

A listed brick house?

Here is what you need to know

by Clive Fewins



Replacing bricks in an old wall. When work like this is carried out great care has to be taken in not damaging the bricks in the immediate vicinity. If the old brick is removed by any means other than a bricklayer's chisel and a club hammer it is likely to be damaged and only fit to be thrown away
(photo courtesy Michael Hammett)



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Simulated reclaimed bricks on an extension to a period brick house
(photo courtesy York Handmade Brick Company)

Good brick is unlike many other exterior finishes found on listed houses (examples are render and stucco) in that it needs no maintenance or surface treatment. It is improved by weathering, and even looks better after the passage of a few hundred years. It can even prove more durable than some forms of natural stone.

Heavy use of exposed brick is a deeply English characteristic, symptomatic of our preference for the homespun, domestic look over the imposing grand scale. It is English rather than Scottish – compare for example the long rows of brick terraced houses in the Victorian and Edwardian suburbs of our great English cities with the sandstone of Glasgow and the granite of Aberdeen.

“Brick is not only enhanced by the passage of time but it suits our rather dull wet English climate,” says Simon Hay, Chief Executive of the Brick Development Association, which represents the United Kingdom and Ireland’s clay brick and paver manufacturers. “People in this country love bricks because they give a warmth and vitality to the outside of old houses – even in the dullest of weather.”

Despite the fact that old brick houses are by definition low maintenance, Mr Hay still has some good advice for owners of listed brick properties.

“If you have a historic brick property and wish to extend, first and foremost examine what is there at the moment,” he says. “And even if your conservation officer does not insist (though he probably will) reproduce what is there at the moment.”

“This particularly applies to the mortar. With an older house that has been built using lime mortar it is essential that you use a lime mortar in repairs. This is basically because the breathability of the brick outside walls is through the joints, so if you choose an impervious mortar using portland cement you will get a build up of moisture in the bricks, a freeze-dry cycle will set in and you will find the surfaces of the bricks will spall and begin to fall away.”

If you are not extending but repairing or patching the same principle applies. However this does not mean you should seek a match so exact that you cannot tell the repaired section from the old.

“The true conservationist will want to see the difference between new and old,” Simon Hay says. “This particularly applies to areas of repointing because it is repairs like this that tell the enduring story of the building.”

“When I am advising owners of historic brick properties on repointing I usually say don’t bother to do the entire building if it is only certain areas that need the work. Don’t strip the entire table top – just repair it sympathetically!”

One of the most difficult things about repointing old brick is that the aggregates are inevitably very hard to match. This is because old lime mortars always used a coarse sand – and it often came from the local river bank. So you will have to work hard to match the aggregate.

“When it comes to the lime a good hydraulic lime (they are produced in this country – you only have to ask around) will do the job.”

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A skilfully repaired gable end on a mansard roof on an old Berkshire industrial building converted into a house



Frost damage to bricks caused by a strong mortar of sand and cement. These bricks have been pointed with a mortar that is too strong for them. It has also been smeared over their edges. The result is that moisture has been trapped behind the joints, causing saturation that has increased vulnerability to frost damage
(photo courtesy Michael Hammett)



"The other thing I always say is that at the end of the pointing work it is the brick everyone wants to see and not the mortar. The brick is permanent but the mortar is temporary: I usually say it has a life of about 70 years!"

Simon also says be very particular about the style of joint. A modern 'bucket handle' joint is not favoured. It is far more authentic on an old brick property to use what is known as a 'struck weathered' joint, in which the mortar is pushed well into the joints and allowed to go off for several hours before a pointing trowel is held with its edge pressed into the mortar and drawn across the joint. The work can then be finished off by the light application of a stiff brush.

Another good piece of advice is to try to ensure your contractor does not use an angle grinder to remove bricks in need of replacement. Quite often it will be sufficient just to turn the bricks round and reposition them in the masonry. If the old brick is removed by any means other than a bricklayer's chisel and a club hammer it is likely to be damaged and only fit to be thrown away.

The replacement of old worn bricks is a difficult issue. The Brick Development Association is not in favour of using reclaimed bricks from old buildings.

"The reason, in a nutshell, is that in Georgian and Victorian times a boy would have had the job of sorting the bricks when they arrived from the brickworks, probably only a few miles away."

Simon Hay says. "He would grade them, and the worst (underfired) bricks would be used internally. Today when the demolition men go into action all the salvageable bricks from a building end up jumbled up together, so when you come to use them you will often end up with inferior bricks on the outside – and they will fail!"

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New bricks from the York Handmade Brick Company used on renovation work to a high status period house built largely of brick



A wonderful array of colours in a rebuilt section of random brickwork in an old house. The wide mortar joints and coarse sharp sand used in the lime mortar is clearly intended to match the original



He also points out that all new bricks are manufactured to British Standard EN 771-1, which means they should be around in 200 years time. "With all bricks made today it should be quite possible to reuse them several times," Simon says. "This is very much part of brick's sustainability credentials."

Today most brickworks produce a range of 'reclaim lookalikes' that quite often sell at a lower price than reclaims, already possibly half way through their useful lives.

If you complete the extension on your listed brick house and it is a case of 'Oh Dear... the colour just is not right' do not despair:

"This is not uncommon," Simon Hay says. "The solution is to use brick tinting. It can be done retrospectively and most effectively. A skilled brick tinter can offer a permanent solution that will penetrate into the pores

of the bricks and probably not degrade for a good ten years, by which time natural weathering will set in and complete the job.

"In general with brick repairs I say the most important thing is to go for the right texture. Then if necessary the whole patch can be tinted afterwards. It is a well understood procedure."

If you have awkward-shaped bricks to replace – perhaps they are on old chimneys or around windows and doorways – then most brick companies will produce 'specials'. Some companies do little other than this, producing what are known as 'rubbers' – rubbed bricks – in an extra large size that is designed to be cut and shaped. It is even possible to take two bricks and to glue them together with epoxy adhesive to produce the right shape to fill the gap.

Other techniques for replacing old or worn brick on listed buildings is to slice the face off a brick or a patch of bricks and to reface them to match. A variant in this is to use brick slips. Brick slips are 'slices' of brick, the dimensions of a whole brick but only a fraction of the depth. Their use is an acceptable alternative to the removal and replacement of whole bricks in small quantities, provided the cut-back surfaces are sound enough to provide a firm background for fixing. Generally the resurfacing of brickwork in this way is not recommended for areas larger than about 12 bricks. 

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