FEATURE HEADER

What do we mean by traditional? ‘Tradition’ is a very subjective word. It is likely that most people reading this magazine would take the description of a building as ‘traditionally built’ to mean one built in a similar way in Britain for hundreds of years. In other words a building that has solid walls that allow moisture to be absorbed into the structure and also allows moisture to evaporate away. Most buildings with solid walls were also built without a damp proof course, this can give a ready supply of moisture as capillary action draws moisture up through the walls. All pre-1919 buildings were constructed with the need to ‘breathe’ and allow evaporation with the use of coverings such as lime plasters and limewash.

Subsequent to 1919 cavity walls were introduced and the vast majority of new buildings rely on the cavity between the inner and outer part of the wall to prevent moisture getting inside the structure. This system also relies on a damp proof course (DPC) low down in the wall to stop rising ground water. The new way of constructing buildings currently accounts for about 75% of the UK’s total housing stock. Most builders these days are instructed in the needs of a cavity building and are largely familiar with only that system. Some now even refer to the cavity walls with sand and cement as ‘traditional’. Don’t assume therefore, that your idea of traditional is the same as the next person’s or difficulties might result.

With the introduction of cavity walls, cement, plastic paints and DPCs, it was mistakenly thought that sealing a building was essential for modern living in traditionally built structures. In most cases, sealing an old building is the last thing that it needs. The resultant build up of moisture feeds fungal growth, rot, cold walls, higher heating bills and even structural damage.

Perhaps even as recently as ten years ago it was very difficult to obtain a mortgage on an older building without the lenders’ surveyor insisting on intrusive damp proofing as a condition of the loan. This was in the mistaken belief that chemical injection DPC and waterproofing cements would protect the financial interests of the lender. It is heartening to note that partly thanks to the likes of the LPOC, this requirement is less common now.

It is impossible in this short article to offer comprehensive advice on every aspect of the issues involved, this is simply to raise some points that may need to be considered.

There are still pressures brought to bear to carry out inappropriate work on older buildings by the ever increasing need to apply modern expectations to them. The Governments’ Energy Performance Certificate process is a case in point. When assessing a property the inspector makes assumptions about the building that can be totally

Broken guttering has allowed precipitation to bounce back up the wall of a hard cement render causing saturation of the lower part of the wall.

Dampness issues in traditional buildings
inappropriate for an older house, this makes the results inaccurate and unhelpful. The results put pressure on home owners to make potentially damaging alterations to make the building more saleable or to help the environment.

Building Regulations have long been used as a reason to make damaging changes to a traditional building, but given enough knowledge about how old buildings work, owners can actually use Building Regulations to prevent or even remove inappropriate work. The 2008 revision of Part L basically exempts pre-1919 buildings from the Regulations if they are likely to cause problems to the building.

KNOWLEDGE IS KEY

The person responsible for the property must have a basic understanding of the individual building and generally what that type of construction is required before approaching specialists for advice or undertaking any improvements or even simple decoration.

Firstly, always check obvious things that may effect the building and dampness levels. Start at the top and work down:

- Are there any missing or cracked slates/tiles or rotting thatch?
- Is there a good overhang from the roof?
- Is all leadwork and flat roofing sound?
- Is the guttering and rainwater pipes clear and in good order?
- Is the chimney flue ventilated?
- Are the drains clear of debris and flowing well?
- Are the sills to windows in good condition?
- Any pointing of stone or brickwork eroded or cracked?
- Any outside render free from cracks and in a sound condition?
- Are air bricks clear to allow air flow to suspended floors etc?
- Are there high ground levels or rubbish built up outside against the wall?
- Have all pipes been checked for leaks?

All the above points should be a regular part of homeowners’ checks for any type of property.

If a building has signs of dampness the reasons should be investigated and addressed promptly before long term damage can be caused. Check the following and understand the reasons:

- Musty smells (possible rotting wood or mould growth)
- Staining or surface salts near ground level (possible rising ground water)
- Staining on inside of wall above head height or above ground floor (possibly broken guttering, cracked render, failed pointing, poorly fitted windows or badly converted from agricultural building)
- Tide mark, usually about 3-4ft above ground level inside the building (previously applied tanking may have pushed moisture and salts higher up the wall above the tanking)

A traditionally built house needs greater air changes than that of a cavity wall building and as such, modern targets should not be seen as a desirable goal. It is better to consider using a wood or coal fire, vapour permeable renders, plasters and insulation and secondary glazing instead of double glazed units, bottled gas heaters, cement etc.

Condensation is a major source of
dampness and is often not diagnosed correctly with damaging and expensive remedial work possibly being prescribed as a result. Our modern way of living contributes hugely to the likelihood of condensation forming. Mould will grow as a result of condensation, and you can see this on walls, furnishings and clothing. The spores from some types of mould can be bad for your lungs and affect people with breathing problems such as asthma. Showers, washing machines, tumble dryers, cooking, some forms of heating and simply breathing are all sources of water vapour that potentially contribute to condensation. Without an escape route for all this vapour, it can settle on a colder surface and create mould.

Modern problems can be helped by modern remedies by the use of extractor fans over cookers or shower cubicles to remove the vapour close to the source. If the vapour is allowed to leave the immediate area it will condense when it reaches it’s ‘dew point’. The dew point is the temperature at which water vapour turns into water droplets. The dew point is usually on the surface of an internal wall but it can be inside the wall. Water droplets forming inside a wall is known as interstitial condensation and can be very difficult to identify. This form of condensation can be created if insulating external walls from inside the building. If water vapour is allowed to pass through the insulation it can then condense within the wall. One product newly available on the market to help control this problem is Pavadentro made by Pavatex, a wood fibre board sandwich that has a vapour check membrane in the middle. This is a natural and environmentally friendly product that could be a way to achieve good u-values in a traditional building.

The general rule is to allow traditional buildings to breathe by using earth plasters or lime for pointing, rendering and plasters. It is worth mentioning that a render such as 6 parts sand, 1 part cement and 1 part hydrated lime (6:1:1) should not be thought of as a lime render, this is a cement render with a lime gauge and should not be used. Decoration is also important, externally a limewash or silicate masonry paint are options. Internally, the options are far greater but do not use an ordinary paint or vinyl wallpaper if your wall needs to breathe.

If there are already inappropriate materials applied to a building, it isn’t always necessary or even desirable to immediately remove them. However, if the materials are failing anyway, it would be a good time to replace them with the correct ones. This is often not going to significantly add to the cost of the job in the short term and can save a great deal of money in the long term due to lower heating costs and not causing structural problems.

If it can be determined that there is no damage being caused or indeed...
if to remove hard cement pointing or render would cause more damage than to leave it in situ then a pragmatic approach may be the best option. It is far easier and less disruptive to remove a blown cement or paint than one that is sticking hard and fast.

Sometimes controlling moisture movement in an old building may be necessary by providing an internal barrier. Sometimes a wall is simply too thin to keep the prevailing weather out as the use of the building has changed over the years. Sometimes a basement is to be utilised for an extra room or the building is built into a hillside.

It is important to realise that the moisture is going to be there and that it may well be forced to take a different path into an equally problematic area. Once it has been established that this isn't the case, what options are available?

Cementitious or bituminous waterproof tanking is often employed on buildings, as long as the moisture can still evaporate to the outside the effects may not be negative. Because the moisture is not being removed and is only being held back, the wall will remain cold and condensation may well continue to be a problem. One way of reducing the problem is to plaster the waterproofing with a thickish layer of lime plaster to help create a breathable buffer from the cold wall. This won't necessarily prevent water droplets forming but may help to ease the adverse effects.

Another way to prevent dampness on inner walls is Newlath 2000; this is a sheet material that can be plastered over and creates a cavity behind. Because of the cavity and non-breathable board, moisture does not migrate into the room. These systems are being specified more for historic buildings and time will tell if they are the best option for certain situations. This system has some advantages over the tanking method as it does not force the moisture up the wall into another area and may be less disruptive to historically sensitive buildings in some cases and possibly be easier to remove at a later date. Issues to consider are:

- If the new membrane is not vented, can the moisture still evaporate away to the outside?
- If the membrane is well vented, will it encourage warm, moist air to the cavity and onto a cold damp wall making a condensation problem?
- It does not add significantly to thermal insulation of the building, do you require this?
- How to fix wall hangings etc?

To summarise, unfortunately, there is not always a quick and easy fix to damp issues. Try to fully understand what is causing your problems or indeed what problems may occur if you undertake new work. Obtain as much information as you can about the previous work of any professionals you may consider employing.

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