

## MAINTENANCE OF BRICKWORK

The following general comments relate to the maintenance and cleaning of brickwork.

### 1. **Mortar**

Well-built clay brickwork is virtually maintenance free. The brick colour will not fade and the only obvious reparation maybe that after many years, the joint faces may require re-pointing. However, if the correct mix proportions are used appropriate to the exposure factor, this will not be for many years.

### 2. **Graffiti**

Keeping the brickwork free of graffiti can now be accomplished by the use of a range of graffiti removing materials, which will not harm the brick or the joint. Such materials are readily available from most builders' merchants, and although they are not able to deter potential graffiti artists, they may enable such masonry to be cleaned down effectively.

### 3. **Efflorescence, Algae, Lichen**

Persistent efflorescence, extensive salt staining from within the brickwork and vegetable growth on the brickwork are due to excessively wet conditions, and, unless the basic problem of water penetration is cured, the staining will repeatedly reappear. In such cases, it is necessary to overhaul faulty flashing and damp proof courses, repair leaking rainwater down-pipes, renew copings, etc.

Particular areas of masonry that can encourage lichen, moss, etc. are free standing boundary walls, adjacent to trees. Low dwarf walls and retaining walls where there is likely to be a constant source of water, can also encourage both seed and algae to adhere to the walling. If this does occur, then the application of a proprietary weed killer will not harm the brickwork, and will rid those areas of masonry which are likely to become saturated, such as below expanses of window, parapets and copings.

### 4. **General Staining, i.e. dirt**

Staining in brickwork is generally due to external causes but sometimes may result from salts in the brickwork itself. Staining can mar the appearance of brickwork but incorrect cleaning techniques can cause permanent damage. Consequently, any proposed method of cleaning should be tried out in a small unobtrusive area and left for as long as possible, (at least a week or so) to judge the results, before the whole job is tackled.

The techniques given below are intended for 'do-it-yourself' work in removing relatively small areas of staining. A specialist contractor should be engaged for cleaning large areas of brick, for example, general cleaning of industrial grime from a building.

Where chemicals are to be used, the brickwork should always be wetted, but not saturated, with clean water prior to chemical application, to prevent it absorbing the chemicals. After cleaning, the wall should then be rinsed thoroughly with clean water. **DO NOT USE A HIGH PRESSURE HOSE.**

Normally it is preferable to employ wooden scrapers and stiff fibre brushes to avoid damaging the bricks. Adjacent features, such as metal windows and the area at the foot of the wall should be protected from splashing with the chemicals. In places where this is not possible, or where the stain is very localised, most of the cleaning liquids can be applied as a poultice by thickening with inert filler such as talc's, bentonite or powdered chalk.

Many of the chemicals recommended are caustic or poisonous so care should be taken and protective clothing and goggles should be worn. Volatile solvents should only be used indoors under conditions of good ventilation.

Rain splashes at low level can dirty masonry, but the careful use of a weak acid cleaner followed promptly by washing with water, will soon restore rich colour of the individual bricks. Wire brushing is not recommended, as most bricks can become badly scratched and therefore over vigorous cleaning is not recommended, as it can sometimes be to the detriment of the general appearance of the building.

These comments refer to general maintenance and whatever brick is used, if the correct brick type and mortar is specified, in accordance with the durability Table 13 of BS5628: Part 3, then maintenance should be limited and therefore a minimal cost item in the general upkeep of the property.

Additional information is contained within BS8221-1, which refers to general cleaning of building materials with a useful reference on brick masonry reparation and BDA Note 2 on cleaning of brickwork.