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# OLD-HOUSE JOURNAL



## Painting

**Prepping Problem Surfaces  
Colors for Cottages  
Fence Details & Finishes**

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**Investigating Clues to the Past**



# POKING INTO THE PAST

*Is your old house  
hiding its historic  
details? An  
investigator  
explains how he  
uncovered a home's  
previous lives.*

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CHANCES ARE, IN THE COURSE OF SCRAPING WALLPAPER, stripping paint, or ripping away siding, you've uncovered earlier materials that hint your house once had a different look. After decades and centuries of use, change is more a rule than an exception for most old houses. The wear and tear of daily life calls for occasional repairs and redecorating. Rooms or whole wings are added or torn down as generations come and go. Today layers of changes can make an old house difficult to understand, but at the same time they form a record of the people who lived in and worked on these buildings.

It is possible to "read" the record of a house's history by studying these layers and their relationship to each other. If you make a point of investigation before work begins you can use

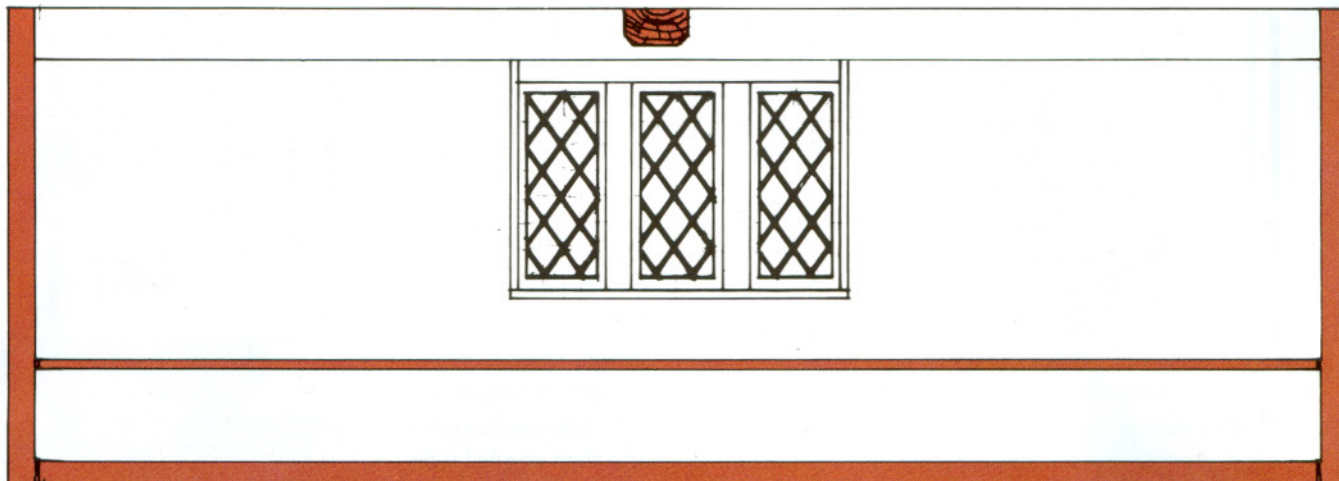
the information to establish a better restoration plan. For example, if you discover a lot of compelling evidence about paints and wallpapers from a particular period in your house's history, you might decide to reproduce the decorative finishes of that period. (Investigation can also uncover structural problems that need attention before decorative work starts.)

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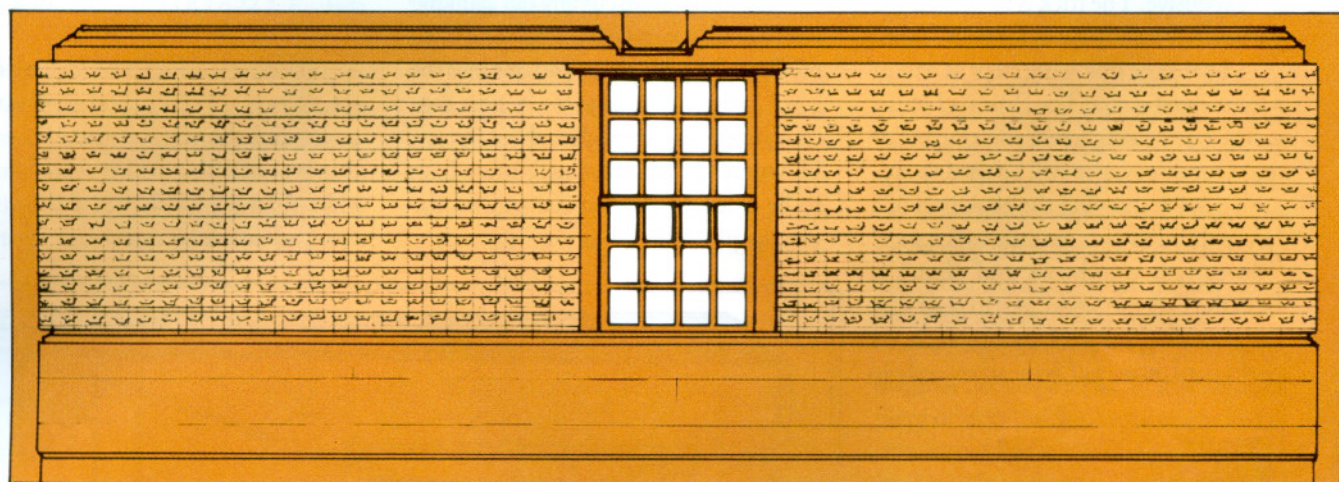
*We uncovered three incarnations of a parlor wall. Originally, white plaster was only broken by a narrow chair rail (top). In the early 1800s, the window was reduced, complex cornice moulding, wood wainscot, and wallpaper were added, and the summer beam was encased (middle). Today, the Federal casings remain, yet a door has been added and the wallpaper removed (bottom).*

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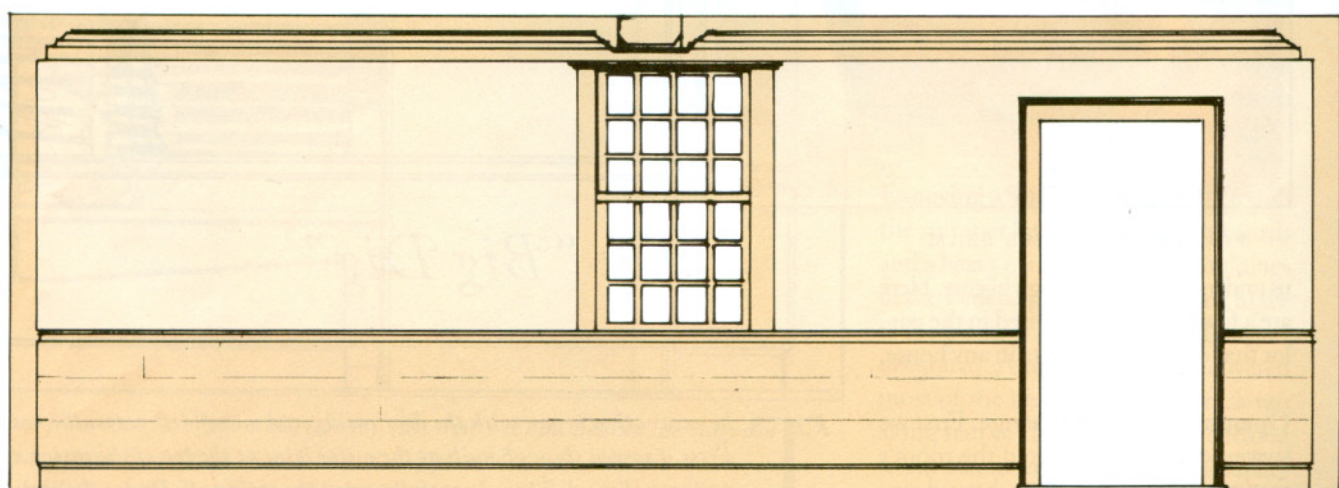




C. 1730



EARLY 1800S



C. 1991



OLD-HOUSE INVESTIGATIONS CAN BE simple, such as looking for ghosts of old walls, analyzing layers of paint, and peering into unfinished walls in basements, attics, and closets. You can also go a step further with a process that is sometimes called “building archaeology” where small “excavations” into walls are used to find clues about the house’s past.

Actual excavations should be limited for two important reasons. First, you want to leave as much historic material intact as possible. You could completely disassemble a house and learn everything about its history, but the house would be destroyed in the process. Second, putting the house parts back together again can get expensive. The trick is to select a few particularly telling spots for your “digs.”

I used the following steps as part of a team investigating The Parson’s House, a circa-1730 Massachusetts museum building. Our discoveries will be used to create a display showing the evolution of a house through two centuries of change. The current woodwork and plaster is from the Federal period (1775 to 1825). Using a building archaeology approach, we performed dozens of excavations to help

Our first excavation was of a door casing. We liked the location because the door led to an addition and because of slight ridges in the plaster on either side of the nearby window, both of which suggested it was an area of change.

Woodwork made up of relatively short sections suffers the least damage if it is disassembled rather than cut. I first scored the paint film on each side with a utility knife to prevent a wide, jagged paint edge. Then I used my “wiggle and wedge” technique. I worked a thin putty knife into the joints, then wiggled it for several minutes, working it up and down the casing. This vibrated the casing, giving the nails a chance to loosen before I pried it off. If the casing had not come loose easily, I would have cut any old caulking with a linoleum or pocket knife and sawn off the nails by slipping a pad saw into the gap. Cutting nails is a last resort, since they can provide important clues about history. However, cut and wire nails often have to be sawn to prevent damage to the woodwork.



FIG. 3 EXCAVATING THE PLASTER

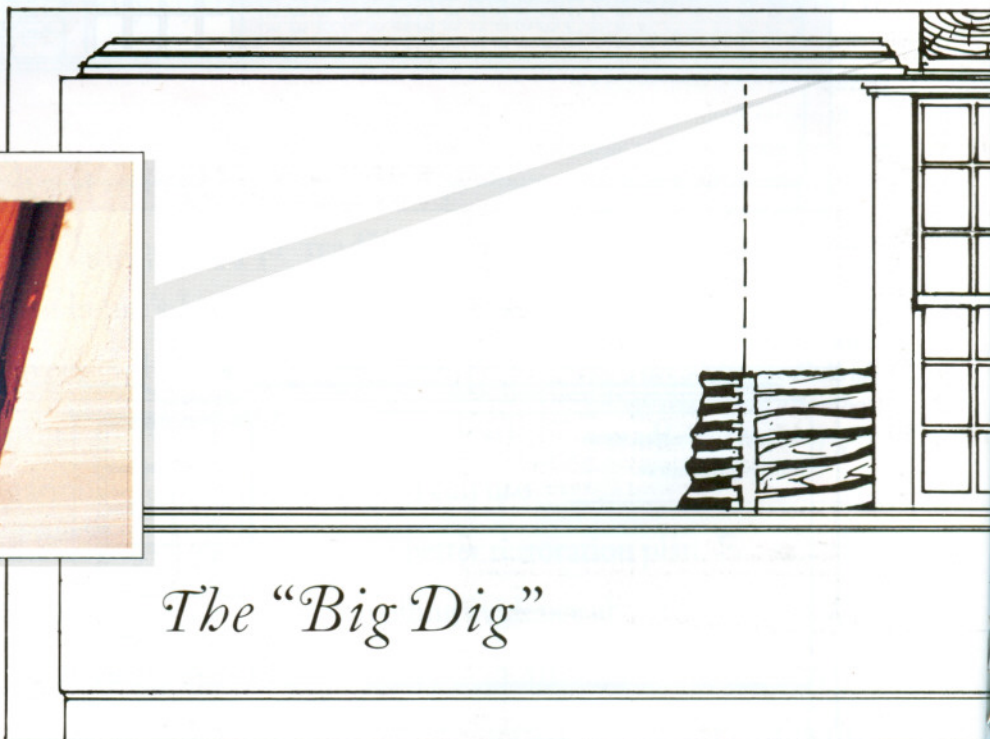
With the casing removed, we could see a fragment of Federal-period wallpaper and the edge of the plaster and thin wood lath — which seemed much older than the finish. So, we expanded the excavation by removing plaster to



FIG. 4 THE SUMMER BEAM

us understand the building’s history. Here are a few techniques we used in the parlor that could turn up data in any house.

**Opening an Area of Change.** First we surveyed and documented the room’s features, noting areas that showed evidence of change — where the most interesting information generally lies.



## The “Big Dig”

**T**he excavation began with the door casing and moved left across the wall. First, I sawed through nails at the miter joint at the top of the casing with a pad saw (Fig. 1). Then, I carefully pried the casing off. Under the casing, we found late-Federal wallpaper (Fig. 2), which had been applied in horizontal strips sometime before the door to the room addition was cut through. Later, the paper was





FIG. 2 LATE FEDERAL WALLPAPER

the left of the door, and found thin, irregular riven lath (split directly from the log) and gray plaster with grass as a reinforcement fiber. This archaic type of plastering system was common early in the 18th century and was probably

original. A sample of the plaster was bagged and tagged. Later microscopic analysis indicated a coat of white paint, thin textile fibers, and possibly a clay-soil component. (See "Primitive Plaster," Sept./Oct. 1993).

We extended the excavation to include one of the ridges we had documented and found a transition to split-board lath and to white plaster made of lime, sand, and hair — common in the Federal period. Because of the vertical ridge in the plaster on the other side of the window, we suspected this window opening was once much wider, and began to wonder if it had been a doorway. To confirm the width of the opening, we excavated at the ridge on the left of the window. The newer lath and plaster continued to that ridge.

We knew we could tell if this was a doorway by looking behind the wide boards of the Federal wainscot below. There was a joint and a natural split in the boards below, so we removed this predefined section of the wainscot with-

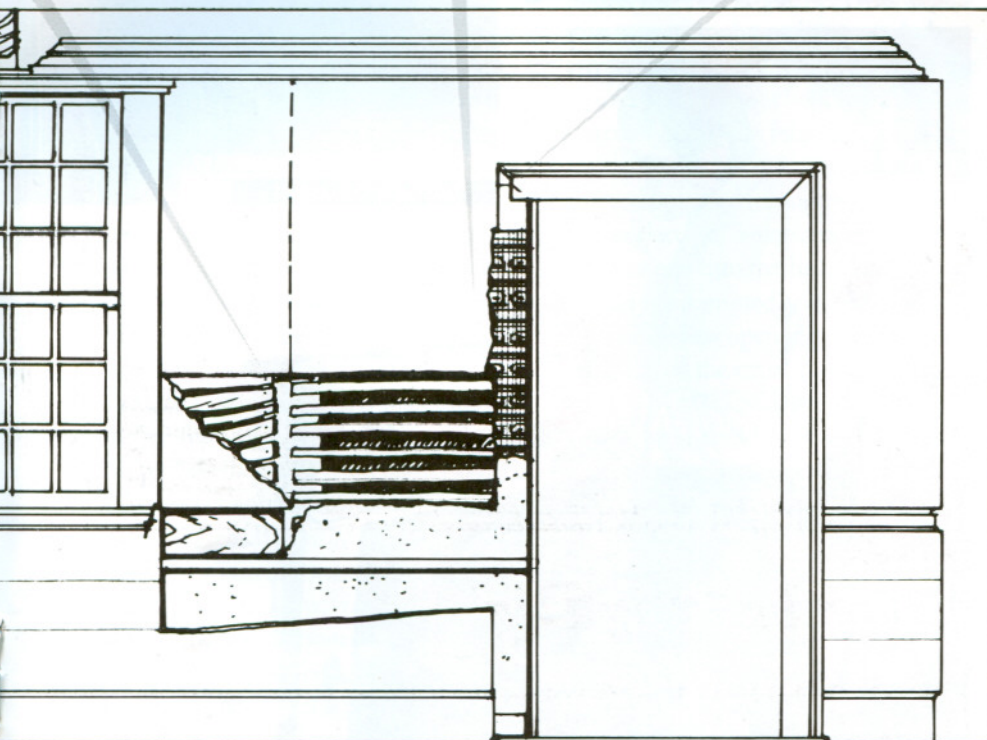


FIG. 1 SLICING NAILS

out having to saw into the boards. We found more early gray plaster wrapped around pre-Federal split-board lath below the window, indicating that the opening had not originally extended to the floor, and dispensing our notion that it once might have been a door. We determined that it had been a much wider window.

We also exposed evidence of an original decorative detail: a horizontal piece of wood with a lower beaded edge that formed part of a simple chair rail. Nail holes in the top edge indicated a projecting nosing was nailed onto the rail. The nosing must have been removed during Federal remodeling when the wainscot boards were added and the window opening was narrowed. There was no paint on this railing or on a simple baseboard, the end of which was visible over by the door casing.

**Exposing a Summer Beam.** We found the summer beam encased with boards and a heavy cornice of crown mouldings of the Federal period. We wanted to see if the beam was originally painted or decorated. A wide soffit board covered most of the beam, but a fine crack ran along half of the board, so we decided to cut off one end rather than risk splitting the entire board by removing it whole. I used a FeinTriangle Sander/Saw (Fein Power Tools Inc., 3019 West



*removed from the rest of the wall, leaving this strip behind. Behind the ridges in the wall was a transition from riven lath and clay plaster to split lath and white plaster (Fig. 3). We determined that the transitions represent where the original window had been. The fancy chamfer on the summer beam (Fig. 4) told us it had originally been exposed.*



*Loosening the mantel required the wiggle and wedge technique (top). The mantel is made up of sections, which need to be carefully handled to prevent damage (bottom). An earlier fireplace surround moulding left its shadow in the paint (inset).*

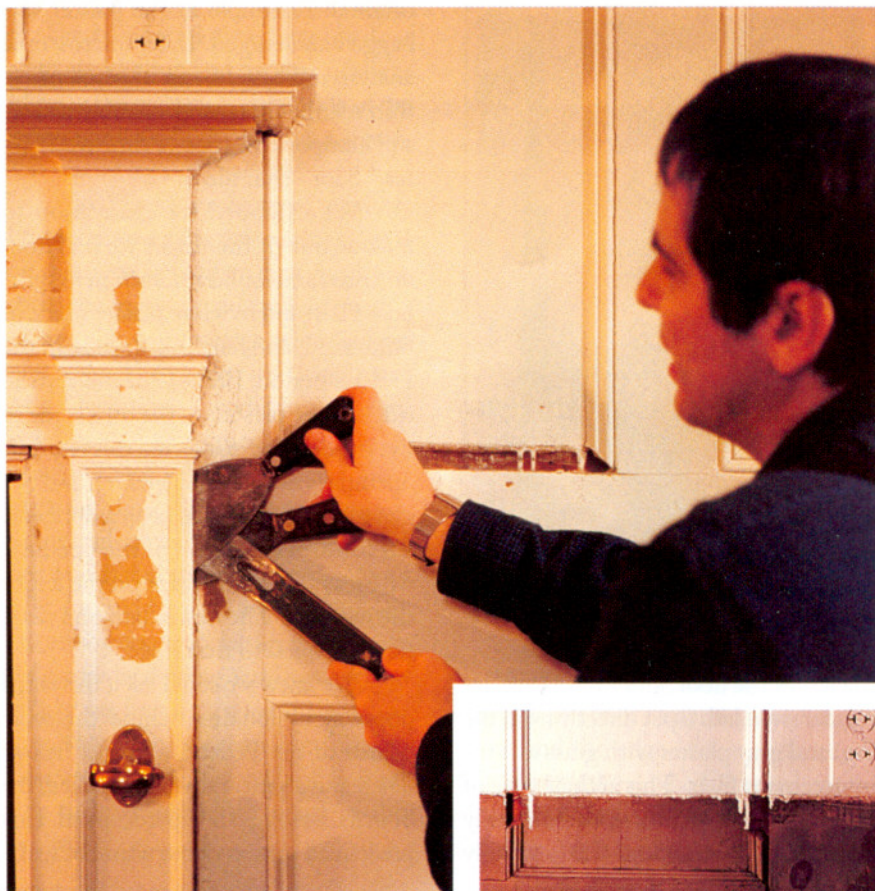
Carson St., Pittsburgh, PA 15204; 800-441-9878), which has special thin blades, to cut across the wood soffit board and to slice off the iron nails.

With a piece of the board removed, we could see the summer beam itself was unpainted and had chamfered edges with a fancy stop. Clearly this beam was originally meant to be left exposed, otherwise it would not have been decorated with the chamfer. We began to build a picture in our minds of how this room looked underneath the outer layer of Federal decoration: very plain with simple unpainted woodwork.

**Removing a mantel.** A preliminary paint layer analysis (see "Checking Out Paint Layers," page 49) told us the mantel did not have as many layers of paint as the rest of the wall. This suggested it was added at a later date. To confirm, we excavated the mantel.

I removed the mantel using the wiggle and wedge technique. Once all of the woodwork was loose I carefully pulled off the pilasters, lintel, and mantel shelf. Beneath the mantel were two coats of paint. The first was a deep blue. The top coat was a much lighter blue-green. A ghost through both of these layers indicated a  $2\frac{3}{4}$ " wide moulding had once surrounded the fireplace. Square nail holes were a clue it had been attached with hand-wrought nails. This was probably a bolection moulding that had been removed when the current mantel was installed sometime before 1825. It provided clear-cut evidence of an early-Federal fireplace surround. We suspected it was very simple, without a shelf. We looked but found no evidence of what had been here originally.

**Analyzing the clues.** Further paint investigations revealed that the third

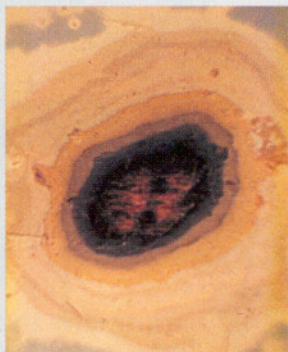




## Checking Out Paint Layers

Cratering, a basic field method of investigating paint chronology and colors, can reveal even more.

1. Rub an area of painted moulding with sandpaper (220 grit is good) in a small circle. Create a shallow crater to reveal the layers of paint as rings of color visible to the naked eye.
2. Use successively finer grits (400 to 600) to polish the crater, showing the layers more distinctly.
3. Moisten the crater slightly with water or mineral spirits. They act as a sanding lubricant, help control the hazard of lead paint dust, and make the colors of the layers clearer.
4. Make craters in each of the areas you're analyzing. When they clearly display the paint layers, compare how the layers of paint differ from one element of the building to another.



other. It can be possible to tell, for example, if a moulding is original to a wall, or if it was added much later, by simply counting the layers of paint.

5. Look for patterns of colors and notice where they show up in your craters. You may find them in different levels of the paint strata, offering evidence of their relative ages.

6. Once you determine which layers are contemporary, match those on plaster or siding with those on moulding to find possible color scheme links.

7. In most cases, the area can simply be painted when the room is finished. Photograph and label your craters before refinishing them, or if they are out of the way, leave them unfinished for future reference.

For more involved projects, such as our museum work, on-site specialists can study samples under a microscope and provide detailed scientific data on the finishes.

layer of paint on the woodwork, a Federal-period rich yellow, was associated with the wallpaper found under the door casing, and also was the first layer on the mantel. This suggested there was a remodeling project in which the mantel was added, the walls were papered, and the woodwork was painted yellow. Using information about the families that lived here, the physical evidence we discovered, and the chronology of historic building technologies, we were able to complete our mental picture of this room's changes.

The original c. 1730 finish scheme included large window openings, exposed timber framing, a narrow chair rail and simple baseboard on plain plaster walls. We suspect none of the woodwork had been painted. By the late 1700s or early 1800s the room had been completely remodeled with new, fancier Federal woodwork, and decorated with wallpaper and a few coats of paint. By the 1900s, new doors had been added, wallpapers were removed, and more coats of paint had been applied.

**Old-house investigations.** This was a museum project, designed to discover the evolutionary changes to an old

house, and even we kept our excavations limited. While it can be exciting to investigate the physical history of your house, there are negative as well as positive aspects to the excitement. At best, any investigation disrupts a part of the historic fabric of your building. At worst, it destroys historic fabric.

It makes good sense to begin with what you can find through existing openings at electrical outlets, vents, and pipes. These views into the heart of the house should be examined and exploited fully before any new openings are made. The direction of the expansion is always indicated by hard evidence. Simply wondering what could be a little further or deeper is not enough to justify the damage that is done during an excavation.

It usually does no great harm to scrape away small areas of paint or peel back corners of wallpaper. Yet you should have good reasons for removing woodwork and opening up plaster walls. Make sure that the value of the results will outweigh the damage done. Document your findings with drawings, photos, measurements, and labeled samples of exposed materials, particularly when they will be covered up again.

A physical building investigation can

be even more effective when it is coordinated with historical research into the house's builder and former tenants. These events are often a matter of public record that can be researched, helping to pin down dates of changes in the building itself. Private papers such as letters and account books, as well as old photos, can also help trace a building's history. The most dramatic physical changes in a house occur with changes in ownership and in response to the births, deaths, and marriages of the people who lived in them. The changes in your old house are the artifacts of their lives.

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