

Best Practices for Painted Wall Preservation
from
The Center for Painted Wall Preservation
2022



The Center for
Painted Wall
Preservation

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Introduction to the Center for Painted Wall Preservation

The Center for Painted Wall Preservation (CPWP), a 501(c) (3) not for profit organization, is dedicated to the research and preservation of eighteenth and early nineteenth-century American paint-decorated plaster walls. The Center is a resource for paint-decorated plaster walls: documentation, conservation, paint analysis and preservation. The Center CPWP's goal is to survey and document walls, in situ or in collections; to further the appreciation of this rare and vulnerable art form; and to help conserve painted plaster walls for future generations. It is also the intent of the Center to aid homeowners in the research, appreciation, documentation, conservation and restoration of their home's paint-decorated plaster walls.

Conservation Terminology

The following terms and definitions are taken from the American Institute for Conservation [AIC] Guidelines, <https://www.culturalheritage.org/>.

Those who care for cultural heritage use special terminology, which is currently defined as follows:

Conservation: The profession devoted to the preservation of cultural property for the future. Conservation activities include examination, documentation, treatment and preventive care supported by research and education.

Conservator: A professional whose primary occupation is the practice of conservation; and who, through specialized education, knowledge, training and experience, formulates and implements all the activities of conservation in accordance with an ethical code such as the AIC Code of Ethics and Guidelines for Practice.

Preservation: The protection of cultural property through activities that minimize chemical and physical deterioration; minimize damage; and prevent loss of informational content. The primary goal of preservation is to prolong the existence of historical cultural property.

Treatment: The deliberate alteration of the chemical and/or physical aspects of cultural property which aims primarily at prolonging its existence. Treatment may consist of stabilization, conservation and/or restoration.

Examination: The investigation of the structure, materials and condition of cultural property includes the identification of the extent and causes of deterioration and alteration.

Documentation: This process records, in a permanent format, information derived from conservation activities. Documentation also saves historical paint-decorated walls in digital form.

Stabilization: This process involves treatment procedures intended to maintain the structural integrity of cultural property and to minimize deterioration.

Restoration: This process returns cultural property to a known or assumed previous state, sometimes through the addition of non-original material.

Preventive Care or Preventive Conservation: This process examines the mitigation of deterioration and damage to cultural property through the formulation and implementation of policies and procedures for the following: appropriate environmental storage conditions; handling and maintenance procedures for storage, exhibition, packing, transport and use; integrated pest management; emergency preparedness and response; and reformatting/duplication.

Cultural Property: This includes objects, collections, specimens, structures or sites identified as having artistic, historic, scientific, religious or social significance.

Conservation Administrator: A professional with substantial knowledge and experience in the theory and techniques of conservation whose primary occupation is to teach the principles, methodology and/or technical aspects of the profession in accordance with an ethical code such as the AIC Code of Ethics and Guidelines for Practice.

Conservation Scientist: A professional scientist whose primary focus is the application of specialized knowledge and skills to support the activities of conservation in accordance with an ethical code such as the AIC Code of Ethics and Guidelines for Practice.

Conservation Technician: An individual who is trained and experienced in specific conservation treatment activities and who works in conjunction with or under the supervision of a conservator. A conservation technician may also be trained and experienced in specific and specialized preventive care activities.

Collections Care Specialist: An individual who is trained and experienced in specific preventive care activities and who works in conjunction with or under the supervision of a conservator in the context of an institutional and/or private/corporate collection.

Guidelines of Best Practices

- By understanding the artists who were active during the first half of the nineteenth century, we can better appreciate the provincial flatness and naivety of their artistic perspective. Realism was not a part of the wall muralist's vocabulary.
- In-situ murals take on various perspectives according to the light in the room, the time of day and season of the year. Paint-decorated walls were part of a larger decorated environment which included painted floors, painted furniture, paint-grained doors, moldings and floor cloths. The 19th century home was not monochromatic.
- There is no real way to protect paint-decorated walls in a home when the house changes ownership other than to inform the buyer about the importance of these historic painted surfaces. The owner can investigate professional assistance and explore the option of preservation easements.

A legal instrument is available for a homeowner to provide oversight and preservation of painted walls. By donating funds to a grant created by qualified preservation organizations, the owners protect for the future original artistic endeavors of 19th-century artists on painted plaster walls in their original settings. With an easement on the interior of a house, a violation could take place very quickly without anyone knowing. These preservation easements protect against that by imposing a huge financial penalty. In the Historic New England program, for example, donors are asked to contribute towards a stewardship fund that will finance the handling of the easement in perpetuity. Scheduled visits are conducted each year to check on the property.

Easements

The best and surest way to ensure that painted walls in private homes will be permanently protected is through a preservation easement. An historic preservation easement is a voluntary legal agreement, typically in the form of a deed, which permanently protects a significant historical property. Since it is a perpetual easement, an owner is assured that the property's historic character will be preserved.

An easement is a particularly useful and flexible historical preservation tool. It allows a property owner to retain private ownership of the property while ensuring that the historical character of the property will be preserved. With certain statutory and regulatory constraints, easements can be tailored to meet the needs of the property owner, the individual resource and the mission of the protecting organization.

In addition, an owner who donates an historic preservation easement may be eligible for one or more form of tax benefits. Under the terms of a typical preservation easement, a property owner places restrictions on the development of, or changes to, the property and transfers these restrictions to a qualified organization whose mission includes historic preservation. The organization must have the resources to manage and enforce the restrictions in the easement and have a commitment to do so. Once recorded, the easement restrictions become part of the property's chain of title and "run with the property" in perpetuity. This binds not only the owner who grants the easement but all future owners as well.

In addition, putting a building in need of restoration on the State's Historic Site Registry or an equivalent organization helps when seeking monetary grants. Every state has a preservation organization that may be able to help with funding a project.

Historical Preservation Organizations

For more information on preservation easements in your state, contact the following historic preservation organizations. To ensure that these links and contacts are current, check the website of each organization.

Historic New England
Website: <https://www.historicnewengland.org/>

Email: Easements@HistoricNewEngland.org
617-994-6642

Historic New England has a preservation easement program called The Stewardship Program that protects privately-owned properties through the use of legal tools called preservation easements or preservation restrictions. Historic New England's program partners with the property owner to ensure the historic house and landscape is protected for future generations. This is accomplished when the homeowner donates a preservation restriction to Historic New England to protect the property's exterior and interior historic features from incompatible alteration, neglect and demolition while allowing the property to be livable.

Maine Preservation

Website: <https://www.mainepreservation.org/>
Contact: Sarah Hansen
sarah@mainepreservation.org
207-847-3577

New Hampshire Preservation Alliance

Website: <https://nhpreservation.org/>
Contact: Jennifer Goodman
jgoodman@nhpreservation.org

New Hampshire Preservation Alliance has a Preservation Easement program that protects property for future generations by creating an individually crafted preservation easement for the property. It is designed to protect historic resources and provides an easement written specifically to protect the paint-decorated plaster walls in a house. This prevents future owners from moving walls, painting over or removing the painted decoration and changing the interior and exterior structure of the house. This protects the decoration in perpetuity.

Preservation Connecticut

Website: <https://preservationct.org/>
Contact: Jane Montanaro
JMontanaro@cttrust.org

Preservation Trust of Vermont

Website: <https://ptvermont.org/>
Contact: Meg Campbell
meg@ptvermont.org

Best Practice Guidelines for Preservation

There are critical features to understand at the beginning of this process.

- It is critical to learn the composition and characteristics of the original materials used in creating the surface decoration: pigments, binding media, coatings.
- Additionally, previous restorations or conservation attempts and the materials prior to initiating any treatment need to be known.

- It is critical to understand the nature of treatment materials to be used in the preservation processes and the application methodology prior to applying them to historical artifacts.
- It is critical to understand the interaction of treatment materials with the original materials prior to initiating any intervention. Each project has its own set of variables; for instance, overpaint removal depends on solubility between original paint and the overpainting, especially for the first layer of paint directly on the artwork.
- A conservator must study and know the building to be conserved. He or she must examine the building carefully and do a complete investigation to determine prior repairs or conservation techniques and learn the methods and the types of materials used.
- Early nineteenth-century wall painters used distemper paints. Traditional lime plaster that was used is flexible, can heal itself, can breathe and bind to itself because it doesn't react with curing limestone plaster which can take up to one year to cure.
- Reversibility is the key to treatments made by trained conservators and may be overlooked by well-meaning restorers.
- A methodological approach to treatment should be developed at the onset of any project with the aim to minimize the impact on and alteration of any original materials.
- Extraction of a wall painting from the original structure should always be a last resort.
- Documentation of what the conservator has found must be undertaken since there is no guarantee of an artifact's intact or unaltered survival once removed from its original setting

Architectural Finishes: Looking Into Surfaces

The investigation of architectural finishes is very much analogous to an above ground archaeological dig, encompassing systematic exploration, discovery, documentation and analysis. The focus of this process is on the coatings applied to architectural elements over time. These coatings all combine to form a stratigraphy that can tell a story about the history of the structure - not only about the colors and stylistic trends during a given time period but also the history of how a structure has evolved over time. There are a variety of methodologies and processes utilized to discover and sometimes physically uncover the history that is embedded in architectural finishes. Modern analytical tools and techniques such as microscopy, X-ray diffraction and thermoluminescence are part of today's investigative toolbox. In general, an investigation of architectural finishes is conducted to discover the stratigraphy of the surface and entails three phases:

Phase I: Preliminary: Prior to Onsite Visit

This phase starts with defining the purpose of the investigation. This phase may change but the primary intended focus is usually the identification of the original finish process or processes. Occasionally the purpose is to determine the finish that was in place during a specific time or event.

Once the purpose is defined, the client is asked to provide the background information of the structure including date of construction, style, original use of the structure and its chain of

ownership as well as historical and contemporary documentation, all of which help guide the investigation. If the client does not have the requested information, the research for this information becomes part of the project.

Phase II: In Situ

Depending on the scope of this phase it can be very simple or more complex. Upon arrival on site and prior to harvesting any samples, an overall field investigation is undertaken to understand the structure and any or all changes that might have occurred. It is important to determine where samples should be taken. During the field investigation, visual clues to identify areas where sampling should occur include:

A general build-up and/or patina of the applied coatings which can indicate age and/or degradation; the stylistics of individual elements; visible ghost lines where differences in the applied coatings can indicate where an element might have been removed.

Technological advances can also be helpful in identifying changes that have occurred. Construction techniques can also be indicators of change. This level of documentation is very important. When the conservator/restorer is back in the lab and working with a large number of samples, this documentation is vital to be able to track the samples. It helps not only in locating any given sample's location but is crucial when alignment and comparative analysis of sample stratigraphy is undertaken.

Phase III: Laboratory

Once on-site work has been concluded with harvested samples and site observations, it is essential for the conservator to revisit the original scope of work to see whether or not the project objectives have changed or been impacted by what was found onsite.

After confirming and/or revising the objective, the lab work begins. The technique of using the most up-to-date microscopy aids in distinguishing between layers of paint and can also help in identifying certain types of applied coatings. Shellac, for instance, will auto-fluoresce with a distinct orange while varnishes tend to fluoresce a bluish color.

An investigation into architectural finishes is not only an invaluable tool in the discovery, understanding and interpretation of historical finishes but can also aid the specialist in documenting the evolution of changes that have occurred in an historical structure.

How to Minimize Damage of Paint-Decorated Walls

It is necessary to have a plan for emergencies to help minimize a disaster's effect and to assist in recovery. You will need: contacts of people for structural repair and to document all events after a catastrophe both in the interior as well as on the exterior of the site.

Examine the building environment for leaks, washout pooling, wood rot, bio-growth, pests, masonry efflorescence, the freeze/thaw cycle and rust along with structural damage.

In a period building, examine wooden gutters for rainwater management. Effective rainwater management is essential. Roofing, flashing and wall sheathing along with gutters should be examined for water infiltration. For example, changing climates indicate that the old wooden gutters are not sufficient to accommodate changing Northeastern storm patterns. Old wooden gutters are too small to handle today's storms. There are, however, modern sheet metal replicas of 19th-century wooden gutters.

It is important to do on-site structural investigations for cracks and check institutional records (for non-residential buildings) for information on the building's structure. Also, monitor the building's interior environment daily. Original 19th-century paint-decorated walls with interior finishes are sensitive to temperature and humidity fluctuations. Once damage is discovered, determine the source.

Understand what your insurance policy covers and what documentation will be needed if there is a need to file a claim.

Document the issues both in writing and with photography by having an appraisal prepared by having pictures taken through each stage.

Continue with the tips outlined in the above Minimizing Damage section to examine the extent of damage of the entire property, identify the cause(s) and assist in establishing the next steps.

Next Steps

- When walls are in jeopardy, a building assessment is the first priority.
- Contact the experts needed for an onsite examination to assess the damage and the subsequent recovery/renovation.
- Investigate signs of structural issues prior to any restoration.
- Monitor the interior environment because interior finishes are sensitive to temperature and humidity.
- Determine the original type of paint used, the type of lath and plaster, the type of deterioration or damage and the sources of any problems. All must be known prior to beginning any work.
- Plaster repairs done with synthetic materials often fail. Use "in-kind" materials to repair plaster from the 1800s.
- Each type of painted decoration requires specific methods of cleaning.
- Weak areas of a surface must be consolidated before cleaning. It is imperative that inpainting has the same matte appearance and reflectivity as the original painted surface.
- There are a variety of dirt compositions, coal dust and fireplace smoke residue. Each is treated separately.

Hiring Professionals

Trained and qualified professionals can help you treat your walls properly. Whether it is to reinforce structural weaknesses or to clean the surface of painted decorations, hiring a professional helps to ensure that the value of your walls is not diminished in the process.

Structural Engineers

Buildings with painted wall decoration are susceptible to a variety of conditions which are perilous to their existence. Physical forces such as wear and tear, vandals who trash vacant houses, fire, humidity and water, pests and custodial neglect by owners, collectors and others all result in damage. If one can manage and limit these factors effectively, one will increase the longevity and quality of the painted wall decoration.

Generally, painted plaster walls are an integral part of the structure of old buildings. Structural failures in buildings directly impact the walls. The preservation of historical walls requires an understanding of their unique requirements. A structural engineer should be familiar with historic buildings and have experience diagnosing their structural failures and problems and developing appropriate, sympathetic solutions. Structural engineers are licensed and can provide stamped plans or a letter detailing the structural solution. Typically, there are a variety of structural solutions. Consistency with the overall project goal as well as preservation of the wall paintings, which often have unique requirements, is crucial. Verifying several examples of the engineer's work that are directly relevant to your project is recommended. Google Historic New England for a comprehensive discussion of structural engineers.

Plaster Conservation

Onsite conditions and financial considerations will determine the methods of restoration and conservation used in a particular situation. Paint-decorated wall murals should not be restored to near new condition; but rather, they should reflect the artist's original intent with a reversible repair regimen on the wall surface that allows them to reflect their age.

It is almost unheard of to find a 200-year-old plaster wall with no cracks. For some people, the cracks are a visible sign of character on the wall but they are also telltale signs of where issues may exist. If these issues are not studied and assessed, serious problems may occur. Plaster cracking and delamination (separation along a plane parallel to a surface) from the wood lath is an important clue to what has happened to the wall substructure. Environmental stresses like new roads and highways, construction blasting, structural repairs to the building, changes in stress loads on the foundation along with all the other climate and moisture related issues contribute to plaster cracking.

There are two approaches to plaster stabilization that should be offered in a conservation assessment: the traditional time-tested methods that are still being used in European restoration work and the modern method that employs glue-based adhesives that are not reversible when dry. When preparing the conservation program for your paint-decorated

plaster, it is important to examine both approaches with a professional to determine what is best for your situation.

All treatments begin with a phone consultation. This is usually followed by an onsite examination and preparation of a report complete with photography to state the problem or problems and solution or solutions. Floor plans are examined and testing is done to determine material composition and condition to aid in deciding the proper treatment. Sometimes, further research and consultations with colleagues need to take place; a budget for scientific samples is determined; funding for tax exempt projects may be necessary. There is usually a unique treatment for each conservation problem.

Documentation is required and includes the following reports and information: examination of the damage; treatment proposals; treatment record supported by overall photography and details of each treatment phase; a listing of conservation treatments and what each entail. The treatments, for example, may require removal of wallpaper; description and method and possible results; consolidation of plaster and pigment layers or description of method including that it is reversible; and re-toning of areas with reversible pigments. The estimated cost of the conservation materials and the total cost estimate for the conservation treatment should be in the report.

When, How, and Why to Hire a Conservator

Professional conservation was little known to the public prior to the devastating 1966 flood in Florence, Italy. International news spread the word of the disaster to ancient treasures, the importance of conservation and the need for disaster volunteers. In 1968 the first international conservation code of ethics was introduced. Professional training began in the United States at New York University in 1960 and the 1970s saw Cooperstown, NY and the University of Delaware add similar programs. A conservator is trained in comprehensive preservation knowledge and preventive care to maximize the long-term value of preservation.

Originally, a restorer was a self-trained artist, often with the title "Keeper of Collections." Although an advantage, merely being an artist does not train one to be a conservator. The public is often at a loss to understand the difference in selecting whom to hire. Too often just reviewing the cost for a project is the determinant. It is important to remember the cheapest bid is not always the best one!

The American Institute for Conservation (AIC) provides the platform for ethical standards and continuing education in the conservation field. The annual conference, publications, web presence of the organization and specialty chat rooms all provide members with worldwide, professional networking opportunities. Being a member of the AIC is vital for practicing conservators to learn about developments and advancing technology.

All conservators are expected to have a basic knowledge of material science and preservation practices with an extensive knowledge in one's chosen specialty. Constant problem-solving capabilities, photography and computer skills are also required. Conservation of art, as a

profession, is a small field and young in development. There are no textbooks or licensing but there are established guidelines for professional practice referred to as the Code of Ethics and Guidelines for Practice.

To be listed in AIC's referral service requires recognition of being a Professional Associate (PA) or Fellow and a pledge to abide by the Code of Ethics of the organization. Finding a conservator who abides by the AIC code of ethics and standards is highly recommended for any treatments being considered.

What to Ask a Conservator Prior to Enlisting Services

First, identify the final goal for the painted plaster. Be clear if walls are to be conserved to reflect the original intent of the artist. Clarify with the conservator that any treatment to be used has to be reversible. Ask to see references of other jobs that have been completed by the conservator in the same conservation framework - i.e., painted plaster, conservation of distemper paint in the style of the period.

The fragile surfaces and condition issues associated with painted-wall decoration result in a frequent need to consult with experienced conservation or preservation professionals to ensure that the painting is stabilized and maintained in as good condition as possible. While many people are highly skilled at touching up flaking paint, it is imperative that the best practices are utilized for the conservation of the mural so that the restoration is easily removable as needed and does not ultimately cause more harm than good.

The ideal candidates for such a job would be a master's program-trained historic preservation specialist or art conservator. These individuals would have a professional affiliation with the Association for Preservation Technology International (APTI), the American Institute for Conservation (AIC) ideally in the Architecture Specialty Group or the American Institute of Architects (AIA) Historic Resources Committee. A master's-trained art conservator with a specialization in painted surfaces or finishes would also be a good candidate for the job. The best way to find a program-trained professional in your area is to contact the APTI, AIC or the AIA directly.

Why Hire a Professional Conservator/ What to Expect

All treatments begin with a phone conversation, usually followed by an on-site examination and a written record of materials and construction, current condition, deterioration and past treatments. Testing is necessary to confirm sensitivity of the materials and to determine the best course of action. Research of the original artist and consultation with the owner are required. In some cases, sampling for scientific analysis is necessary.

As previously mentioned, an examination report will include photographs, the deterioration to be addressed, treatment recommendations and possible options. The report should include a proposed treatment outline, with materials, a contractual agreement of costs and estimated completion dates prior to beginning any job.

Restoration is the aesthetic phase of improving the object visually, for example table or chair leg is missing. Restorers rarely document treatments. Conservators are always mandated to do so. Documentation is vital for quality control, the study of a treatment upon completion and over time until the next intervention. It must record the pre-treatment conditions and the proposed remedial course of action in writing and by photography.

Digital photography is an extremely important tool in examination with instant access, ability to enlarge on a screen and the use of filter technology. Photographs of paintings are taken front and back as received, before, during and after treatment, framed and unframed with details of damage and a photo document of conditions and treatment results.

There are no secrets in treatments. The report, proposal and treatment record should be written with full disclosure of the planned method with materials selected for known performance. All records are expected to be archived. A duplicate copy of documentation is given to the owner. Reports are confidential unless permission is granted to use for research and education. Sharing past treatment records is vital to understanding older treatments.

19th-Century Paint-Decorated Wall Murals Are Valuable

Remember the first rule of value, 19th-century paint-decorated plaster walls in-situ are far more valuable than those which have been removed. The cost of removal can be prohibitive and damage to the paint and the walls may occur if the walls are moved.

An appraisal is an educated opinion of the value of an object at a given time, prepared by a qualified person with knowledge of the object. Key factors that are considered in determining value are: size, condition, maker, quality of workmanship, materials used, authenticity/attribution, provenance (or ownership), rarity, decorative arts significance and overall appearance. All of these factors are used in a thorough examination of historic sales of the object in the appropriate marketplace. The values could be used for insurance purposes which would be a retail replacement value. If the valuation is for estate planning, charitable donation or sale purposes, the wall or walls would be valued at "fair market value". Fair market value, as defined by the IRS, as "the price at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of relevant facts." It is important to note that any object with a value over \$5,000 in a charitable donation situation must have comparable sales figures from auction houses or dealers recorded in the appraisal report.

Paint-Decorated Walls Are Able to be Salvaged

Paint-decorated plaster walls are unique, connected to each other visually and dependent on the building's structure. Walls are vulnerable to disasters such as storms, fires, carelessness and lack of knowledge of their significant value. Walls are moved when there is a change in

ownership of property, the building or home is being sold or there is to be a change in a room's design. The primary reason why walls become available is when the total building is demolished. Removal of walls is rare and not typically cost effective because of the amount of money and work involved.

Vapor barriers and insulation can change the breathability of painted walls. Improper preservation techniques can often alter or completely reinterpret the original intent of the artist. If structural support issues are not addressed, then no amount of inpainting will save the paint from being affected by damage to the plaster.

Paint decorated plaster walls are found in post and beam framed buildings and are painted with distemper paint on lath and plaster - a paint made of glue, water and pigment. Although resilient, distemper paint is vulnerable to moisture and can be affected when there is a severe change in temperature. If a heating/cooling system is changed or removed that temperature disruption can affect the walls - both the plaster and the paint.

When moving painted walls, professional housewright David Ottinger, has a particular system. He removes the walls as a complete unit with studs, plaster and support to provide the maximum amount of integrity for the walls. He develops a sequence to provide stability and support to the open walls. Rabbit skin glue, much like that used in the early 19th century, is injected into cracks and keys in the plaster at the back of the walls to be removed. A new structure to support the wall is then established and each section is removed in sequence. The sections are sometimes crated to facilitate removal; but oftentimes the walls are moved in a horizontal position by hand and then stored in a humidity-controlled environment, when necessary.

Once removed walls often become orphans because their future is likely uncertain. There is a narrow buyer's market for walls because a limited number of people have the space for them or interest in their beauty or historical importance. The uncertainty in the costs of moving the wall coupled by the expense of buying a paint-decorated wall prevent sales of these walls to be as popular as other more easily movable antiques and decorative art objects.

Having a building documented and registered with the Center for Painted Wall Preservation will help track the changes in paint-decorated walls as the house ages and/or the house changes ownership.