THE BRITISH MUSEUM

THE SOUTH COLONNADE

PROGRESS OF CIVILISATION STATUARY

TYMPANUM OF THE CENTRAL PEDIMENT

Figure 1: SOUTH COLONNADE ELEVATION

LISTED BUILDING APPLICATION

Design, Access & Heritage Statement:

Proposed Scope of Works for essential conservation cleaning

Issue	Details of revision	Compiled by	Reviewed by	Date
0	Issued to BM for review	Simon Douch	Katie Hannah Wright	04/01/2021
1	Issued to TPL for issue	Simon Douch	Katie Hannah Wright	05/01/2021
2	Scope confined to stone cleaning	Simon Douch	Lisa Clifton	28/01/2021

HOK JOB NUMBER	19.33048.00 BMSC
PREPARED BY	Simon Douch RIBA SCA- Principal for Heritage Conservation HOK International

Executive Summary

The repairs to the South Colonnade have been an important component of the British Museum's Essential Infrastructure Works (EIW) programme and this programme is due to complete in February 2021. Listed Building and Planning Consent for those works was granted on 27 December 2019, your references 2019/5640/L and 2019/5569/P. The consented works have required an extensive scaffolding across the colonnade to access the roof and colonnade soffit to facilitate the works. The works have progressed well, and the scaffold is due to be taken down end of January / beginning of Feb 2021.

The Museum took the opportunity afforded by the scaffolding to carry out a condition survey of the Tympanum statues and this was carried out by Hirst Conservation in late August 2020. The report, a copy of which was previously included, has recommended a number of repairs and cleaning.

As the main project was funded by Grant-In-Aid monies from the Department of Media Culture and Sport it was important for the museum to understand the extent of its financial commitments for the main works which included the scaffolding, the plaster repairs to the soffit and roofing in the original scope of works. The plaster repairs in particular could only be confirmed following painstaking investigations. Now this work is known and quantified the Museum have requested that the design team and subject matter experts prepare a small package of repair and cleaning works to the statuary to be added into the project. The original scope of the project did not include for any statue repair works in the original planning and listed building applications.

This application represents a limited but strategically focused scope of works to carry out laser cleaning of encrusted deposits. The works will be carried out by highly skilled conservators from Hirst Conservation. The Museum will be carrying out removal of bird droppings and replacing mortar repairs as works allowed under the exchange of correspondence with L.B of Camden email 28 January 2021. This application seeks consent for a small amount of cleaning which will be carried out with a handheld small laser and will focus on the judicious removal of crusts that are causing or likely to cause damage to the statuary.

All of the cleaning works will be adopting conservation best practice and are supported by BS 7913:2013 Guide to the conservation of historic buildings which states:

"7.4 Maintenance in practice

The significance of a historic building should be taken into account when determining the scope and extent of any maintenance works and when choosing methods. Those carrying out works on historic buildings should be competent in the type of work required. Adequate protection measures should

be included to avoid damage to historic fabric during the works. Incremental damage to the significance of the historic building should be avoided as even relatively minor works can have a disproportionate and cumulative effect. The removal of historic fabric and patina should be avoided as far as possible to retain authenticity. Materials selected should be of appropriate quality, suitable for the intended use and sourced for the particular historic building to achieve best performance match as well as best aesthetic match".

This design, access and conservation statement has been prepared to support an application for Listed Building consent. The application is made on behalf of the Trustees of the British Museum as directed by the British Museum's Capital Planning and Programme Management team. The application will be submitted by the Planning Lab with HOK International acting as the Museum's agents for architecture and historic building conservation.

Reference has been made to the Museum Conservation Plan, first produced in 1999, updated in 2007 and is now being updated to reflect the National Planning Policy Framework 2019 for addressing the historic environment. A copy of the Museums grade 1 Listed Building description is included at the end of this report.

Figure 2: the main entrance to the British Museum

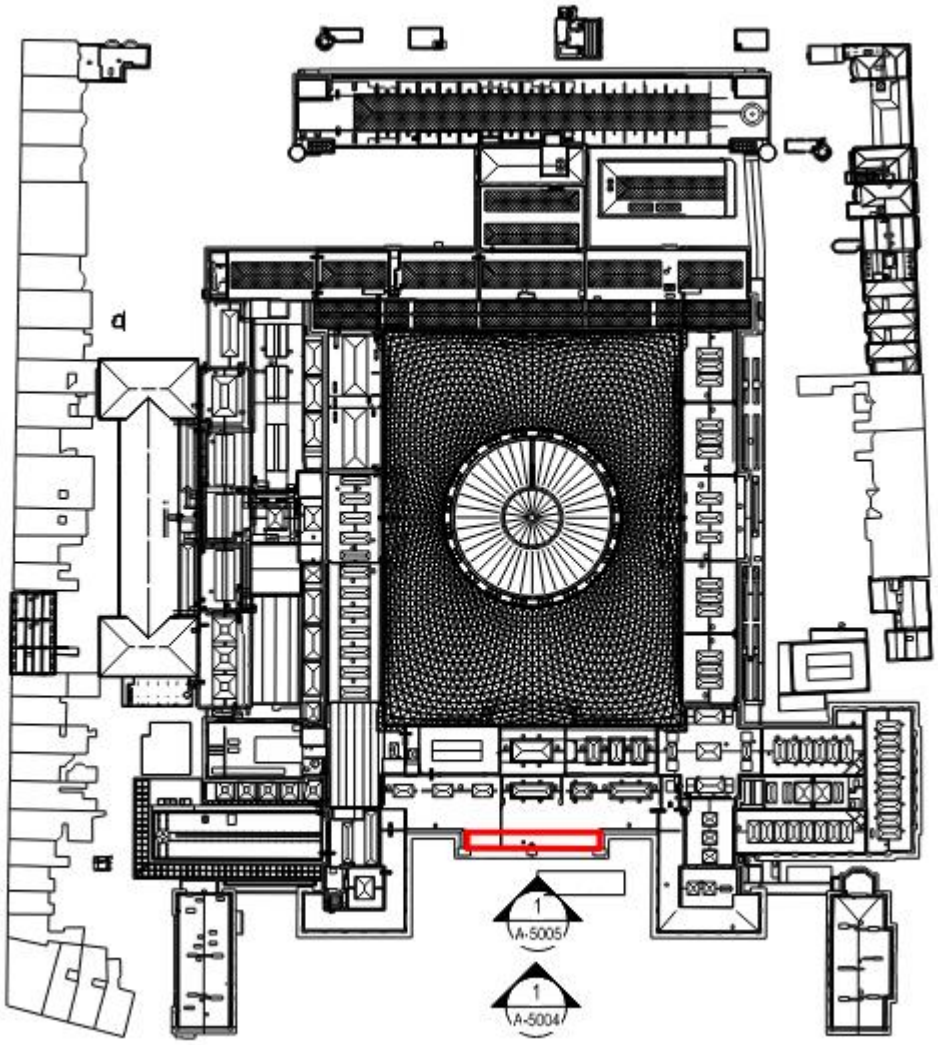

Figure 3 BRITISH MUSEUM; SOUTH COLONNADE SITE LOCATION PLAN

History of the South Colonnade

Sitting above the Greek Ionic order of the South Colonnade are sculptures that sit within the pediment and are known as the "*Progress of Civilisation"*. They are the sculptor Sir Richard Westmacott, who had a long association with the Museum, last major commission. The South Colonnade started construction work nearly two decades after the Kings Library was completed in 1827. The first drawing showing statues in the tympanum date from 1842-44. The responsibility for leading the architectural efforts had switched from Sir Robert Smirke to his younger brother Sydney who has also been working at the museum since 1823. Sydney Smirke was a talented designer in his own right which is evidenced by the Round Reading Room and the railings to Great Russell Street. The Museum Trustees approved Westmacott's design in August 1848. Bryant noted that *The Critic* recorded that the statues started to arrive in October 1850. The statues commenced being moved into place in April 1851 and the official unveiling occurred in May 1852.

The sculptural was created from individual blocks of Portland stone, with the sculptures in the round (not in relief). It shows, in narrative progression, an allegory of man's development through the ages, acquiring knowledge and skills in the arts and sciences, as well as natural history. It carefully incorporates items actually to be found inside the museum, in this way preparing the visitor to see the museum. For example, the turtle to the west end is believed to be modelled on the turtle Charles Darwin brought back from his travels.

Sir Richard Westmacott's sculptural composition over the portico of the south entrance to the British Museum date from 1851 and was officially unveiled in 1852. Westmacott used Portland stone and the sculptures are the round and not in relief. The composition shows man's development through the ages, acquiring knowledge and skills in the arts and sciences, as well as natural history. There are 15 statues and 14 accessories and from the progression moves from left (west) to right (east):

- The Primitive Man
- Angel
- Hunter
- Tiller
- Architecture
- Sculpture
- Painting
- Astronomy
- Mathematics
- Drama
- Poetry
- Music
- The Educated Man
- Natural History specimens

The eminent historian J. Mordaunt Crook wrote "*Beginning at the western end with man emerging from a rude savage state through the influence of religion to become a Hunter and Tiller of the Earth ... patriarchal simplicity then becomes invaded and the workshop of the true god defiled. Paganism prevails and becomes defused by means of the Arts. The worship of the heavenly bodies... led the Egyptians, Chaldeans and other nations to study Astronomy, typified by the Centre statues, the keystone of the composition. Civilisation is now presumed to have made considerable progress. Descending towards the western angle of the pediment, is mathematics ... the Drama, Poetry and Music balance the group of the Fine Arts fine arts on the eastern side, the whole terminating with Natural History*". (J Mordaunt Crook).

The installation would have been a considerable undertaking for example Mathematics is a sitting figure that weighs 7-8 tons and the central Astronomy figure is 12 feet high. There was an element of polychromy in the finish and Crook records the tympanum as being tinted blue and the ornaments gilded.

We understand that extensive stone cleaning was carried out in 1978 to remove the c 120 years of pollutants which had accumulated on the pediment and statues. An inspection from 1992 discovered evidence of blue tint, which would have been obscured by decades of pollution, and this is supported by the most recent 2020 inspections. Details of the 1978 method of cleaning have not been found to establish which stone cleaning methodology was adopted and it is possible that the 1978 clean removed the blue tint along with the accumulated pollution.

Sir Richard Westmacott's drawings are retained in the Museum archives. These are brush drawing in brown wash, with pen and brown ink and watercolour, over black chalk.

Previous Listed Building applications

In December 2019 planning and listed building permission was secured for the following works:

"*Roof alterations, including replacement of existing copper roofs with new copper roof at the main portico; replacement lead roof over contractors' desk, replacement copper roof of the east advancing wing with copper roof and replacement of 3 roof lanterns, relocation of access hatches with new maintenance route and guard rails*".

London Borough of Camden planning reference 2019/5569/P 2016/3083/P and listed building reference 2019/5640/L and dated 27th December 2019.These works are due to complete in late Match 2021

Design Statement

This statement has been edited following discussions with the conservation officer at L.B of Camden the application has been revised to include a limited and judiciously selected stone cleaning to remove crusted deposits that are likely to damage the stone if they remove. The works planned for this application have been extracted from Hirst report and are noted on HOK drawing BMSC-HOK-ZZ-XX-A5005 rev A which shows enlarged elevations and a description of the proposed work.

Planned scope of works

- Laser cleaning to remove encrusted gypsum build up

Laser cleaning

Laser cleaning is not new technology and has been used by masons and conservators since the 1970's. What we are seeking Listed Building Consent for is the most common form of laser used for the cleaning of statues the Q-switched Nd-YAG laser.

This laser is used sparingly on areas when there is strong visual contrast caused by the gypsum crusts and the unstained Portland stone. See photos below from the English Heritage publication Practical Building Conservation Stone.

Figure 4: before and after laser cleaning

It’s use in the example is very similar to the proposed laser clean planned for the Westmacott statuary. The laser gives a near infrared beam which loosens cohesion of the dirt and then vaporises. In the hands of a skilled conservator, we are planning to use Hirst Conservation, this treatment meets the need for the on-going well-being of the masonry beneath. It will remove the soiling and leave the stone intact and unaltered. They will use a small handheld device just to remove the worst deposits that are causing harm to the stone.

Figure 5: detail showing gypsum crust formed on statue

Conservation Approach

As part of their obligations as responsible asset stewards the British Museum have developed a Building Conservation Principles and a Conservation Management Plan. Three key principles have been identified for the ongoing use of the museum.

Conservation Goals and Principles:

- To meet the British Museum's stated Conservation Principles

- Heritage conservation not as an end, but as a central component of cultural, social, and environmental sustainability

- Adoption of best practice by experienced conservators.

These proposals help protect and enhance the British Museum's significance.

Proposed approach to the works

Desk top studies have been carried out by HOK's Conservation Architect and Hirst Conservation looking at available literature which is referenced in the appendix.

Works will be carried out by experienced conservators from Hirst Conservation. The conservators have been chosen based on their experience of working on statuary and stone.

The conservation approach has included a tactile and visual condition survey from the scaffolding installed for the main works.

Full photographic record has been taken by the Museum's photographer.

Significance

Originally Sydney Smirke proposed sculpture for the tympanum of the pediment, bas reliefs on the upper south facing walls at the rear of the colonnade, sculptures standing upon the acroteria of the pediment and on the plinths either side of the staircase. In the event only the tympanum was decorated, with sculptures on the subject of 'The Progress of Civilisation' by Sir Richard Westmacott.

The 1998 entry in the original Conservation Plan records " *Of the works completed during this period, the most significant is undoubtedly the colonnade and entrance portico which has come to exemplify in the public mind so much of what the British Museum is and stands for*".

International best practice categorises levels of significance of an asset or element in a variety of ways. Commonly used in the United Kingdom is a high, medium and low classification. However, in discussion with the museum this was seen as having to wide a bandwidth and rather simplistic.

A wider classification system has been adopted on a number of prestigious buildings within the UK.

Level of significance	Definition
Very high	Exceptional attributes making an essential contribution
High	Greatly contribute to the overall significance
Medium	Make a notable contribution to the overall significance
Low	Make a small contribution to the overall significance
Neutral	Makes no contribution to the significance
Detrimental	Interventions of fabric that detract from the overall significance

Under the significance criteria above the statues to the pediment is classified as Very high.

HIA SUMMARY OF INTERVENTION

ID number: HIA-0001
Space/element: British Museum, South Colonnade,
Intervention: essential conservation cleaning and repairs proposed scope of works

Date: January 04 2021
Reviewer: Simon Douch RIBA SCA

Summary – Option Development –This HIA considers the proposed cleaning and repair methods

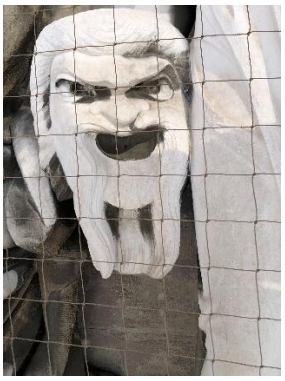

Figure 6 photos showing gypsum crusts

Description of Intervention:
Conservation cleaning and masonry repairs.

Reference Material:
British Museum Conservation Management Plan; revised 2007; Purcell Architects

WORK SUMMARY

The laser cleaning of gypsum crusts

- **Use of small hand held conservation laser to clean under infrared light which will enable the crusts to lose cohesion and then fall away or can be removed by a brush**

NATURE DEGREE, AND SCALE OF IMPACT (GENERAL)

Function:
The proposed works will not affect the function of the Pediment statuary.

Form:
The proposed works do not affect the original form.

Fabric:
There will be no loss of original fabric under the proposed cleaning and repairs. The cleaning and repairs will help protect the existing masonry.

SUMMARY OF LEVEL OF IMPACT

- Green *positive, overall neutral/minor impact*
- Yellow *moderate impact*
- Red *major impact*
- White *unknown/TBD*

For a comparative analysis of various options, these are presented as follows:

	Overall Impact	Function	Form	Fabric
Laser cleaning to remove gypsum crusts	●	●	●	●

HERITAGE CONSERVATION CONSIDERATIONS & POTENTIAL RISK MITIGATION

Carbon encrustation can cause significant damage to stone. The removal is desirable both in terms of aesthetics but also by not removing the crusts the stone will be further damaged over time.

There is a window of opportunity to carry out these essential conservation works. In line with the recommendations within BS 7913 the works will be carried out by experienced conservators who are regularly asked to clean and conserve objects within the museum.

Following a review of HOK's email dated 20 November 2020 London Borough if Camden conservation and planning officers advised the British Museum on 22 December 2020 that the cleaning and repairs would require a listed building application. Further correspondence was exchanged between The Planning Lab recently and the L.B of Camden Conservation Officer and an email was received on the 28th January 2021 advising that the mortar repairs, guano removal and repairing broken digits is permitted.

Accessibility Statement

The statues were designed to be viewed from the main forecourt which is accessible from Great Russell Street. There are no other accessibility issues raised by this application.

LISTED BUILDING DESCRIPTION

Location

Statutory Address: THE BRITISH MUSEUM, GREAT RUSSELL STREET

The building or site itself may lie within the boundary of more than one authority.

County: Greater London Authority

District: Camden (London Borough)

National Grid Reference: TQ 30054 81721

Details

CAMDEN

TQ3081NW GREAT RUSSELL STREET 798-1/100/697 (North side) 24/10/51 The British Museum

GV I

Museum. 1823-47. By Sir Robert Smirke with later additions. Portland stone. Planned as a big quadrangle with open courtyard extending north from Montague House (the original museum, demolished c1840). 2 main storeys in Greek Revival style. Built in stages. East Wing 1823-26: built to house George IV's library and Angerstein pictures (later basis of National Gallery). An early use of iron beams clad in concrete by engineer John Rastrick. Fine Grecian detail to interior with scagliola walls. West Wing 1831-4: built to house antiquities. Redecorated to Smirke's original colour scheme 1980. North Wing 1833-8: built to house antiquities. South Range 1842-7: built as the principal facade following the demolition of Montague House. 7-bay centre linked to projecting wings. Ionic octastyle portico with sculptured pediment projecting from a massive colonnade running around the wings. Ionic order from the temple of Athene Polias, Priene. Pediment sculpture depicts the "Progress of Civilisation" by Westmacott. Fine interior with grand central staircase. Round Reading Room 1852-7: by Sydney Smirke. Erected to fill the open quadrangle, with domed cast-iron roof. HISTORICAL NOTE: the museum expanded north during the C19, the last main addition being the King Edward VII Gallery (qv), 1914, facing Montague Place. Some of the galleries were damaged during World War II and have been remodelled for display purposes.

Listing NGR: TQ3005981712

Figure 7: British Museum Grade 1 Listed Building description

REFERENCES

Practical Building Conservation – Stone, 2012, English Heritage

Cleaning Historic Buildings Volumes 1 & 2, 1994, Ashurst, Nicola.

The British Museum – a case study in architectural politics, 1972, J. Mordaunt Crook

Building the British Museum, 1999, Marjorie Cahill and Christopher Date

The British Museum A history, 2002, David M. Wilson

'The Progress of Civilisation': the pedimental sculpture of the British Museum by Richard Westmacott, 2016, Max Bryant, accessed at the University of Liverpool 4 January 2021