



by Lloyd Cutting, Master Plasterer

Learn more about Lloyd at www.mudslingerdrywall.com

Of great concern to owners of heritage houses is the issue of deteriorated lath and plaster walls and ceilings. Often the original plaster walls when stripped of many layers of wallpaper display minor to severe cracking and loose areas; often both to some degree. The usual method to remedy these problems has been to "gut" or remove all the plaster and wood lath, replacing it with Gypsum board sheets, aka: drywall. This method is common amongst renovators who do not have experience with actual plastering, who generally assume it is the only way to deal with original plaster work in need of help. During the removal of the lath and plaster, original millwork (door and window mouldings and baseboards) are pulled off the walls and are frequently damaged or destroyed in the process. This is a needlessly destructive method from the perspective of heritage conservation. It is also an unnecessarily expensive option. When a historic building has its interior finishes removed and replaced with inappropriate substitutes it loses what made it appealing and desirable in the first place. Most historic home owners wish to retain as much of the original interior finishes as possible and unfortunately plaster has been one of those elements most commonly removed because people have been told that there is no way to economically repair it.

At this point it would be helpful to provide an explanation of how your old walls are constructed. Firstly

there is the studding; usually in Vancouver it will be rough cut 2x4's. This is the structural framework for the building. Nailed onto the studs are rough wooden strips or lath, running in horizontal rows about 3/8" apart. Lath was made in 4 foot lengths and bridges the studs. At intervals there are staggered joints to provide rigidity for the base or brown-coat of plaster (this is the layer of grey sandy material with the horse hair in it). A good quality brown or base coat was made from a mixture of clean sharp sand and plaster of Paris (the bonding agent, like Portland cement in concrete). Horse, and sometimes goat or even pig hair fibre was added to the mixture to bind the plaster together and provide resilience. In poor quality jobs sometimes wood fibre (excelsior) was used. The present condition of your plasterwork is often dependent on the quality of the sand. There were sand pits in early Vancouver, but often poor quality sand from the Fraser River was used. As the early plasterers of Vancouver were sometimes in a big hurry, especially at the height of the real estate booms, the workmanship and materials varied from building to building.

When the lathing was completed the plasterer applied the brown-coat to the lath. He squeezed it with a trowel in the space between the lath strips so that it went through to the back side or interior of the wall. This created plaster keys, the plaster extrusions through the lath

From Top:
Lloyd repairs the old lath removing loose particles. A 'Brown Coat' is then applied being sure to push the plaster firmly between the lath crevices. Finally a finish coat is applied, knocked down and smoothed out to a beautiful finish.



that locked the plaster around the lath. This made a solid mass of the lath and plaster wall. The brown-coat was applied to the whole wall and smoothed out with long wooden trowels to consistent thickness. Next the finish coat or white plaster was applied to the brown coat surface where it was worked to a polished finish. This final layer was very hard and was the surface that was either painted or wallpapered.

The overall thickness of a typical lath and plaster wall exclusive of the studs is approximately 7/8" thick. Drywall sheets are only available in thicknesses of 1/4, 1/2, 3/8 and 5/8 inches thick. This means that if one is to replace both the plaster and lath with drywall only, it is not thick enough to match up to your original baseboards and mouldings. If only the plaster is replaced with 1/2" drywall for example, then the wall is still too thin, requiring an extra skim coating of drywall filler, or shimming the studs. If a thicker product is used the wall becomes too thick; making replacing original woodwork problematic. Drywall that is 1/4" can work in certain circumstances however there can be problems

stemming from the fact that the original studs and lath are not necessarily of a uniform thickness. This is particularly a problem around doors and windows as the original plasterers would taper or feather the plaster into the opening. This allowed for the thickness of depth of the door and window casings which were of a standard size. Also the finish wall surface is very thin at 1/4" and may not be very durable in the long run.

The drywall solution has drawbacks with no guarantee that your old house will go back together as before. Additionally, in the end you have now lost your historical wall surfaces and replaced them with a

modern product which may be made in more inferior ways now than the drywall that was produced even 5 years ago. Your old original plaster walls however have for the most part survived use, abuse and neglect for a century or more.

You may discover that your walls are in better shape than you feared. They can be restored. Even where there has been extensive damage, it can be repaired and/or replaced with the same product used in the first place - plaster!

Replacing with drywall requires gutting your rooms and creating a huge mess, contributing both the lath and plaster and considerable drywall waste to the landfill, and risking the first growth fir or cedar mouldings becoming damaged. You can replaster. If you need to make electrical up-

specialize in heritage buildings, but it is a mistake to assume your electrician is knowledgeable about lath and plaster.

A skilled and experienced plasterer should be consulted before a restoration or renovation begins, especially when retention of the original interiors is desired. There are methods that do not require stripping a wall or ceiling of all its plaster if a project is beyond a minor repair. Techniques exist to restore plaster surfaces so they look new again and will last another hundred years if maintained. Be aware that a drywall contractor is generally not a plasterer. The best part is that replastering can be cost comparable to gutting and drywall, and gives you a far superior result. As with all renovation projects it is important to hire qualified tradesmen.



grades you can do so by repairing the inevitable damage to your old walls with much less trouble. If you want to save a lot of grief and expense, consult a plasterer at the same time as an electrician and they can create work plans that keep damage to a minimum. Many people contract electricians first, have them do their work and then call the carpenters and plasterers in to repair the damage after it has been done. Sometimes this can be an extensive and expensive job. Electricians are hired to ensure your wiring is to code and safe. They may not be able to give as much attention to fine finishes such as plaster work. There are of course many exceptional electricians who

As the proud owner of a tangible piece of early Vancouver history is it not the goal to preserve it for future generations, making allowances for modern living, while being environmentally responsible? Restoration of historic plaster interiors means not using a product that contaminates landfills, and preserves the actual historical fabric of cherished heritage buildings. Plaster walls have a remarkably different look and fell versus drywall, and were made to last. With proper care, yours can last for 100 more years.

Above: Before and After featuring Lloyd's handywork on a water damaged ceiling