

Respect the Property you Inspect

Graham Stone of Stonehouse Property Care gives his personal views about inspection and repair of historic and listed properties

This magazine, originally known as Preserve, was renamed Property Care to reflect a shift in attitudes within the damp-proofing and timber treatment industry it aims to cater for.

Unfortunately many companies within this industry are not adapting to changes around them.

We are all regularly invited to inspect historic properties as experts to advise upon areas of damp or timber related decay. A common response is to spray timbers with

emergence holes and to damp-proof walls with high moisture readings. A more considered approach is now required.

As experts it is our duty to consider the structure of the property, its age, its method of construction and the materials. You should clearly establish whether it is listed, if so works can only be completed with the agreement of the conservation officer.

Dampness

Any proposed works must be sympathetic to the property and respect its structure. If it is an historic building it is inappropriate in many cases to propose a damp-proof course or the removal of the historic fabric (i.e. hygroscopic salt laden plaster) and replace using a sand/cementbased render.

If a listed building, your works must be reversible (i.e. if a better technique is developed in the future – your solution can be removed). A chemical damp-proof course once installed cannot be removed.

Importantly, historic buildings were not constructed or repaired using cement. Lime and earth were the materials traditionally used, lime mortar allows moisture to pass through, and being softer than the brick or stone fabric also permits movement of a structure. The phrase commonly promoted is lime allows a property to 'breathe'. This isn't actually the case but it does allow a building to dry out once it gets wet. Cement seals water into a structure and often causes far greater problems.

When you find damp walls, first check all possible sources of moisture. Advise the removal of these causes and then reassess if there is truly a problem of rising dampness. If you conclude the presence of rising dampness assess whether it is a significant problem. If there are no visible problems, just readings on a moisture meter (calibrated for timber) you must question whether any works are justified. It may be historic, long-term salt contamination.

Contractors are often called into properties as part of the property sales process. A structural or valuation survey will pick up moisture readings and will automatically select the protective standard paragraph instructing the purchaser to contact a specialist. This is not a sign to you, the expert, to confirm rising dampness. It is merely a surveyor being cautious in this culture of compensation.

Example 1 – Grade 2 Barn Conversion



When asked to damp-proof an elm timber-framed barn on a stone plinth we suggested the plinth was lined with Newton 500 cavity drain membrane prior to a new concrete floor being laid. This isolates the new concrete from the stone wall, allows the stone wall to dry naturally without re-directing rising dampness to the underside of the soleplate.

Example 2 – A Grade I listed property in Winchester where the existing basement area is to be used as a kitchen.

Our scheme was approved with a Newton 500 cavity membrane laid against an external, below ground wall, running to a Basedrain drainage channel in the floor with natural drainage to the rear lightwell. Fixings were drilled through the mortar joints to fix the membrane and all could be pulled off to reveal undisturbed wall finishes.

The wall was then dry-lined prior to a kitchen being fitted. The dry void between membrane and plaster allowed for all the services to run neatly yet still remaining accessible.



Example 3 – The Royal Courts of Justice



This is a Grade I listed building in Central London where space is a premium. It is, however, located in a confined site but extensive basements exist below the building. Proposals to waterproof these areas using cementitious 'tanking' systems were rejected. Designing a system utilising Newton 500 cavity drain membranes, allowed these underground spaces to be transformed. None of the historic fabric was disturbed and by removing the fixings located into the mortar joints the whole system can be reversed. This solution was acceptable to English Heritage, the conservation architect, the owner and complied fully with BS8102.

Epoxy Resin Repairs

If used sparingly the use of resins can allow original timbers to be retained which otherwise would need renewing. Often a decaying bearing beam end may be reformed with minimal disruption using resin. Once again, source of damp must be eradicated.

Woodworm and Death Watch Beetle

Although we are experts in identifying timber defects, this does not mean we automatically spray timbers where emergence holes are found. The presence of a flight hole in a piece of timber in a house is not justification for the treatment of every accessible timber.

Occasionally, professional surveyors alert the purchaser of a property to emergence holes. An unscrupulous timber surveyor has the opportunity to prepare a quote for treatment for a condition which is no longer active or a significant concern.

If the beetle is not active, do not treat and if you are not sure, monitor it. This approach shows your professionalism. Give constructive informed advice and always behave like an expert. It goes without saying, never be tempted to abuse the ignorance of your client.



Example 4 – Timber-framed office building in Henley

In early 2001, we were called to inspect second floor joists in a timber framed building in Henley. Rewiring had exposed timbers with holes.

These emergence holes were clearly Death Watch Beetle, all were bright, clean with frass visible but absolutely dry. It appeared active but was unlikely to be. It would also have been a major upheaval to treat since all the offices would have had to be cleared. We opted to monitor the beetle. We glued paper to all the suspect timbers which were annotated on a plan. Within our fee we revisit annually to check for activity. Any new holes which emerge through the paper will indicate the outbreak is current, so far no signs of activity, indicating that the original fresh looking frass must have been caused by loosening due to vibration.

We used our knowledge to establish whether treatment was required, the client was not disturbed needlessly and no chemicals were used. We saved the client money and prevented unnecessary treatment.

Dry Rot Treatment

It cannot be emphasised enough that we should stop irrigating walls with water based fungicide – Read BRE Digest 299 – IT SIMPLY DOES NOT WORK. It is a common mistake, from national to local contractors. It can only possibly be justified if there is an earth retaining wall.

The correct procedure is to stop water ingress and allow the fabric of the wall to dry out. Again, use monitoring systems to check the drying out process and isolate timbers from the wall.

Example 5 – A Grade I listed Stable block in Basingstoke



Here defective guttering had caused an outbreak of Dry Rot. The gutter was renewed prior to the repair of defective timbers. We installed a series of dowels into the wall fabric to monitor the drying of the structure and any decay to the timbers.

The Dry Rot died out naturally, no chemicals were used to control the outbreak.

Having said this, it maybe in certain situations, that the targeted use of chemicals is the best and most appropriate solution. However it is an undeniable fact that vast quantities of materials are needlessly sprayed on timbers and injected into walls without justification. There are other methods that you can use to the benefit of the property, your companies and the environment.

Years ago construction professionals would defer to timber and damp experts. This no longer happens, our industry is now vilified for causing great damage to historic buildings and in many cases this criticism is deserved. If we wish our industry to be treated with the respect it deserves, we need to use our knowledge and expertise of damp and timber problems to recommend more considered methods of treatment.

Stonehouse Property Care has applied these principles since it began in 2000 and exists as a well respected, honest and profitable company.