

# Historic Building Consultancy

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## The Need for Old Buildings to "Breathe"

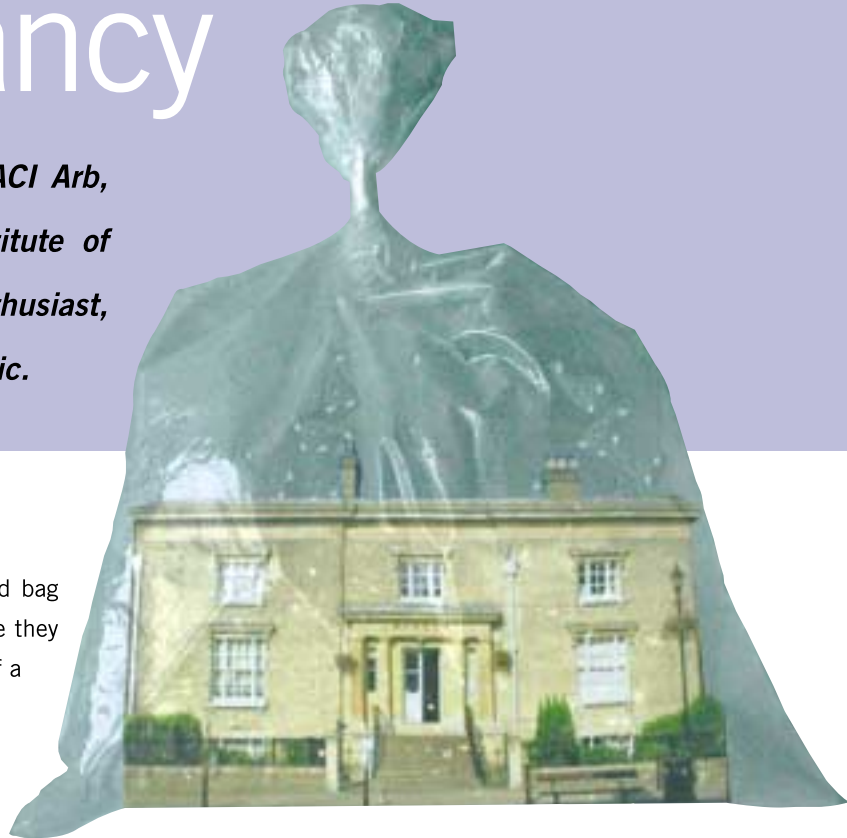
If you buy a bag of carrots from the supermarket in a sealed bag and leave them in your vegetable rack, it won't be long before they go rotten, if you take them out of the bag, they'll last a heck of a lot longer! Carrots weren't designed to be sealed in a waterproof membrane, neither were historic buildings!

Modern buildings generally rely on an impervious outer layer and a cavity within the wall, which, if clear, keep the interior dry.

Older buildings were built to allow the materials to breathe, relying on evaporation to "naturally" control dampness. The two systems do not mix. Sealing old walls traps moisture, causing damage to internal finishes, encouraging timber decay or infestation and the breakdown of stone or bricks.

Lime mortars allow water to evaporate at a faster speed than from the brick or stone they bonded, helping draw dampness out of the masonry efficiently. Modern hard pointing of an old wall will frustrate that mechanism, leaving the stone or brick the only route for escaping moisture at a much slower rate.

Most buildings constructed before 1840 are unlikely to have a damp proof course or indeed cavity walls. A common assumption is that these properties made for damp homes - this is not necessarily the case. The stones, bricks, mortars, renders and paints in these buildings were relatively soft and permeable by comparison to modern materials; whilst more absorbent, they proved very effective in allowing evaporation. Looser fitting joinery and the ubiquitous open fire hearth ensured good ventilation and helped maintain a healthy environment for structure and inhabitants alike.



One wouldn't expect a modern household to live with draughty windows and rely on open fires for heating and some compromise needs to be sought, but be careful; ill-conceived chemical and physical intervention in a historic building system can create severe damage. A measured attitude to damp proofing and intelligently applied techniques can give a successful result.

One of the major impacts of damp and lack of ventilation in any building is that the conditions encourage timber rot and infestation. Very little timber damage will occur in a dry, well ventilated building. Even historic rot or beetle infestation will probably give up the ghost in a dry, well ventilated environment. Historic buildings were built with the benefit of thousands of years of hard earned experience of the function and qualities of the materials used, ensuring a building system that would work. The longevity of these buildings proves that the historic techniques are successful. For the preservation of the building and its social and monetary value into the future, please take advice before you intervene!