps.

techniques will pay off. You must always know and understand your techniques in order to avoid causing inadvertent and irreparable harm to your building materials. Your initial thought process should include

determining the answer to these questions: “How clean does it have to be? Does it have to look new when it is *not* new?”

See Resources for Masonry on pages 41-42.

Chemical processes occur naturally throughout the life of organic materials. Original stone forms through chemical processes; the making of mortars involves a chemical reaction; pollutants from acid rains affect stone chemically; paint removal is a chemical reaction; salt crystals can form and grow inside stone units—another chemical reaction. Although it is not necessary to fully understand chemistry, it is important to

Alabama's Own: Harvie Jones, FAIA

MASONRY (ESSAY #5)

As an architect practicing in North Alabama, Jones studied historic buildings and shared his vast knowledge with the historic preservation community in this state. His brief essay on Alabama masonry covers brickmaking before c. 1870, molded and pressed bricks, stonework, concrete block, mortar and mortar joints, as well as typical problems found in Alabama. *Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.*

know that we can cause serious harm to historic building materials just by setting adverse chemical reactions into motion. Taking our time and educating ourselves about the products we are using, before they are applied to the material, will prevent serious harm to historic masonry.

Water is the most common element that affects seemingly impervious masonry. The changing pressures of water inside masonry units can displace whole structures. When the water freezes, whole units can move or break. Furthermore, water can cause additional chemical reactions within stone and masonry which, over time, can dissolve binders or even totally crush whole units. It is enormously important that water be shed from the masonry, and that it not allowed to seep inside cracks or open mortar joints. **See Resources for Masonry on pages 41-42.**

Cleaning

Cleaning masonry can produce aesthetically pleasing results and prolong its life. If you are replacing mortar joints (known as “repointing”), be sure to clean the original mortar before making color matches. Take care to remove soot, algae and lichen, as they can accelerate deterioration by holding in water and environmental acids.

Cleaning must be performed gently and carefully. Often, a garden hose and a soft bristle brush are the only tools necessary; try simple water soaking and gentle brushing first. If the water alone does not clean the masonry, other gentle cleaning agents may be needed (in diluted solutions). Bear in mind that our most common materials in Alabama—marble and limestone—



Little children with cups of water and a soft brush illustrate the “gentlest” cleaning techniques.

are very sensitive to acids. Therefore, only alkaline solutions should be tested on these materials. Never should the first step in cleaning involve detergents or, worse, acids or blasting (whether with sand, water, glass beads or pecan shells). Never should a wire brush be used on masonry. A paint remover that is designed specifically for restoration work may be used, but manufacturer’s literature should be followed precisely.

Test patches can help determine the “gentlest means possible” to achieve a clean surface. Working in an inconspicuous

spot, test various cleaning agents beginning with the gentlest (plain water) and working up to the solution which achieves the desired effect.

Preservation Brief #1: The Cleaning and Waterproof Coating of Masonry Buildings

Preservation Brief #6: Dangers of Abrasive Cleaning to Historic Buildings

Preservation Brief #38: Removing Graffiti from Historic Masonry

<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

Repairing and Repointing Masonry

Any material used to repair masonry must be compatible with the material it is binding. The repair should also be reversible, meaning that it can be removed without harm to the

Alabama's Own: Elizabeth Brown

THINGS TO CONSIDER WHEN REPAIRING BRICK WALLS WHEN THE MORTAR HAS TURNED TO SAND (ESSAY #18)

Elizabeth Brown is a Preservation Architect with the AHC and has summarized some important points to consider when working with historic brickwork. The formula for Type “O” mortar, recommended for historic applications, is provided in her essay. *Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.*

Alabama's Own: Harvie Jones, FAIA

REPOINTING FOR MOST-TYPICAL 19TH CENTURY MORTAR JOINTS (ESSAY #8)

Harvie Jones illustrates “right” and “wrong” mortar joint design and materials for applying mortar joints. It is important to consult accurate data such as Jones’ article before duplicating mortar joints in historic structures. The face of a building, home or chimney can change forever if mortar joints are closed incorrectly or with harmful materials. *Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.*

original material. Modern portland cement will actually crush brick or stone. Usually the best choice in repointing historic masonry is a mortar high in lime content and handmade with the formulas recommended in the Preservation Brief (1 part cement: 1 part lime: 6 parts sand). It should be colored by matching the sands in the original mortar which, may have



Mortar must match the original in color, texture and consistency. Several formulas and colors should be tested.

originally come from a nearby creekbed. Generally, a careful mason can execute a matching mortar joint that is not easily detected. Test patches will ensure a proper job. If you working with a conscientious mason and are armed with the knowledge

of what the final product should look like, you can expect excellent results. **See Resources for Masonry on pages 41-42.**

There are many modern materials that have been developed to assist in masonry repairs. For example, companies manufacture colored Type O and Type N mortars, in order to eliminate hand mixing. Epoxies have been developed for adhesion, as have consolidants and stone strengtheners. However, you must know and understand these materials, their compatibility with the stone, and their lifetime expectancy, before they are injected into masonry. Most are new products, so it is not known how they will weather, their compatibility, or how reversible they are. Beware of the “quick fix.” A conservator should always be involved when major consolidation or conservation issues are considered because technology is changing rapidly, and a product that might be good today may be discounted tomorrow.

Preservation Brief #2: Repointing Mortar Joints in Historic Buildings

<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

Cracks

Hairline cracks are not always something to be alarmed about; however, all cracks should be regarded as potential entryways for water. They should be sealed with cement-like materials (mortar), never with silicone caulk, wood putty, or bathroom caulk—they are incompatible with the original materials and are unsightly, will break down when exposed to sunlight, and their sealing ability is quite limited.

Wide cracks need special attention and evaluation by a structural engineer, especially when they cross through brick or stone. Observe changes carefully. Crack monitors can be



Water can penetrate the smallest opening, so mortar joints must be closed.

installed over cracks, so that changes can be charted over time. A low-tech crack monitor can be made with a glass slide (used with microscopes); glue it over a crack. If it breaks, significant shifting is occurring, and an engineer should be consulted.

The Preservation Resource Group is a company that sells crack monitors and many other wonderful preservation products.

Preservation Resource Group
www.prg.com

Sealers and Coatings

The same preservation principles discussed earlier hold when it comes to deciding whether to apply a coating or a sealant. Modern marketing of sealants and coatings has created the misconception that coatings or sealants are necessary in order to maintain a watertight condition. This is not true! It is almost impossible for sufficient damage-causing moisture to enter a well-maintained masonry wall. It is



A rubberized coating has trapped water, and moss is thriving!

imperative that evaluation of problems from elsewhere is constant and that those problems are solved. Joints must be properly repointed; hairline cracks must be closed; and water must be properly diverted away from the building. Generally, a coating of what is basically “plastic” or “rubber” will not alleviate water penetration, particularly when the basic repairs have not been made. Furthermore, coatings are not reversible, and they are not long lasting; just like paint, coatings must be renewed; worse yet, they trap moisture behind their film. Buildings must breathe, allowing interior household moisture to escape through the natural building materials. Though many sealers and waterproof coatings are touted as “breathable,” they are not readily recommended on historic masonry.

Preservation Brief #1: Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Building

<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

WOOD ISSUES

Wood, the original building material of our state's settlers, has been cut and hewn for many different purposes in housing, and it has deteriorated for any number of reasons. Only the most common, recurring issues will be dealt with in this handbook; many resources are available for further independent study.

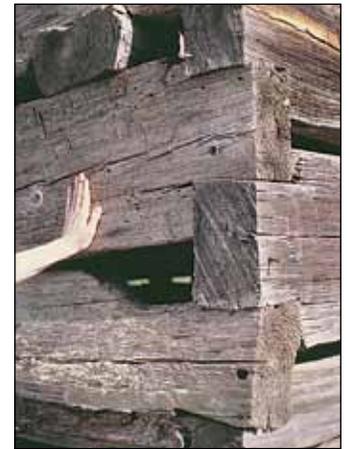
Natural Material

One of the most important aspects of wood is its natural ability to withstand varying weathering conditions, and that characteristic is directly related to the age of the tree when it was cut. Historically, wood was cut from old-growth timber (growth rings are closer together); new wood is from fast-growth timber (growth rings are farther apart). Old wood is more durable and withstands deterioration much better than newer woods. Durable modern woods are hard to find and expensive to secure, so it is good to know proper installation techniques as well as good materials when working with historic woods. Proper installation is an important aspect of wood's ability to shed water and to weather efficiently. For example, when growth rings are turned down during installation, wood will shed water; when growth rings are turned up, the wood will trap water and deteriorate faster.



The Kennedy-Sims House features much decorative woodwork.

Wood must breathe. It must be able to expand and contract with thermal and moisture fluctuations. And it can be severely damaged by man's machinery and/or neglect. Wrapping wood in plastic (vinyl cladding or siding) is the worst thing we can do to the natural material; such treatment creates the perfect opportunity for deterioration, since the wood cannot breathe and moisture is trapped. Additionally, homeowners have found out the hard way that sandblasting machines can irreparably damage wood. Their harsh treatment pulverizes the soft portion of the wood, leaving a fuzzy, hairy surface that is difficult to paint.



Historic wood is often more durable than modern wood. It can endure more deterioration while retaining structural integrity.



Traditional craftsmen wisely constructed porch columns to drain water.

Wood construction is an important indicator of the period in which the piece was constructed. Of special importance in historic houses are small, seemingly insignificant details, such as moldings and molding profiles. They tell much about period taste and technology, and can be found on trim, siding, windows, doors, soffits, or crown moldings. Much care should be taken to preserve and match such details. The same holds true of shutters, blinds, doors and windows.

Alabama's Own: Harvie Jones, FAIA, and Robert Gamble

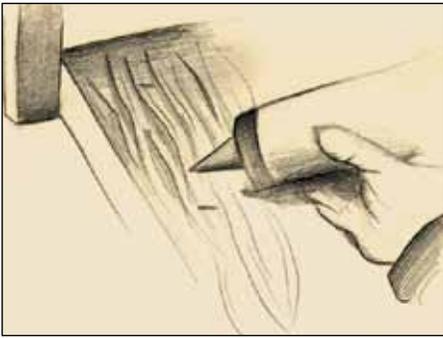
PORCHES (ESSAY #9)

Jones and Gamble collaborated on this essay, which discusses typical nineteenth-century Alabama porch details, from flooring and framing to steps, foundations, and soffit details. Because so many early porches have been removed, or were replaced in the twentieth-century, this information, along with photographs of the early porch, can prove infinitely useful for an accurate porch restoration. *Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.*

Wood Repair Techniques

Wood often can be repaired instead of replaced. Historic wood is worth keeping and maintaining wherever possible as stated earlier, because of its superior quality to any wood that is available today.

Historic wood can be salvaged and its life prolonged through the proper use of modern wood epoxy consolidants. Missing sections of historic wooden elements or deteriorated sections can be made whole again with this modern material, and the surface can be sanded and painted. When properly used, wood



Epoxy consolidation of wood checks deterioration and is an effective alternative to replacement of wooden elements.

epoxy can eliminate the need for refabrication of whole wooden elements, thus saving money on labor and material costs. However, epoxies cannot withstand exposure to sunlight, and they cannot be spread over the surface of wood

or any other natural material. Cracks can be filled but the surface must remain exposed so the wood can breathe. Following epoxy consolidation or repair, wood members should be sanded, primed and painted again.

Many times, large sections of wood are missing or deteriorated. In some cases, new wood can be cut and fabricated for installation alongside solid original detailing. (This technique is called a “Dutchman repair.”) It is important that the craftsman match the original wood joinery, and the replacement wood must match the original wood in weathering abilities and in the graining patterns so water is shed at similar rates. Epoxies can be used to adhere new wood to the old; the new insert can be sanded and painted to match the old wood.

Historic Wooden Windows

Because historic wooden windows are often treated as wholly dispensable elements of historic buildings, they have become an

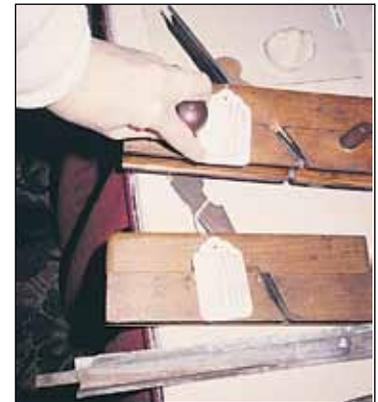
issue that recurs with regularity at the AHC. The response of AHC staff is as follows.

Take a few minutes to examine your old windows before you make a hasty decision to replace them. Here are some points to consider:

- ❑ Your old windows have survived for many years with minimal maintenance.
- ❑ Old windows need only restoration to be airtight again.
- ❑ Old, slow-growth wood is far superior and more weather-resistant to modern, fast-growth wood. It behooves any homeowner to retain old wood wherever possible.
- ❑ New windows have limited warranties; even some of the better ones are guaranteed for only ten years!
- ❑ Wholesale replacement of all windows is not an acceptable preservation practice. Always, the ultimate goal should be to repair and maintain historic wooden windows rather than to replace them.



Historic window moldings were planed with special blades.



The blade is fixed in the planer, and the muntin hand cut.

Alabama's Own: Robert Gamble

SHUTTERS AND BLINDS (ESSAY #17)

Did you ever wonder what the difference is between “shutters” and “blinds?” Architectural Historian Gamble discusses the differences, the hardware appropriate for Alabama shutters, and proper installation techniques. All mystery is solved in Gamble’s easy-to-read guide to the restoration of these important exterior features of an historic home. *Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.*

Alabama's Own: Elizabeth Brown

THINGS TO CONSIDER WHEN
REPAIRING OR REPLACING YOUR
HISTORIC WOODEN WINDOWS
(ESSAY #22)

Elizabeth Brown’s essay on historic wooden windows deals primarily with window replacement. Note that the Secretary of the Interior’s Standards recommend that windows (and all historic materials) be repaired rather than replaced. *Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.*

- ❑ Repair of historic wooden windows is proven to be less expensive than total window replacement.
- ❑ The final product of a restored window is a more satisfactory solution, as important elements of a building are retained in the final restoration of the building.

Often, all that your windows need is good paint preparation and new putty, or, put into simpler terms—basic maintenance. Maintenance can include the addition of weather-stripping at the sides, tops, bottoms, and meeting rails of the windows. Many repairs may be undertaken while the windows remain in place.

If areas are rotted, consider epoxy repair and consolidation. Consolidation with liquid epoxies can save better-quality wood in windows and even sills. Consolidation should be considered if less than 50% of the wooden area is missing. Following consolidation, wood surfaces can be sanded, primed and painted again.

If larger areas (more than 50%) need replacement, consider Dutchman repairs. Many times, larger sections of windows are rotted or missing, and consolidation is not always an option. However, “Dutchman repairs” should be considered before entire refabrication of the element. (See previous explanation under “Wood Repairs.”) Cheap, easily available wood will not weather at the same rate as the historic wood, so the best possible quality wood should be obtained along with epoxy adhesives, proper priming, and a good paint job.

If whole windows or window elements are missing, consider replacement. When an entire window sash is missing or deteriorated beyond repair, fabrication of a new window element is necessary. It must match the original in design, profile and material. Often new wooden windows must be made by hand with special molding planes; rarely can they be purchased from a local source. Close attention to detail will ensure that new windows duplicate the original windows in material and in appearance. Never should all windows in a home be totally replaced. Replace the missing window or window element only; resist the impulse to make all new windows.

Window Alternatives

If your windows seem cold after you have restored them, or if you want to protect your windows from rain and weathering, you might consider installing storm windows. A few important points should be considered:

- ❑ Storm windows should have baked-on enamel finishes which match the window trim. (Shiny aluminum is generally unsightly and should be avoided.)

- ❑ Meeting rails of storm windows should match those of original windows.
- ❑ Weep holes are imperative in the bottoms of storm windows. Never seal those tiny openings because they allow moisture to drain, and the windows can “breathe” and dry out.
- ❑ Interior storm windows are an option. These have been installed in house museums where exterior elements were important, where UV screens could be applied to the new window, and in situations where windows needed to be installed and removed on a seasonal basis.

Steel or metal windows are found in historic housing and are significant character-defining elements of a historic home. These windows often have problems that range from rusting to tremendous paint buildup, and these issues often prevent their efficient operation. A skilled craftsman can restore metal windows to their original, airtight efficiency and for much less than it would cost to fabricate new windows. Furthermore, important historical elements are restored rather than replaced.

Preservation Brief #9: The Repair of Wooden Windows

Preservation Brief #13: The Repair and Thermal Upgrading of Historic Steel Windows

<http://www2.cr.nps.gov/tps/briefs/presbhm.htm>

Termites and Other Wood-Destroying Pests

In the Deep South, we are generally aware of the dangers of subterranean termites. However, we may be less aware of the threat of woodborer beetles, carpenter ants, and carpenter bees. Each can do significant damage to our home’s structural systems if left untreated. Most historic systems can withstand quite a bit of damage and maintain structural stability, so don’t give up on



A screwdriver or an icepick can serve as “low-tech” probes of deteriorated wood.

an historic home if it bears the marks of termite damage or wood borer beetles. Treatment for these different pests varies, but they must be dealt with, either chemically or by eliminating the conditions necessary for their survival.

Subterranean termites, like any living creature, must have food and water to survive. Their food is the cellulose found in soft wood. They

must have water, also, and they can readily obtain water from leaky pipes adjacent to their food or from moisture in the soil. Under the right conditions, they can destroy wood from ground level all the way into attic spaces. Despite popular belief, termites have even been known to eat heart pine and oak. It is important to eliminate the conditions that are necessary for the termites' survival. Begin by cleaning up all superfluous wood in the basement area, including small scraps. Next, provide 18-inch clearance between soil and any wood. When it is not possible to remove wood, then termite shields should be installed; these simple devices (simply sheet metal placed between wood and soil or masonry, in many instances) prevent the termites' passage into the framing members of the house. Always provide active ventilation underneath the house, even in the cold months of the year. (Most homes were built on piers with plenty of open ventilation, the ideal situation for the evaporation of moisture.) Third, eliminate all water from around the building. These simple steps should be taken before contacting an exterminator, who will readily pump dangerous chemicals into the ground. You can counteract the need for chemicals by eliminating the conditions that are conducive to termites' survival. (Note: A new strain, the Formosan termite, has been introduced to our country and has appeared in the South. These termites fly into buildings to nest, eat wood, then fly away from the building for water. Technology is being developed to trap and eliminate this pest, but it is not yet known what works the most effectively to reduce their infiltration.) **See Wood Repair and Restoration on page 42.**

Paints and Finishes



An original Victorian color scheme emphasizes craftsmanship in its busy design.

Paints are preservatives. They protect building materials from harmful elements. They add the element of pleasure, as well, because they provide a quick way to address aesthetics. Finishes on historic buildings require routine, cyclical maintenance. A disciplined painting program will prolong the life of the house, because it will protect it from the elements. Additionally, the moni-

toring of chipping or peeling paint can give clues to other maintenance problems. For example, if gutters are leaky, the areas underneath often discolor with algae buildup; if paint peels, you will know that there is excess moisture somewhere that needs attention. If you simply apply new paint, the underlying problem continues.

Historical Paint Colors

Paint colors are an important document of the of the house's past. Throughout history, the choices of color and how they were used have been purposeful, and they exist as an indicator of taste during the periods in which they were applied. Painted finishes contribute to the total story that can be learned from an historic house. Paint colors cannot be accurately matched by scraping on site and viewing with the naked eye, because oils in the paints fade and turn yellow, and also because paints change when covered with subsequent layers of finishes.



Historic paints and paint colors can be determined in a laboratory. Refrain from stripping paint history.

The painted history of a house can be discovered through historic paint color analysis, which is performed by professional conservators both on the site and in a laboratory. Small samples of the different layers of paint history (and equally important, the surface to which the paints are attached) are removed and labeled for examination under a microscope. A laboratory analysis is necessary for accuracy in documenting and matching historic paint colors. Such an analysis must be performed in conjunction with documentary research and the full knowledge of early alterations and changes that have occurred at the house.

Hazardous Materials

Most primers and paints contained lead before it was banned in the 1970s. Lead was the ingredient that provided superior adherence and colorfastness that is not equaled by today's paints (though many companies try!). Lead is dangerous—when it is disturbed, when it is ingested, or when particles are released into the air and the lungs. The presence of lead paint is not necessarily a source for panic, however, nor must homeowners spend thousands of dollars totally removing lead paint or painted elements from the home.

Alabama's Own: Elizabeth Brown

PROTECTING YOURSELF AGAINST LEAD PAINT (ESSAY #19)

Elizabeth Brown's essay covers not only the dangers of lead paint, but also the importance of protective clothing and waste disposal when dealing with it. Further, she includes a simple test that one can take in order to understand the dangers. *Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.*

Encapsulation of old lead paint is an important preservation option. Loose paint should be scraped, edges feathered, and well-adhered paint retained and painted over. Of course, you and any other workers should wear protective gear when scraping or removing paint. Masks should be worn and precautions taken to avoid inhaling particles of lead paint. All loose paint should be transported to a landfill.

Any lead paint that is well adhered should be left in place. Not only is it a health hazard to disturb it, it is a material that is performing to maximum standards that cannot be duplicated today. Leave it alone if possible. It is a wonderful preservative, which preserves and protects the history of the house.

Preservation Brief #37: Appropriate Methods for Reducing Lead-Paint Hazards in Historic Housing

<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

Surface Preparation

When you paint any surface, historic or not, remember that proper surface preparation will ensure adherence and prolonged life for the primer and the finish coat. However, total paint removal is not a recommended first step in preparation for painting, for many reasons, which range from the dangers of breathing toxic vapors to permanently damaging the surface material. It is recommended that any paint that is well adhered be retained in place. As with lead paint, the well-adhered material is probably superior to those that are available today. Additionally,



Paint strippers and sandblasting can make wood "fuzzy" and, thus, unpaintable.

the painted finishes are a significant part of the history of the particular house.

As discussed in the Preservation Brief, simple steps lead to a well-prepared surface:

1. Clean off all dirt and mildew.
Let the surface dry.
2. Scrape any loose paint.
3. Sand and feather the edges of the paint that is adhered.
4. Thoroughly clean the surface before applying primers and subsequent paints.
5. Prime the surface with a factory-approved primer.
6. Paint with a finish coat that is compatible with the primer.

Many of the reasons for paint failures are related to surface preparation. It is imperative that any underlying problems be addressed before painting. Deteriorated wood must be repaired, consolidated, or replaced, and the reason for that deterioration must be discovered and addressed. Approaching any painting project with the "gentlest means possible" will ensure the preservation of the house, its finishes, and its materials.

Preservation Brief #10: Exterior Paint Problems on Historic Woodwork

<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

Compatible Materials

Paints must be compatible in order to have a long-lasting finish. Ideally, well-adhered oil paints should have oil paints applied over them. However, because they are cheaper and easy to work with, homeowners often prefer to use latex paints. Latex paints will not last as long as oil paints because they discolor and become brittle when exposed to sunlight. All paints should be used as directed by the manufacturer, who will recommend the proper, most compatible products.

Paints and coatings must also be compatible with the material on which they are applied. Unpainted masonry should never be painted or coated. Masonry does not generally hold paint well, so painting it generates continual maintenance and upkeep. Wood, on the other hand, should always be painted. Cellulose in wood is extremely sensitive to sunlight, even if the wood is as fine as mahogany. A "clear" coating on exterior wood must have some pigment in it in order to protect the wood from ultraviolet exposure. Natural wood front doors, in vogue today, will not withstand the effects of



Several strengths of paint stripper are tested for their effectiveness prior to a decision about which to use.

ultraviolet deterioration unless there is some pigment in their clear coating.

Aluminum and Vinyl Siding

Siding does not eliminate painting or additional maintenance. Unfortunately, siding salesmen are quite convincing, and



Modern siding masks craftsmanship, and routine inspections are impossible.

any homeowner who has been physically and financially challenged to keep paint on their house would be tempted to investigate alternative methods of masking their paint problems. However, the problems that create the paint failure must be addressed, or they will continue. A wrapping of plastic, which is essentially what vinyl siding is, traps moisture, encourages the growth of mold, mildew, and encourages wood deterioration.

It must be realized, also, that any future problems cannot be “read” under siding. Many houses have deteriorated underneath siding, and termites thrive under such conditions. A situation is created where deterioration is accelerated and the ability to read that deterioration is masked. This combination is deadly for the historic house or the building.

Preservation Brief #10: Exterior Paint Problems on Historic Woodwork

Preservation Brief #8: Aluminum and Vinyl Siding on Historic Buildings

<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

Alabama's Own: Elizabeth Brown

IF YOU ARE DETERMINED TO PUT VINYL SIDING ON YOUR HISTORIC BUILDING (ESSAY #23)

Elizabeth Brown compiled information for homeowners who are determined to put siding on their historic property, but it is important to remember that the Secretary of the Interior's *Standards* recommend that historic materials be retained, repaired and maintained wherever possible. Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.

METALS

Basic Considerations

Metals used in historic homes range from sheet metal to steel, with many others in between. Iron is part of most of these metals (in fencing, flashing, or tie rods). The notable property of



Historic metals must be maintained in order to protect them from weathering and ultraviolet degradation.

metal is that it will rust if exposed to moisture and oxygen. Therefore, metals must be coated to protect them from moisture, and that coating must be maintained throughout the lifetime of the metal. If left uncoated, rust will grow, and it can even displace or crack building components as large as blocks of granite.

Also, metals are subject to a chemical process known as “galvanic action.”

This is corrosion that occurs between incompatible metals. Galvanic action must be considered when

metals are placed next to each other, as in the case of fasteners (roofing nails, for instance). The safest thing to do is to make sure the metal and the fastener are the same. Copper flashing, for instance, requires copper nails. In no case should aluminum and copper be installed side-by-side! Other materials can cause corrosion of metals; for example, when concrete is poured into steel or iron decorative pieces, it produces dissimilar chemicals that accelerate corrosion of the steel or iron. Therefore, if a railing must be installed in concrete or stone steps, a lead liner should be used to separate the incompatible materials and inhibit corrosion.

Metal Roofing Materials

Metals are found within roofing shingles and their fasteners, as well as in valleys and flashing. General considerations are discussed in the roofing section, so a reminder will suffice. Roofing metals must be compatible, or all efforts to install a watertight roof system are futile. Flashing, valleys, gutters, and all fasteners must be compatible with one another, and they must be coated to protect them from weathering.

Hardware

Locks, hinges, shutter hardware, screws, and nails can all contribute to the story that the house has to tell. Hardware technology and manufacture evolved with a definite history. Often locks will have dates stamped right on them. Each little nail or screw in the house contributes to the entire story. Be diligent about leaving original materials in their original location, and, if it is necessary to remove nails or screws, document and retain them for future interpretation of the house.



Original hardware offers valuable clues to the history of the house.

Often, for a small job, a steel bristle brush will suffice. A wet blast should be avoided, since water is the biggest enemy of steel or iron. There are many dry blast, as well as chemical, techniques for paint removal on large projects. Remember that a bare surface should be primed and painted within minutes of paint removal, as corrosion begins again instantly when the surface is exposed.

Preservation Brief #27: The Maintenance of Architectural Cast Iron

<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

LANDSCAPES AND BACK YARDS

There are numerous things to think about concerning historic landscapes, plant materials, and the clues they give about the property's history.

Maintenance and drainage issues have been dealt with earlier in this publication. Plant materials, archaeology and underground cultural resources are areas that are not as apparent to historic homeowners. Much planning and research should be undertaken before any ground disturbance, because so much can be lost forever with a backhoe or bulldozer.



Original landscape features can be discerned through careful study and research.

Alabama's Own: Harvey Jones, FAIA

DOORS AND HARDWARE (ESSAY #13)

In this essay, Jones documents the history of door and hardware design in Alabama. Door panels and hardware changed according to the time of construction; different materials were available at different times, and Jones points out their usefulness in dating an historic house.

Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.

Cast Iron Railings or Fencing

Generally, decorative cast iron and wrought iron are very durable materials as long as they are kept painted and maintained. Old paint can be cleaned off cast or wrought iron using harsher methods than generally recommended for other historic elements of the home. Blasting may be utilized, but only after you determine what is the "gentlest means possible" for cleaning paint off the ironwork.



Corroded iron can crack granite or limestone.

Maintenance

Drainage away from the home is of paramount importance. As has been discussed, gutters and downspouts must carry water down off the house, and then the water must travel away from the house. Underground systems must function properly; above-ground systems must carry water away from the house; and the slope of the yard must be positive and away from the house.



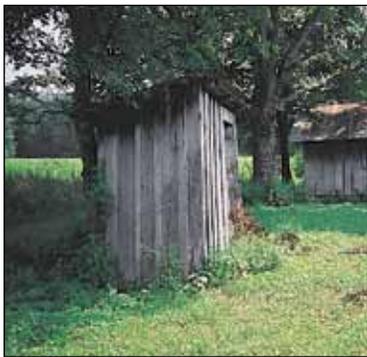
Downspouts should be extended to carry water far from the house.

Bushes and foundation landscaping are a twentieth-century phenomenon and are totally inappropriate around nineteenth-

century houses. Furthermore, they are harmful, since their roots grow into foundations, and they trap moisture against the house. The little “feet” that attach vines to the house will corrode mortar joints, and they trap moisture against wood or masonry. Tree limbs hanging over roofs and eaves encourage moisture. Do not install irrigation systems up against the house and foundation. Many people wonder why the basement floods or rising damp causes blisters on interior plaster, even though they have an irrigation system continually soaking the foundation plantings!

Ground Disturbance and Archaeology

Archaeological documentation may tell a great deal about an historic house, its related outbuildings, its gardens and pathways. Information never recorded on paper can become lost from the memories of old-timers, but it may be waiting just under the surface of the yard. It may turn out that an old outbuilding is actually old slave quarters, for example. Because these structures are disappearing at a rapid pace, such a discovery could help to document a very important, very significant aspect of Alabama’s history. But, all opportunity for such discovery is lost if a backhoe or bulldozer has ripped it up, perhaps in order to install a driveway or a new addition to the house.



Outbuildings are disappearing from our landscape at an alarming rate.

Do not disturb a known historic site before you consult with professionals at the AHC or at a local university. You may be surprised that an assessment by an archaeologist may be neither expensive nor time consuming. Ground-penetrating radar (GPR) can help detect what is

underground. Infrared photography can detect irregular heat patterns in the ground. These could indicate where structures, plant materials, or even people, lie beneath the surface of the yard.

It is always an excellent idea to photograph and document any area of the yard before it is destroyed. Historic plant materials and landscape information is hard to reconstruct at any property, and the more information that can be saved or documented, the more that can be shared with others. Remember that archaeology can tell much of a property’s story, and archaeologists even assist architectural historian and homeowners in surveying and researching the property.

Historical Plant Materials

If you want to identify historical plant materials in your yard or learn more about historical plantings, contact your county extension agent. There are excellent resources in Alabama who are knowledgeable about what plants were popular in the state at different periods, how landscape materials were planted, and how to locate such materials today. Find out what you have!

Many plants in Alabama are rare or even endangered. Other old plant materials are unknown to those who wish to recreate landscapes today. Record what you can through photographs and names (if known), before native plants or historical planting patterns are destroyed.

Family Cemeteries

Cemeteries are a common feature of rural Alabama, and they are often located adjacent to historic farmsteads or homes. Family members were buried near the homeplace, along with household servants. Graves of servants may have been unmarked and located outside the wall of the family cemetery. Be aware of those who may lie outside obvious boundary lines.

Know that you must get a permit from the AHC to work on

Alabama’s Own: George Stritikus

ALABAMA LANDSCAPES (ESSAY #3)

Stritikus is Alabama’s recognized expert on historic planting materials. He has compiled an enormous amount of information about Alabama landscapes, and his collection is available to anyone that wants to know more about typical landscape and plant materials.

Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.

Alabama’s Own: Camille A. Bowman

CLEANING GRAVESTONES: USE THE GENTLEST MEANS POSSIBLE (ESSAY #25)

Bowman illustrates the basic considerations in cleaning gravestones and markers. Applying the Secretary of the Interior’s *Standards*, the writer emphasizes Standard #7 which pertains to building materials as well as historic cemetery markers. *Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.*



Cemetery markers, walls and fences qualify as “cultural resources” and must be carefully preserved. Cemetery work is governed by burial laws, however.

appropriate repairs and cleaning of grave markers. The same rules hold true as for masonry buildings.

- Use the gentlest means possible (water and a soft bristle brush), rather than acids, chlorine bleach or blasting.
- Repair using similar materials. *No portland cement or car-repair putty!*
- Do not let livestock run loose over graves and markers. A fence will aid in protecting graves. However, due to the high numbers of unmarked graves likely to be found in a marked cemetery, it would be prudent to determine where the graves are located (through ground-penetrating radar) prior to installing a fence post.



Dowels are used to properly repair broken stones. Never cement stones together!

or in cemeteries. Simply write down your plans and submit them to the AHC in order to obtain a copy of related burial laws and a permit. Much literature exists regarding the

Preservation Brief #36: Protecting Cultural Landscapes
<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

INTERIORS

The interior spaces of homes are where the owner’s personal tastes prevail. However, it is the detailing of historic houses that make them appealing. The owner of an historic home should think in terms of adapting himself/herself to those features that are special to the house, rather than the other way around. Of course, the Secretary of the Interior’s

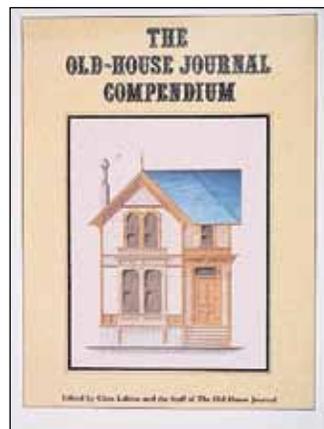
“If you want a completely modern interior, then purchase a recently built house.”

Judith Kitchen, *Caring for Your Historic House, National Trust for Historic Preservation*. 1991.

Standards for Rehabilitation should be consulted and understood at all points of decision-making, as well. Interior work should be reversible, just as that on the exterior.

This section of the *Handbook for Owners of Alabama’s Historic Houses* is not meant to provide answers to all situations encountered inside historic houses. *The Old-House Journal* (www.ohj.com) offers much information regarding the possible dilemmas of old house renovation.

Their publications and magazines are indexed, and specific questions about such topics as old bathrooms, hardware for pocket doors, and sources for old house repairs can be answered with some research and time. Contact the AHC for specific questions that you might have about sources or specific repairs.



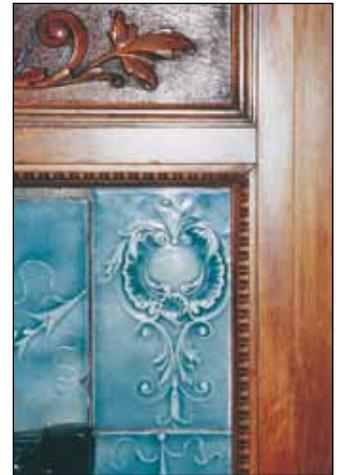
The Old-House Journal is an excellent resource for homeowners.

are many resources available, and many of these are referenced in the “Resources” section.

Some recurring issues, if understood up front, can guide a homeowner away from some common pitfalls. These issues will be briefly discussed.

Planning

The same principles of planning apply to interior work as to exterior work. Plumbing work affects plaster work, and so on, making the prioritizing of interior work extremely important.



Old house interiors can feature decorative tile, wood, plaster and many other materials.

Charlie Bullock, an Alabama contractor who has lots of experience with old houses, pointed out that much of his work involves re-doing new work that had not been planned properly. Wiring for a chandelier after decorative plasterwork was completed is one recent example that Charlie mentioned. (Of course, the new plasterwork was damaged by this lack of planning.) Again, in this instance, a preservation architect can certainly help save headaches and money, as can a contractor who has experience with old houses. And remember, major interior work must have professional endorsement by building code officials.

Much interior planning and evaluation will involve solving exterior issues first, and those will primarily be moisture concerns. Water damage must be addressed before undertaking major interior work. Of course, numerous property owners have found this out the hard way! It is our objective to assist in the planning and decision-making process to save you such lessons.

Structural Systems

Many do-it-yourself homeowners mistakenly remove load-bearing partition walls or structural systems in their remodeling efforts. Such systems must be evaluated by a professional before their demolition. In addition, structural problems can be “read” on the interior of the home—cracking over doors, or doors that will not open, are signs of shifting in the house. Some shifting is historic; the home may have settled when first built and then has never moved again. A structural engineer should be consulted about structural systems in the home. See “Cracks” under the Masonry section of this handbook for information about evaluating and monitoring cracks.

Alabama's Own: Jim Seay, Sr., AIA

PLASTER AND STUCCO (ESSAY #15)

Architect Seay has written an interesting document about plaster and stucco failures and repairs. Although not limited to Alabama, the issues recur in our state where repair of cracks remains a challenge; finding plasterers to carry out those repairs is an even greater challenge. It behooves the homeowner to understand the “do’s and don’t’s” of plaster and stucco repairs before the original materials are irreparably harmed or destroyed. Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.

Insulation and HVAC Systems

Insulation was rarely installed in historic houses since, in Alabama, they were most often built to accommodate climatic conditions. It was generally understood that exterior walls of masonry and interior walls of plaster naturally provided good insulation, and cross ventilation served historically as air-conditioning. Modern families demand more climate control. Attics, basements and crawl spaces are excellent places for additional insulation. Proper installation is important; for example, vapor barriers must be installed on the heated, interior side of the house. Since insulation can mask such clues to maintenance needs as water stains, periodic inspection for changing conditions is more difficult.

Design and installation of new heating and air conditioning systems can be extremely intrusive in a historic home that was never designed for them. Again, it would be smart for the homeowner to enlist the services of a preservation architect or an engineer who has worked with old houses to design the least intrusive system for the house. Never is it advisable to lower ceilings so that ductwork or electrical systems can be installed; many times it is possible to utilize basement or attic spaces. Good planning must be done ahead of time (and satisfactory solutions committed to paper), rather than relying on the local heating contractor to install the system anywhere he wants. His inclination may be to get in, get out, and be paid.

Preservation Brief #3: Conserving Energy in Historic Buildings

Preservation Brief #24: Heating, Ventilating, and Cooling Historic Buildings

<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

Finishes

Interiors reflect the important tastes of the period in which they were designed, and these clues to architectural style should be respected and preserved. Painted finishes should never be stripped; unpainted masonry should never be painted; and original finishing materials should be preserved wherever possible. As emphasized through-



Throughout history, homeowners have painted finishes to look like finer materials.

Alabama's Own: Nicholas H. Holmes, III, AIA

FINISHES (ESSAY #14)

Holmes presents an interesting survey of decorative finishes found in Alabama, and he suggests restoration or repair treatment for these finishes. Discussed are sanded paints, milk paints and calcimines, and faux finishes. Also covered are paint removal considerations for different situations. This essay should be consulted before altering any historic finishes. *Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.*

out this handbook, these materials are superior to new materials found on the market today, and they contribute important clues to the history of the house. Furthermore, appropriate precaution is needed if any paint stripping becomes necessary, due to the prevalence of lead paint before its 1970s ban.

Finishes are often not what they appear to be. Many homeowners believe that their paneling is mahogany or walnut, when, actually, a locally available wood was painted to resemble finer woods in “grained” or “faux” finishes. The same goes for fireplace surrounds; they appear to be marble, when actually they are wood or iron that has been painted to resemble marble. The care and craftsmanship of the early artist should be recognized and preserved with the utmost care today. Often, original finishes can be cleaned with a sponge soaked with water, followed by a touching up and then protection with a varnish coat.

If they are going to be replaced, early wallpapers should be removed in as large a section as possible, retained, and protected as documentation of the period in which they were applied. Entire books are devoted to the manufacture of wallpapers and their popularity and styles. Historic homes often contain valuable records of American history in the wallpapers; future research will benefit if the wallpapers are preserved.

Plaster repairs, also, are a broad area of study. Few craftsmen exist that know and understand plaster, so many (or most) contractors recommend its total removal and replacement with modern gypsum board. Actually, plaster is a superior building material, an excellent insulator, and it is in the homeowner's best interest to pursue proper repair of cracked plaster, rather than removing it and replacing it with modern material. Again, as with many historical materials, it is important to take time to

fully understand plaster, as well as its historic support system of wooden lath and nails.

Wood trim and molding profiles are also extremely important in the house's interiors. They establish a date for doors, windows, baseboards, chair rails, picture rails, mantles, and other trimwork, so they contribute to the history of the house. Though seemingly dispensable, they should be studied, protected, preserved, and duplicated so their contribution to the house is kept intact.

Preservation Brief #28: Painting Historic Interiors

Preservation Brief #23: Preserving Historic Ornamental Plaster

Preservation Brief #21: Repairing Historic Flat Plaster Walls and Ceilings

<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

Fireplaces

As discussed in the “Chimneys” section, historic fireplaces should be approached with caution, particularly before any fire is built in them. There are repair options that the homeowner can research and pursue (relining, for instance), but the first step is *not* to build a fire in them!

Fireplace design has varied over the ages, and each detail should be understood before making changes. Early Federal fireplace openings were arched, tapered and large, because they were for the burning of wood for heating and for cooking.

Later openings were built smaller, as coal became the most general fuel. Mantles often

changed stylistically, and close scrutiny of them can reveal much about the history of the house. Hearth designs were important, worthy of study and understanding; do not just pour concrete without first doing your research.



Early fireplaces had larger openings for cooking and wood burning. Later fireplaces, as found in the Kennedy-Sims house, had smaller openings for coal burning.

Alabama's Own: Harvey Jones, FAIA

HEARTH PATTERNS,
1800-1860 (ESSAY #7)

Architect Jones studied historic buildings throughout the state and carefully detailed typical hearth patterns of the period. A little-known bit of knowledge (hearths had no mortar!) is shared in Jones' illustration and is important to consult before brick hearths are re-laid.

Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.

Interior Decor

Books abound that illustrate and document period taste. Modern interior decoration is an individual choice, and generally does not adversely affect the historical significance, maintenance and upkeep of the historic house. However, all original materials should be protected and documented, and they should be preserved in place where possible.

Wood Floors

Wood floors can be greatly impacted by insensitive treatment. In an earnest effort to spruce up wood floors, homeowners often sand them, sometimes down to thin remains. Sanding creates irreversible damage to floors, so it is recommended that historic finishes be removed chemically where possible. Test patches can help to determine the "gentlest means possible," and it is recommended that floors be treated as gently as exterior masonry.

Floor finishes deserve a word, as well. Modern polyurethane finishes are not recommended for historic wood floors. Though durable, they are not repairable, and the oils significantly yellow

in color over time. Their plastic appearance is not a recommended historic finish. Tung oil, varnishes, or simple wax finishes usually provide sufficient protection for wood floors. *The Old-House Journal* should be consulted for recommended finishes for floors and wood trim.



Historic wood floors demand special care and preservation. Sanding floors causes irreversible damage to the wood.

Alabama's Own: Nicholas H. Holmes, III, AIA

MOLDINGS (ESSAY #16)

Holmes outlines some issues about historic moldings found in Alabama, and compares them to pattern books available during their period of production. A study of moldings requires an in-depth understanding of architectural history. However, Holmes' essay illustrates the high points that any homeowner undertaking restoration and repairs should consult. *Free photocopy available by contacting the AHC at 334-242-3184 or www.preserveala.org.*

Resources

INSPECTION AND MAINTENANCE

Chambers, J. Henry. *Cyclical Maintenance for Historic Buildings*. U.S. Department of the Interior, National Park Service, Washington, D.C., 1976.

An excellent publication that is currently out of print. However, the NPS is due to reprint the information in the form of a *Preservation Brief* in the near future.

Checklist for the Routine Inspection of Buildings

<http://w3.gsa.gov/web/p/hptp.nsf/a533f.../3e9eda586f06da9f852565c50054b1af?OpenDocument>

This is a thorough checklist which will serve as an aid to prioritizing repairs and maintenance.

Home Maintenance Checklist

<http://repair-home.com/info/maintenance.htm>

A brief, easy to understand checklist that the homeowner can easily understand and follow.

Inspecting and Maintaining Religious Properties.

New York Landmarks Conservancy, 141 Fifth Avenue, New York, New York 10010.
Phone 212-995-5260.

An excellent guide to inspecting and maintaining roof systems, walls, drainage systems, structural, heating, cooling and ventilation systems. Any homeowner would benefit by following these guidelines for implementing a maintenance program.

Leeke, John. *Managing Maintenance, A Practical Restoration Report.*

John Leeke, Preservation Consultant 26 Higgins St., Portland, ME 04103.
<http://www.historichomeworks.com/HHW/reports/reports.htm>

John Leeke's publications are always thorough, yet easy to read and understand. This is an excellent guide for the layman and well worth the investment.

Simonson, Kaye Ellen, ed. *Maintaining Historic Buildings: An Annotated Bibliography*.

U.S. Department of the Interior, National Park Service, Washington, D.C., 1990.

For more information about managing maintenance issues, this bibliography offers many more resources.

ROOFING

Grimmer, Anne E. and Paul K. Williams. *Preservation Brief #30: The Preservation and Repair of Historic Clay Tile Roofs*.

U.S. Government Printing Office, Washington, D.C., 1993.
<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

Not only does this brief cover the history of clay tile roofs, it also explains the different types of tiles, how they are hung, and the repair of tile roofs.

Park, Sharon C. *Preservation Brief #19: The Repair and Replacement of Historic Wooden Shingle Roofs*.

U.S. Government Printing Office, Washington, D.C.
<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

An excellent guide to detailing, design, and different wood and materials involved in the installation and repair of wood roofs.

Levine, Jeffrey S. *Preservation Brief #29: The Repair, Replacement, and Maintenance of Historic Slate Roofs*.

U.S. Government Printing Office, Washington, D.C., 1993.
<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

An excellent introduction to the history, repair and maintenance of slate roofs.

Sweetster, Sarah M. *Preservation Brief #4. Roofing for Historic Buildings*.

U.S. Government Printing Office, Washington, D.C. 1978.
<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

This is the best overview of historic roofing materials, their deterioration, replacement and repair. The bibliography in this brief provides many good resources to pursue further information.

Vogel, Neal A. *Roofing Houses of Worship: Guidance for Church and Temple Administrators*. Information Series No. 59. Inspired Partnerships, Chicago, IL, 1992.

Next to the *Preservation Briefs*, this is the best, easy-to-read guide to different roofing materials, typical problems encountered, and how and when to hire a professional to help with roofing problems.

Waite, Diana S. *Roofing for Early America. Building Early America*. The Carpenters' Company of the City and County of Philadelphia and the Chilton Book Company, Radnor, PA, 1976.

This is an exhaustive review of the history of construction techniques to 1860 in the United States. It covers early wood shingles, shakes, slates, and tin roofing.

MASONRY

Grimmer, Anne E. *Keeping it Clean: Removing Exterior Dirt, Paint, Stains and Graffiti from Historic Masonry Buildings*.

U.S. Department of the Interior, National Park Service, Technical Preservation Services, Washington, D.C., 1988.

This wonderful book covers cleaning issues in an easy-to-read format, and the AHC has copies available.

Resources *continued*

London, Mark. ***Masonry: How to Care for Old and Historic Brick and Stone.*** Preservation Press, Washington, D.C. 1988.

www.nationaltrust.org

All Preservation Press publications are written for the layman, and this book is no exception. It covers all of the important points of weathering, repairs, and cleaning.

Masonry Conservation and Cleaning.

Materials compiled for the APT Pre-Conference Training Course, September 16-19, 1984.

Association for Preservation Technology International
www.apti.org

Highly technical, though quite comprehensive, this assortment of literature offers state-of-the art information.

McKee, Harley. Introduction to Early American Masonry: Stone, Brick, Mortar and Plaster.

National Trust for Historic Preservation, 1600 H Street NW, Washington, D.C. 20006, 1973.

Though currently out of print, this wonderful historical overview is worth locating through amazon.com or other book locator services.

National Trust for Historic Preservation

1600 H Street NW, Washington, D.C., 20006,

Mack, Robert C., AIA. ***Preservation Brief #1: Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings.*** 1975.

Mack, Robert C., Tiller, De Teel Patterson, and Askins, James S. ***Preservation Brief #2. Repointing Mortar Joints in Historic Brick Buildings.*** 1980.

Tiller, De Teel Patterson, and Look, David W., AIA. ***Preservation Brief #5. Preservation of Historic Adobe Buildings.*** 1978.

Grimmer, Anne E. ***Preservation Brief #6. Dangers of Abrasive Cleaning to Historic Buildings.*** 1979.

Tiller, De Teel Patterson. ***Preservation Brief #7. The Preservation of Historic Glazed Architectural Terra-Cotta.*** 1979.

Grimmer, Anne E. ***A Glossary of Historic Masonry Deterioration Problems and Preservation Treatments.***

National Trust for Historic Preservation, 1600 H Street NW, Washington, D.C. 20006, 1984.

Smith, Baird M., AIA. ***Moisture Problems in Historic Masonry Walls: Diagnosis and Treatment.*** National Park Service, Technical Preservation Services Division, PO Box 37127, Washington, DC 20013-7127, 1984.

WOOD REPAIR AND RESTORATION

Avrami, Erica C. ***Preserving Wood Features In Historic Buildings: An Annotated Bibliography.*** US Department of the Interior, National Park Service, Washington, D.C., 1993.

An exhaustive bibliography on a subject that is equally exhaustive!

Forest Products Society Publications

Forest Products Society
2801 Marshall Court, Madison, WI
53705-2295

Phone 608-231-1361, ext. 209

Fax 608-231-2152

<http://www.forestprod.org/pubs.html>

Williams, R. Sam, Mark T. Knaebe, and William C. Feist. ***Finishes for Exterior Wood: Selection, Application, and Maintenance. Publication #7291.***

McDonald, Kent A., Robert Falk, R. Sam Williams, and Jerrold Winandy. ***Wood Decks: Materials, Construction, and Finishing. Publication #7298.***

Selection and Use of Preservative-Treated Wood. Publication #7299.

Wood Handbook: Wood as an Engineering Material.

Leeke, John. ***Practical Restoration Report: Exterior Woodwork Details and Practical Restoration Report: Epoxy Repairs for Exterior Wood.***
www.historichomeworks.com

Leeke's publications are presented in an easy-to-read format and include a wealth of information.

Merrill, William. ***Wood Deterioration: Causes, Detection and Prevention. American Association for State and Local History Technical Leaflet 77.*** 1974.

<http://www.aaslh.org/tlvideo.htm>

An easy-to-read publication that outlines the pertinent issues to consider when dealing with wood.

Scheffer, T. and Verrall, A.F. ***Principles for Protecting Wood Buildings from Decay.***

USDA Forest Service, Research Paper FPL 190, Madison, WI, 1979.

<http://www.na.fs.fed.us/spfo/ce/>

A simple publication but full of necessary information about wood preservation.

Resources *continued*

Verrall, A.F. and Amburgey, T.L. ***Prevention and Control of Decay in Homes.***

USDA Forest Service and Department of Housing and Urban Development. U.S. Government Printing Office, Washington, D.C. 20402, 1975. <http://www.na.fs.fed.us/spfo/ce/>

Another publication from the USDA that is written for the layman's understanding of wood decay.

Weaver, Martin E. and Frank Matero. ***"Restoring and Repairing Old Wooden Structures," Conserving Buildings: Guide to Techniques and Materials.***

John Wiley and Sons, Inc., New York, 1993. pp. 13-57. ISBN 0-471-50945-0

This comprehensive text contains an extensive section on the repair and restoration of wooden structures, causes and symptoms of decay, and preservative treatments.

Wood Decay in Houses—How to Prevent and Control It.

USDA Forest Service, HG 73, U.S. Government Printing Office, Washington, D.C. 20402, 1986. p. 25. <http://www.access.gpo.gov/>

WINDOW REPAIR AND REPLACEMENT

Fisher, III, Charles E., Deborah Slaton, and Rebecca Shiffer. ***Window Rehabilitation Guide for Historic Buildings.***

Historic Preservation Education Foundation, PO Box 77160, Washington, D.C. 20013, 1997.

An exhaustive resource for the craftsman. Includes specifications, historical background, and cost savings arguments for retaining windows.

National Park Service/Technical Preservation Service Preservation Briefs

<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

Myers, John H. ***Preservation Brief #9: The Repair of Historic Wood Windows.***

Weeks, Kay D., and David W. Look, AIA. ***Preservation Brief #10: Exterior Paint Problems on Historic Woodwork.***

Smith, Baird M., AIA. ***Preservation Brief #3: Conserving Energy in Historic Buildings.***

Leeke, John. ***Practical Restoration Report: Save Your Wood Windows.*** www.historichomeworks.com

Leeke's briefs provide concise recommendations and illustrated steps in repairing historic wooden windows.

An interactive guide to window rehabilitation:

<http://www2.cr.nps.gov/tps/boilerplate/fastrack2.htm>

PAINTING AND FINISHES

Bevil, Marianne, Meredith Fiske, and Anne-Leslie Owens. ***Painting Historic Buildings: Materials and Techniques: An Annotated Bibliography.***

US Department of the Interior, National Park Service, Washington, D.C., 1993.

A very thorough bibliography, with references to numerous additional resources regarding historic painted finishes.

Moss, Roger W. and Gail Caskey Winkler. ***Victorian Exterior Decoration: How to Paint Your Nineteenth Century American House Historically.***

Henry Holt, New York, 1987.

An excellent guide to purposeful placement of paint colors for Victorian houses.

Moss, Roger. ***Century of Color.***

American Life Foundation, Watkins Glen, NY, 1981.

A good history of paint color theory.

Moss, Roger W. ed. ***Paint in America: The Colors of Historic Buildings.***

The Preservation Press, Washington, D.C., 1994.

This book is an excellent overview of paint colors and paint formulas.

Weeks, Kay D., and David W. Look, AIA. ***Preservation Brief No. 10: Exterior Paint Problems on Historic Woodwork.***

National Park Service, Technical Preservation Services, Washington DC, 1982.

<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

METALS

Gayle, Margot, David W. Look, AIA, and John G. Waite. ***Metals in America's Historic Buildings.***

U.S. Department of the Interior, Washington, D.C., 1980.

The definitive study in metals, their deterioration and their appropriate repair.

LANDSCAPE AND ARCHAEOLOGICAL ISSUES

Birnbaum, Charles A. ***Preservation Brief #36: Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes.***

National Park Service, Technical Preservation Services, Washington, D.C., 1994.

<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

Resources *continued*

Birnbaum, Charles A. and Cheryl Wagner. ***Making Educated Decisions: A Landscape Preservation Bibliography.***

National Park Service, Preservation Assistance Division, Washington, D.C., 1994.

Deetz, James. ***In Small Things Forgotten—An Archaeology of Early American Life.***
Anchor Press/Doubleday, Garden City, NJ, 1977.

This book is a classic which covers the basics of archaeology; it is relatively short and easy to read.

Favretti, Rudy J., and Joy Putman Favretti. ***Landscapes and Gardens for Historic Buildings: A Handbook for Reproducing and Creating Authentic Landscape Settings.***

American Association for State and Local History, Nashville, TN, 1978.
www.aashl.org

An excellent guide to follow when recreating historic landscapes.

Henry, Susan. ***Protecting Archaeological Sites on Private Lands.***
US Department of the Interior, National Park Service, Washington, D.C.
www.nps.org.

Though written from the perspective of archaeologists who are reaching out to private landowners, this publication is very useful to anyone who may not understand how to protect historic sites on their land. It covers such topics as the value of archaeological sites, laws and ordinances, tax benefits to protection, and land use compatibility.

Historic Landscapes Initiative
<http://www2.cr.nps.gov/hli/index.htm>

Hume, Noel Ivor. ***Historical Archaeology.***

Alfred A. Knopf, New York, 1969.

A good primer on the principles of historical archaeology (with a concentration on the more recent past).

Stewart, John J. ***Historic Landscapes and Gardens: Procedures for Restoration. Technical Leaflets #80 and #199.***

American Association for State and Local History, Nashville, TN, 1974.
<http://www.aashl.org/tlvideo.htm>

Stritikus, George. ***Alabama Cooperative Extension Service.***

Call your local agent or the AHC for copies of Stritikus' very helpful research.

A History of Gardening in Alabama. GSA #10, 1993.

A List of Recommended Period Plant Materials for Alabama Gardens. GSA #7, 1986,91.

Alabama Landscapes: A Brief Outline. 1985, 1994. GSA #8.

Stuart, David, and James Sutherland. ***Plants from the Past.***
Viking, New York, 1987.

Vlach, John Michael. ***Back of the Big House: The Architecture of Plantation Slavery.***

The University of North Carolina Press, Chapel Hill, NC, 1993.
ISBN 0-8078-2085-7

CEMETERIES

Booth, Donna J. ***Alabama Cemeteries: A Guide to Their Stories in Stone.***

Crane Hill Publishers, Birmingham, AL.
www.cranehill.com

A basic guide to Alabama's cemeteries.

Strangstaad, Lynette. ***A Graveyard Preservation Primer.***

American Association for State and Local History, 172 Second Avenue North, Suite 202, Nashville, TN, 37201.
www.aashl.org
ISBN 0-910050-90-2

An excellent guide to cemetery assessment, documentation and maintenance.

INTERIORS

Auer, Michael J., Charles E. Fisher, III, Thomas C. Jester, and Marilyn E. Kaplan. eds. ***The Interiors Handbook for Historic Buildings, Volume II.***
Historic Preservation Education Foundation, P.O. Box 77160, Washington, D.C. 20013, 1993.

A compilation of up-to-date information on historic interiors, this compilation complements the first handbook, listed next.

Fisher, Charles E., Michael Auer and Anne Grimmer, eds. ***The Interiors Handbook for Historic Buildings.***
Historic Preservation Education Foundation, PO Box 77160, Washington, DC 20013, 1988.

Based on papers delivered at the Historic Interiors Conference, this information covers planning, finishes, systems and many other issues surrounding rehabilitation of historic interiors.

Frangiamore, Catherine Lynn. ***Wallpapers in Historic Preservation.***
US Department of the Interior, National Park Service, Washington, D.C., 1977.

A definitive publication that covers an overview of the history of wallpapers, their identification and their repair and conservation.

Resources *continued*

Grimmer, Anne, ed. ***Historic Building Interiors: An Annotated Bibliography. Volumes 1 and 2.***

US Department of the Interior, National Park Service, Washington, D.C., 1989 and 1994.

Each is an excellent resource for further information about historic interiors.

The Old-House Journal

www.ohj.org

This magazine, also listed in the "Favorite Periodicals" section, is the ultimate resource for old house fixtures, parts, helpful hints, and how-to help. It bears mentioning in this section on "Interiors," because it is an excellent resource for issues that relate to old house interiors.

Preservation Press, National Trust for Historic Preservation, PO Box 96056, Washington, D.C. 20077-7254.

The best subject-specific publications about historic interiors research and documentation.

Nylander, Jane C. ***Fabrics for Historic Buildings. 4th ed.*** 1983.

Nylander, Richard C. ***Wallpapers for Historic Buildings.*** 1983.

Shivers, Natalie. ***Walls and Molding: How to Care for Old and Historic Wood and Plaster.*** 1990.

Von Rosenstiel, Helene, and Gail Caskey Winkler. ***Floor Coverings for Historic Buildings.*** 1988.

Winkler, Gail Caskey. ***Introduction to The Well-Appointed Bath: Authentic Plans and Fixtures from the Early 1900's.***

Reprint of two early catalogs. 1989.

www.preservationbooks.org

www.nthpbooks.org

Seale, William. ***Recreating the Historic House Interior.***

American Association for State and Local History. Nashville, TN, 1979. www.aaslh.org

An excellent publication on historic interiors and the period accoutrements that enhanced them.

Seale, William. ***The Tasteful Interlude: American Interiors Through the Camera's Eye, 1860-1917.***

Praeger, New York, 1975.

Another excellent publication that shows dated interiors through photographs.

Winkler, Gail Caskey, and Roger W. Moss. ***Victorian Interior Decoration: American Interiors 1830-1900.*** New York: Henry Holt, 1986.

An excellent guide to purposeful placement of paint colors and the "tastemakers" from the period of highly decorated interiors. Any recreation of Victorian interiors would benefit from study of this publication.



ALABAMA HISTORICAL COMMISSION

468 South Perry Street
Montgomery, AL 36130-0900
Phone 334-242-3184
www.preserveala.org