



## GENERAL COMMENTS

The greatest danger in removing surface accretions from the surface of the glass is that irreversible damage can be caused by overenthusiastic and inexperienced persons. Before any cleaning operation is considered, it is essential that the advice of the QI architect or the Stained Glass adviser is sought. The only effective cleaning of windows is done on the studio bench after the window has been removed: indeed, it is very difficult to establish the best cleaning technique when the glass is in situ. On no account must medieval windows or stained glass windows of historic significance be cleaned by anyone without professional expertise.

## EXTERNAL SURFACES

In the majority of cases, natural rainfall removes surface dirt from the external surfaces of windows. Exceptions occur when protective measures such as metal grilles or plastic sheeting has been fixed. In the case of grilles that have been fitted too close to the glass, they should be removed and repositioned further from the glass surface after appraisal by an expert on the accumulation of dirt. The accumulated crust is part of the historic fabric, and its removal can initiate further corrosion. Plastic sheeting causes many serious problems to the windows, and current thinking is that it should not be used as a protective measure at all (see Truro DAC guidelines on window protection).

## STAINED GLASS WINDOWS

Cleaning stained glass windows should only be done as a last resort, and then by an experienced glass studio. A Faculty is needed for this operation.

There are two main dangers. Firstly, any painted detail on the glass that has not been fired correctly can be removed permanently if the window is inexpertly cleaned.

Secondly, the cement between the glass and its leads is very prone to being loosened; this will result in the window leaking and admitting draughts. At the least, Inexperienced cleaning of stained glass windows can end up with a very expensive bill, at the worse the window can be damaged permanently.

## PLAIN AND TINTED WINDOWS

Many plain and tinted windows contain historic glass of the 19th century or earlier, and cleaning should only be undertaken after seeking expert advice. If it is agreed that a parish can go ahead with a cleaning operation, the following procedures must be followed.

1. A complete preliminary inspection must be made to identify any panes that have been damaged or which may be loosely fixed in their leads. Such panes must not be touched NOR any of the adjacent glass quarries, as pressure will worsen the problem. You are also looking for any loose panes or any 'bowing' in the window. Bowing does not necessarily mean the window is stressed, but if the bowing is accompanied by associated cracks in the glass, glass movement or rattling, or loss of cement means the window should not be cleaned at all.

2. Initial removal of cobwebs and dust should be done with a light duster or soft brush using minimal pressure. In the majority of cases this should be the extent of the cleaning, and the decision to proceed with wet cleaning is a very serious one.
3. If water is to be used to remove grime, then it must be deionized (or natural rainwater), with no detergents of any kind. Again, minimum moisture and pressure must be the order of the day.
4. Start in the centre of each quarry, and work outwards in gentle circular movements. DO NOT attempt to clean out the grime that might have accumulated at the edge of the leads, especially the points of diamond quarries, as this is where the cement is at its most vulnerable. It is far better to leave some grime on the glass rather than be faced with having to have the window removed and re-lead!

In summary, it is probably better to leave well alone or enlist a professional rather than endanger your church's windows!

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