



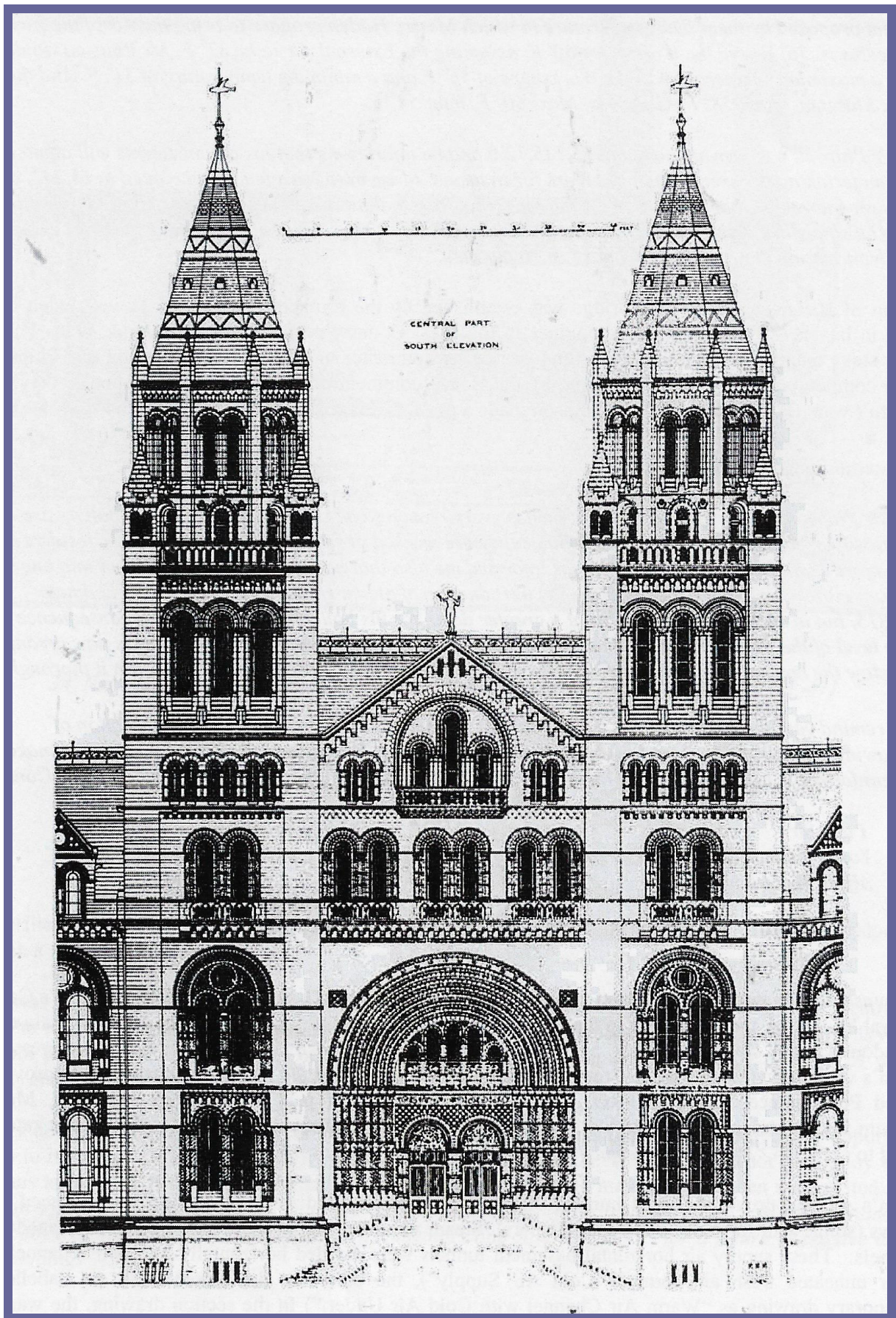
London's Praed Street and Paddington Railway Station, 24 January 1866.

HISTORICAL WORKS IN PROGRESS

**PLANNING, CONSTRUCTION
AND OPENING**

PART ONE

BRIAN ROBERTS



Main Entrance & Ventilation Towers, Natural History Museum, Kensington, London.
Built 1873-80. Architect: Alfred Waterhouse.

The heat-assisted ventilation system (no fans) was designed by Wilson Weatherley Phipson.



London's Holborn Viaduct under construction, 11 September 1869.

CONTENTS

The contemporary photographs, plans and illustrations of historical buildings in London are arranged in two sections in the order listed below. Some photographs date from 150 or more years ago and this accounts for their quality.

METROPOLITAN LONDON

Alexandra Palace, British Museum, Covent Garden, Crossness Works, Crystal Palace, International Exhibition, Kew Palm House, Royal Albert Hall, Church of St. Mary Aldermary, St. Pancras Railway Station, Victoria Tower of Parliament, Westminster.

IMPERIAL LONDON

Admiralty & War Office, Board of Agriculture, British Museum, Government Offices, Natural History Museum, New Law Courts, Palace of Westminster, South Kensington Museum.

METROPOLITAN LONDON 1839-1879

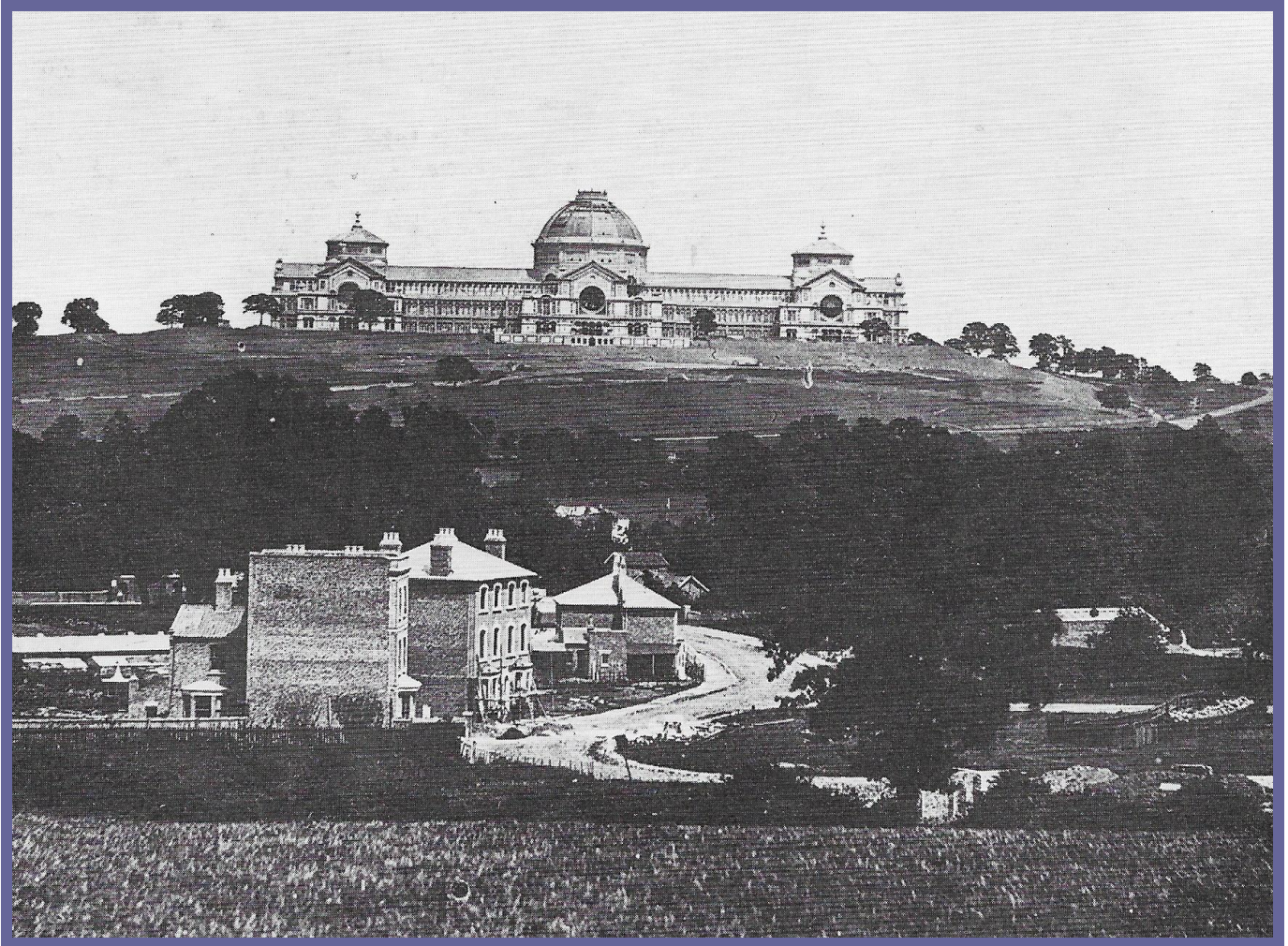
THE FIRST ALEXANDRA PALACE



Under construction on Muswell Hill, c.1866. Architects for the brick exterior Meeson and Johnson.

Builder Kelk & Lucas, using much of the structure from the temporary International Exhibition Building of 1862 in South Kensington. The scaffolding consisted of long poles lashed together with rope.

THE FIRST ALEXANDRA PALACE

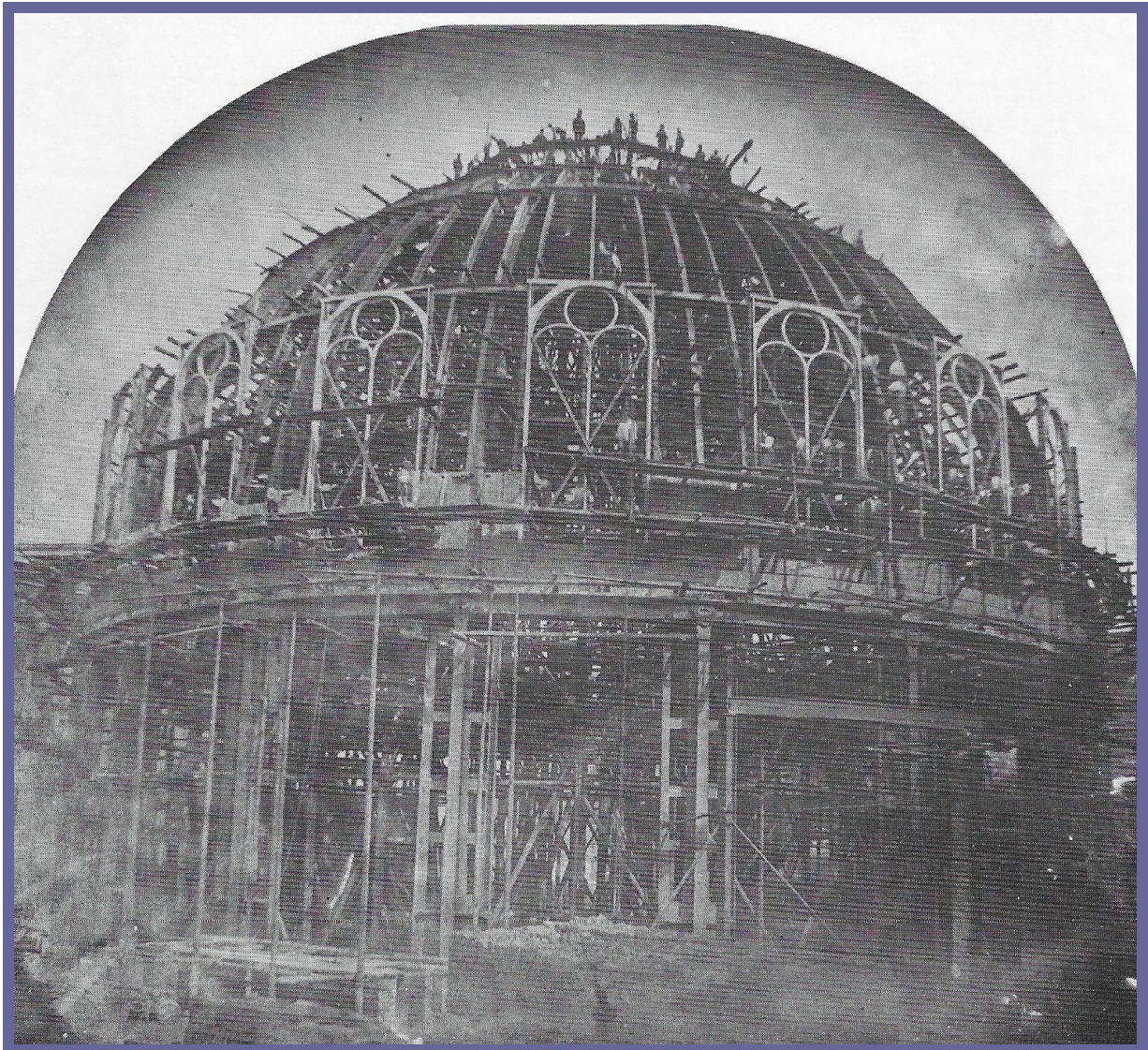


The completed Alexandra Palace c.1873. The foreground is Rectory Road, Hornsey.
The Palace was largely destroyed by fire in 1873, a fortnight after it opened.
It was rebuilt to a different design in 1874-75. Architect: John Johnson.

The second Alexandra Palace had heating and ventilation by Wilson Weatherley Phipson,
but the details are unknown.

In 1997, CIBSE held one of their Centenary Dinners in the second Alexandra Palace, which was later visited by the CIBSE Heritage Group who inspected the newly discovered original Theatre.

THE BRITISH MUSEUM READING ROOM



Photograph of 1855. Between 1854 and 1857 the great courtyard of Sir Robert Smirke's British Museum was filled in by a circular reading room of metal construction.

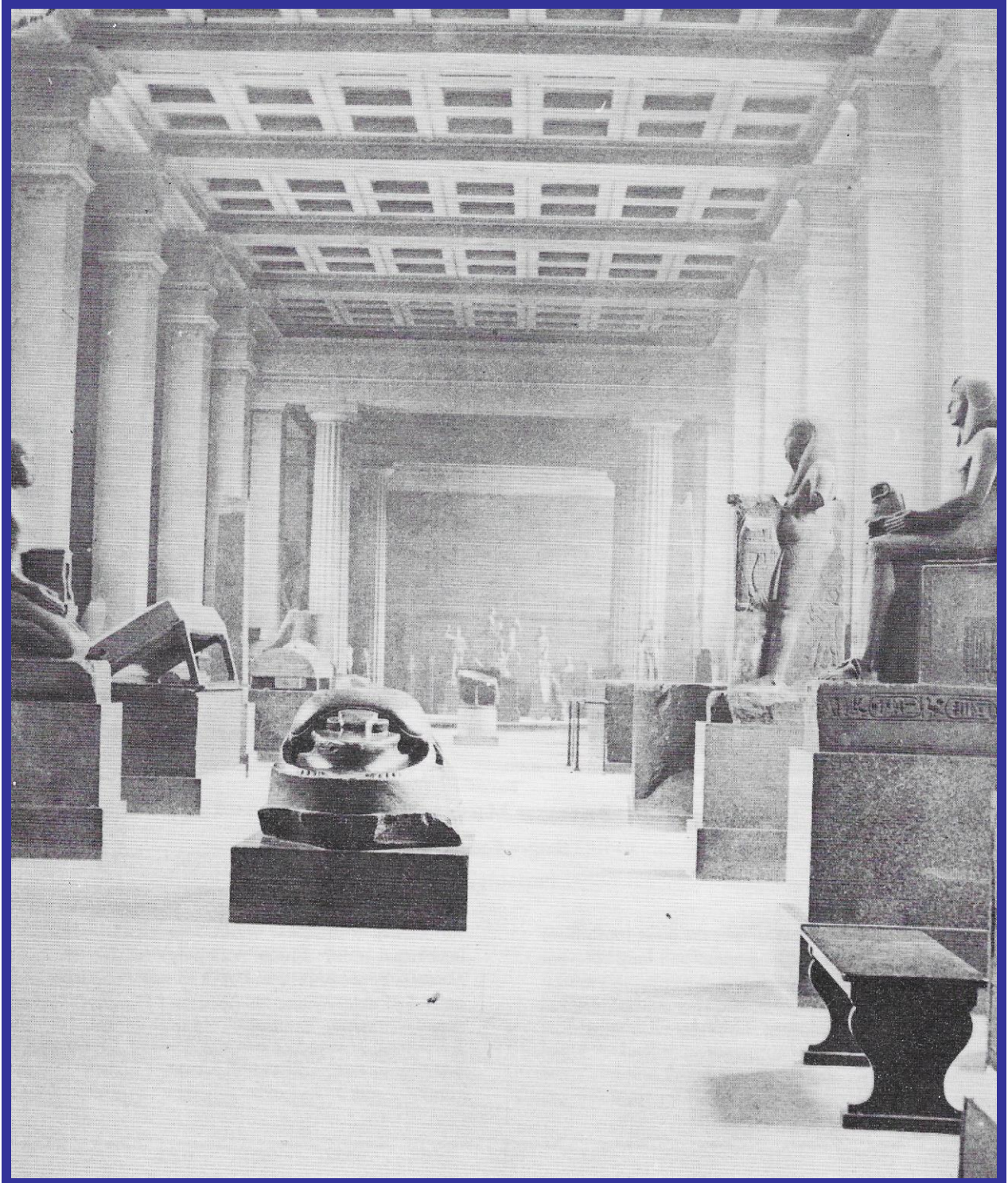
The designer was Sydney Smirke, Sir Robert's younger brother.

The building was 140 ft in diameter, of metal construction, the dome having three skins.

One report says the library "had a sophisticated ventilation system."

Hot water heating installed by G.N. Haden.

THE BRITISH MUSEUM EGYPTIAN GALLERY



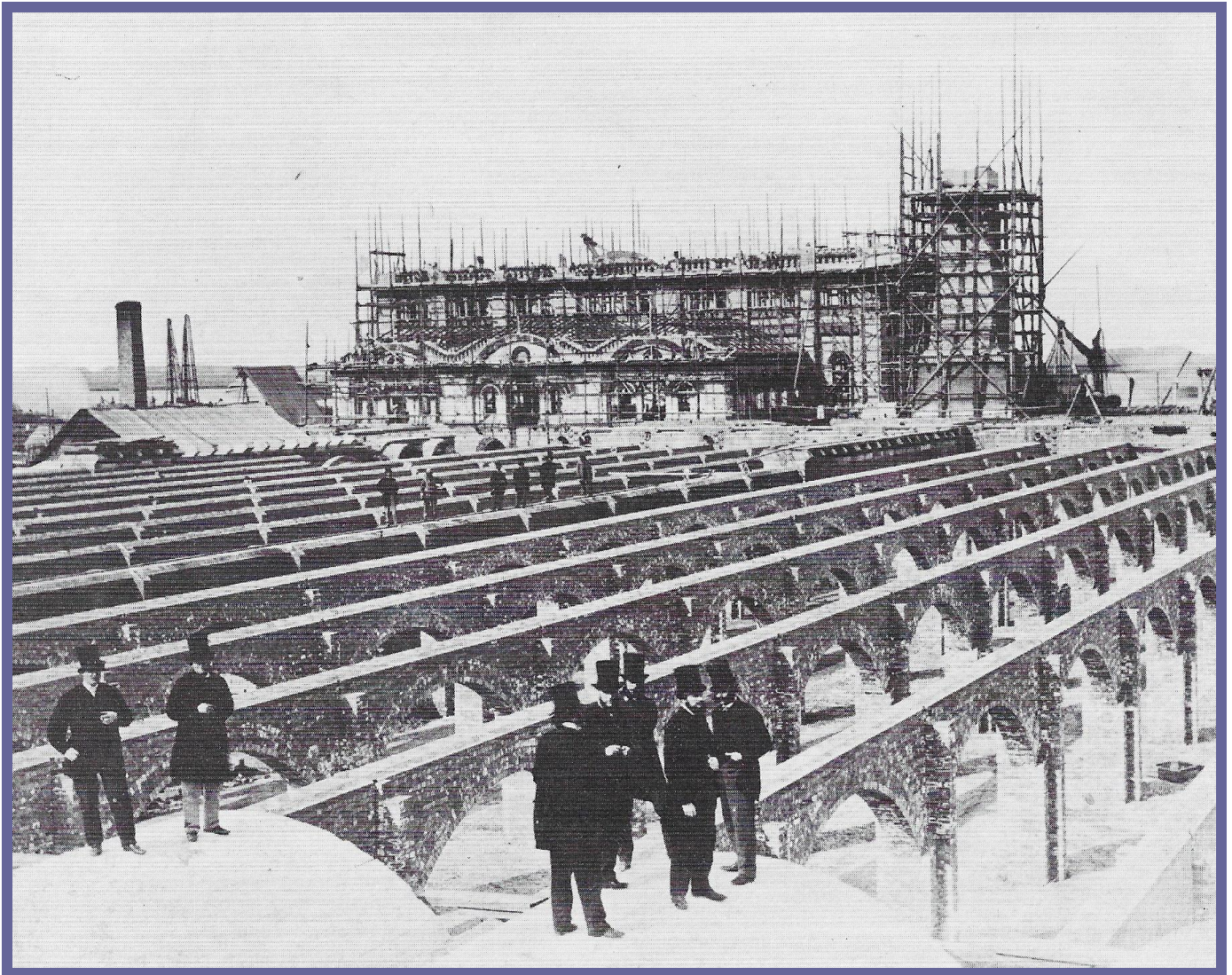
Photographed in the 1860s. Although partly finished in 1829, not completed until 1850.
Decorated to a design by Sydney Smirke "with a scheme dominated by Pompeian red."
In one opinion from the 1980s "the great room does not look so well today" after the 1970s when
"the substantial granite plinths were thrown away...and the Galleries were redecorated in a
uniform porridge colour."

COVENT GARDEN PIAZZA AND JAMES STREET



Photograph of 1877, taken shortly before the last surviving part of Indigo Jones's original design for Covent Garden

CROSSNESS PUMPING STATION



The sewage pumping works under construction, near Woolwich c.1864.

The station is the south London outlet into the River Thames of the Metropolitan Drainage System designed by Sir Joseph Bazalgette, and is at the east end of the London Outfall Sewer.

In the foreground are the filtration beds; in the background the pumping station and chimney under construction.

The four giant steam engines driving the sewage pumps are named **Victoria, Prince Consort, Alexandra and Albert-Edward**. These are all single-cylinder engines manufactured by the James Watt Company of Birmingham. The Prince Consort engine is fully restored and has been in steam regularly since 2002, driving a 47-ton beam with a 52-ton flywheel.

In 1972, the CIBSE Heritage Group visited and had a conducted tour which included the gigantic steam-engine-driven sewage pumps.

CROSSNESS PUMPING STATION



Opened by the Prince of Wales on 4 April 1865. As no Royalty can be detected in this photograph, it may be of another opening ceremony for members of the Metropolitan Board of Works and their wives.

THE HYDE PARK CRYSTAL PALACE



Photograph of 1851, when the Palace held the *Great Exhibition of Industry of All Nations*. Designed by Joseph Paxton (later Sir), Head Gardener at Chatsworth House in Derbyshire. Being a temporary structure, it was unheated, but a separate boiler house generated steam to power the operating exhibits in the Machinery Hall.

THE HYDE PARK CRYSTAL PALACE



The Great Exhibition closed on 11 October 1851, having attracted some six million visitors. Not allowed to remain in Hyde Park, it was dismantled by the contractors Fox & Henderson in 1852.

THE CRYSTAL PALACE AT SYDENHAM



Navvies on their dinner break c.1853, while re-erecting and extending the Palace.

This larger building was fully heated to Joseph Paxton's design, having 27 boilers and 50 miles of heating pipework. It stood in large ornamental gardens, the Palace being flanked by two tall water towers (designed by Brunel) feeding the parks fountains and pools. In 1866, the east transept was destroyed by fire and not rebuilt. In 1936, the whole building was consumed by fire (rumoured to have been started deliberately for the insurance). Brunel's towers were blown up at the start of World War II to avoid them acting as a landmark for German bombers.

THE INTERNATIONAL EXHIBITION BUILDING

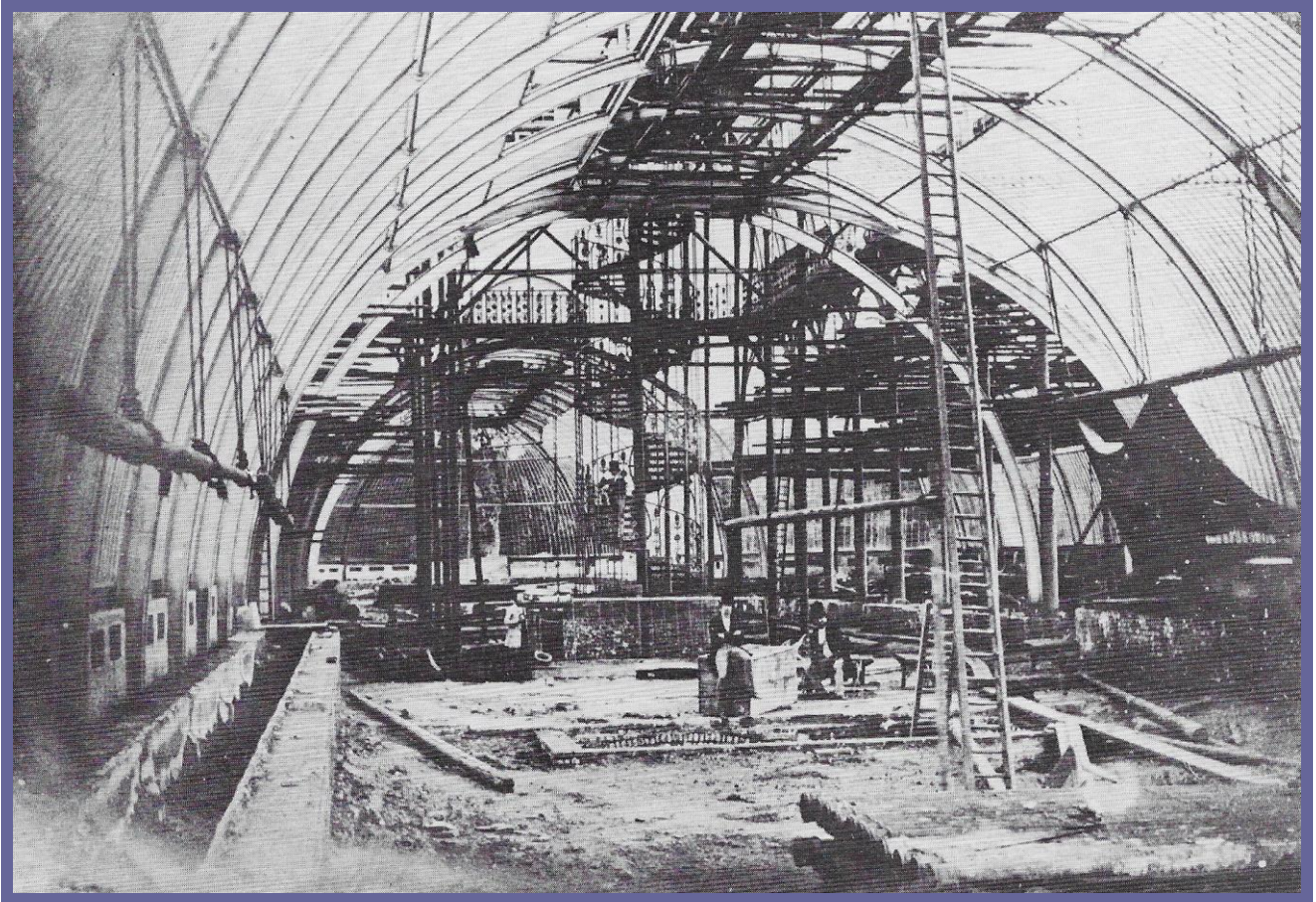


Photograph of under construction 1861, featuring the raising of a wooden rib for the Eastern Annexe.

Designed by Captain Francis Fowke of the Royal Engineers, the building constructed of brick, iron, timber, glass and stone was not so straightforward as the Crystal Palace. However, the number of visitors at 6 million was just as great.

There was also an exhibition of the latest steam boilers.

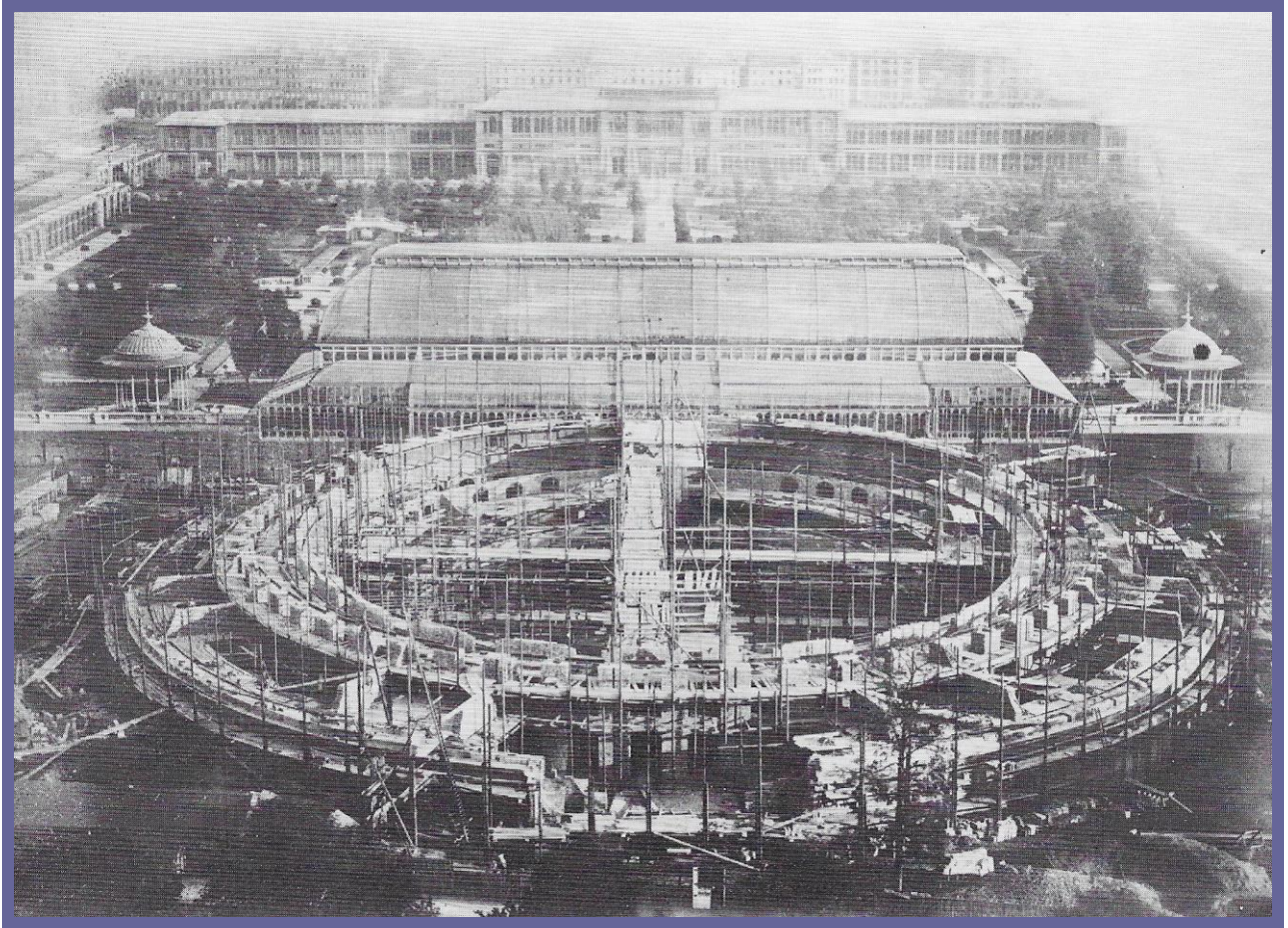
KEW PALM HOUSE



The interior of the Palm House in 1847. Designed by Richard Turner.

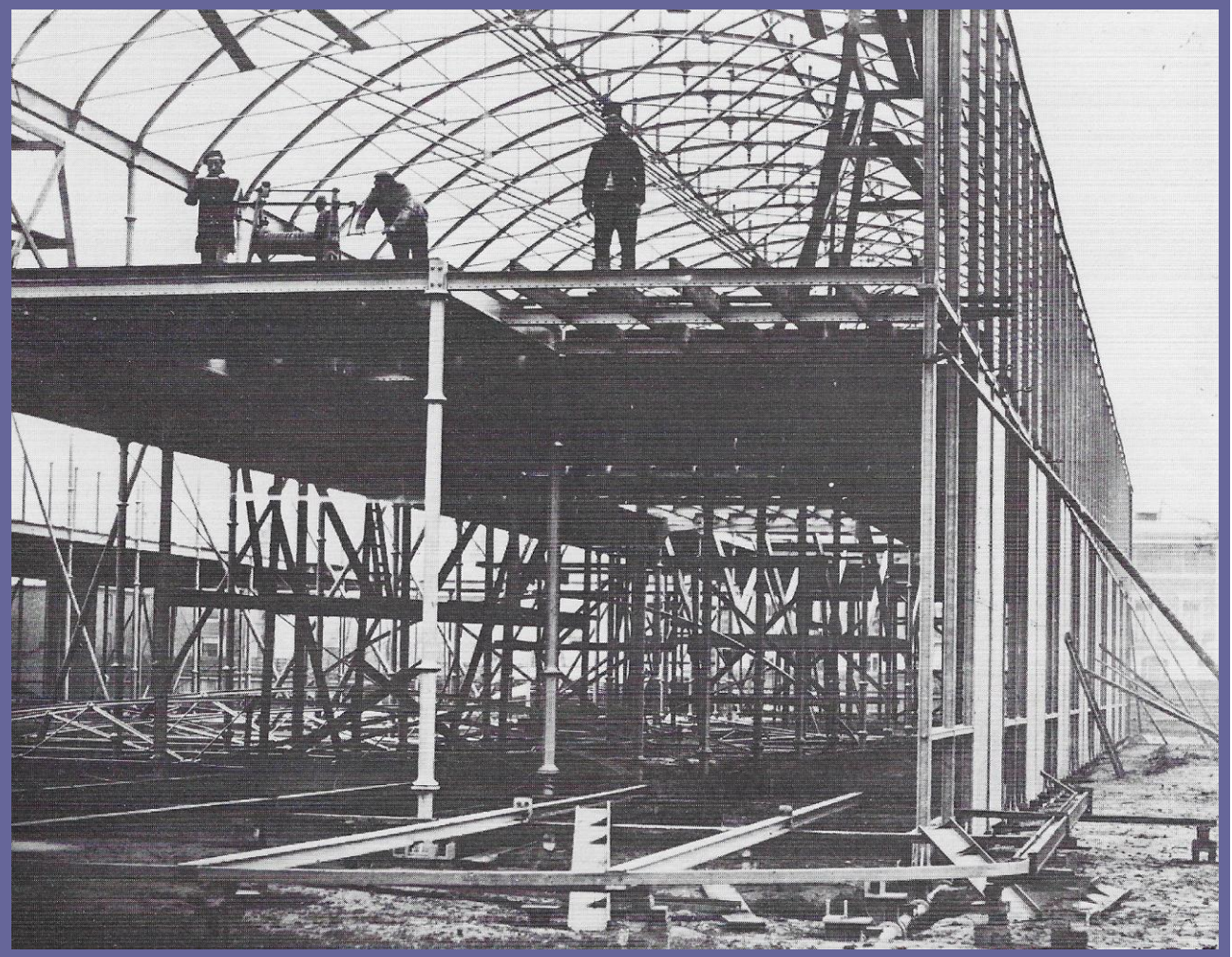
The photograph shows that the intended floor of cast-iron grating was not yet installed. The heating pipes were eventually to be installed under the floor. Unfixed lengths of heating pipes on the floors are also shown. The heating boilers, chimney and coal storage were located in a nearby boilerhouse.

THE ROYAL ALBERT HALL



The Hall under construction c.1868. It was designed by Francis Fowke and Henry Scott.
The building had an elaborate system of fan-assisted heating and ventilation by
Wilson Weatherley Phipson,

SOUTH KENSINGTON MUSEUM



Photographed under construction in April 1856.
This was a prefabricated iron structure made by C.D. Young & Co. of Glasgow.
The South Kensington Museum later became the Victoria & Albert Museum.

THE CHURCH OF ST. MARY ALDERMARY



Photograph 1871. Location Victoria Street.

ST. PANCRAS STATION RAILWAY STATION



St. Pancras Station under construction c.1866-7.

THE VICTORIA TOWER

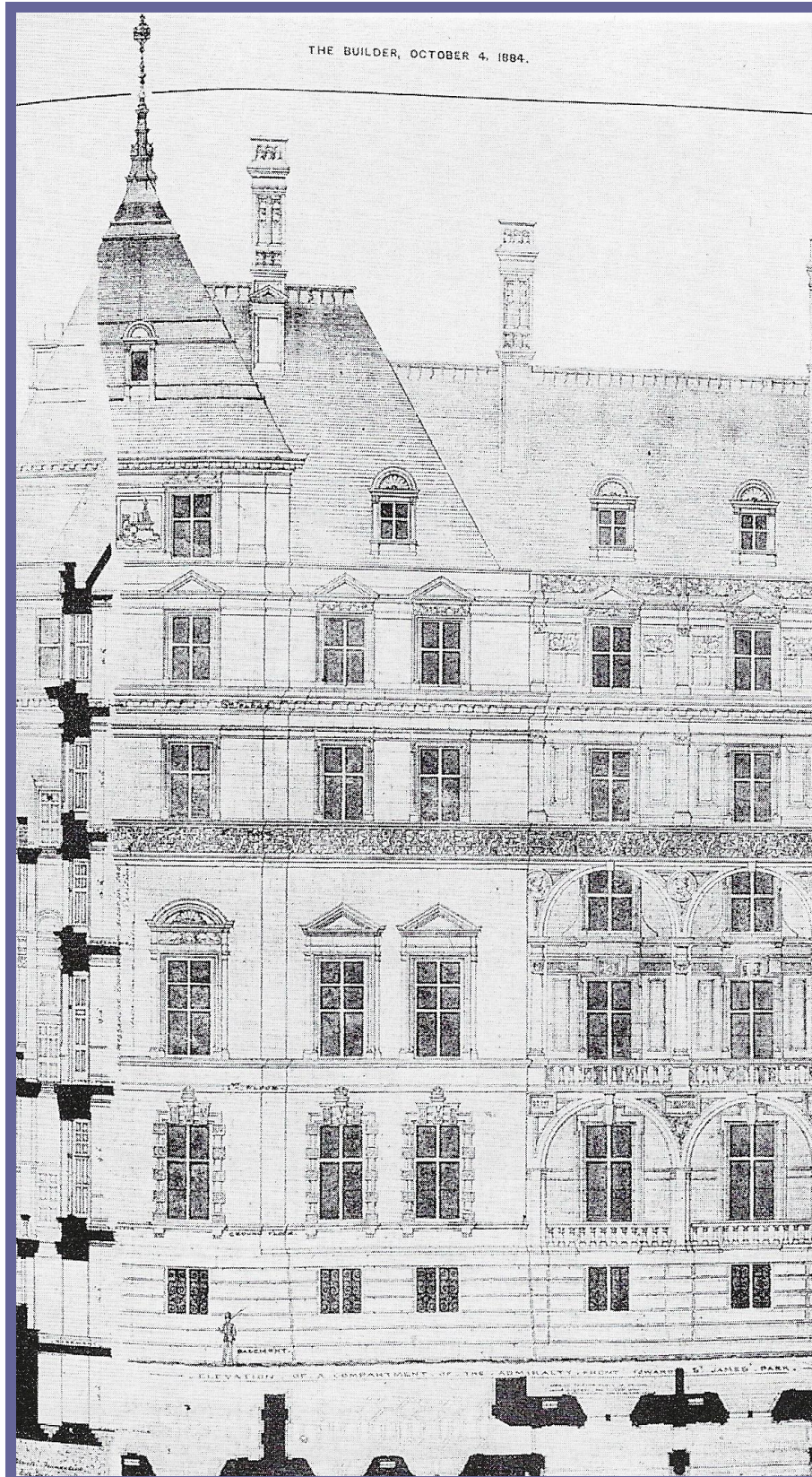


The Victoria Tower, Palace of Westminster c.1861. Architect Sir Charles Barry.

The CIBSE Heritage Group has toured the Tower, even been on the roof for the magnificent view and shown a sample of the historic parchment documents in the Parliamentary Archive.

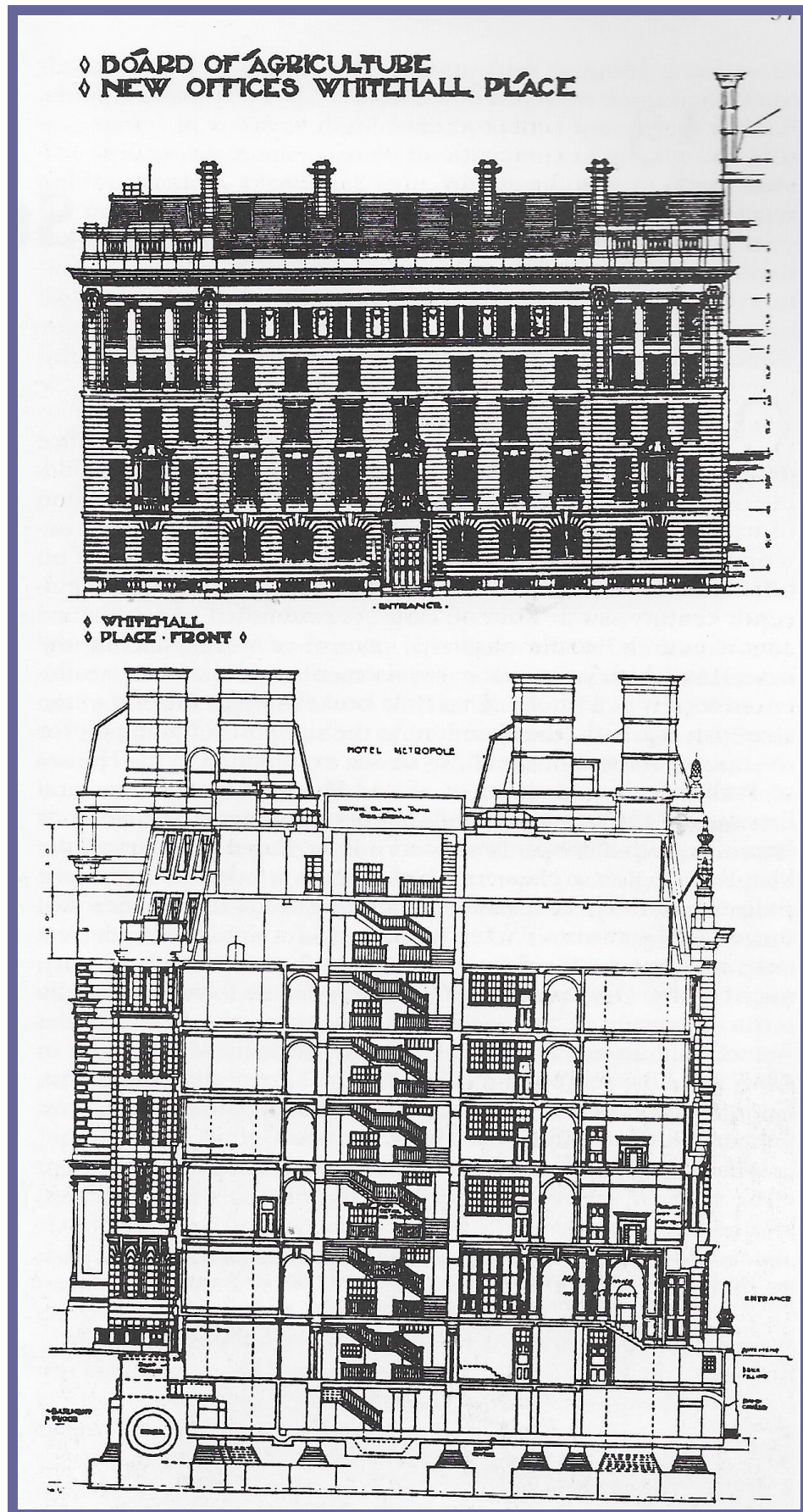
IMPERIAL LONDON 1851-1915

ADMIRALTY AND WAR OFFICE



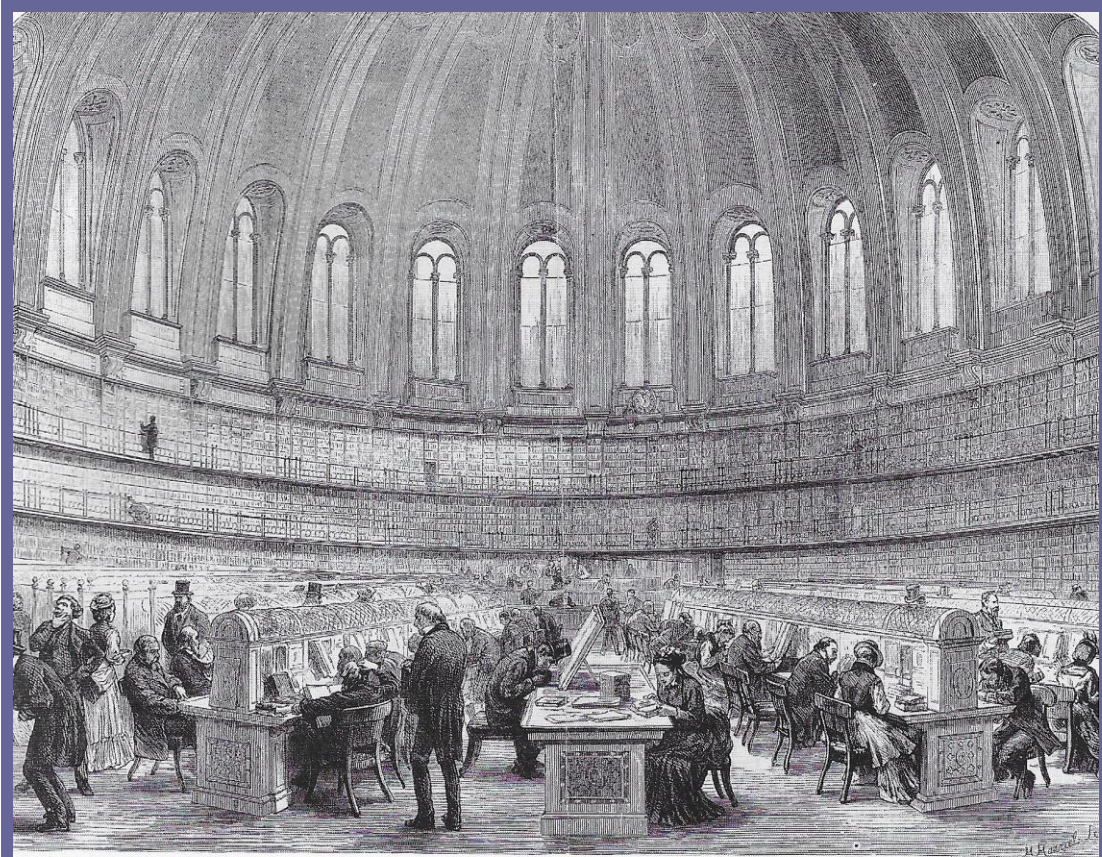
Competition entry of 1884.

BOARD OF AGRICULTURE



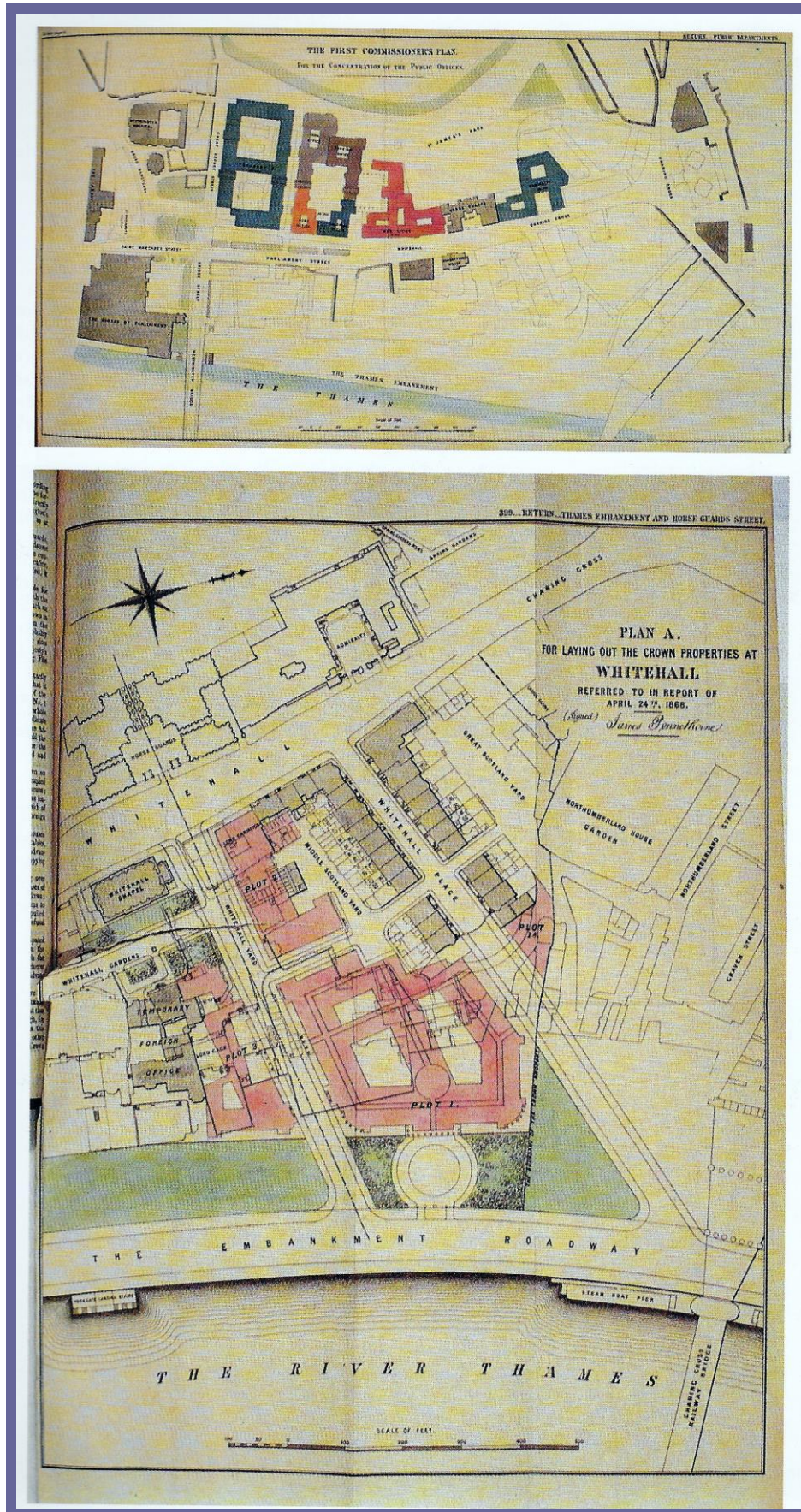
1912-14, Whitehall Place. Architect H.V. Hawkes of the Office of Works. Built of reinforced concrete and 7 floors above pavement, first in Whitehall to top 100 ft.

BRITISH MUSEUM



- (a) The circular Reading Room, completed 1857. Architect: Sydney Smirke. Heating by Haden.
(b) The Egyptian Gallery in the 1850s.

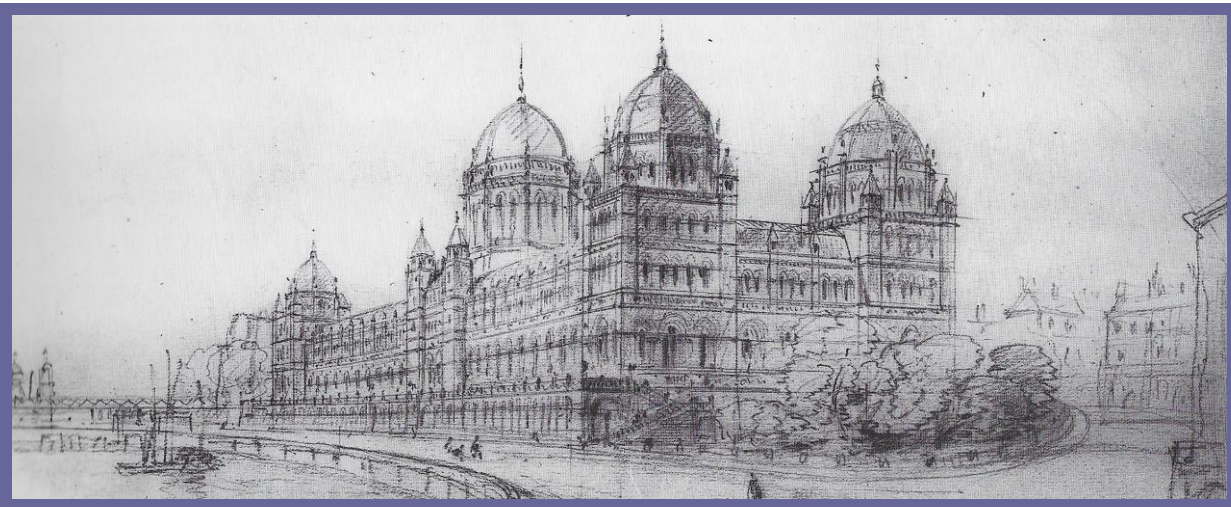
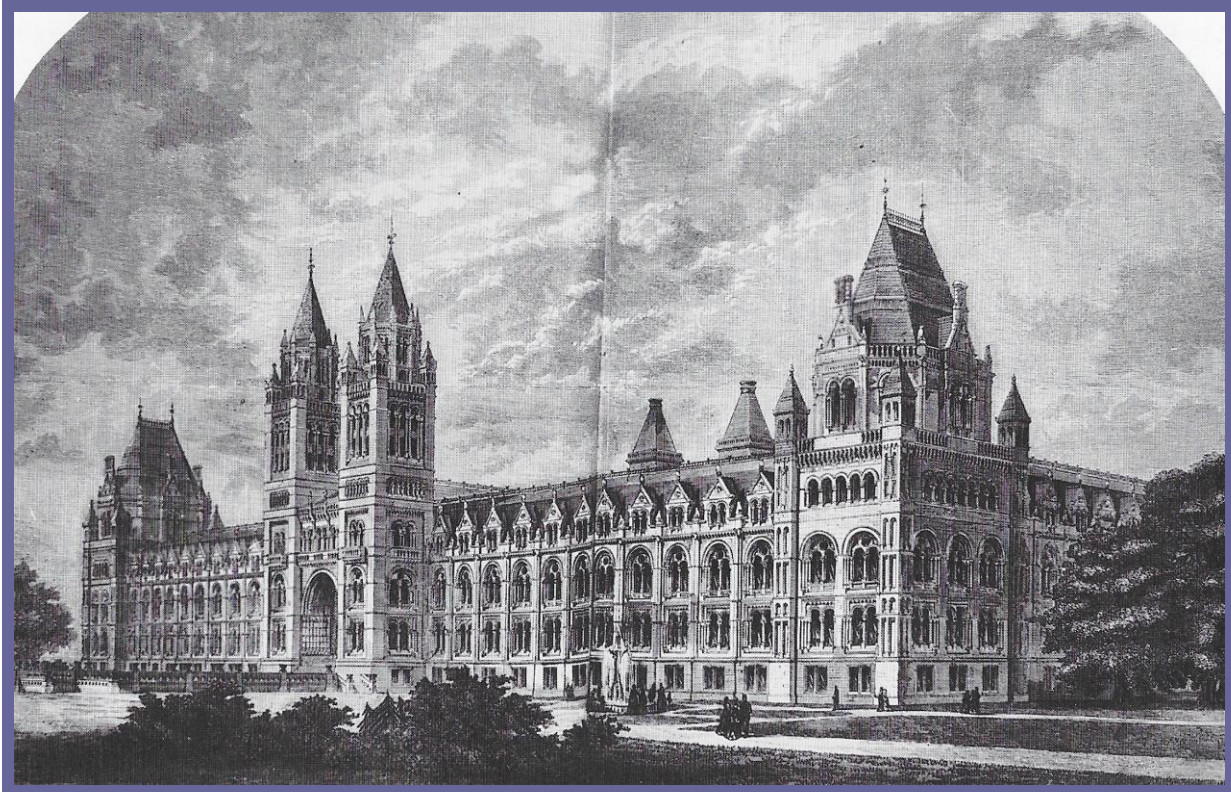
GOVERNMENT OFFICES



(a) The First Commissioner's Plan 1868.

(b) Sites for Laying Out the Crown Properties at Whitehall "above the Embankment" 1868.

NATURAL HISTORY MUSEUM

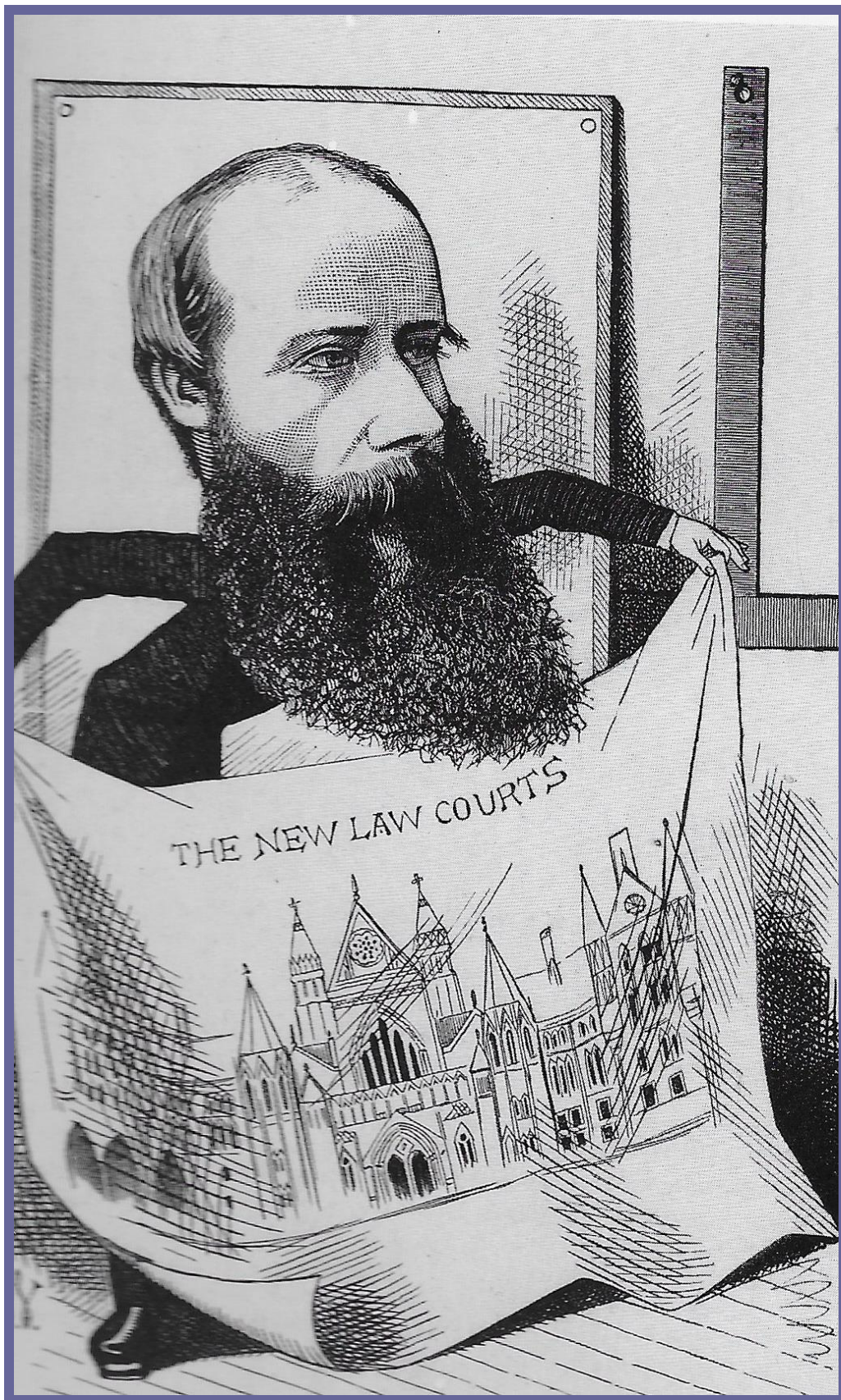


Designs by architect Alfred Waterhouse.

- (a) Scheme for South Kensington.
- (b) An original more grandiose scheme for building on the Embankment (not adopted).

The Museum was built 1873-80.
The heat-assisted ventilation system was designed by Wilson Weatherley Phipson.

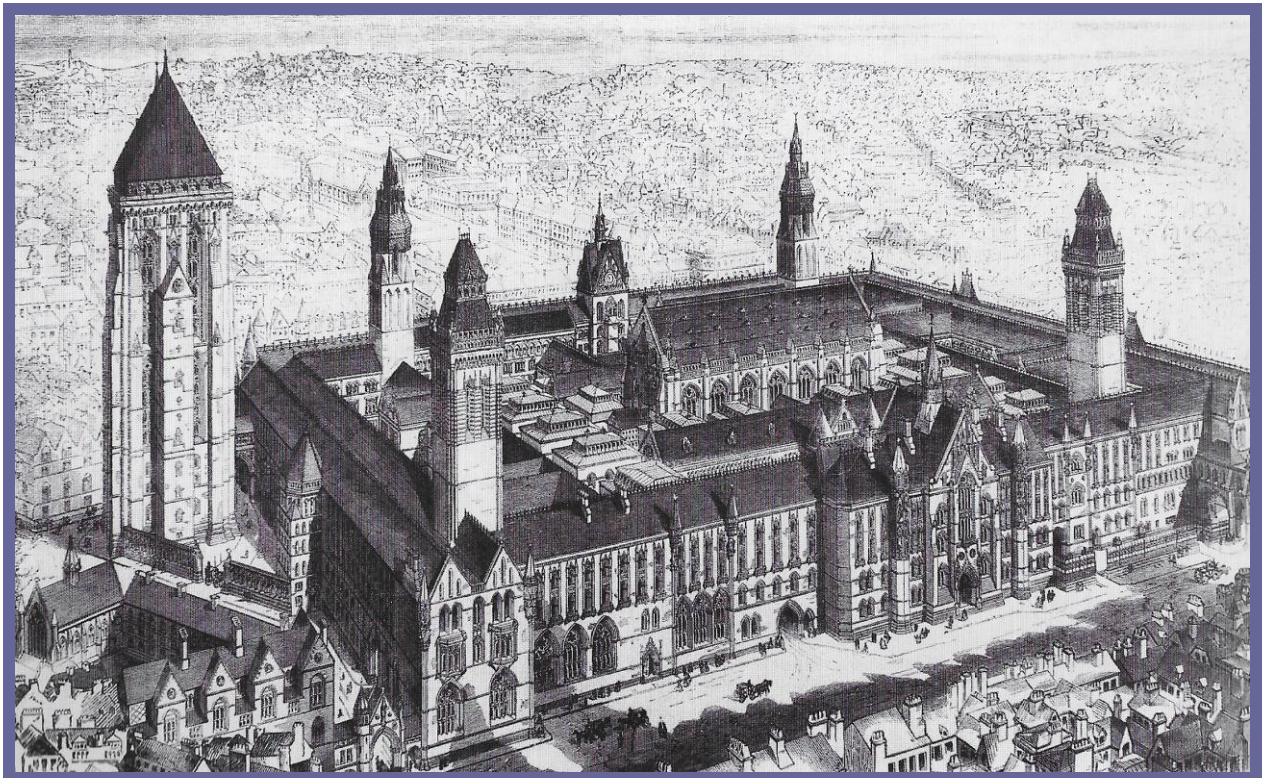
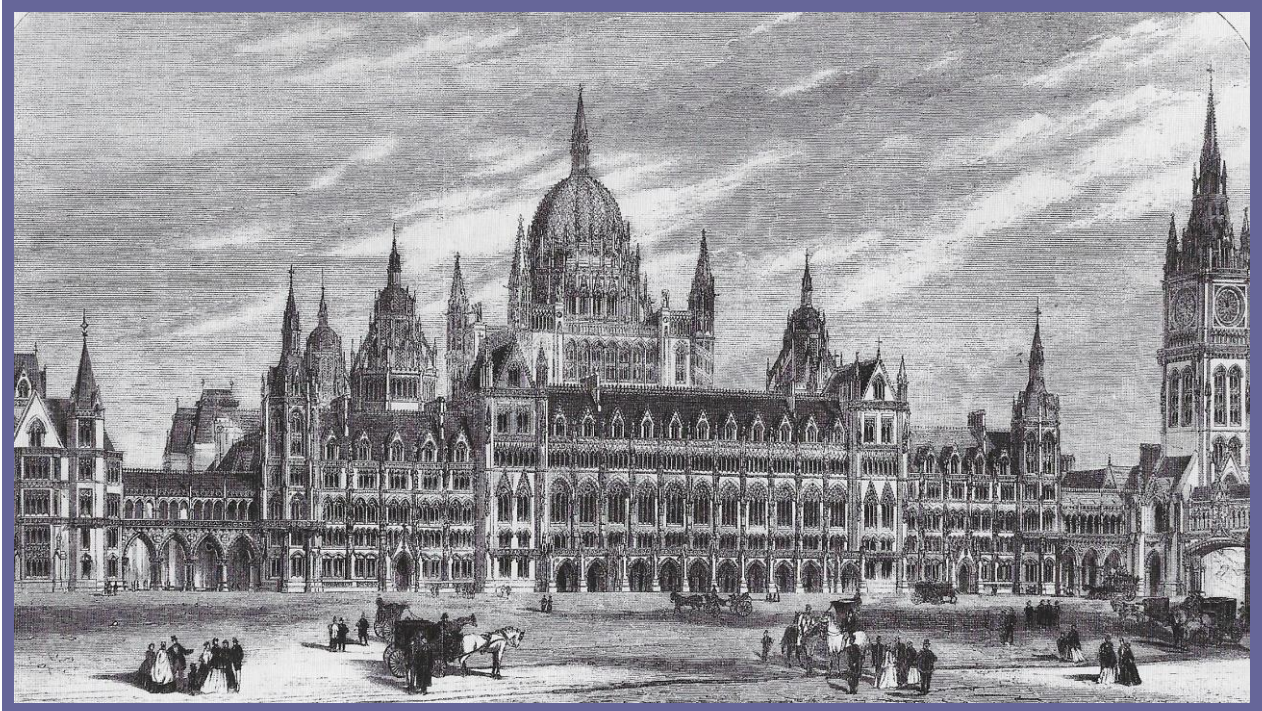
NEW LAW COURTS



The architect George Edmund Street (1824-81). Awarded joint First Prize, with E.M Barry, in a limited competition for the project, he was appointed in 1868 as architect by the First Commissioner. The Courts were built 1874-1883.

One report suggests that some heating and ventilation was carried out by Rosser & Russell in the 1870s while later (?) heating was installed by Haden.

NEW LAW COURTS



(a) Competition entry of 1866-77 by E.M. Barry.

(b) Winning competition entry of 1866-77 by G.E. Street.

Initially, Barry and Street were appointed jointly as architects resulting in much argument and competing claims, solved by appointing Barry to design the National Gallery and Street the Law Courts.

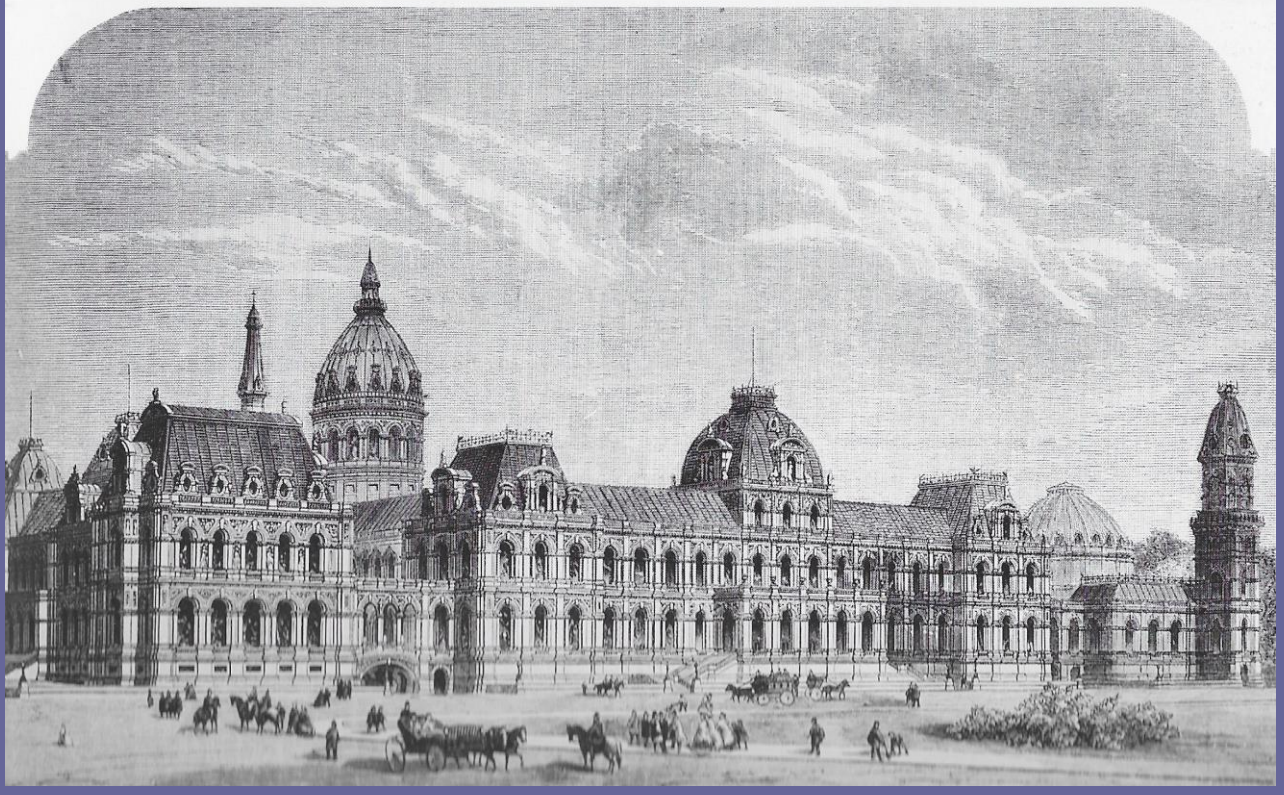
PALACE OF WESTMINSTER



The building had been largely destroyed by fire on 16 October 1834.

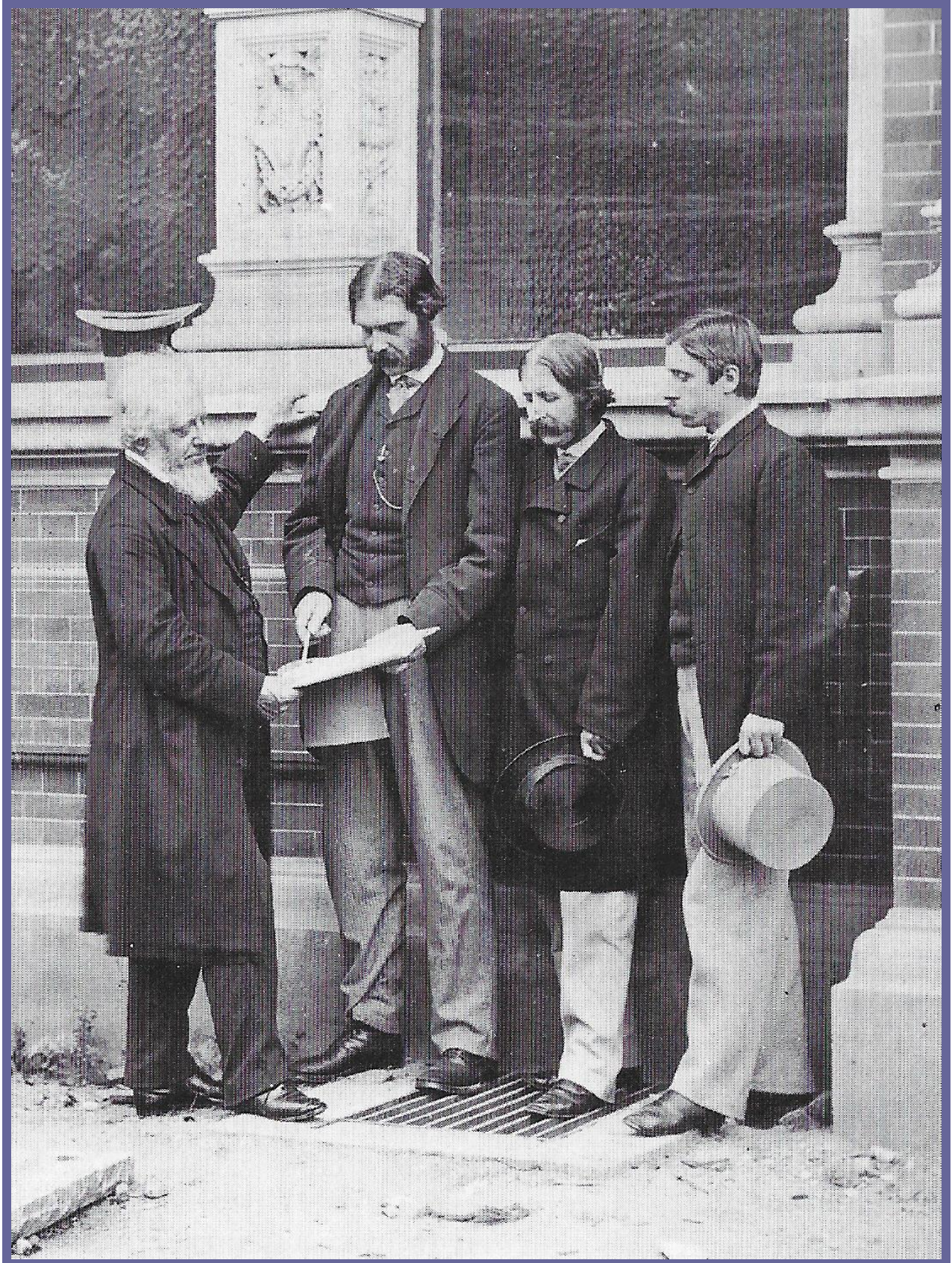
- (a) The Palace of Westminster (Houses of Parliament) and the builder's wharf at Millbank c.1856.
(b) Barry's design for completing the New Palace at Westminster.

SOUTH KENSINGTON MUSEUM



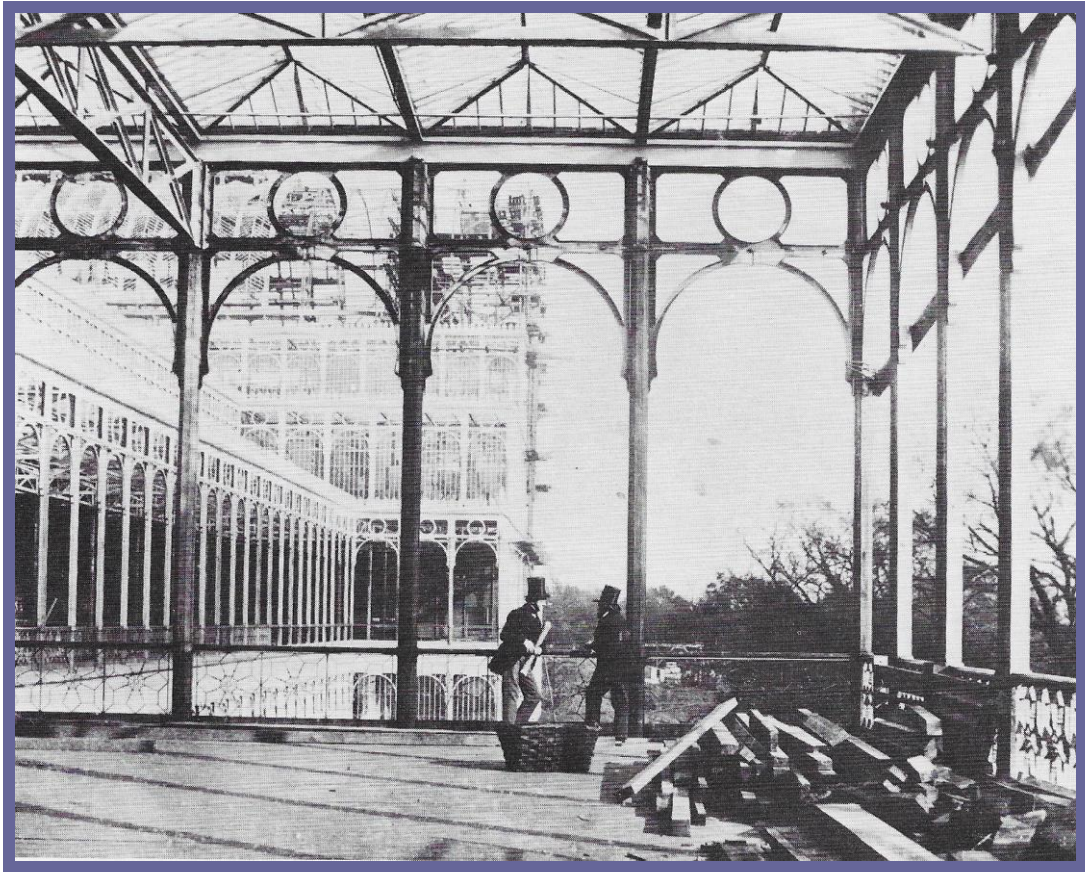
- Competition designs for Museums at Kensington 1864, to provide for
Natural History, Patents and Ship's Models.
- (a) First Prize: Captain Francis Fowke RE.
 - (b) Second Prize: Robert Kerr.

SOUTH KENSINGTON MUSEUM



Site meeting at South Kensington Museum, c.1864.

From the left: Henry Cole (1808-82), the powerful secretary of the Department of Science and Art, holding a plan with Captain Fowke RE, the museum's architect; Godfrey Sykes designer of much of the architectural detail: and (?) John Liddell, a draughtsman who later claimed credit for Fowke's designs.



The Crystal Palace being re-erected at Sydenham c.1853.

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Just two of the statues of prehistoric monsters in Crystal Palace Park.