

## Rising Damp

*According to Douglas Kent, SPAB Technical Secretary, the inappropriate installation of damp-proof courses to combat rising damp accounts for much unnecessary work on old buildings. True rising damp is rarer than commonly perceived but is regularly misdiagnosed.*



### Q. What is rising damp?

**A.** Rising damp is the upward movement of moisture through walls and sometimes floors by capillary action. It can rise to 900mm or more in walls, depending on the masonry type, water-table level and evaporation rate. Salt deposits generally form a horizontal tide-mark, below which there is discoloration. Floors can display moist patches and staining. Rising damp is distinct from other forms of dampness, such as rainwater penetration and condensation, which require different solutions.

### Q. Is rising damp common in old buildings?

**A.** Rising damp is commoner in old buildings than new ones but rarer than often supposed. Modern buildings keep water out with a system of barriers: damp-proof courses (DPCs) have been required in walls since 1875 and damp-proof membranes (DPMs) in floors from the 1960's. Most old buildings lack these and therefore damp rises to some degree. This is usually not a problem where the construction can 'breathe', allowing evaporation, and may actually be advantageous in humidifying overly-dry centrally-heated buildings. Excessive dampness arises where the moisture equilibrium is disturbed, as with misguided attempts to seal surfaces.

### Q. How is rising damp diagnosed?

**A.** Rising damp is widely misdiagnosed on the basis of high electrical moisture meter readings alone. Elevated readings occur not infrequently in old buildings that are virtually dry, due to salt deposition from evaporation, or can indicate another problem altogether, such as surface condensation. Before undertaking expensive remedial work, therefore, tests should be carried out to determine moisture levels within the depth of the wall and the effect of salts.



Bear in mind that if rising damp exists, there will be visible indications too, such as an accompanying tide-mark. There may also be a musty smell.

### Q. What if I believe a damp diagnosis to be wrong?

**A.** In the SPAB's experience, mortgage lenders can demand unnecessary damp-proofing work during house purchases. Although chartered surveyors have a duty to follow a trail of suspicion, some simply pass all responsibility onto remedial treatment contractors with a vested commercial interest encouraging over-specification. It is worth challenging any recommendation you believe is questionable and, if necessary, seeking a second opinion in writing from an independent chartered surveyor or consultant (note, not contractor). The SPAB may be able to advise you on suitable names.

### **Q. How can I control rising damp?**

**A.** Measures that help your building 'breathe', such as replacing hard cement render or pointing with a more suitable lime-based mortar, may be the best solution. Conversely, applying water-proof renders and coatings can exacerbate damp problems. Where a floor has a DPM that is displacing moisture into the bottoms of walls, this might be replaced with a 'breathable' construction. Alternatively, a 'breathing' strip for evaporation may be cut through the floor around the room perimeter and infilled with a material such as lime concrete or grated over. Externally, ground works and improved drainage can assist.



### **Q. Is a retrofit damp-proof course really necessary?**

**A.** Retrospective DPC's require careful justification. They can have a role, perhaps where, say, irreversible alterations mean a building is effectively now functioning as a modern sealed structure.

Inappropriately installed, though, DPC's can be damaging, ineffective and an unnecessary expense. When selecting a DPC system and it is not feasible to insert a physical DPC, the SPAB suggests following BRE's advice to consider only methods that have been awarded an Agreement or other third-party certificate. Chemical injection is the only method that currently satisfies this requirement. Physical and chemical DPC's, however, should be avoided in earth buildings, where major structural damage can result, and treatment is difficult in flint and rubble-cored walls.

### **Q. What about plaster repairs on a previously damp wall?**

**A.** Lime plaster should normally be used for any repairs. 'Anti-sulfate' or 'renovating' plasters are favoured instead by many DPC installers but tend to just temporarily disguise continuing damp problems and may require listed building consent. A poultice of whiting and water is an old method of removing patches of residual salts from plasterwork. Decoration with paints such as limewash and soft distemper, where possible, will maximise 'breathability'.