



Knocking the snots off

Kate Philbin adopts a no nonsense approach to brick repairs and repointing.

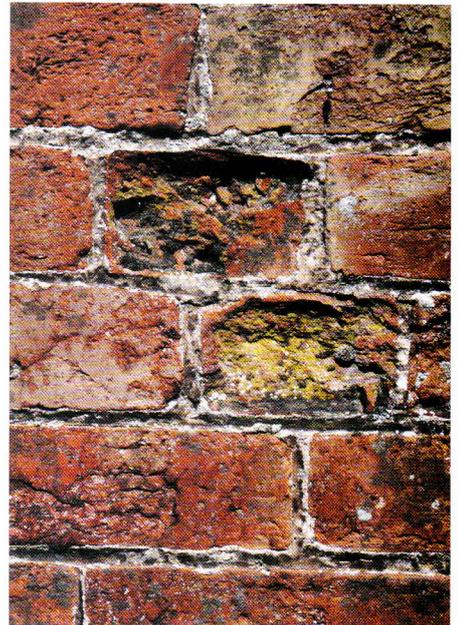
Photography by Mark Williamson

I've discovered a whole new vocabulary since going on traditional building courses at The Heritage Skills Training Centre in Hatton. Snots, slaked and slop moulded are my favourites from this month's course – Brick Repairs and Repointing. I found myself giggling with the delight of a five year old at the course tutor, Dave Sleight's, instruction to "knock the snots off" when we were cleaning the mortar off our newly-repointed joints. (Snots, for the uninitiated, are those grotty little bits of mortar that besmire the front of your brick if you're clumsy with your trowel). It is typical of the honest, no-nonsense approach adopted by craftsmen of yore and I found myself increasingly warming to it as the course went on.

There is an undeniable beauty about brick. The soft, warm colours and interesting textures exert a fascination even for a casual observer like myself and I can see why people become almost obsessive about preserving and protecting old

brickwork. Dave Sleight is just such a person. He worked for English Heritage for 18 years and is a living encyclopaedia on the history, use and preservation of the humble brick. His slide presentation at the start of the course introduced us to good brick repair and bad brick repair. A canal bridge that Dave christened "the transvestite bridge" bears the scars of years of inappropriate repairs using, it would seem, any material that was to hand. Others show the effects of over cleaning. A building adjacent to the Staffordshire and Worcestershire canal had been vigorously cleaned to remove render but, in the process, the cleaners had also removed the protective fireskin that coats the brick, making it more porous and, therefore, susceptible to weather damage.

Hampton Court was held up as a paragon of Tudor brickwork that has withstood the test of time thanks to high standards of brick manufacture and careful maintenance. On a more prosaic level, a Victorian carpet



factory in Glasgow shows the pride our ancestors took in their brick buildings. It too, has stood the test of time. Brick structures that are not so lucky fall prey to a variety of damaging influences. Weather is one of the most obvious. Leaking gutters can cause water to run onto the brick face and it deteriorates over time. Frost can crack joints and destroy the surface of the brick by powdering and, eventually, blowing it off. Movement is another enemy of historic

Top left Resist the temptation to smooth off the mortar while it is wet. You can knock off the excess mortar once it has gone off to avoid staining the face of the brickwork.

Top right The brick and stone hotchpotch canal bridge. Known as "the transvestite" bridge.

Above Damp damage on bricks, (spalling).

brickwork because it can be caused by vehicles or ground sinkage. You can test whether a building has stopped moving by fixing a piece of glass over a joint to see whether it cracks.

Mortar joints need to breathe and over-strong cement can be seriously detrimental to brickwork. Unlike lime mortar, cement does not allow moisture to pass through. That means any moisture that collects in the structure is pushed out through the brick face (or stone), ultimately, causing damage. Algae on the bricks but not on the mortar is a telltale sign of this. Cement also cannot take movement. Modern buildings are constructed with expansion joints but, in an old structure, the cement is likely to crack as the building expands and contracts through the seasons. This causes moisture to get into the cement and, because it can't get out through the joint, it is forced into the brick. It was quite a revelation to me to realise that mortar joints are not just the "glue" that holds your house together but also the drains that keep the walls dry. I began looking at them with new reverence. In fact, I started to look at all brick walls with the air of one appreciating great works of art. Dave explained the various different styles of brickwork, English, French and Dutch are delineated by the pattern of headers (the short bits) and stretchers (the long bits).

After his slide show, we were let loose outside on a series of specially constructed test walls. The idea was to chop out "damaged" bricks and replace them. Dave demonstrated, with well-practised ease, how to avoid damaging the brick by using a tungsten tip plugging chisel which is wider at the tip than along the shank. He cut out a V-shape and then carefully chipped out the



It was quite a revelation to me to realise that mortar joints are not just the "glue" that holds your house together but also the drains that keep the walls dry.



Left The stiffer the consistency of lime mortar, the better.

Above Mixing the non-hydraulic lime (always use a galvanised bucket as it reaches boiling temperature once water is added).



The secret, according to Dave, is to slightly overfill the joint and resist the temptation to smooth it off while wet.

mortar either side of the V, working towards it. As he went along, he brushed out the loose mortar using a stiff brush. If it is very soft, you can use a pad saw. After just a few minutes, his brick slid smoothly and easily out of the wall. Now it was our turn. Dave had made it look deceptively simple but, of course, it wasn't.

Chopping out, while extremely satisfying, is not that easy to do without gouging chunks out of the surrounding bricks. Dave explained you can use an angle grinder with router attachment to remove the middle section and then chop out the sides by hand to "collapse the mortar in." He advised against using an angle grinder disk – far too much chance of damaging the brick. Once the first brick has been removed, it is much easier to chop out those around it and I was soon left with a satisfying hole in the wall. Then came the really tricky bit. The idea was to put the bricks back into the wall so you couldn't see where they had been



replaced. Easier said than done. My brickwork had a strange, undulating quality and, try as I might, I couldn't mimic the flat, straight lines of the surrounding mortar. But the good thing about practising on test walls is it doesn't matter.

Dave explained the complex process of mixing lime mortar (there's a whole course on that, which is covered next issue so I won't go into it here, other than to say, that is where my second favourite word "slaked" came in). Then, after wetting the wall to help the mortar stick, I set to work coating the sides and top of the brick with mortar and squidding it into position. Using a wonderful little device called a pointing key, designed

Above left If you add too much water, it evaporates and the mortar can shrink in the joints.

Above Chop out the old mortar using a tungsten tip (plug in) chisel to avoid damaging the 'arras' of the brick.



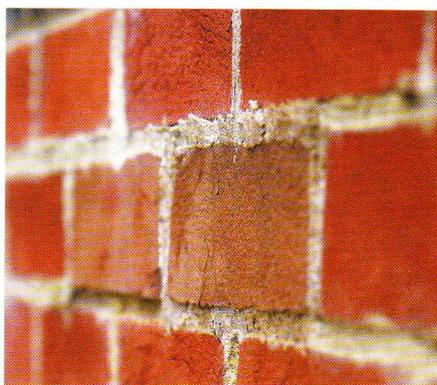
by English Heritage, it was possible to scoop up lines of mortar and push them neatly into the joints. The secret, according to Dave, is to slightly overfill the joint and resist the temptation to smooth it off while wet. Better to come back when the lime mortar has set slightly and then knock off the excess mortar ("snots" to those of us in-the-know) to avoid staining the front of the brick. Once virtually dry the mortar can be stippled with a hard bristle brush to expose the aggregate in the mortar and produce that lovely, authentic look. If you finish it by running a trowel over it, on the other hand, you'll bring the lime to the surface, giving the mortar a whiter appearance.

Arms aching from much vigorous stippling, we returned indoors for a discussion of the many varieties of brick. Dave gave us several useful tips for identifying handmade bricks, such as looking out for kiss marks – slight discolorations where the bricks are stacked in the kiln – and fold marks on the surface. The latter is formed when the clay is thrown into the mould. The evocatively named slop moulding technique uses water as a releasing agent and was mainly used in the manufacture of handmade blue bricks.

Of all the courses I attended at The Heritage Skills Centre, this is probably the

one, and following in the footsteps of Winston Churchill, I would be most likely try out myself. In fact – but this is strictly between you and me – I did chop out a damaged brick under the kitchen window, turn it around and mortar it back in and it's only slightly wobbly. It is a great way of learning how to care for your historic brickwork and, if nothing else, you'll have great fun and enrich your vocabulary no end.

Don't miss our July issue, when Kate tackles the last course in this series on lime mortar:



Top Course tutor, Dave Sleight, demonstrates how to point the wall using lime mortar and a pointing key.

Above Newly repointed wall.

USEFUL CONTACTS

The Heritage Skills Training Centre, Canal Lane, Hatton, Warwickshire, CV35 7JL. Tel: 01926 626100. Brick repairs and repointing course dates for 2003 are: Saturday 17th May and Wednesday 10th September. The course costs £100.

West Dean College, Chichester, Tel: 01243 818294 run a series of four day summer courses on the conservation and repair of old buildings. www.westdean.org.uk

SPAB runs courses in The Repair of Old Buildings. Tel: 0207 377 1644.

The Scottish Lime Centre Trust runs SVQ modules in a range of subjects including conservation masonry. Tel: 01383 872 722..

The Weald and Downland Open Air Museum runs a wide range of practical workshops and seminars. Visit www.wealdanddownland.co.uk/adult-education-continuing-education.htm or Tel: 01243 811363.

General information on conservation courses, visit www.buildingconservation.com/courses/short.htm.

Pointing keys are available from: Ian V Riley Engineering, East Lancs Loco Works, Baron Street, Bury, Lancs. BL9 0TY. Tel: 0161 764 2892.

Tungsten tipped chisels are available from: Avery Knight & Bowlers, James West Street, Bath, Avon BA1 2BT. Tel: 01225 425894.