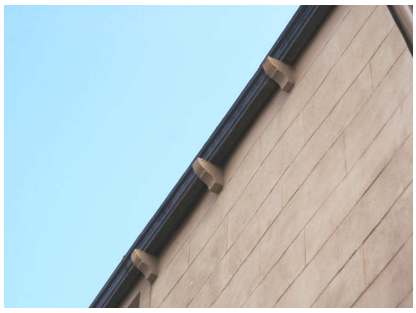
A PRACTICAL CONSERVATION GUIDE

for

MORECAMBE TOWNSCAPE HERITAGE INITIATIVE (THI) 2: A VIEW FOR ERIC

and MORECAMBE CONSERVATION AREA.



LOTTERY FUNDED

LANCASTER CITY COUNCIL
Promoting City, Coast & Countryside

TOWARDS MORECAMBE'S BRAND NEW, BRIGHT TOMORROW

This guide has been prepared as part of *Morecambe Townscape Heritage Initiative 2 (THI 2): A View for Eric* as an indication of the conservation standard we are aiming to achieve through the scheme. However, it can equally be applied to other works within the Morecambe Conservation Area.

Further information about the scheme can be found at www.lancaster.gov.uk/viewforeric, including information regarding property grants and heritage skills training opportunities which will be available during the five year scheme commencing May 2012.

This practical guide covers the following:

- Mortar and pointing
- Stone cleaning
- Windows
- Rainwater goods
- Railings and gates

Mortar and pointing

The majority of the district's buildings which date from before 1920 will have been constructed using lime mortar.

However, throughout most of the C20, cement has been used in new construction and for repairs to historic buildings. Unfortunately, for those building of traditional construction, this has had a negative visual and practical impact, and can have a serious effect on the condition of the building's fabric.

Lime mortar and render has a natural ability to both hold and evaporate moisture from walls, helping to maintain a state of balance. They also have an inherent flexibility, which allow minor movements to be accommodated without resulting in cracking.

This is in direct contrast to cement which is an impermeable material, thus trapping moisture, and accelerating decay. Moisture is unable to move through the joints forcing water into and through the stone itself, causing the masonry to sacrificially deteriorate. Further, with little or no flexibility, where the cement fractures or fails, moisture will be able to enter the walls.

On a visual level, however, repointing with cement also has a negative impact on the appearance of the building, this is often related to the colour and the method of application.

An example of the physical and visual damage caused by inappropriate mortar and pointing

What mortar should be used?

The use of natural hydraulic lime (NHL) mortar is encouraged, and for most wall re-pointing, NHL 3.5 (moderately hydraulic) is suggested in this area. A common specification is 1:3 (1 part NHL : 3 parts sand).

The sand or aggregate used makes up the majority of the mortar mix and is therefore very important both in terms of the mortar's performance, but also in terms of the colour and finish achieved.

In terms of the colour which should be achieved, the aim is for the mortar to blend in with the original stonework colour as closely as possible. The idea is not for each stone to be picked out, or to stand out. Given that a buff/yellow sandstone (mill stone grit) has been used in this area, a buff coloured mortar is required, and pink, brown or grey mortar should be avoided.

For narrow masonry joints, a finer sharp sand is required, whereas for coursed rubble stone, which will usually have wider joints, a proportion of grit will also be required. Not only will the grit enhance the appearance and texture of the mortar, but a mixture of particle sizes will allow irregular spaces between the grains which hold more air, promoting a better set.

In all cases, the aggregate should be well graded with the largest particle size approximately one third of the joint width.

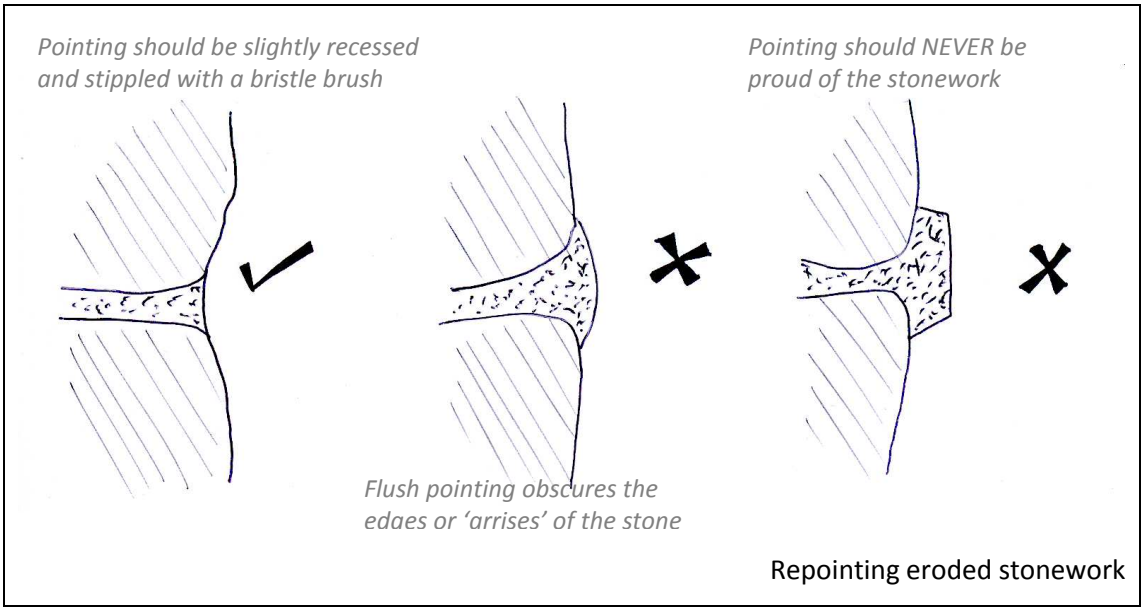
A typical mortar mix:

1 part NHL 3.5: 1.5 parts yellow sand : 1.5 grey grit sand

Pointing technique:

In preparing to repoint, the joint should be cleaned out square, and should be considerably deeper than it is high. Any loose debris should be brushed or flushed out. The joint must be well wetted before pointing.

Uneroded stones should be flush pointed. Badly eroded stones should have the pointing slightly recessed so that the joints are not visually widened.



Repointing eroded stonework

The mortar should be brushed when green hard to expose the aggregate.

On completion of the re-pointing and the initial set, the joints are beaten with a stiff bristle brush to expose the aggregate.

An example of how the pointing and mortar should look (colour, finish and recess)

Practical considerations:

It is essential that lime products are not used when the temperature could drop below 5˚C. Frost can be very damaging whilst the lime goes off, and it is worth remembering that this is the case for several weeks after the lime has been applied. As a general rule of thumb, lime should not be used externally in the late autumn or before late spring.

The converse is also true, and lime products should not generally be used when it is too hot unless protection can be provided to prevent the set from taking place too quickly.

The re-pointing of listed buildings requires the benefit of listed building consent.

If you would be interested in attending a practical workshop session, please contact the THI team to find out about forthcoming opportunities.

Stone cleaning

The tradition of cleaning stone buildings is something that started to become popular from the 1960s onwards.

Unfortunately, many of the early techniques were greatly damaging to the stone, but this is also true of many of the current practices. This is therefore something which must be approached with great caution and only approved techniques should be employed.

The potential to cause long-term damage to the stone is great and, therefore, stone cleaning should only be undertaken where it is apparent that the surface build-up is damaging the fabric of the building, or where there has been such a build-up of paint or dirt, for example, that it must be removed in order to assess the extent of necessary repair.

The techniques that have commonly been used in the past include grit blasting, and mechanical cleaning using rotating discs and brushes.

However, such techniques will invariably also take the face off the stone which can lead to the following problems:

- greater susceptibility of the stone to absorb rainwater, dirt and pollution
- ‘pitting’ of small holes on the stone’s surface
- disfigured architectural detail
- erosion of sharp edges and loss of definition
- complete loss of the mason’s tooling
- an exposed rough surface which encourages biological growth

There are alternative approved methods which are recognised as not causing long-term damage to the stone, but which must be used appropriately depending on the nature of the staining/soiling, for example, the DOFF, TORC and Clean-Film systems.

Further information on these techniques can be found on the Stone Health website: http://www.stonehealth.com/

The cleaning of listed buildings requires the benefit of listed building consent.

Windows

Existing sash windows:

Wherever possible, the repair of historic timber sash windows will be encouraged. However, where a window is beyond repair then they should generally be replaced on a like-for-like basis, though for unlisted buildings it may be possible to incorporate double glazing.

Replacement of inappropriate modern windows:

The replacement of modern windows, which are considered inappropriate in character, with windows in the original or historic fenestration pattern will be strongly encouraged.

Replacement sash windows

The traditional detail in Morecambe tends to be one of minimal glazing bars, due to the date of the buildings' construction. Many have no glazing bars at all, though some just have one or two vertical bars, such as those in the photo.

Sash horns are also a common detail, due to the lack of glazing bars, and the consequently larger sheets of glass involved. The role of the sash horns was to provide strength to the vulnerable joints at each end of the meeting rail.

The use of spiral balanced sashes is an acceptable alternative to the traditional weighted sashes in this situation. A spiral balance is a spring-operated substitute for the cords, pulleys and weights in a double-hung sash window. They were first introduced in the 1930s.

Double glazing:

When it comes to incorporating double glazing into existing sash boxes, it is important to remember that the weight of two sheets of glass is greater than a single pane of glass which means that the sash weights required will be larger. There will need to be sufficient space within the box in which to house them.

Glazing bar profiles should match the existing pattern, in terms of thickness and profile of those being replaced.

The least obstrusive solution is to use one of the proprietary window systems in which the sashes are fitted with flase glazing bars on each side of the sealed glazing unit. To avoid the double reflection, it is possible to introduce spacers within the sealed unit which align with the bars. However, some installers have found that windows exposed to strong sunlight can shatter where spacers have been fitted as differential expansion causes tension within the glass.

Casement windows:

Where casement windows are considered the most appropriate fenestration treatment for a building, flush fitting casements are usually the most acceptable form. This is a traditional detail where the outer frame and the frame of the opening-light are flush in section, to the outside face of the window.

Flush fitting casement windows

The more modern 'storm proofing' detail, where the opening light overlaps the fixed frame, can result in a much heavier looking window, more akin to the appearance of a uPVC casement window.

'Storm proofed' window

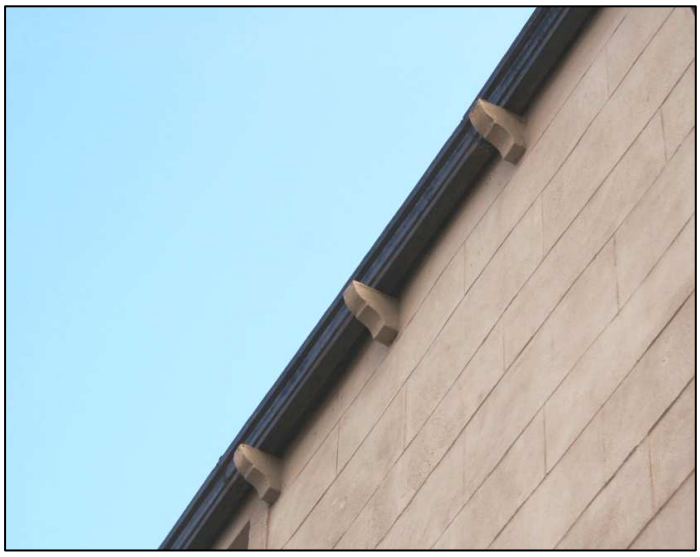
Secondary glazing:

Secondary glazing can often be a good alternative to double glazing where the historic windows are capable of retention. This can help reduce heat loss, as well as providing a degree of acoustic insulation.

Most systems tend to be polyester powder coated aluminium frames, made to fit any opening. The internal meeting rails should always coincide with those of the window it serves, so that the framework cannot be visible from the building's exterior.

Planning permission may be required for many of the above works. Guidance should be sought from the Council's Regeneration & Planning Service before undertaking such works.

Rainwater goods



Cast iron ogee gutter supported on stone corbels

Cast iron has traditionally been a popular material for rainwater goods, both for gutters and downpipes. However, there are examples within Morecambe of timber and stone gutters too.

The use of cast iron 'ogee' section gutters is a common detail throughout much of Morecambe's C19 housing stock. These were usually supported on stone corbels, either plain or profiled. Many examples still survive.

The replacement of plastic rainwater goods with those of traditional materials will be strongly encouraged.

Where historic materials survive, these should be repaired where possible or, where beyond repair, replaced on a like-for-like basis.

There may be indications that the rainwater goods are in need of repair. These can include staining of the walls behind, plant or algal growth on the stonework, eroded masonry and failure of render, for example.

Staining, algal and vegetation growth caused by leaking and unmaintained rainwater goods

This can be caused by a lack of maintenance, including blockages and vegetation growth, and corrosion due to infrequent painting.

Replacements:

Where the replacement of original rainwater goods is necessary, this should be carried out on a like-for-like basis, so that the sections match the original in size and appearance.

Where it is a case of reinstatement, neighbouring properties should be looked at for clues of what the original sections may have been like.

The addition of visible fascias should be avoided, and use made of the corbels where possible, or at least implied by the use of hidden timber fascias.

Where the corbels are missing they should ideally be reinstated.

Railings and gates

There is a tradition of decorative railings to the front boundaries of domestic properties throughout the Morecambe Conservation Area. Many have since been lost but there are still many examples to be seen.

The retention or reinstatement of historic railings can be enormously beneficial to the quality and character of the building and area, and will be encouraged.

An important historic detail which should be replicated is the embedding of the individual vertical bars in the coping stone, as opposed to attaching a flat bar at intervals, which is a more modern detail.

Historic railings

Reinstated railings

CONSERVATION ADVICE

For further details on maintaining historic buildings in Morecambe, please see ***A GUIDE TO BUILDING MAINTENANCE***. If you are interested in reading more about Morecambe's built heritage, please refer to the ***Morecambe Conservation Area Appraisal*****.** Links to both of these documents are available from **www.lancaster.gov.uk/viewforeric.**

If you would be interested in practical guidance relating to other aspects of conservation, please email **viewforeric@lancaster.gov.uk** to submit your suggestion.