

ABERLADY MARKET CROSS, ABERLADY

17th July 2013



**Conservation Directorate
Applied Conservation
7 South Gyle Crescent
Edinburgh
EH12 9EB**

**Tel: 0131 334 6367
Fax: 0131 334 6810**

Aberlady Market Cross, Aberlady

Introduction:

This conservation report has been prepared following concerns regarding the condition of the cross shaft. A site visit and inspection was made on the 17 July 2013 in bright, dry and sunny conditions.

The cross is located on the north side of the village main street adjacent to the local bus stop. It dates from the 1700's although the shaft is recorded as being a more modern replacement and the top is missing.

Description:

The market cross consists of a square shaft measuring approximately 1.800m in height by 0.250m square in section. This shaft is supported in a large plinth stone measuring approximately 0.560m in height by 0.680m square. Below the plinth stone are four stepped courses of stonework the outer most of which measures 2.860m by 2.300m. The lowest course of steps on the north and south sides appear to have been removed albeit some considerable time in the past possibly to give better access around the cross for traffic and pedestrians. As early illustrations of the cross show it built this way perhaps it has always been thus?

The entire cross is carved from the local sandstone and the shaft and plinth stone below are both face bedded.

Iron cramps have been used on the upper course of the steps to secure the stones and possibly there are others on the lower courses concealed by the stones above. The construction joints of the cross steps were repointed in 2005 with what appears to be a lime mortar incorporating oyster shells and other pinnings to take up some of the wider joints.

The shaft incorporates two metal bands one above the other which partially span an area of fracturing. They appear to be of phosphor bronze or a similar non-ferrous alloy and display no signs of significant corrosion. The bands are held in place with countersunk slotted screws fixed into the stone on the east and west faces. The screws on the west side appear to be of brass whilst one of those on the opposing side is of ferrous metal. There are old drill holes in the stone for screw plugs just

below the existing fixings for the bands suggesting earlier supporting ironmongery or other intervention.

At the base of the shaft on the north elevation is a small sandstone indent around 0.050m in depth spanning this side. The indent is pointed with lime.

Condition:

The shaft is stable in its base displaying no evidence of structural instability as a whole. The two bronze bands are in good condition and remain secure. The ferrous screw on the east side is oxidising causing some slight rust staining.

The small stone indent on the north elevation remains functional although the lime pointing has failed in areas allowing water ingress. On the east side there is an open bedding fracture extending up the side of the indent to just below the lowest of the two metal bands where it intersects with a diagonal hairline fracture. There is evidence of some filler in the more open parts of the fracture although most has been lost. The diagonal fracture extends right around the centre of the shaft and it is this that has presumably given cause for concern hence the metal bands. As the fracture extends below and above the bands they only partially provide the necessary reinforcement although it appears to be adequate given the angle of the fracture.

The north elevation of the shaft displays the most evidence of stone loss and much of the original surface has been eroded. There is also contour scaling following the natural sedimentary beds of the stone and at the corner of the west elevation this manifests itself as open fractures.

Elsewhere on the shaft the surface is subject to numerous small pits where softer material has weathered away although this erosion is very superficial and a characteristic of the stone type.

The lime mortar joint at the base of the shaft is in poor condition and does not appear to have been included in the 2005 pointing exercise.

Evidence of biological growth is minimal and mainly confined to the west elevation and generally the upper parts of the shaft. Here green biofilm and lichen are apparent.

The plinth stone for the shaft is quite weathered but remains sufficiently stable to provide solid support for the shaft above. The stone is covered with numerous pits of varying sizes some of which have been previously filled with lime mortar. On the west elevation is a larger bedding fracture where softer material has weathered away however the loss appears

mainly superficial. On the south and north elevations there has been some recent loss from the lower parts of the plinth stone. These areas of delamination following the sedimentary bedding appear to be where feet of pedestrians sitting on top of the plinth stone have abraded the surface.

The steps supporting the plinth and cross shaft are structurally stable obviously helped by the previous repointing exercise. The iron cramps are secure and display no evidence of possible oxide jacking to the surrounding stonework. Some accumulation of soiling on the steps has allowed moss to become established however growth is minimal and not of any consequence at present. On the riser of the top course of steps on the south side is an area of fracturing and damage again possibly aggravated by pedestrians feet abrading the surface? On the lowest stepped course of this elevation is further fracture damage and potential for future loss.

Chewing gum, bird droppings and other marks are in evidence however this is purely a cosmetic issue and of little impact to the longer term conservation of the stonework.

Recommendations:

This market cross is in remarkably good condition and would require only a minimum of intervention to retain it in its present condition. The close proximity of the bus stop does impact on the cross as it is clearly used as seating for waiting bus passengers. Chewing gum and scuffing of the surface provide evidence of this as well as what was observed on the day of this inspection.

The following works are recommended:

- Biological growth is minimal and it should be sufficient to monitor this for now.
- Areas of open fracturing identified should be pointed using an acrylic mortar of a consistency and strength sympathetic to the stone.
- Only areas of very deep pitting where water might accumulate or where the stone is unstable should be filled to prevent further decay. This should not be extended to all areas of pitting as this is characteristic of this stone type and not necessarily a cause for concern.

- The metal bands remain functional and only the ferrous screw/s should be considered for replacement with a bronze item/s.
- Areas of fracturing and superficial damage on the steps should be repaired with acrylic mortar.
- The small indent on the base of the shaft should be repointed at the sides to prevent water ingress.
- The pointing remains in good condition and unless there are any very localised areas of deterioration should not require further intervention. The only construction joint that would benefit from repointing is that between the shaft and the plinth stone. An appropriate lime mortar should be used for this.

NB. Acrylic repairs should be based on 'Paraloid B72' in acetone and IMS (Industrial Methylated Spirit) at strengths of no greater than 10% w/v.

S. Gordon

Head of Applied Conservation
Historic Scotland
7 South Gyle Crescent
Edinburgh
EH12 9EB

17th July 2013



General view from the north east corner



Viewed from the south east corner



Upper section of the shaft viewed from the west



Viewed from the south



East elevation



East elevation



North elevation



North West corner



Indent viewed from the east



Indent viewed from the north



Plinth viewed from the south



Plinth viewed from the west



Lower south side of the plinth showing recent loss



Steps viewed from the south



South side of the steps and area of damage



South side of upper step showing friable area



North lower step and detached fragment



Superficial biological growth of the steps