St Michael & All Angels Church, Thornhill.
Conservation report on the internal monuments
Section 2
General description and Detailed condition survey of the monument to Sir George and Lady Anne Savile – south elevation

Prepared for:

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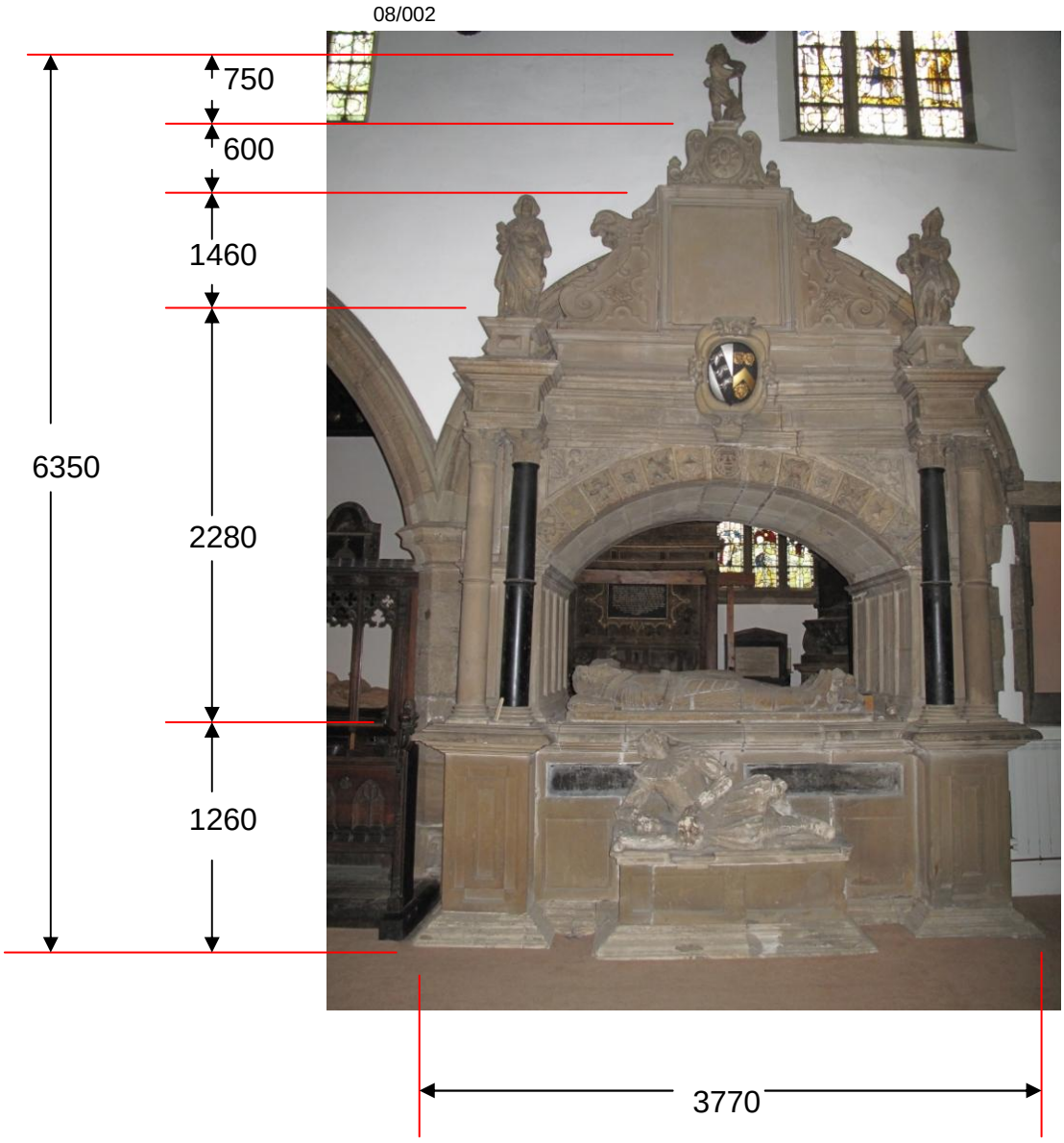
Monument number 1 – Sir George Savile (1614) and his wife Lady Anne Savile.

Location

The monument is situated within the eastern arch of the arcading forming the north side of the chancel and the south side of the Savile chapel.

Dimensions: (shown in millimetres in the photograph below)



On plan the main chest part of the tomb measures 2600mm across (i.e. front to back in this photograph).

Description of the monument.

The south elevation of the monument is shown in the photograph on the previous page and the north elevation is shown in the photograph below.

The male and female figures on the chest represent Sir George and Lady Anne. The figure at the base of the monument on the north side is Sir William Savile, the second son of Sir George who inherited the estates in 1627 upon the death of his elder brother who is represented in the figure at the base on the southern side: he died while a student at Oxford. Sir William fought for the Royalists in the Civil War and died in 1643 leaving his wife to continue working for the cause leading to Thornhill Hall being attacked by Fairfax in 1648. The monument was given by the Earl of Strafford (Sir Thomas Wentworth) who was brother to Lady Anne.

The monument is constructed from sandstone and limestone. It is very dirty and covered in parts with some sort of surface coating obscuring the materials and inhibiting clear visual identification of individual pieces. In general it appeared that the lower sections and possibly some of the ashlar are in sandstone while the carved details are formed from limestone. The black columns on both elevations and the frieze panel on the south elevation of the chest are Belgian black marble.

It would be recommended to have geological identification carried out on the stones as part of the preliminaries to any proposed conservation works.

08/149

As can be seen the monument consists of a large chest tomb upon which the effigies rest and above which is a substantial canopy.

The reveals of the arch and the spandrels are carved with decoration and flanked by pairs of columns with Corinthian style capitals.

There is a moulded frieze with a crest and cornice, above which is an elaborate pediment flanked by allegorical figures and a putto above. The north elevation has an achievement of arms in the pediment but the equivalent panel on the south side is blank.

The heraldic elements have been painted but this does not appear to be original.

Detailed condition survey – south elevation.

08/001

General view of the monument located within the chancel.

08/003

General view of the west elevation.

08/004

General view of the lower section of the east elevation.

The monument has a heavy covering of dust and dirt; some being superficial and would be easily removed by vacuum and some being much more ingrained and not easily removed. This is responsible for the general grey surface appearance.

08/005

General view of the upper section of the east elevation.

08/006

In this area the moulded and carved sections of stone would appear to be limestone while the larger panels are carved from sandstone.

The base mouldings are badly eroded and appeared quite damp at the time of the survey.

There is considerable efflorescence of soluble salts on the stones in this area.

08/007

As previously discussed the areas adjacent to the monument at floor level are subject to considerable dampness and the monument itself is suffering badly from the ingress of moisture and soluble salts.

In addition there are some impact damages generally across the surface – most notably here in the east corner on the chest of the son's effigy as indicated by the white arrow.

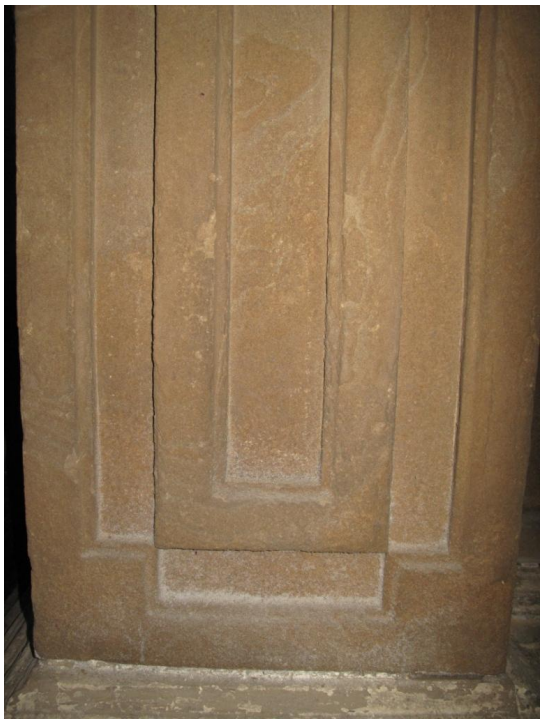
The surface of the Belgian black panels is badly eroded and some of the polish has been lost. This is typical of this material in damp environments and this instance is considered consistent with its age and location. It is indicative of condensation forming on the monument over a prolonged period.

It appears that the monument may have been given a coating at some time as the surface of the limestone in particular has a darkened skin. It is apparent here on the effigy showing in contrast as a retained dark area in contrast to the white surfaces where it has eroded (on the arm and the foot for example). It is also at other locations including at high level as will be pointed out later. It will be suggested that this be examined further to ascertain what it is.

08/008

08/009

Detail of the west end base stone, south elevation.



08/010

Left: Detail of the front panel west end pilaster block, south elevation.

Below: Detail of the east elevation panel of the same pilaster block. The lack of definition in the moulding for example is indicative of long gradual erosion of the surface which considering the internal location must be the consequence of moisture and salt damage over a very long time.

08/011

08/016

Western elevation of the son's effigy.

08/019

Eastern elevation of the son's effigy.

The sole of the foot is actively eroding leaving the white tone of the stone in contrast to the darker surface coating.

Note the salt efflorescence on the end panel of the son's chest (white arrow) which is shown in greater detail in the following page.

08/020

08/024

Above: Detail of the 'recess' between the son's effigy and the eastern plinth block.

In this photograph the salt efflorescence is shown to be substantial and easily visible to the eye (white arrow).

It is worth noting the, possibly four, different types of pointing in this area are indicative of several different restorations (orange arrows).

Above left: There is exfoliation on the surface of the stone which is similar to weathering seen on external sandstone where the surface hardens, expands and exfoliates; (black arrows). The strong mineral discolouration, apparent as a dark rust coloured spot, is indicative of severe moisture ingress. See also the following photograph.

08/023

Detail of the above area of exfoliation taken from the front.

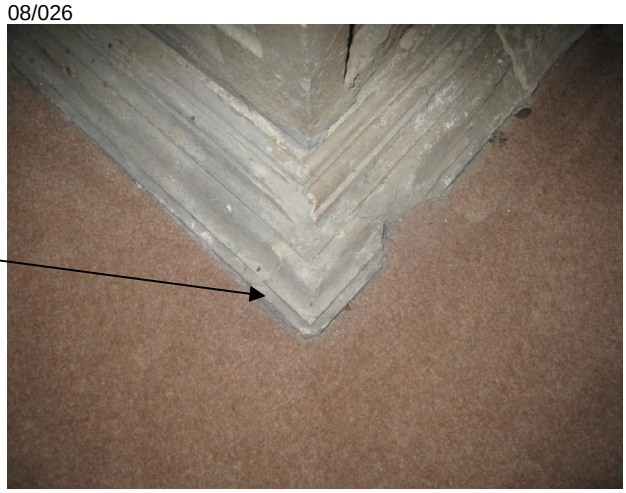
The shadow shows that light passes through the exfoliated piece of stone demonstrating that the surface of the stone is completely detached and in imminent danger of falling from the surface.

08/025

Left: A detailed view showing the eastern elevation of the chest tomb and including the abutment with the base of the arcade arch. Compare the design of this end with the opposite one shown later. It can be seen that the stones on the return elevation here have most likely been replaced with plain ashlar blocks

Below: The corner of the plinth at this point has been broken.

08/026



08/028

An overall view of the effigy to the elder son of Sir George Savile: The stone is a fine white soft limestone and it can clearly be seen in this photograph that the surface has dark finish which is flaking to reveal the stone beneath. In these areas the stone is friable and needs to be more closely examined to ascertain if consolidation should be carried out.

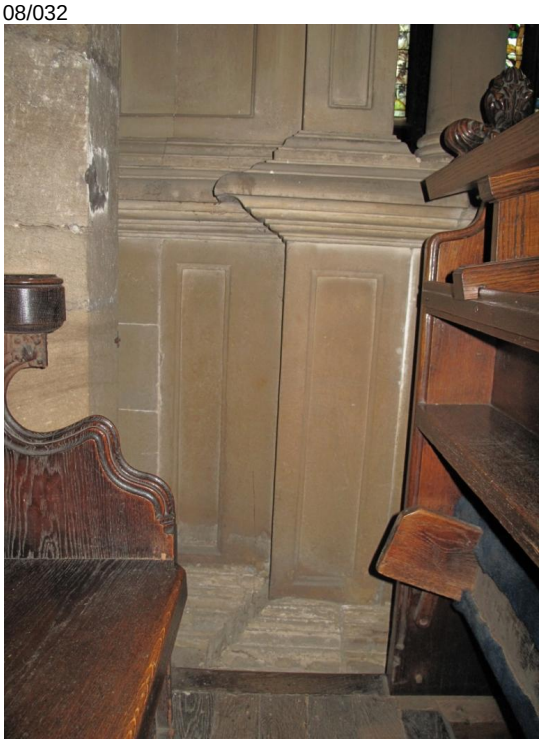
08/029

Left: The effigy viewed from the eastern side.
Below: a detail of the head showing how it has been cut into the moulding of the main chest.

08/030

08/031

08/032



Above left: Oblique view of the western end of the chest.
Above right: Detail of the western elevation of the chest.

Compare the configuration and carving of the fielded panels to the opposite end which indicates that changes have been made as it would be expected for the design to be symmetrical. Currently the eastern elevation has only one moulded panel and the rest is constructed in plain blocks while on the western elevation are three moulded panels.

Note also that the panel above has moved out of vertical alignment with the adjacent section (see the black arrow above left).

08/025

For comparison the eastern elevation is shown here again.

08/033

Western elevation of the return at the spring of the arch.

08/034

Western elevation at the level of the spandrel panels.

Note the exfoliation occurring on the details of the capital in this photograph (white arrows).

08/037

Front elevation of the western columns.

The Belgian Black marble column retains a surprising degree of polish.

08/039

Western elevation of the west columns

08/038

Eastern elevation of the west columns

08/041

Front elevation of the eastern columns.

08/040

West elevation of the east columns

08/042

East elevation of the east columns

Previous repairs to the columns are recorded below in more detail.

08/043

The east elevation of the east sandstone column has a large indent repair.

08/044

The base of the column appears to have an old stress fracture and the bottom of the column also has one (black arrows). These are not of major concern.

The impact damage on the roll mouldings appears relatively recent.

The discoloured area at the base of the column appears at first to be a fill but this is not certain and further examination might be required to confirm the nature of this discrepancy.

08/047

Detail of the architrave at the western end.

There are exposed ferrous cramps visible as shown by the arrows and shown in greater detail below.

08/048

Detail of the cramp on the left in the above photograph.

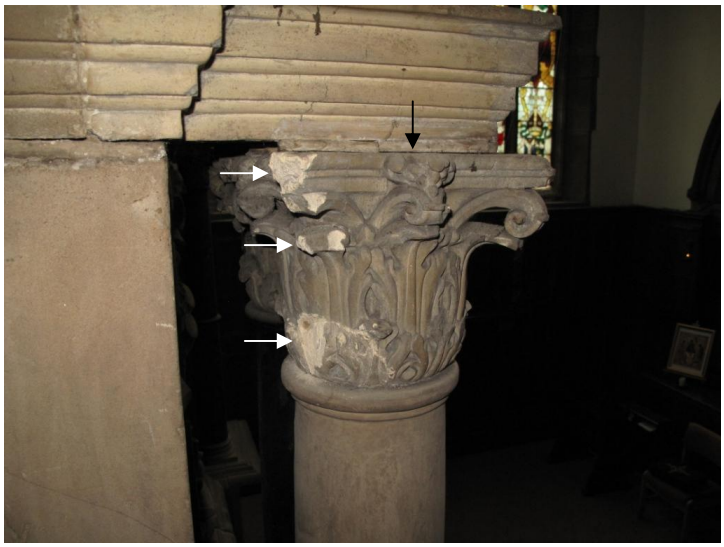
08/053

Detail of the cramp on the right in the above photo

08/050

The area indicated appears to be made up from a mortar repair.

There is also a high level of rust coloured staining in the stone in this area. Was there previously a ferrous cramp perhaps that had failed?



08/051

Detail of the top of the western column.

The extent of the damage would be considered unusual at this level and perhaps is the result of an impact (white arrows).

Of note here is the thick joint between the column and the architrave stone and that the bedding has subsequently cracked and the joint appears to be jacked slightly open indicating the presence of a ferrous cramp actively corroding. This needs to be checked (black arrow).

08/054

Detailed view of the south elevation of the western capitals showing further impact damage.

The different pointing mortars used on the two capitals indicate different periods of intervention and therefore suggests the possibility of a progressive deterioration that has required repair.

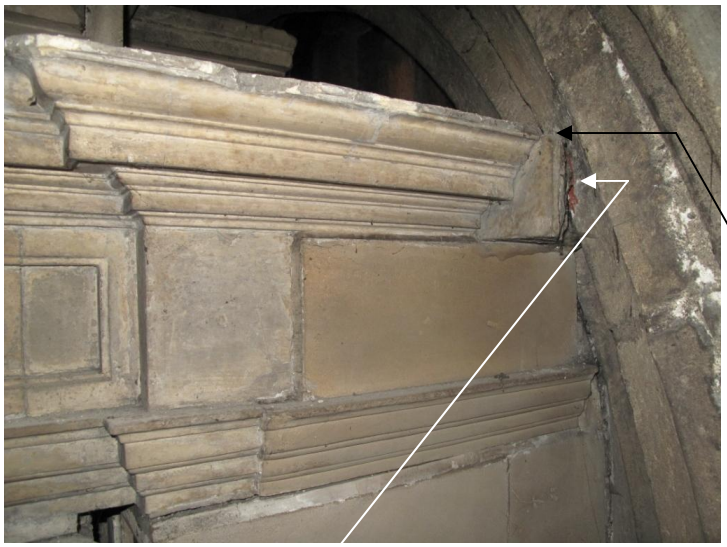
08/052

Detail of the junction of the western return of the entablature and the reveal of the arcade arch.

The construction detailing at this point (black arrow) would indicate that the intention was for the moulding to abut a flat ashlar wall.

Of great interest here is the presence of red pigment remaining on the arch stone as indicated by the white arrow. There is further evidence of painted stone at the eastern end as shown in the photographs below.

Samples should be examined by a specialist to try and ascertain a date for this paint.



08/082

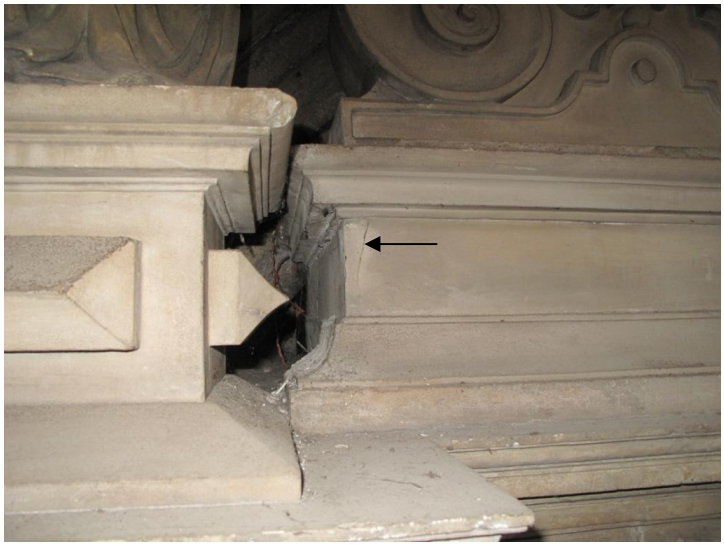
08/083

08/084

08/054

Detail of the entablature cornice below the western allegorical figure.

The marks across the surface here would indicate damage from water. This is probably more likely to have been from a leak in the roof rather than from any prolonged condensation issues because it is localised.



08/056

Detailed view of the base of the pediment adjacent to the western allegorical figure's base.

There is a stress fracture apparent in the stone as indicated. This is most likely but not definitely the consequence of an internal cramp corroding.

This is shown in greater detail below.

08/057

08/058

General view of the western spandrel panel.

08/059

Oblique view of the entablature above the western spandrel.

In both of these photographs there is evidence of the arch spreading which has been causing cracks to form.

This is detailed in the following photographs.

08/060

It appears that the cracks have been developing over a period of time and that they have been pointed on previous occasions. It is difficult to ascertain exactly how often works may have been undertaken but further on site examination might reveal more about the history of the repairs. In the lower area the joint is currently cracked indicating that it has progressed since the last intervention (black arrow).

08/071

Detail of the central section of the arch reveal.

The keystone along with the adjacent blocks has dropped due to the spreading of the arch. There is also an area of old damage and repair (black arrow) – the cause of this is unclear.

08/072

08/073

08/074

Above and left: the eastern spandrel exhibits movement comparable to the western side but here it is perhaps more pronounced.

As discussed previously there is evidence of old repair and subsequent movement.

It is extremely difficult to ascertain if the movement is still progressing and a decision will need to made regarding instigating a period of monitoring to establish this or to undertake precautionary remedial works to tie the arch preventing future movement.

08/075

Detail of the movement in the joints at the eastern end of the entablature.

08/078

The eastern capitals.

The wide wedge shaped joint between the capital of the sandstone column and the architrave is the consequence of the depression of the centre of the arch and probably some movement within the column as the pressure on it was lifted.

Note also the impact damage on the capital (white arrow).

08/081

The eastern elevation of the entablature.

Note the very wide joints between the architrave and the ashlar (below) as a consequence of the depression in the centre of the arch (black arrow).

The stones of the architrave and the frieze to the north side of the entablature are not in alignment and appear different in character from the southern stones. It was previously noted that similar changes appeared to have been made at lower level on this elevation. Is this all evidence of a substantial earlier restoration or has the monument been moved at some point and required alteration or repair? Was this part of the re-ordering required by the extension of the Savile chapel in 1495, or perhaps at some other period?

08/082

Oblique view of the above detailing the misalignment of the stones.

08/085

Detail of the recess between the eastern elevation of the tomb and the arch of the arcade at the location as indicated below.

08/042

The following photographs document the underside of the arch sequentially from the western side to the eastern side.

08/096

08/097

Note the different character of the stones used for the reveal and for the general ashlar works; once again using a combination of limestone for carved areas and sandstone for the plain blocks.

08/098

Note that the pointing in the joint of the row of stones east of the keystones has been replaced with a mortar different from the other pointing.

08/101

08/100

08/099

The eastern end would appear to have been affected more than the western end by the efflorescence of soluble salts.

The increased discolouration of the stone surface may also indicate increased transportation of minerals from within the stone to the surface which in turn would indicate high levels of moisture moving through the structure.

08/102

Detail of the western end of the chest adjacent to the head of the effigy of Sir George.

Of note here is the exposed ferrous tie bar (black arrow).

Along this elevation are old nuts and bolts indicating that there might once have been a set of rails on the monument.

08/103

Detail of the head of Sir George.

08/104

Detail of the western end of the effigy to Sir George.

Note the residue of white deposited on areas of the carved details such as the braiding on the pillow and the joints in the armour. This needs to be checked by a paint specialist to ascertain if it is the remains of painted decoration.

08/105

Detail of the central section of the effigy to Sir George.

08/106

Detail of the feet of the effigy to Sir George.

08/107

Note the various items stored on the monument; including fragments of stone, a section from core drilling and a wooden box with pieces of glass.

One of the old bolts can be seen clearly in this picture.

08/108

Detail of the emblems at the feet of Sir George including the owl.

08/115

Detail of the western elevation of the entablature.

08/114

08/117

Above left; Detail of the western elevation of the west side allegorical figure on the pediment.

Above right: detail of the south elevation of the west side allegorical figure.

Even at this level the monument has suffered from impact damage which most probably occurs during the use of ladders or other access during inspection and maintenance operations.

08/118

08/119

08/120

Above and left: details of the south elevation pediment.

There is evidence at this level of the structure being affected by the settlement that is occurring at lower level within the spreading of the arch.

This is particularly pronounced in the joints of the eastern side as indicated.

08/122

Detail of the eastern allegorical figure.

This figure also has a number of damages that appear to be from impacts.

08/125

Detail of the pediment support to the central cherub.

There is some misalignment in the joints indicating movement. It is not considered to be recent movement and most probably not progressive at the current time: it should however bee monitored.

08/143

View of the top of the canopy between the two pediments – looking from the west elevation.

The area has been filled with rubble and a mortar capping.

08/144

Closer view on top of the canopy with greater detail of the rear of the north pediment.

08/139

There is evidence of relatively recent work to re-fix or stabilise elements high up on the monument.

This view of the western allegorical figure indicates fresh plaster pointing or bedding at the base of the figure.

08/132

Left: The eastern figure has been treated similarly to the above.

Below: The western elevation of the pediment top which supports the cherub showing the installation of a modern metal angle bracket.

08/146