

Understanding Mold in Historic Homes: A Preservationist's Guide

Old houses have a way of speaking to you. The creak of original wood floors, the solid feel of lath and plaster walls, the particular smell of a basement that has held its ground for over a century. But if you live in or manage a historic property, that same house can whisper something else - a damp, musty warning that mold has moved in. As someone who has worked on Victorian architecture and older Detroit homes for years, I can tell you that dealing with mold in historic homes requires a different playbook than what works in new construction.

Historic homes were built to breathe. They relied on natural air movement through leaky windows, unsealed foundations, and porous materials like plaster and brick. Modern building science, with its vapor barriers and tight seals, can backfire in these old structures. The very features that make a house historic - thick masonry walls, crawl spaces, original wood sash windows - also create conditions where moisture collects and mold thrives.

Let me walk you through what matters most when you are tackling [mold in historic homes](#), from the inspection phase all the way to remediation that respects the building's character.

Why Historic Homes Are Prone to Mold

It starts with water. Historic homes often have basements that were never designed to be dry living spaces. Fieldstone foundations, dirt floors, and poor drainage are common. Even in a city like Detroit, where many historic homes were built with pride and care, the original builders assumed basements would stay damp. They did not install vapor barriers or foundation drains. Over time, moisture wicks up through the stone or brick, and that slow, steady dampness feeds mold colonies behind baseboards and inside wall cavities.

Another issue is the materials themselves. Plaster walls and lath and plaster assemblies hold moisture differently than drywall. When a leak happens, plaster can absorb water and stay wet for weeks, creating a perfect hidden environment for mold. Unlike modern gypsum board, which you can cut out and replace, plaster often has to be carefully dried in place or repaired by a specialist. And if the home has lead-based paint or asbestos in older insulation or flooring, you cannot simply sand or demo without serious precautions.



Start with a Professional Mold Inspection

Before you start scrubbing or spraying, you need a proper mold inspection. A good inspector will look beyond visible spots. They will use moisture meters, thermal imaging, and borescopes to find moisture hidden inside walls or under floors. They will also check the HVAC system and the attic, because mold spores travel through air currents. In a historic home, the inspection should also account for the building's original construction methods. For example, a brick foundation that looks dry on the surface may be wicking moisture from the ground at a rate that keeps the interior humid.

Mold testing can tell you what species are present and whether they pose health risks. But testing alone does not solve the problem. The real work is in moisture control - finding where the water is coming from and stopping it.

Moisture Control: The First Line of Defense

If you want to stop mold in historic homes, you have to control moisture. That means looking at the whole water envelope: gutters, downspouts, grading around the foundation, basement waterproofing, and roof condition. In many old houses, the gutters are undersized or clogged, and downspouts dump water right next to the foundation. Fixing that alone can cut basement humidity by half.

Basement waterproofing in a historic home is not the same as sealing a modern poured-concrete basement. You often need to work with the existing stone or brick, using methods

that allow the wall to breathe while still keeping bulk water out. Interior drain tile systems, sump pumps, and vapor barriers on the floor can help. But you have to be careful not to trap moisture inside the wall assembly. A vapor barrier applied to the interior of a historic masonry wall can cause spalling and freeze-thaw damage in colder climates.

The US Department of Energy has published guidance on moisture management in older buildings, and the National Trust for Historic Preservation offers resources on balancing energy upgrades with preservation. Their advice consistently points to one thing: you cannot seal a historic home the way you seal a new house. You have to manage moisture dynamically, using dehumidifiers, improved ventilation, and targeted repairs.

Mold Remediation in a Historic Setting

When you find active mold, the remediation approach matters. In a modern home, you might just cut out the drywall and replace it. In a historic home, you often want to preserve the original fabric. That means using HEPA vacuums to capture spores without spreading them, applying antimicrobial cleaners that are safe for plaster and old wood, and drying the area thoroughly before repainting or replastering.



If the mold is in an area with lead-based paint or asbestos, you need specialized contractors who are certified for both abatement and historic preservation. You cannot sand or scrape without containment and air monitoring. The EPA has clear guidelines on handling lead paint during renovation, and those rules apply even more strictly when you are trying to preserve the original finish.

For smaller areas of mold on non-porous surfaces like tile or glass, a simple cleaning with detergent and water plus a HEPA vacuum is enough. But for porous materials like plaster, wood studs, or old insulation, you may need to remove and replace the affected section. In a house museum or a listed property, that means finding matching materials and techniques. It takes time and money, but it preserves the building's integrity.

Indoor Air Quality After Remediation

Once the mold is gone, the work is not over. You need to maintain good indoor air quality. That means keeping humidity below 60 percent, ideally between 30 and 50 percent. A dehumidifier in the basement during summer months is almost mandatory for many historic homes in the Midwest. You should also run the HVAC fan continuously during humid weather and change filters regularly.

Consider installing a vapor barrier on the basement floor if there is not one already. A simple 6-mil polyethylene sheet under a layer of sand or concrete can cut moisture evaporation from the ground significantly. Just make sure the barrier does not extend up the walls in a way that traps moisture.

I have also seen good results from using a HEPA vacuum regularly on all surfaces, especially in rooms with plaster walls. Mold spores settle into the texture of old plaster, and regular vacuuming keeps the spore count low. It is a simple habit that pays off over the long term.

Balancing Preservation with Health

The hardest part of this work is the trade-off between preserving historic fabric and ensuring a healthy indoor environment. Sometimes you have to remove a section of original lath and plaster because it is too damaged by mold to save. Other times you can dry it out and treat it. There is no single answer. The National Trust for Historic Preservation recommends a "do no harm" approach, but also acknowledges that moisture damage left untreated can destroy the very features you are trying to protect.



In Detroit, where we have a rich stock of historic homes from the late 19th and early 20th centuries, I have seen both successes and failures. The successes come from a thoughtful plan that starts with a thorough inspection, addresses moisture at the source, uses appropriate remediation methods, and maintains good indoor air quality afterward. The failures come from rushing, using modern materials that trap moisture, or ignoring the basement.

If you own or manage a historic property, take the time to understand how your house behaves with water. Learn where the damp spots are after a heavy rain. Check the humidity in the basement with a simple gauge. And if you find mold, call a professional who understands both mold remediation and historic preservation. It is worth the investment to keep these old houses standing and healthy for another century.