



THE NATURAL HISTORY MUSEUM :

The Evolution of The Grounds and their Significance

February 2011

DRAFT

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1.1 The Trustees have instructed this report from Montagu Evans LLP, and it has been prepared by and under the direction of Dr Chris Miele, a partner in the planning and development department who specialises in heritage matters. Dr Miele prepared the conservation plan (June 2003) for the Museum previously and is therefore very familiar with the site's cultural significance. The conservation plan did contain information on the grounds, though of a summary nature.

1.2 Since the preparation of the plan, the Museum has been through two masterplanning exercises, out of which has come a wider grounds strategy.

1.3 We understand the objective of the masterplanning work is to make the best use of the grounds as a whole. The purpose of this report is to provide an independent assessment of the grounds' historic development and its significance in line with PPS5 advice.

1.4 The Museum has instructed this study in order to:

- Understand the relationship of the current grounds layout with earlier landscape schemes (notably that of the Royal Horticultural Society);
- Confirm through research in primary sources (cited at the end of this study and throughout at apposite points) the architect's original intentions for the layout of the grounds;
- Document subsequent changes to these layouts and explore the intentions behind those changes, which have been significant;
- On the basis of the above, and professional judgment taken together with experience of C19 architecture and garden design, to assess the significance of the grounds with reference to best practice and policy, specifically English Heritage's *Conservation Principles (2008)* and *Planning Policy Statement 5:*

Planning for the Historic Environment 2010);

- As advised by best practice to prepare a statement of significance for the grounds;
- It is understood that this report could be used in discussions with the local planning authority, statutory consultees and interested parties, and so eventually form the basis of design development and applications for changes to the area. The Museum were also explicit that they requested an independent assessment, on the basis of historical and other evidence and professional analysis by an expert in this area. Accordingly, the appendices to this report include information on the background and expertise of the people who prepared it;

- The research was undertaken by Dr David Evans, on the basis of a brief which reflects items 1, 2 and 3 above. Dr Evans' CV and list of publications is also reproduced in the appendices to this report. The report was prepared by Dr Chris Miele, a Partner in the Planning and Development Team at Montagu Evans. Dr Miele specialises in heritage matters and his qualifications and experience are set out in the enclosures along with a list of publications.

1.5 As noted, in preparing the Plan, there was no detailed research into the history of the grounds and their evolution. The information in this document, then, supersedes the relevant sections of the Plan (for example, at paras 2.4 and 2.5, which comments on the layouts shown on early plans and maps). Already by this date, 2003, the inadequacy of the design and layout of this area was highlighted. The Plan commented – for example at para 4.3 and again at 5.2.6 – that the grounds provided a surrounding open area, and that the greenery combined with the setback from the road enhanced the picturesque effect of the building. Today it is that contrast between the colour and variety of the terracotta form, taken together with the softer natural forms of planting, which is pleasing rather than any particular landscape layout.

1.6 The Plan did not attribute any significance to the current layout and it was not analysed at any length in that context. The Plan did, however, recognise that the use and layout of the space was an issue that needed consideration in the medium term.

Summary of Findings

1.7 The Natural History Museum [NHM] site as a whole occupies the southernmost portion of the site created, and first developed for the International Exhibition of 1862. There is, however, no relationship between the layout of that exhibition area and the Museum's eventual design and layout.

1.8 Likewise, there is no relationship between Alfred Waterhouse's proposals for the layout of the grounds of the Museum and the gardens of the Royal Horticultural Society (which were created in the late 1860s following on from the International Exhibition). An OS plan of 1871 shows those gardens laid out to their fullest extent as a self-contained piece consisting of a combination of picturesque paths and orchards and more formal avenues.

1.9 Waterhouse's first perspective illustrations for the eventual building were published in the Builder Magazine of 4 January 1873. This shows the building eventually, more or less, constructed in a very open landscape setting which was completely fabricated. The artistic licence in this view was adopted to deal with the very tight constraints of the site – which was located in amongst a rapidly developing late-Victorian suburb. These views do not even show the significant level of difference between the Waterhouse site and the surrounding footways. As such the landscape shown in this perspective was merely indicative, as was commonplace in illustrations from this mid Victorian period.

1.10 Waterhouse's first plan for the Museum is dated 6 November 1873 and it shows a very geometric layout of paths with more elaborate features at the corners of the site. This layout was essentially generated by the regulated lines of the building and the surrounding

roadways. This network of paths was never intended to provide general public access or function as a "public park", although the basic armature of the plan is redolent of municipal landscape scenes from the late C19.

1.11 Notwithstanding remarks on landscape design Waterhouse later made in an address to the RIBA, the 1873 scheme is extremely standard in its conception and without any particular refinements. It does not take into account the level of change particularly (for example the embankment is not even indicated on the 1873 plan). Neither does the path network integrate gracefully with the curving ramp features for such and important part of the Museum today. These proposals were not executed and the next series of drawings date to 1879.

1.12 There is a plan of January 1879 prepared by Waterhouse and which elaborates, essentially, on the 1873 plan. Now the proposals for planted beds are elaborated and there are ornamental pools or fountains at either end. There is also, for the first time, an indication for how the embankment would be treated by means of shrubbery beds (having a splayed arrangement to deal with the level change) interspersed with trees. This boundary treatment, in essence, is what survives today. This proposal also shows a line of trees planted immediately south of the main façade of the Museum, in addition to those more usual ornamental beds that one expects to find in public parks from the late-Victorian period. The embankment landscaping is standard.

1.13 Waterhouse himself suggested a range of plantings for this scheme. This plan was sent to John Gibson, the Superintendent of St. James's Park, Green Park and Hyde Park, as well as Kensington Gardens.

1.14 Gibson, the Park Superintendent, then prepared his own plans. One of February 1879 shows a very different arrangement of paths with a far higher proportion of greensward to pathway. Another, a month later, elaborates the theme.

- 1.15 The proposals then reverted to the basic structure set out by Waterhouse in 1873 and elaborated in 1879, with Gibson providing a more detailed planting plan. However, in the summer of 1879 the Commissioner of Works did not approve of the fountains shown by Waterhouse and instructed that these become flower beds and, on that basis, Gibson, who reported to the Commissioner, produced a planting plan based on Waterhouse's scheme. This was never realised due, it appears, to funding restrictions.
- 1.16 It appears, then, that, notwithstanding the very simple sketch plan which Waterhouse prepared in 1873, his intention had been to provide ornamental flower beds and fountains of a kind associated with Victorian municipal planting, even though public access to these routes was not generally encouraged.
- 1.17 In any event, no formal beds or fountains appear to have been executed, and Waterhouse's path network was denuded of its intended ornament. It became merely an area where paths frame open greensward. The whole is then an unfinished Victorian municipal park.
- 1.18 In the 1880s the western grounds were completely redesigned around a series of curving, picturesque paths which were heavily planted, giving that part of the site the landscape character it retains to this day.
- 1.19 The 1894 OS plan shows that 1873 armature surviving more or less intact to the eastern grounds (albeit with a stand of trees indicated in the centre of the geometric quadrant).
- 1.20 The intended symmetry of the landscape designed for the eastern and western grounds was undermined very early in its history, just as Waterhouse's intentions for very intensive ornamental planting were frustrated. The remnant of Waterhouse's intended layout was further eroded in the C20 by the construction of buildings on the eastern grounds – including, most recently, the Palaeontology Wing which has significantly eroded the original pattern of pathways.
- 1.21 The gradual utilisation of the land area to either side of the Museum was, in effect, anticipated by a series of administrators who had always felt that the NHM site had been too severely constrained from the very start.
- 1.22 The current subway access was projected as early as 1872, and again in 1878 whilst the Museum was under construction – in response to an approach from the General Manager of the Metropolitan Railway who wrote the Trustees of the Museum asking if they had any objection to the construction of a pedestrian subway to pass under Exhibition Road. The Trustees did not object, but also did not contribute any financial assistance to the project (as the Director of the railway had hoped they would). The tunnel was largely complete by 1885, but providing an entrance from it to the NHM grounds took a very long time and was not made until finally in 1910. The point of access was simply an extension of one of the Waterhouse pathways. Thus there appears to have been no intentional relationship between that subway access (which is very commonly used today) and the layout of Waterhouse's path network – rather the connection appears to have been expedient on the basis, presumably, of site constraints and opportunities presented to the engineers of the Metropolitan Railway.
- 1.23 Overall then, this report concludes that Waterhouse's original conception for the eastern and western grounds was never realised. In place of the highly ornamented municipal parkland which he envisaged (a dense network of paths with extensive ornamental beds in strict geometric patterns) only the armature of this layout was realised (just paths and greensward). This explains one of the oddities of the grounds today – the fact that there is a clear network of paths but which do not have any particular function by way of framing vegetation, ornamental plants or bedding.
- 1.24 Waterhouse's denuded layout was implemented, but then significantly changed with the redesign of the western grounds (which achieve their current form by the early 1890s). In the C20 pressure on space and the need for more buildings has altered these spaces. The Palaeontology Wing significantly altered the northern portion of the remnant of Waterhouse's partially implemented landscape design.
- 1.25 The concluding section of this report considers, then, on the basis of this historic analysis, what cultural significance may be attributed to the grounds.
- 1.26 First, there is clearly evident today Waterhouse's intentional relationship for the boundary treatment of the site – consisting of shrubs and mature trees. His design intention for the landscape was never realised – hence its aesthetic significance is extremely limited and its historic, or evidential value even more so because of the extent of alteration which has taken place. Furthermore, the evolution of this landscape area is very well documented in historical sources; so the physical evidence which is there today does not constitute a unique record.
- 1.27 As for communal value, the eastern grounds clearly are popular with visitors, but then this has nothing in particular to do with the landscape layout which is there at the moment. It is clear from observation that people sit where they wish to sit and don't necessarily respect paths or other alignments. In other words, any space in this situation would have some communal value – merely by virtue of being open space in association with a major cultural institution which enjoys occupancy of a very splendid building.
- 1.28 The high maintenance plantings proposed by Waterhouse never found favour and, in many ways, would have sat very oddly against a building of such striking and individual character. It is not surprising, all things considered, that a more naturalistic arrangement was adopted for the western grounds as this appears both to sit more easily with the architectural language and picturesque detail of the main building and, also, clearly, to have required less maintenance than the very intensive ornamental scheme which Waterhouse projected. Although Waterhouse did remark later, several years after he had left this site, on the interest of landscape design for architects, there is no evidence to suggest he took particular care with the design of these spaces which were projected to have a layout which was typical for this period.



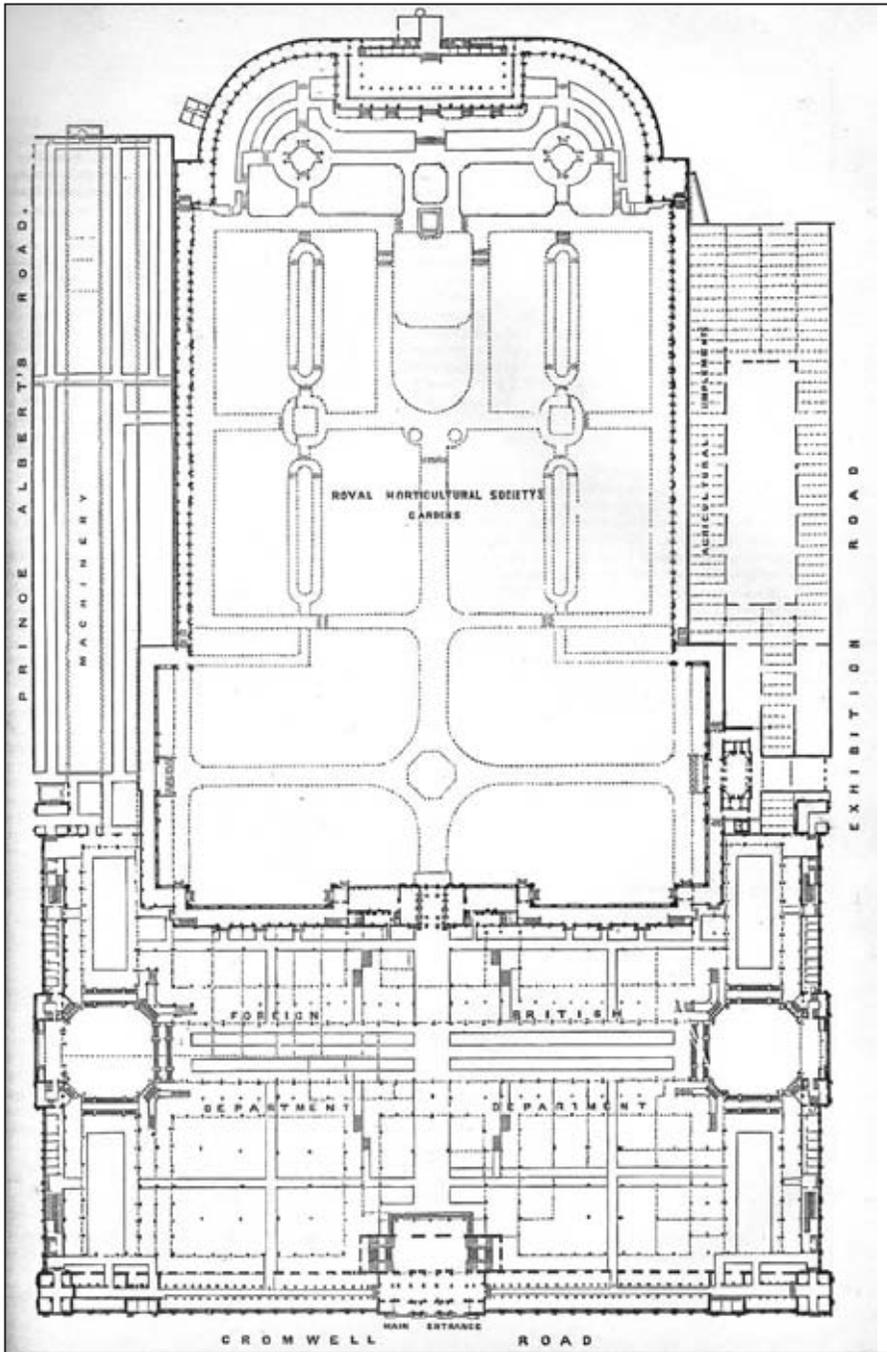


Figure 1. The Record of the International Exhibition, 1862. Glasgow 1862



Figure 3. From Girouard

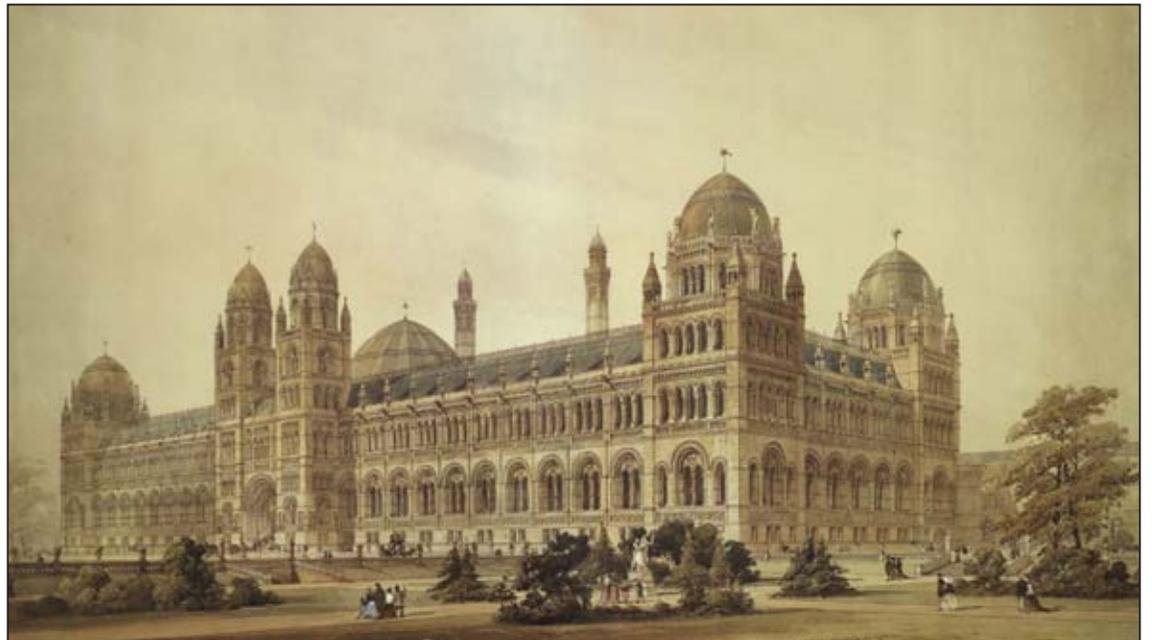


Figure 4. RIBA 1952/WAT A(7)17. Dated by RIBA as 'possibly 1869'

- 2.1 A large landscape garden existed in South Kensington before the NHM was built. This was maintained by the Royal Horticultural Society, and was opened in 1861. As such, it lay directly to the north of Captain Fowke RE's building for the International Exhibition of 1862. (Figure 1) It was flanked by exhibition galleries and terminated just south of the Albert Hall. The plan shows a very formal layout but the planting was much less formal, as seen in a lithograph published in 1862 by Day and Son. (Figure 2)
- 2.2 This also shows the north façade of Fowke's building and two bandstands also designed by him. Unlike the main building, these were not demolished and were re-erected in other London parks.
- 2.3 The Exhibition building faced the Cromwell Road without any intervening garden, and occupied the entire width of the grounds lying between Prince Albert Road and Exhibition Road. Unlike Paxton's building of 1851, nobody thought very much of Fowke's design and it was demolished in 1863. The site was acquired for a museum complex, and as a result of a competition of 1864 a design by Fowke was again selected. (Figure 3) He died the next year and Alfred Waterhouse was appointed to

carry the project through. Only the Natural History Museum part of the complex survived a cost-cutting exercise and Waterhouse consequently produced a new design. The perspective shown in Figure 4 (dated by RIBA to 'possibly 1869') shows the grounds as planted with bushes and trees in clumps, and was probably just as conventional a surround for Waterhouse as blue skies and people seated at café tables are in today's perspectives.

Figure 2. TNA WORK 33/1251



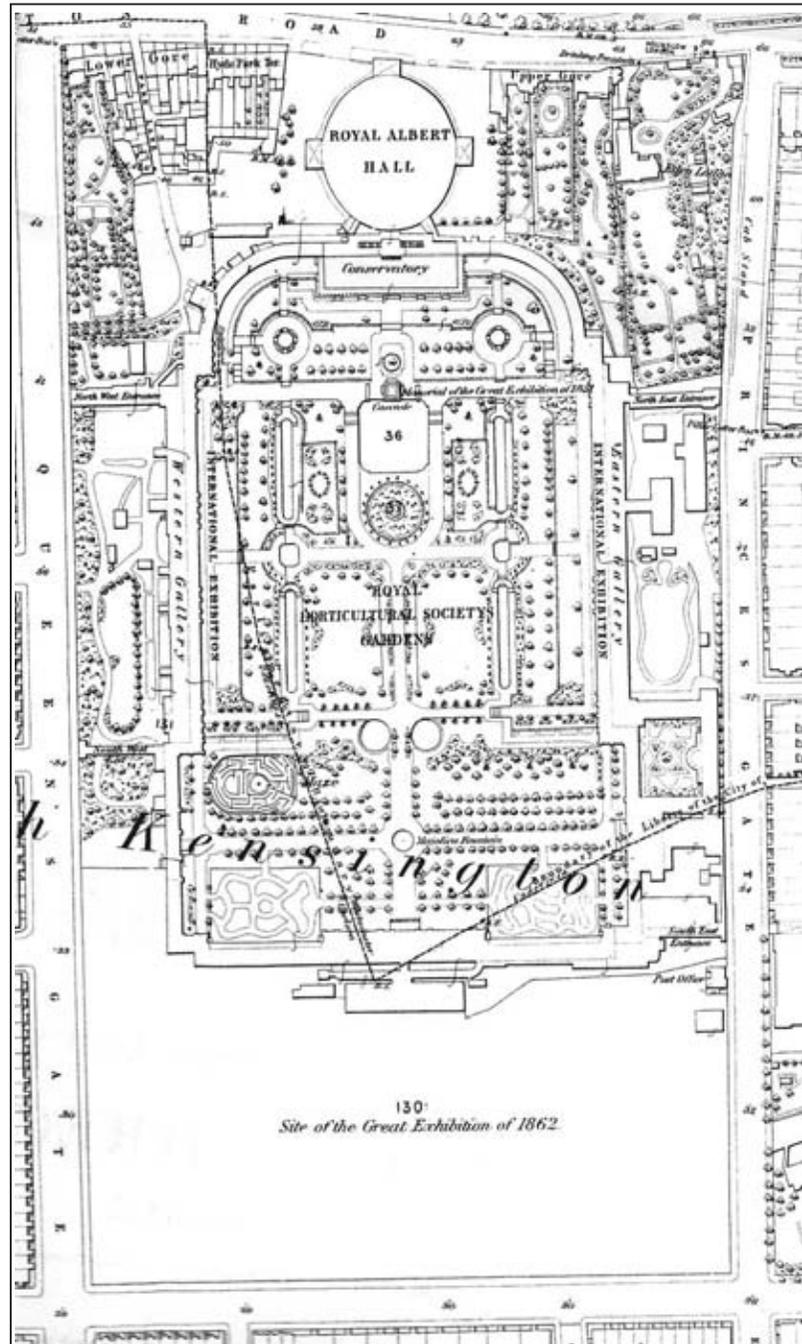


Figure 5. 1871 OS

- 2.4 It is interesting to note that these perspectives generally give a misleading impression of the buildings in relation to the surrounding land. The significant level difference between the footway/pavement level and the grounds themselves was not portrayed in any detail. Waterhouse's own published perspective take the same artistic licence, as we shall see.
- 2.5 This early museum conception was not executed. That was due to the cheeseparing attitude of the Commissioner for Works, who relentlessly cut the budget from £500,000 to £330,000. As a consequence, Waterhouse designed a smaller building which did not occupy the whole site, trusting that funds would eventually materialise for the whole site to be built on. That never happened. The 1871 OS (Figure 5) shows the tabula rasa of the available site, with the RHS gardens now well established to the north and featuring, among other attractions, a maze. This anticipation that more of the site would be built on, and a larger site too, may explain why the layout for the landscape came later and was, relative to the taste of the day, standard in its conception.



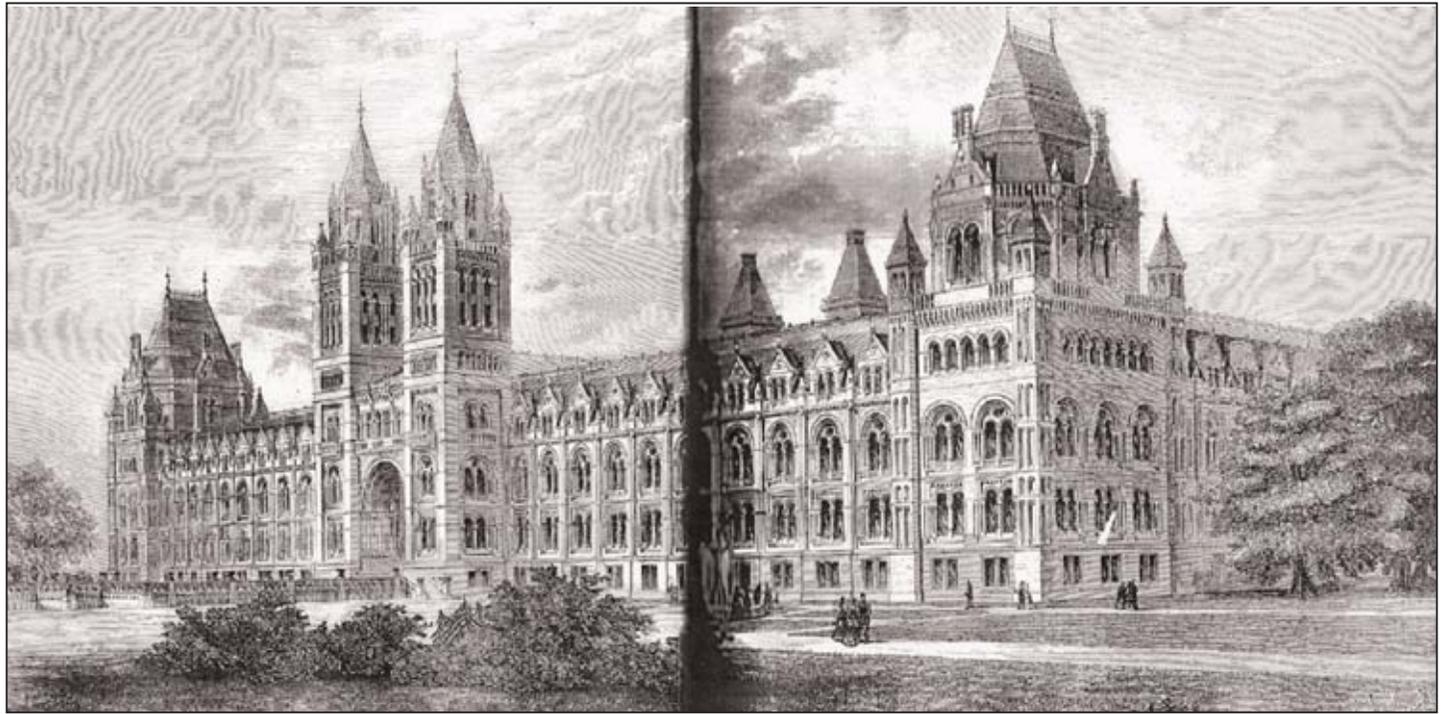


Figure 6. *Builder* January 4 1873

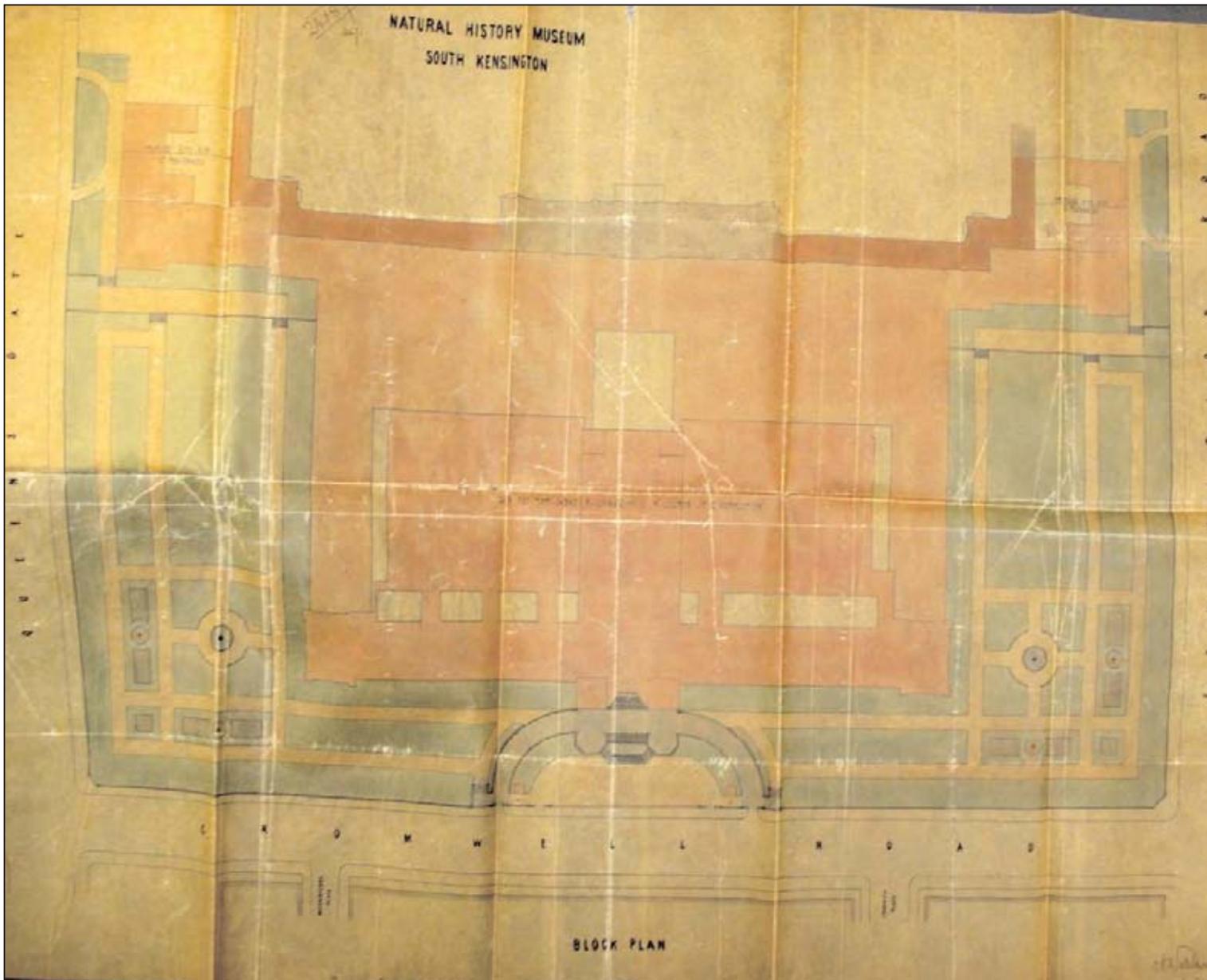


Figure 7. November 6 1873. NHM DF 930/1

3.1 In his Presidential address to the RIBA in 1888 Waterhouse had some words to say on landscaping. 'To the architect himself there can hardly be a more delightful change of occupation than to turn from the disappointments inseparable from building operations, to the development of those surroundings in which Nature is to play her part...we have been recommended on the one hand to turn to the grand style – that is, the formal garden of the seventeenth century; on the other, to give a free hand to the picturesque. But what may suit one house and one site may not suit another.'

3.2 In a perspective published in *The Builder* in January 1873 (Figure 6) he replayed the informal planting of Figure 4. But by November he had produced a design and plumped for a simplified version of 'the grand style'. (Figure 7) The budgetary constraints he encountered meant that no really high maintenance planting (such as can be seen today at Waddesdon Manor) could be indulged in. The next year he produced a very slightly modified version of the same design, adding a few more flowerbeds. (Figure 8)

Comparative Illustrative Landscapes

3.3 We attach at appendix 1 a series of architectural perspectives for proposed public buildings from this time, the mid Victorian period, to demonstrate that the landscape shown in Alfred Waterhouse's Building view was a standard indicative landscape. It is worth repeating here our earlier observation: these are idealised landscapes, with no context, and the even the land form is smoothed flat. And notwithstanding Waterhouse's stated interest in landscape, his first plan – 6 November 1873, Figure 7 – does not reflect the embanked nature of the grounds' verges and significant level difference. In terms of the design's aesthetics, the layout is architectural in as much as it simply repeats the line of the building and provides a more elaborate set of paths to mirror and mark the corner pavilions of that structure. Intersections at the corners appear to be marked by fountains integrated with bedding plants, and everything else is greensward. It is not a very distinguished layout and it is also somewhat odd because as envisaged we understand there was no intention to open the spaces up as public parks. In that sense, the landscape was over-provided for paths relative to any reasonable prospect of their use.

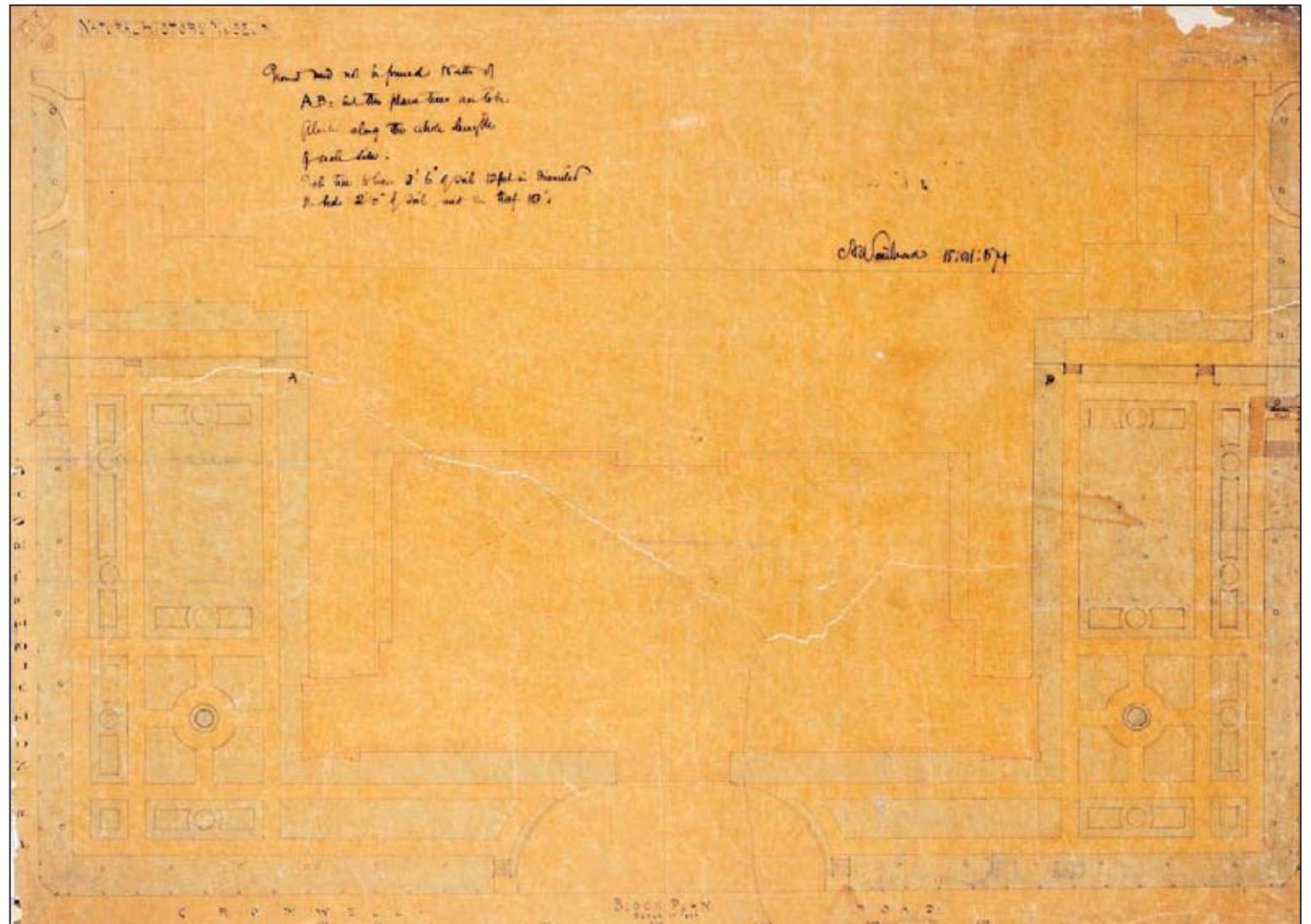


Figure 8. October 1874. RIBA 1950/WAT A(71)63

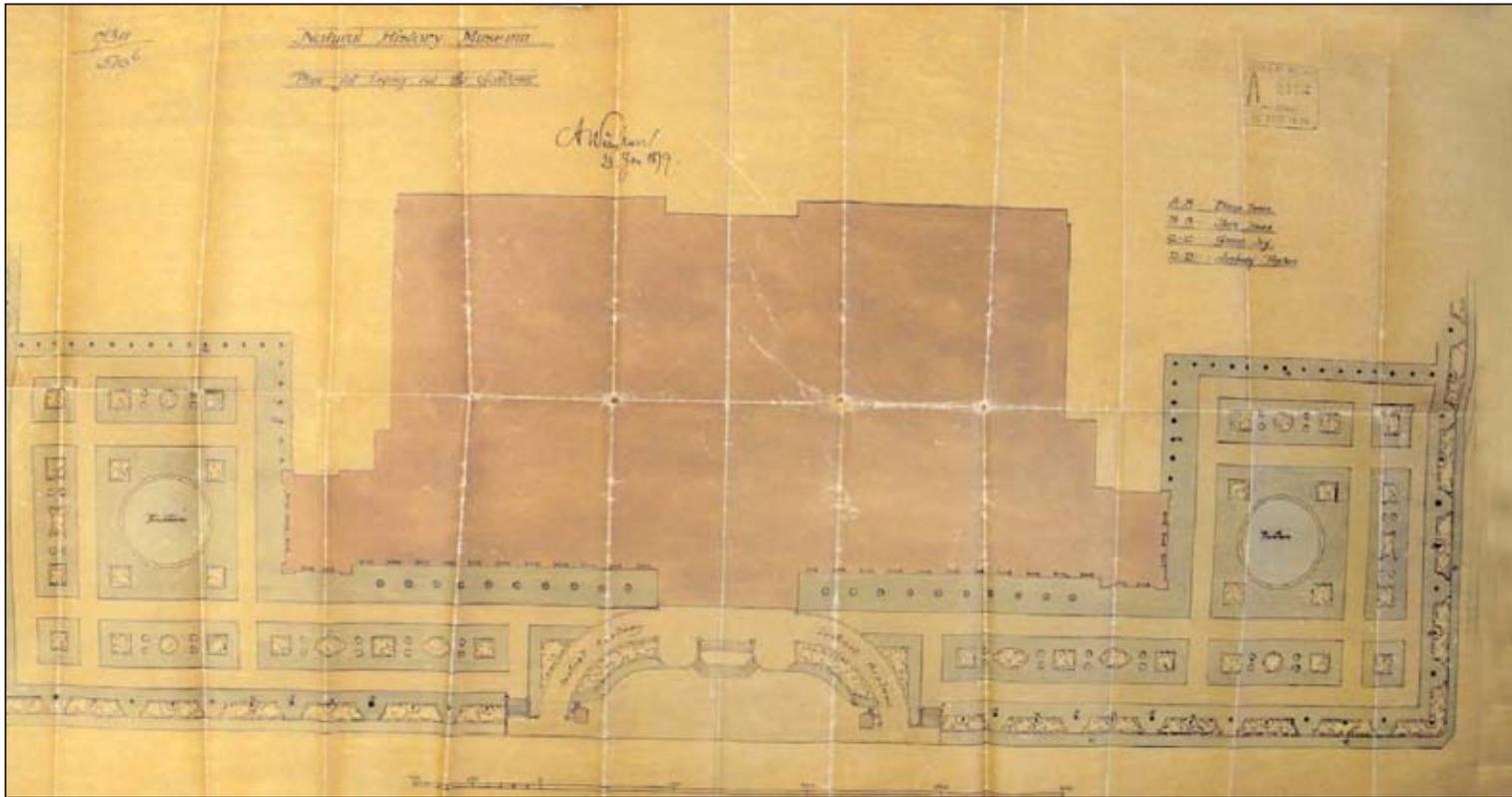


Figure 9. Jan 23 1879. TNA WORK 17/311

- 3.4 The matter of the landscape went on hold for several years as the building operations proceeded, but by 1879 things had reached the stage when the realisation of the garden was a practical proposition. On February 14 Waterhouse sent John Gibson, the Superintendent of St James, the Green and Hyde Parks and Kensington Gardens, a 'small sketch showing the way in which it strikes me the Gardens might with advantage be planted. I have given considerable thought to this subject and hope I may not have exceeded my province in venturing to submit this sketch to you.' This sketch is a plan dated January 23 1879 (stamped as received in the Office of Works on February 15) and signed by Waterhouse. (Figure 9) The extent of the grounds on either side of the Museum has been cut down. Two large ponds or fountains flank the building. Waterhouse himself suggested structural landscaping: plane trees, Lombardy poplars, ground ivy and thorn bushes. Closely spaced – assumed – ornamental trees are set hard by the building elevation, and the embanked enclosing boundary is treated as a series of raking planted areas interspersed by trees, a treatment not unlike what is there today; however, more effort has now been put into the pattern of ornamental beds and that pattern is here, as was before, bilaterally symmetrical about the ramped entrance. There is no differentiation between the two halves of the landscaping such as might have been justified by the building's programme – the western range was for living natural history and the eastern range for inorganic and dead natural history (fossils and geology). Thus the programme for the building, reflected in ornamentation at a fine scale, was not read over into the landscape, which some might see as a missed opportunity.

- 3.5 The simple point is that this scheme, similar to earlier ones, is strongly architectural in its layout and conception, generated by the lines of the building.

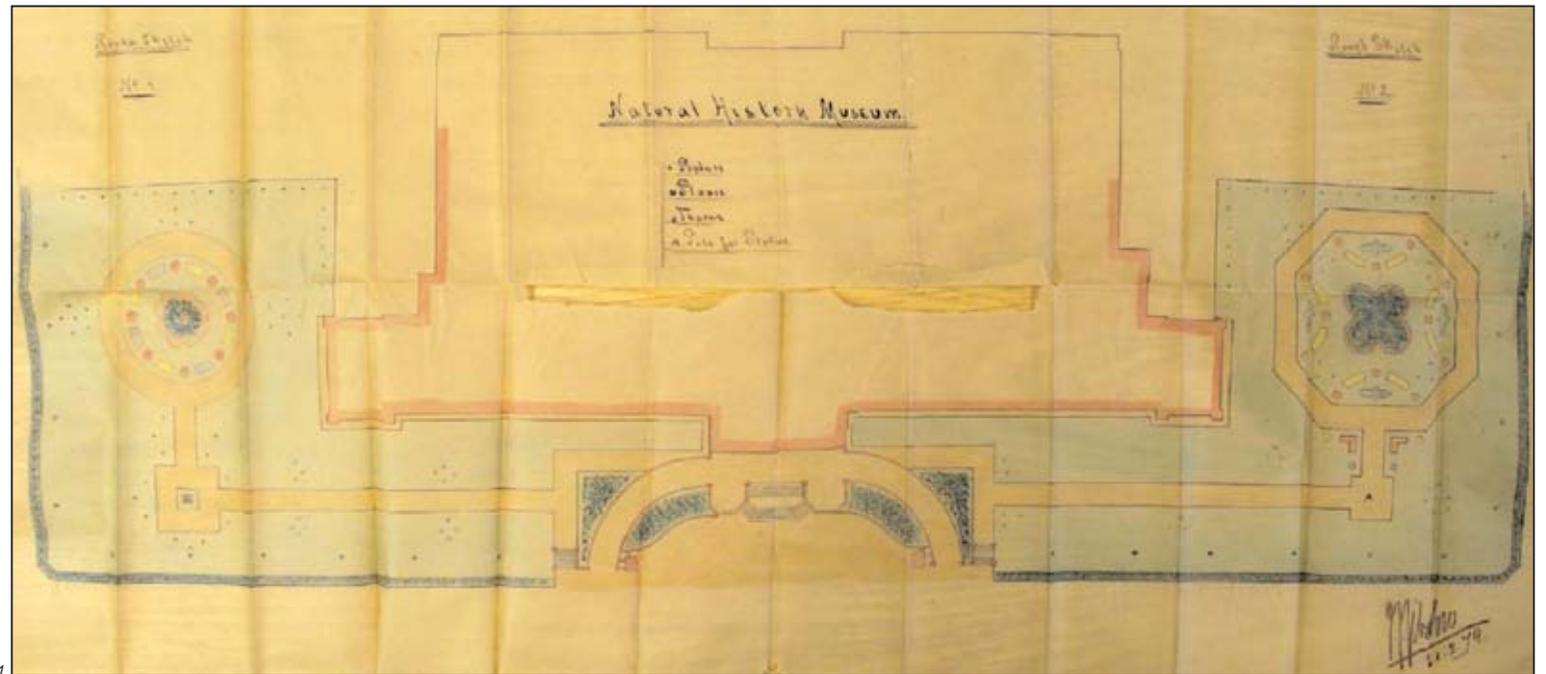


Figure 10. February 21 1879. TNA WORK 17/311

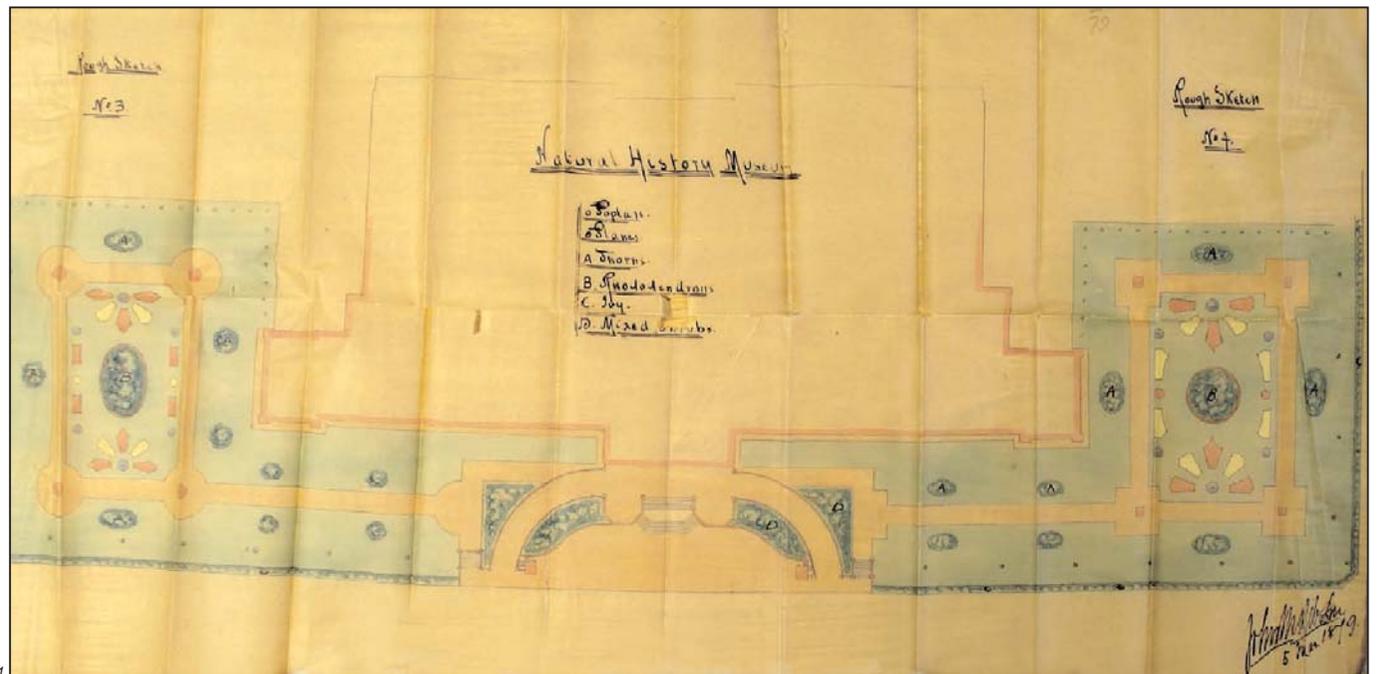


Figure 11. March 5 1879. TNA WORK 17/311

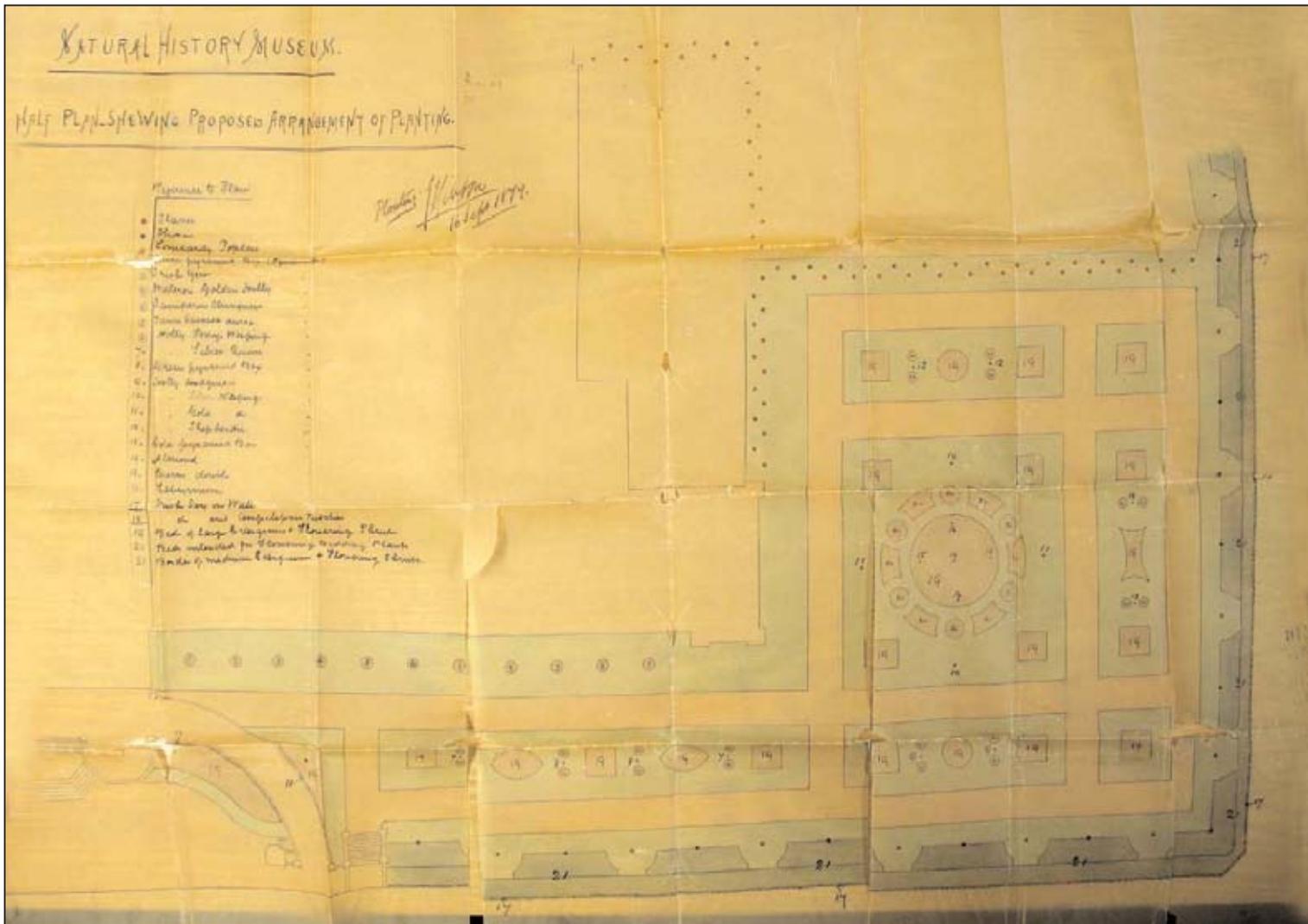


Figure 12. September 16 1879. TNA WORK 17/311

3.6 On March 5 Gibson replied, enclosing two plans, each of which contained two alternative schemes for the flower beds. Rough sketches 1 and 2 (Figure 10) only specified planes, poplars and thorns, with 2 in addition providing for a statue. Sketches 3 and 4 added ivy, mixed shrubs and rhododendrons. He estimated the cost as £2407 for 1 and 2, £2449 for 3 and 4, while Waterhouse's plan would come to £2467-8-0. There was little to choose here in terms of cost, but on August 6 the Commissioner of Works, Gerard Noel, did not approve of Waterhouse's proposed fountains, and ruled that these become flower beds.

3.7 So instructed, Gibson on September 16 produced a detailed planting plan based on Waterhouse's design. (Figure 12) This detailed sixteen different types of trees and bushes, two ivies and beds of large and medium evergreen and flowering shrubs, with some devoted to flowering bedding plants. This type of layout and planting still survives as an anachronism in some municipal parks, and is thought of as 'real' gardening by a surviving handful. It is just what Gertrude Jekyll made it her life's work to campaign against. When enormous amounts of money are available, as they were to Rothschild at Waddesdon, the results can still impress through overwhelming impact, but this was never going to be the case at the Museum. The conclusion is, then, that little real thought seems to have been given to defining a distinctive landscape for this area, or, put another way, the architectural achievement of the building was not matched by the landscape design. No specific landscape designer was involved.

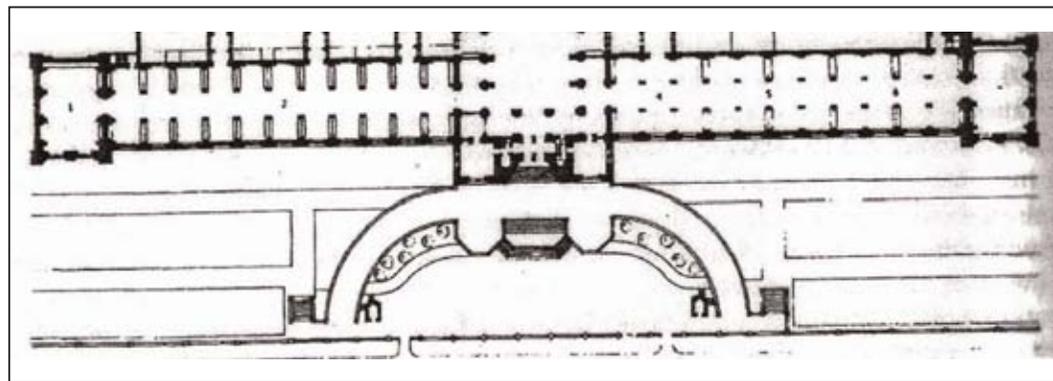
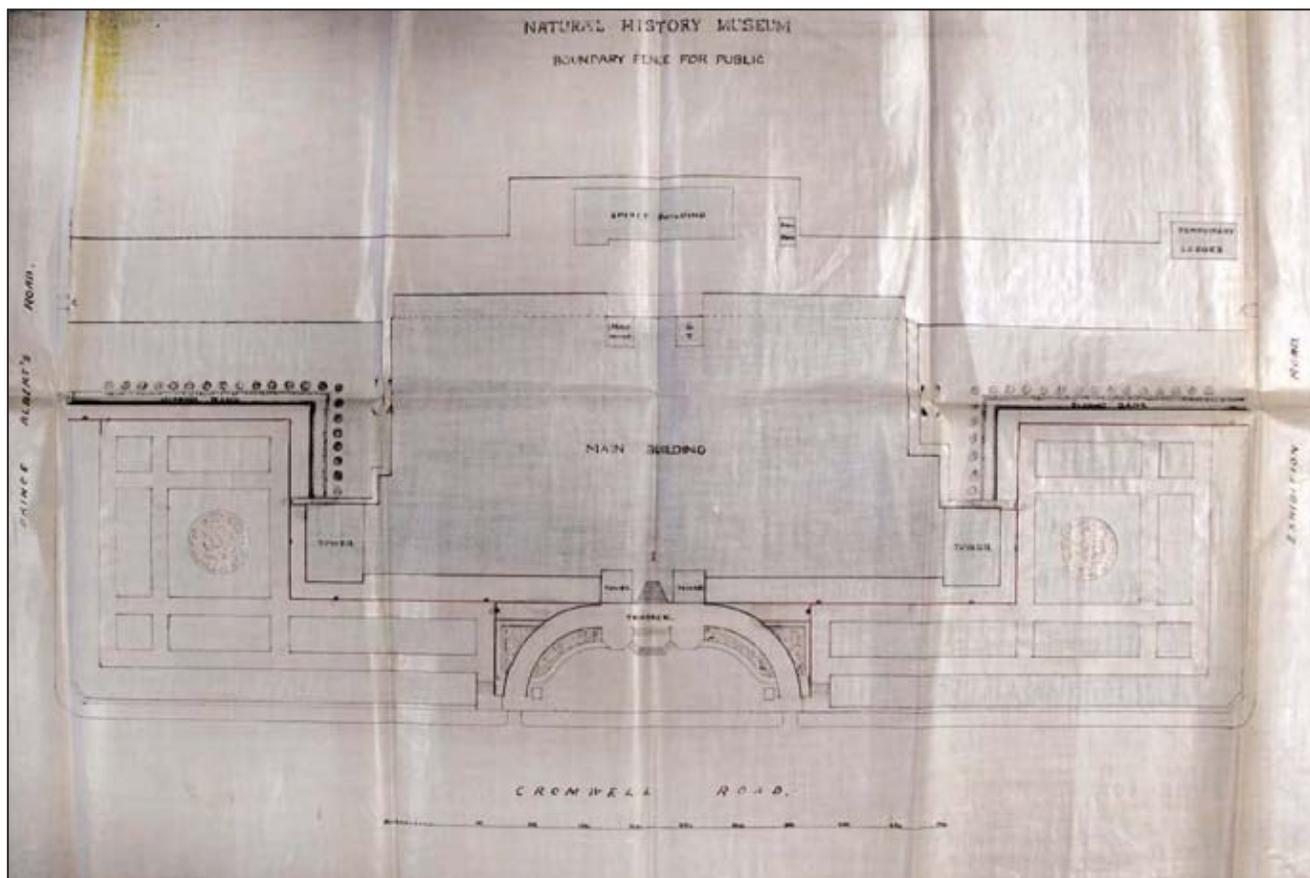


Figure 13. 1881. Reproduced in Girouard

Figure 14. September 1883. TNA WORK 17/311



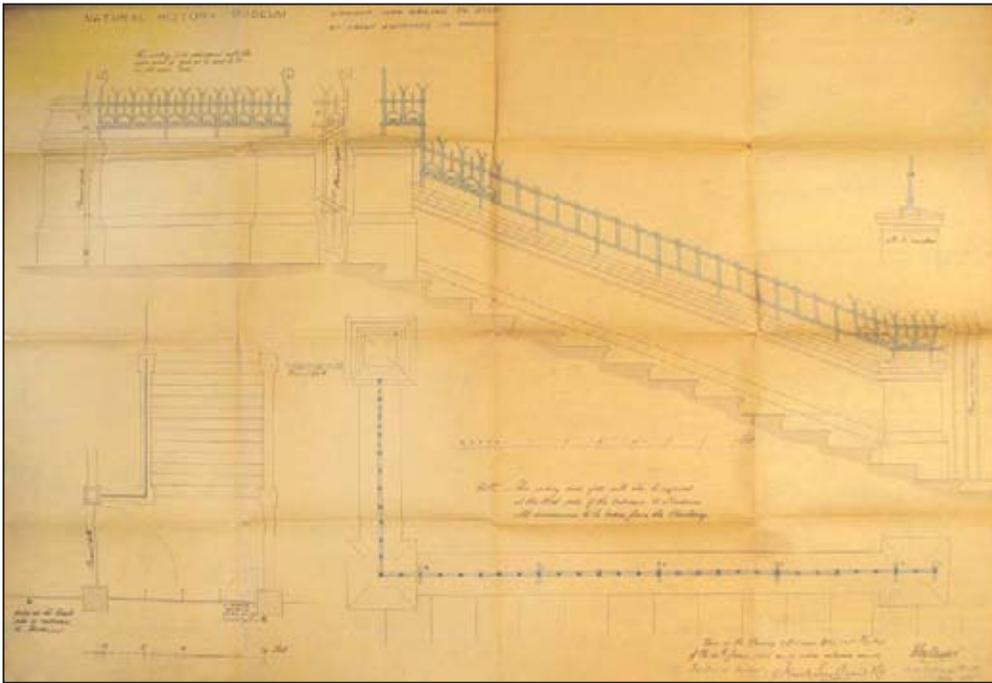
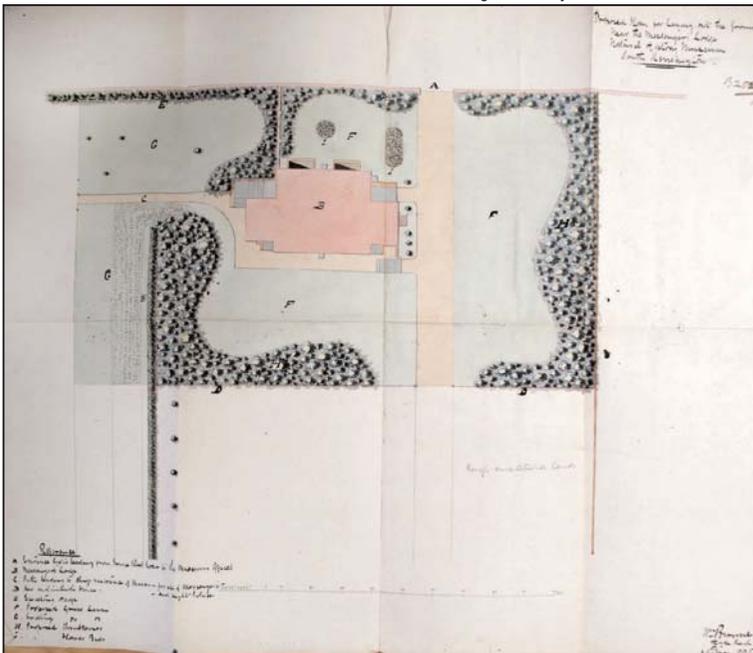


Figure 15. May 1885. TNA WORK 17/311

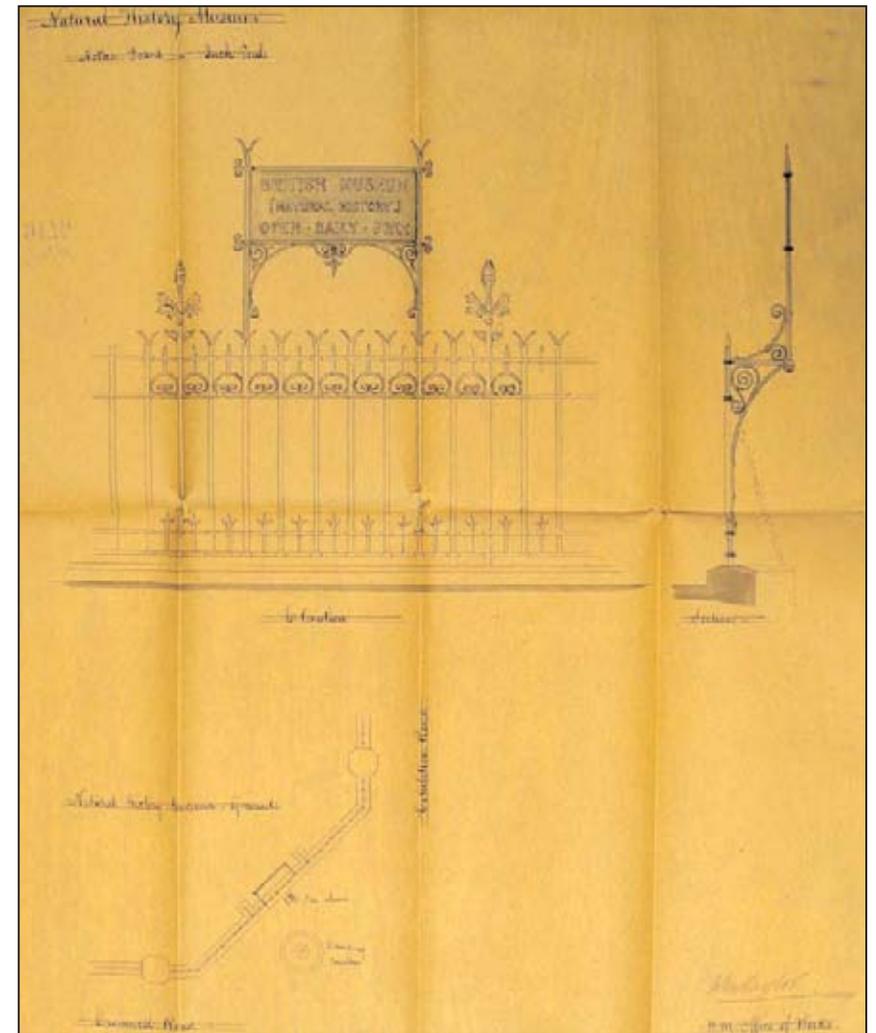
Figure 16. May 30 1885. TNA WORK 17/311



3.8 What was practically possible was very limited planting, as shown by an extract from a Waterhouse plan of 1881 (Figure 13) and in a plan dating from 1883 (Figure 14) which only indicates planting round the entrance ramps and in the beds intended to have been occupied by fountains. Permanent investments, such as the ornamental railings designed in 1885 (Figures 15 and 17) were, by contrast, a good investment and low maintenance. These plans date to two years after the building was formally opened.

3.9 The layout of this eastern area survived until after 1950, when it was truncated by the construction of the Palaeontology Wing. The paths in the eastern grounds have not changed since, in other words they are in their alignment and width similar to the plans projected during the late 1870s and early 1880s, albeit with the northern portion truncated by Palaeontology.

Figure 17. July 1885. TNA WORK 17/311



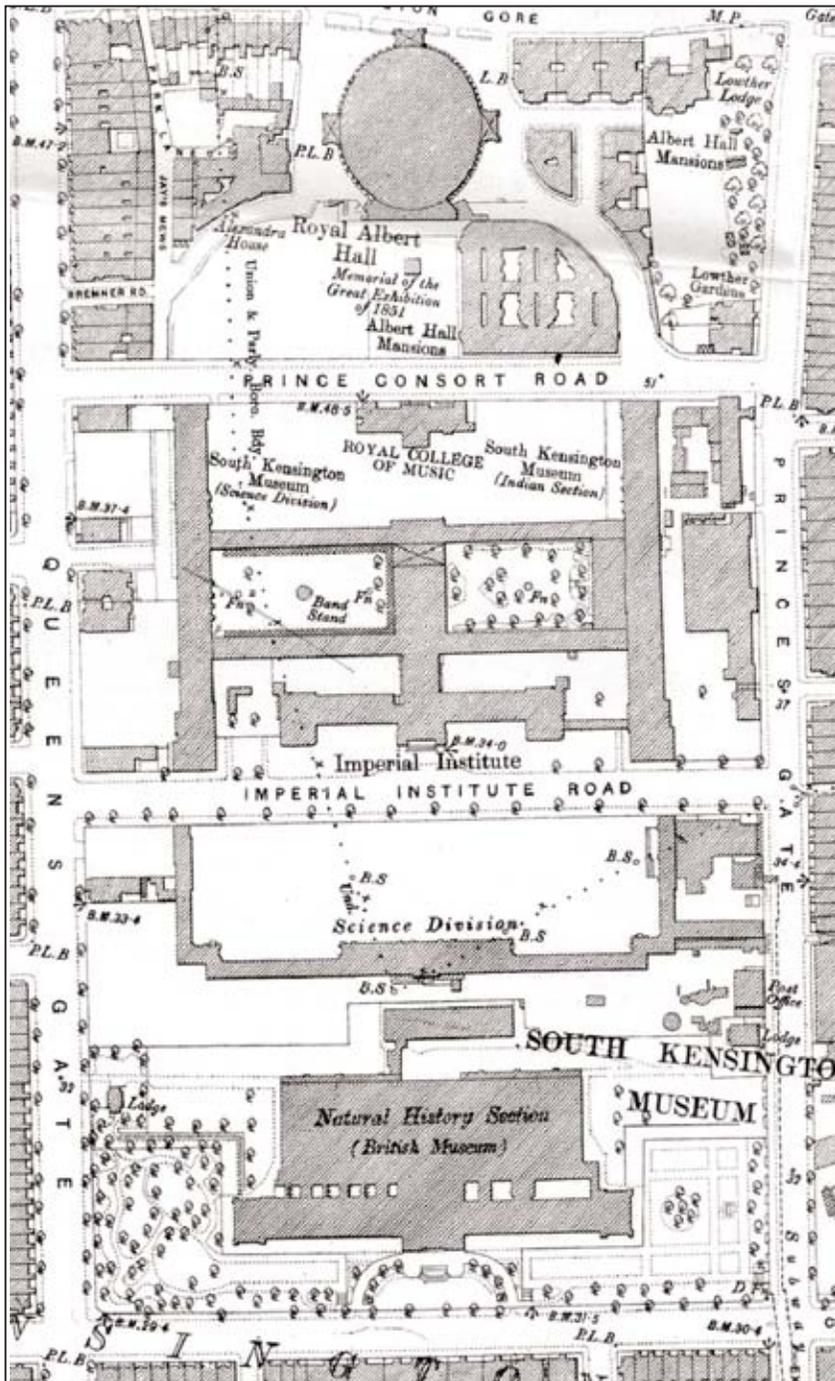


Figure 20. 1894 OS

3.10 Also in 1885 a very different type of planting appeared around the Messengers' Lodge on the west side of the grounds. Signed by a Hyde Park official, this featured serpentine shrubberies around a grass lawn. (Figure 16) A postcard dated by the NHM at c 1890 shows established trees along the Cromwell Road frontage. (Figure 18)

3.11 In 1891 a plan were drawn up to allow access to the gardens by means of ramps inserted next to the adjacent steps. (Figure 19) Very few activities had been permitted in the gardens till that date. Among these petty restrictions, walking on the grass was forbidden, as was the use of perambulators, riding in (among other things) 'barrows or velocipedes' and children had be kept under strict supervision. In 1891 the Earl of Meath, the first chairman of the LCC Parks Committee, suggested the Rules of 1882 and 1885 for the gardens be amended to allow perambulators and bath chairs to enter, with inclines being provided to allow access. This plan was the direct result; directions for it to be carried out were issued in January 1892. Dogs were also now allowed in, but not 'to run at large'. The floodgates having been opened, in 1930 small children were allowed to play on the grass.

3.12 With nursemaids and nurses now allowed to bring their charges with them in prams and bath chairs, the western side of the grounds was transformed from Waterhouse's rigid geometry to serpentine paths set amid lawns and woodlands, which not only provided a more appropriate circuit to negotiate but also reduced the maintenance to cutting the grass and occasional pruning. (Figure 20) This also shows that the RHS gardens had disappeared. In their place is the Imperial Institute and the beginnings of the Science Museum.



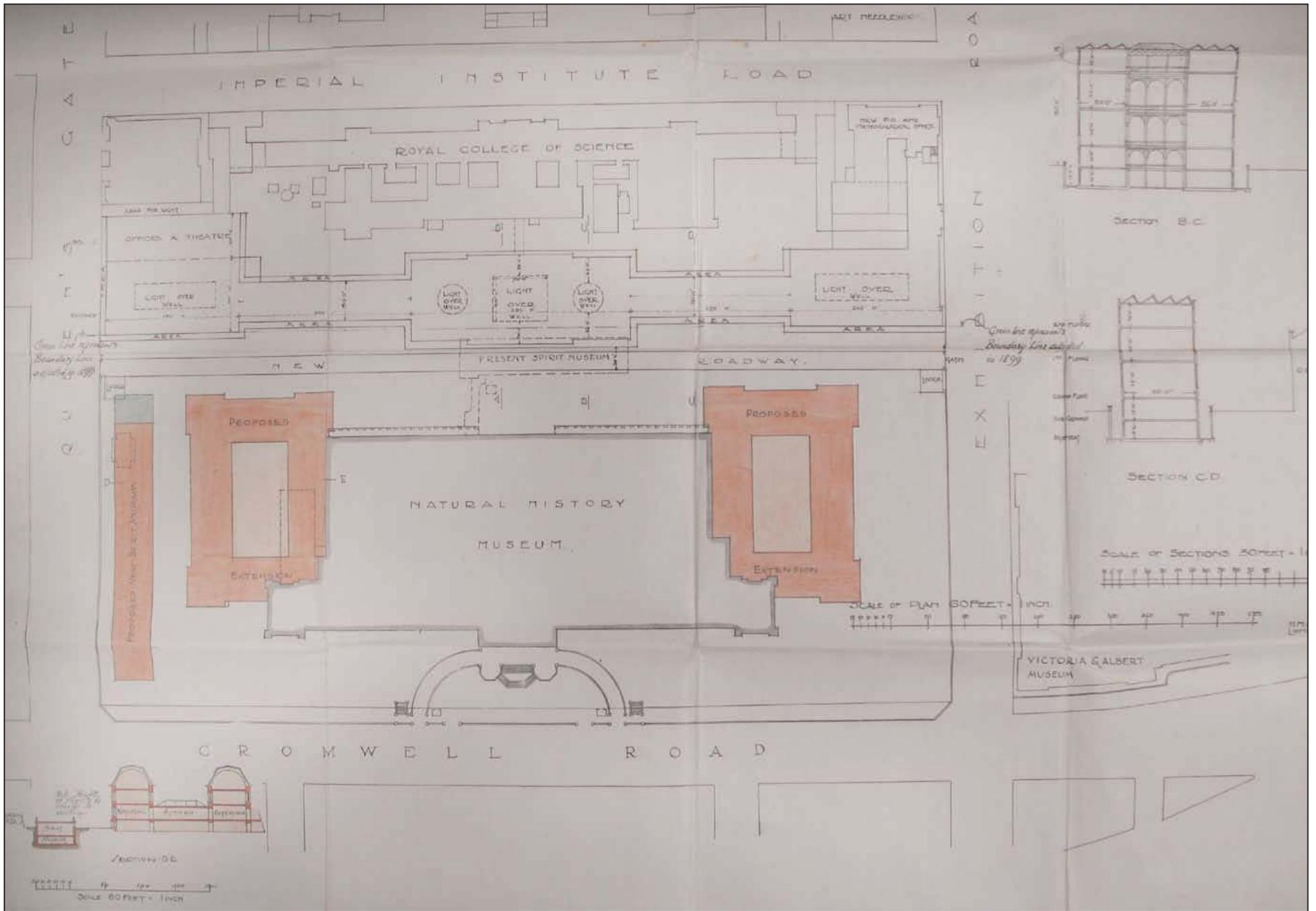


Figure 21. c 1910. TNA WORK 17/48

- 4.1 The controversy over the relocation of the Spirit Building brought into focus the attitude of the Trustees of the Museum to its grounds. Apart from the large collection of skeletons, skins and stuffed specimens, the soft tissues were preserved in jars of alcohol. In 1883 the Spirit Building was built to house this collection. This stood separate and to the rear from the main museum, as the many thousand gallons of alcohol presented a fire risk. The newly established Science Museum engaged in a turf war with the NHM, wishing to encroach upon its northern boundary, which had been fixed in 1899.
- 4.2 The Commissioner of Works, Lewis Harcourt, proposed that the Spirit Building be re-erected in the western gardens along Queen's Gate. Additional accommodation for the main Museum could be provided by extending the main building. Figure 21 indicates this. The originator of this plan is not known; it was probably the Board of Works. The Trustees violently objected to the re-siting of the Spirit Building. It was not the loss of part of the grounds that troubled them, but the limitations it would impose on any future expansion of the main building, and, in the short term, the loss of land in the rear, where a photographic room, a spirit store room and two large fan-chambers had already been built. Shortly to be provided were an unpacking room, a quarantine room, a macerating room, laboratories and workshops for taxidermists and carpenters. All these ancillary buildings, having no architectural pretensions, would of necessity have to be placed in the rear.
- 4.3 The building proposed by the Commissioner, initially of one storey and partly subterranean, would soon need a second storey added, which would 'obstruct the view of the costly main building on its western side, seriously spoiling the effect when the latter shall have been completed according to the plan of the architect.' There were people concerned at the loss of the grounds. Inhabitants of Cromwell Road and Queen's Gate, whose nursemaids and servants wheeled their children and aged relatives in the grounds, took a particular interest.
- 4.4 On May 18 A E Shipley, the Master of Christ's College, Cambridge, an authority

on parasitic worms, weighed in. 'It must be remembered that the collections of specimens in spirit is bound to increase in size...If account be taken, further, of the fact that the Spirit Building, with its future extensions, must be separated by a sufficient interval from the main museum, it will be seen that the space available for additions to the latter will be very seriously contracted.' He then revealed how the Museum intended to expand. 'It has been assumed hitherto that the space to the west of the main museum will be utilised for the growth of the zoological collections, while that to the east will be required for the other departments (geology, botany and mineralogy) represented in the Museum.'

- 4.5 At the end of the month a printed memorandum, signed by nearly 600 scientists, was presented to the Prime Minister (Asquith). 'The collections have increased to an extent which can hardly have been anticipated by those who were responsible for drawing out the original plans. It cannot be too strongly emphasised that the growth which must continue to go on if the Museum is to hold its position among the great Museums of the world is very far from having reached its limit...the most fatal objection to the present proposal is that, by placing the Spirit Building anywhere between the main Museum and the public roads, space would be occupied which it is of vital importance to reserve for the future growth of the main Museum itself. The experience of the last thirty years proves beyond the shadow of a doubt...that the whole of the unoccupied part of the site which has hitherto been reserved for the Natural History Museum is barely sufficient for the extensions which will be required in a future which is by no means remote.'

- 4.6 The astronomer Sir Norman Lockyer, intimately connected with the new Science Museum, had little time for these arguments. The site was wasteful; the building occupied nearly 3 ¾ acres, leaving eight acres unoccupied. 'From that day to this...there has been very little reduction of this unused ground, sacred for all this time to nursemaids.' Furthermore, the Museum 'has largely completed its general collections. Nature's new species...are not produced at the rate at which, at this moment, man's new species, representing intellectual and material advance, come into being.'

- 4.7 These arguments were easily refuted, the Director of the John Innes Horticultural Institution writing to *The Times* that 'The work for which the collections were made has scarcely begun...Only within the last few years have the products of men's hands been admitted at all to the Museum. The steps by which the breeder and the horticulturalist have proceeded are almost all lost. What would we not give for them now? They would form the very foundation of biology as Darwin understood it. Sir William Flower [the first Director] once said to me, when I urged the importance of these collections, that if the Museum took in such things it would immediately be filled. Yet they must be taken in if the national home of biology is to have its right place in the great advance.'

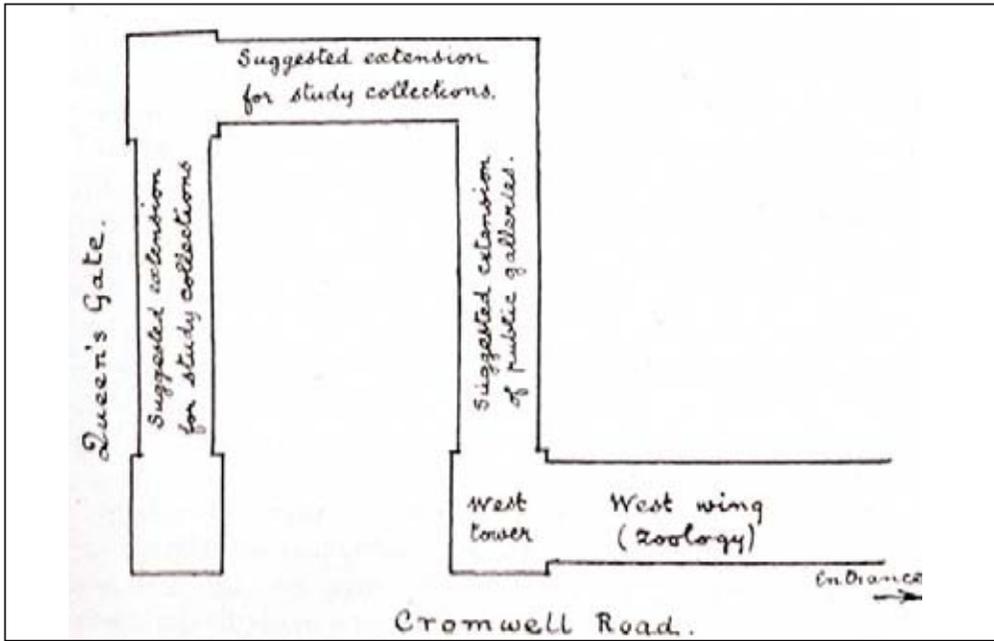


Figure 22

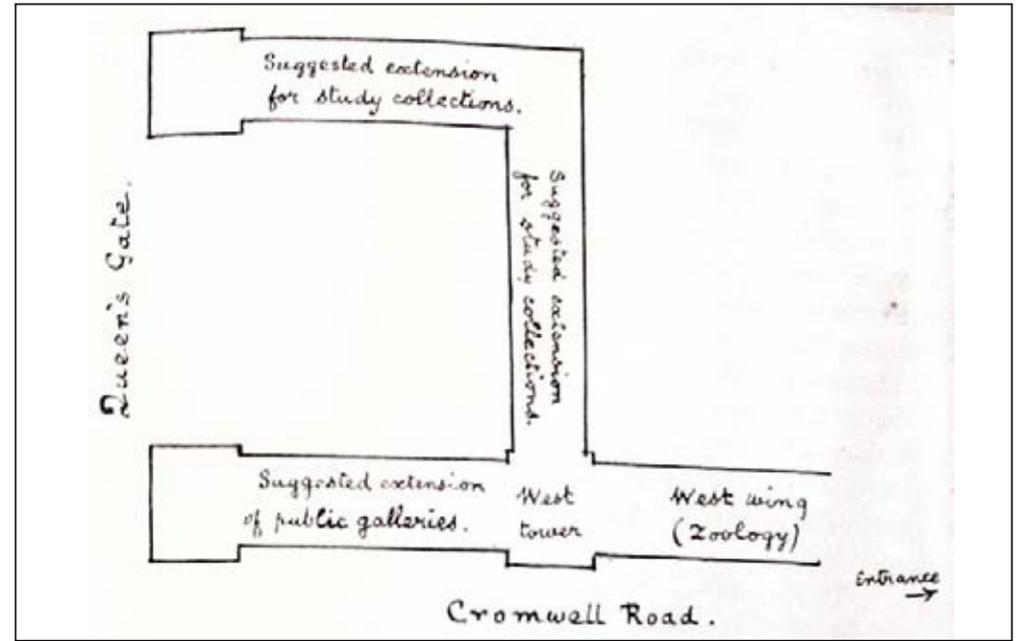


Figure 23

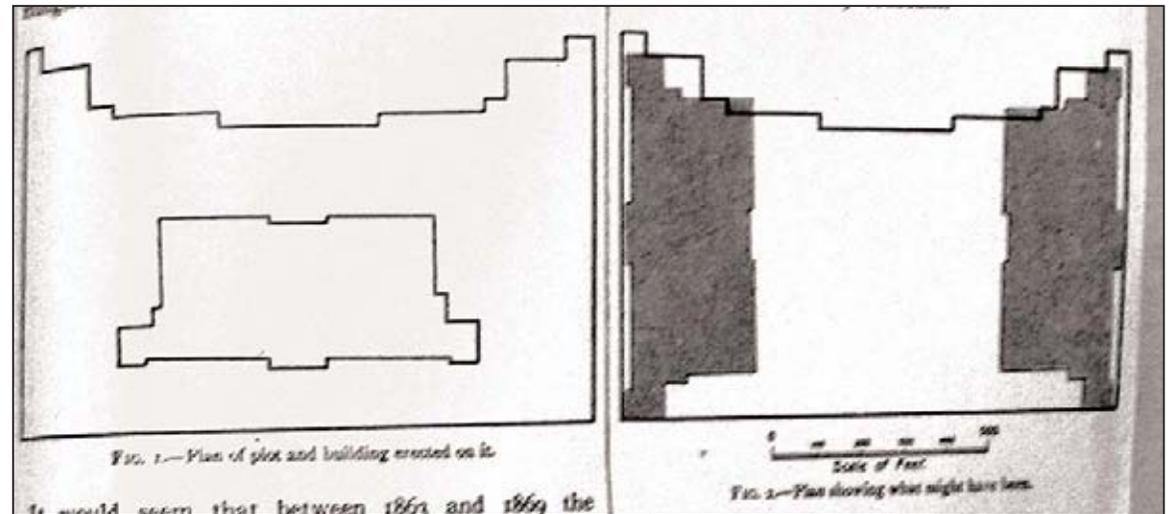


FIG. 1.—Plan of plot and building erected on it.

FIG. 2.—Plan showing what might have been.

Figure 24

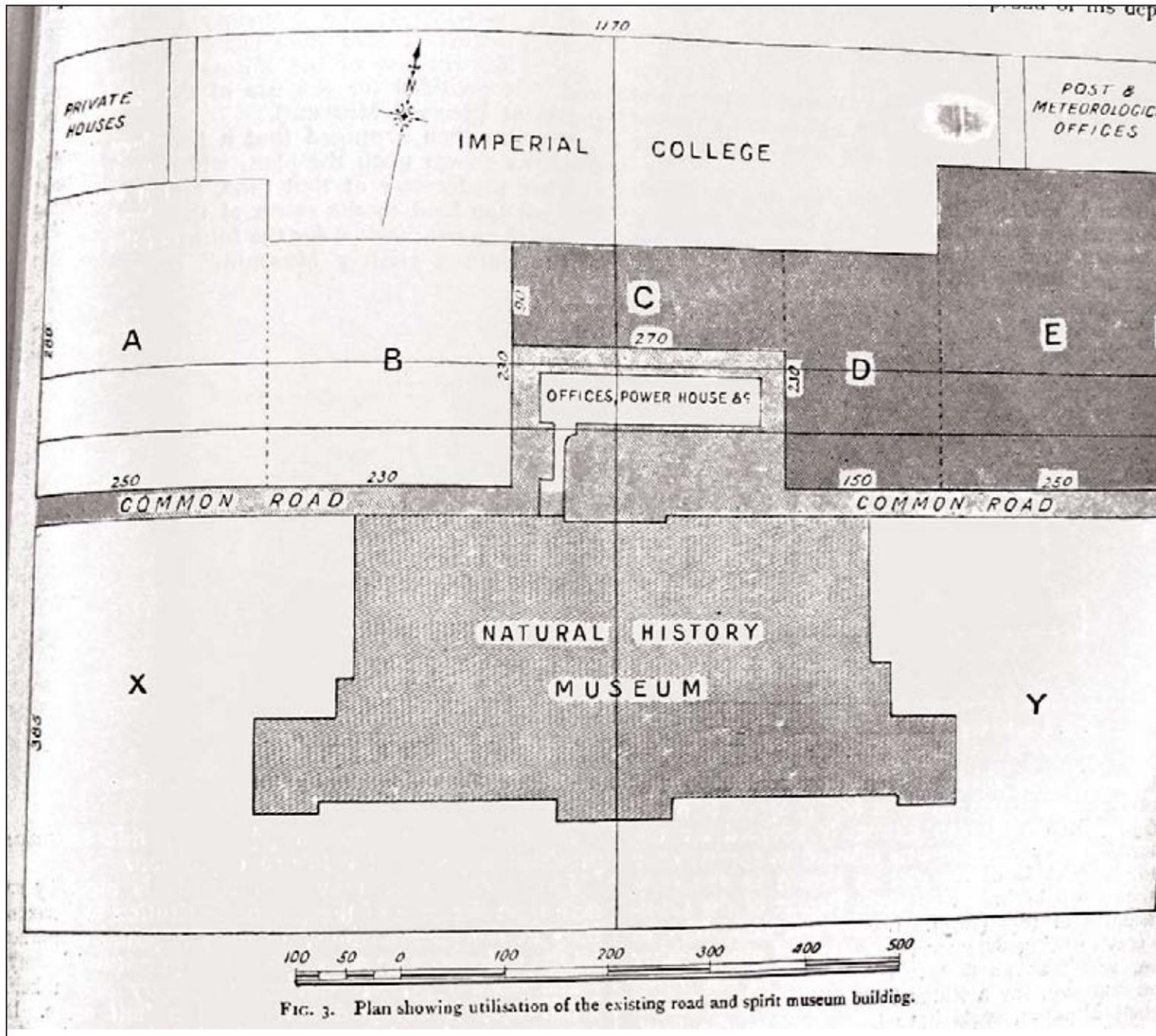


FIG. 3. Plan showing utilisation of the existing road and spirit museum building.

Figure 25

4.8 Charles Waterhouse (no relation), who had retired as Assistant Keeper in 1910, pressed the claim of the insect collection for the space suggested by the Commissioner for a new Spirit Building. He offered two alternative plans. (Figures 22 and 23) Even if these plans were to be adopted, the extension for the study collections could not much exceed 440 feet. The present insect rooms were about 275 by 32 feet, and already overcrowded. The extensions would, however, offer a width of 50 feet. Reference to the acreage unoccupied, like that made by Lockyer, was irrelevant. 'Acres might be covered by some kinds of building, but for galleries or rooms used as zoological studies, where the best possible light is essential, the case is quite different, and open space, that might appear to an ordinary person to be wasted, is really a necessity if the rooms are to be properly lighted.'

4.9 Lockyer, unimpressed, returned to the charge in an article in *Nature* in July 1911. By showing the plot and the area occupied by building he demonstrated that two buildings of identical dimensions could have been built on the site, with a large space left over. (Figure 24) This, of course, ignored the fact that Fowke and, following him, Waterhouse, had planned for a considerably larger building which had been cut down for financial reasons. If the boundary was revised with a common access road lying to the rear of the NHM, the existing Spirit building could be retained for offices and other ancillary uses, while the areas A, B, C, D and E could be utilised for the Science Museum. If blocks C, D and E were built on first, then A and B would remain for future expansion, just as X and Y were for the NHM. (Figure 25)

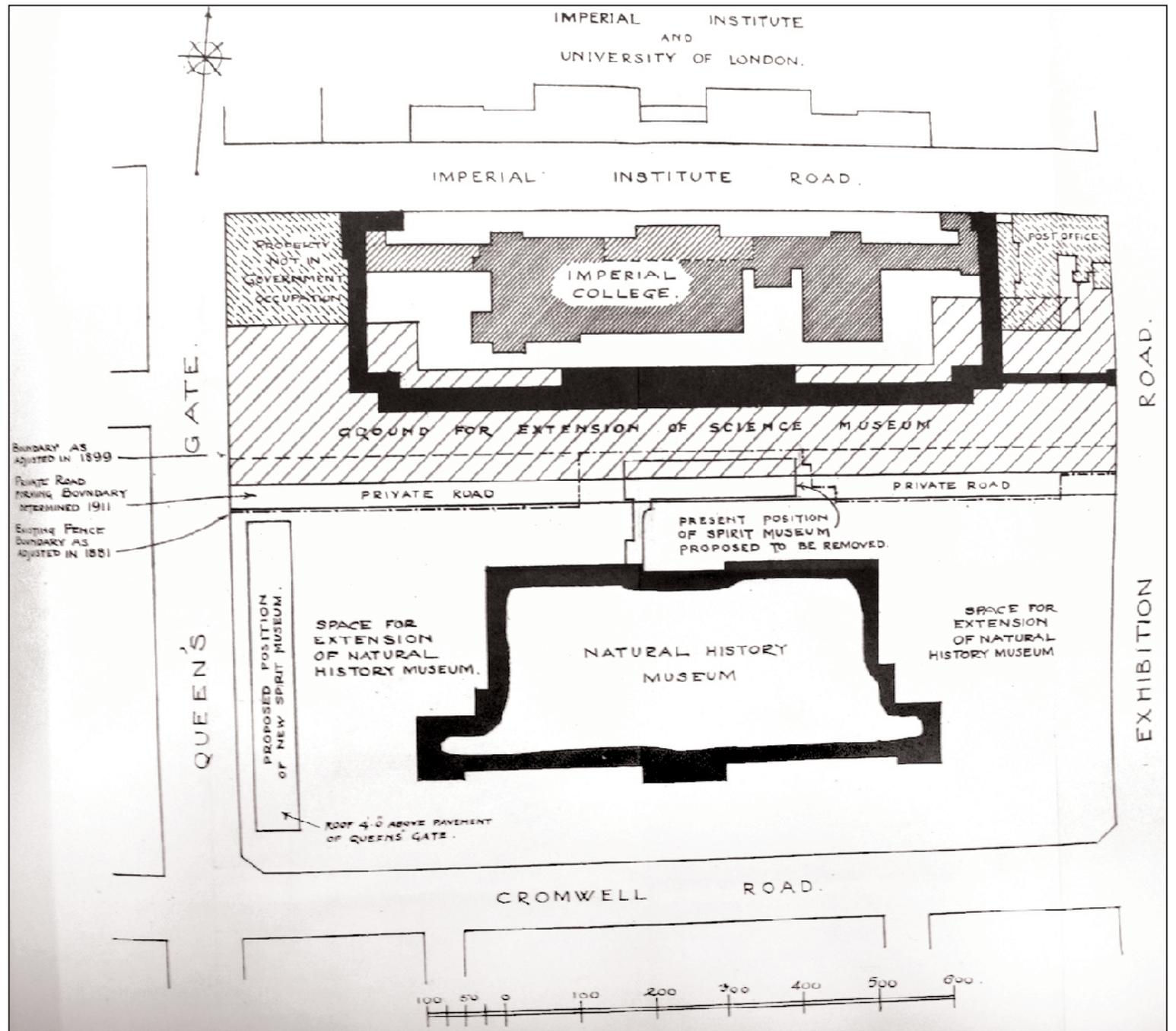


Figure 26. 1914. NHM DF 210/1

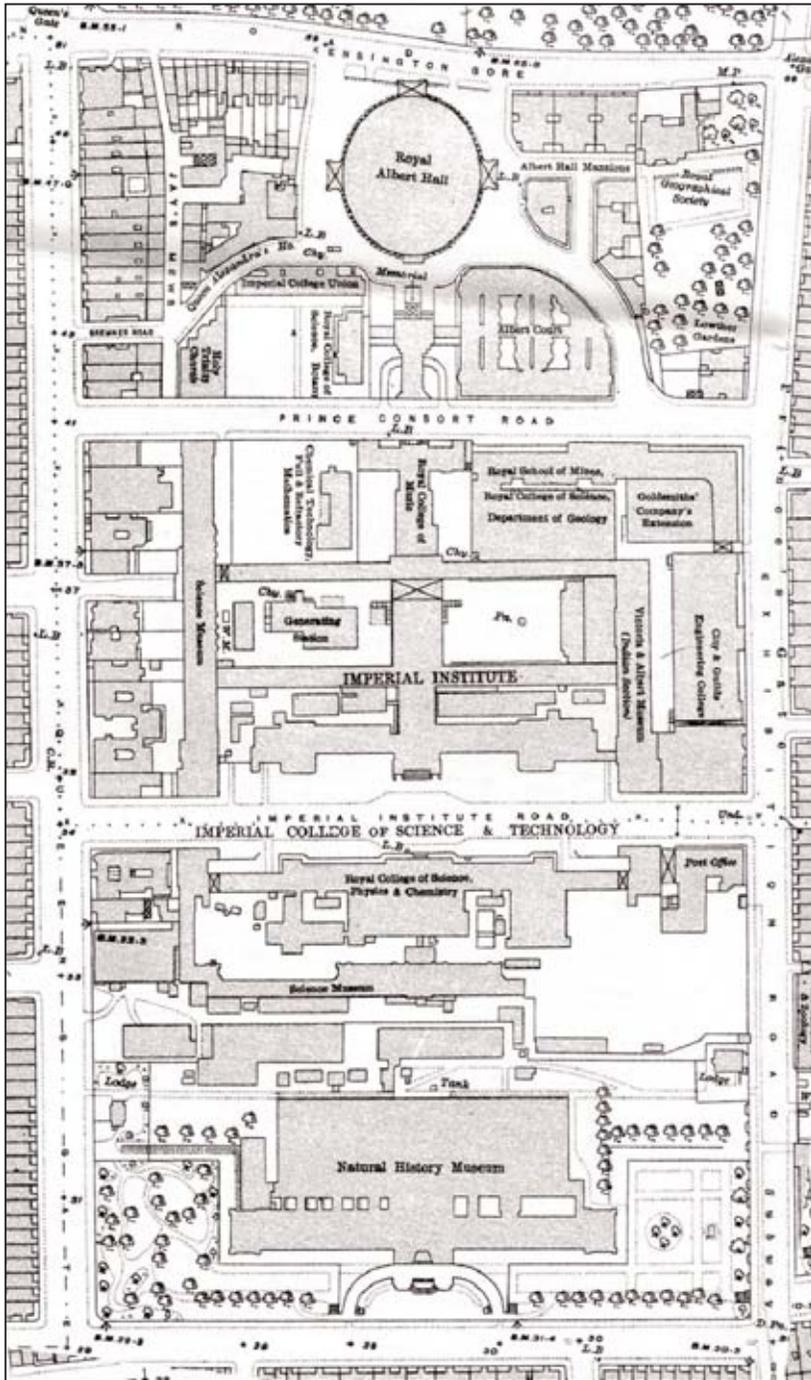


Figure 27. 1914 OS

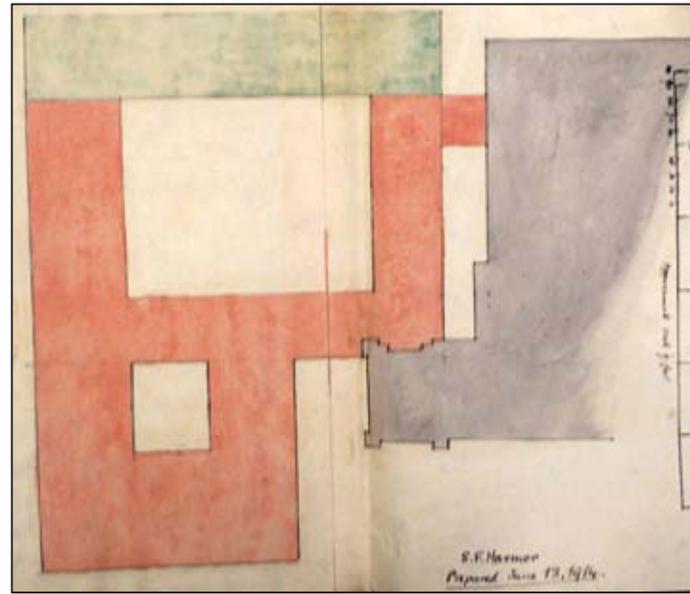


Figure 28. 1914

- 4.10 In September 1911 a compromise was reached. (Figure 26) The boundary was to be the new private road, but the Spirit Building would have to go. The war intervened and the building remained undisturbed until work on a new Spirit Building (1921-1922 first phase, 1928-1930 second phase, and final phase 1934-1935) was adequately implemented. The building was finally demolished in 1953, and its replacement in 2002. The compromise of 1911 failed to materialise, as the OS of 1914 shows. (Figure 27) The arrangements for the East and West gardens remained unaltered.
- 4.11 The Works Department, in support of their plans, were able to quote an historical memorandum which is wholly apposite to the present purpose. 'The ground on which future extensions will have to be built forms at present a pleasant addition to the amenities of the area, but the scale of utilisation of site that has had to be adopted for museum buildings in London does not permit of the permanent appropriation of ground for surrounding gardens;' (quoted in *Morning Post* editorial, September 5 1911)
- 4.12 Before the War put an end to any thought of immediate expansion, S F Harmer, the Keeper of Zoology (becoming Director in 1919) prepared a plan which showed the entire area of the western gardens occupied by extensions. (Figure 28)



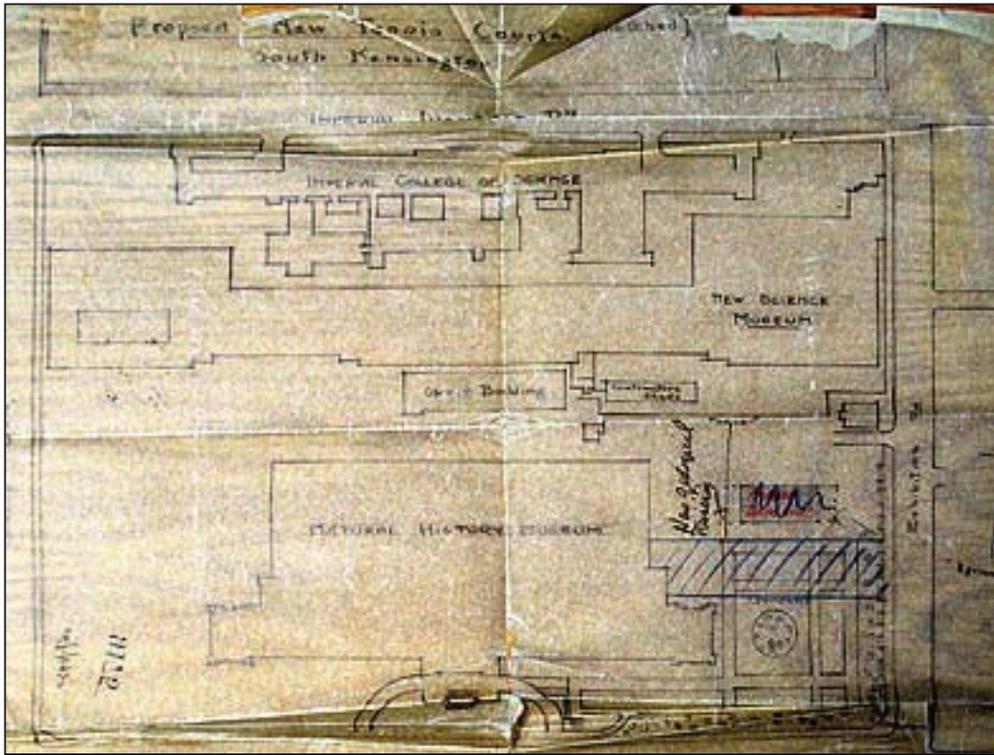


Figure 29. July 1922. TNA WORK 17/311



Figure 32. From Subterranea Britannica website

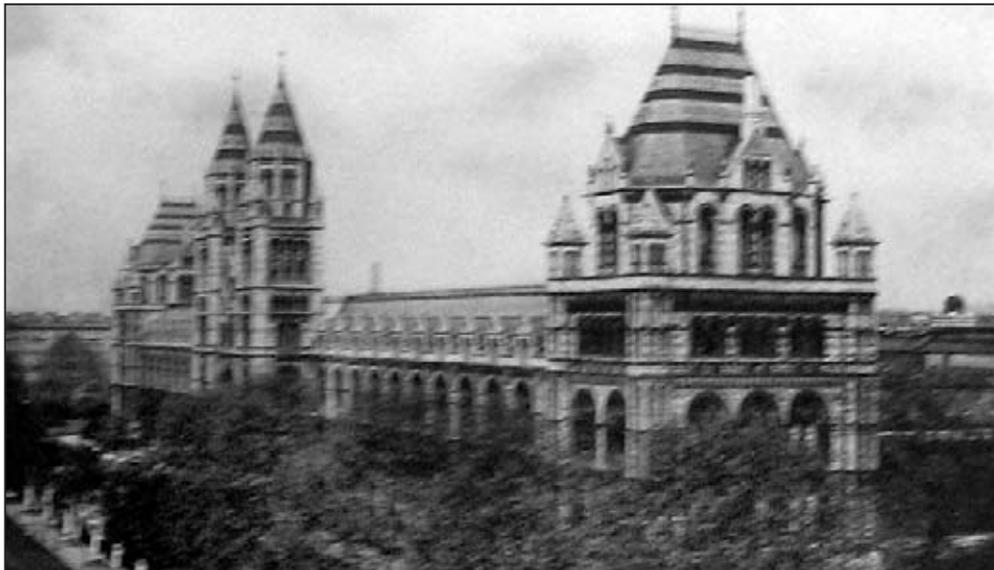


Figure 30. January 1923. NHM B4

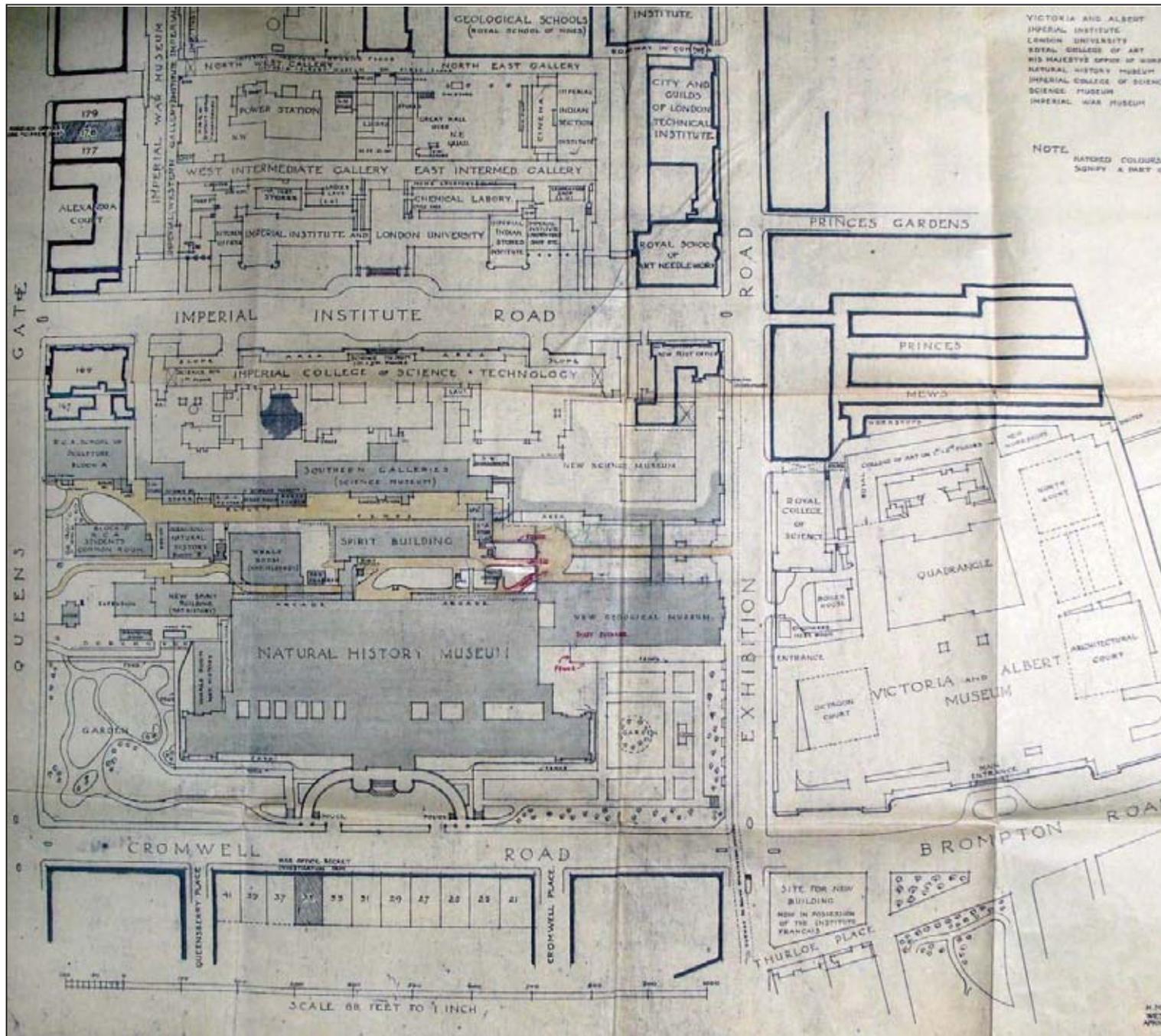


Figure 31. April 1932. TNA WORK 17/48

5.1 A plan drawn up in 1922 showed the northern end of these gardens as the site for a new Geological Museum. (Figure 29) The Cromwell Road façade was still screened by trees. (Figure 30) The Geology building was in fact built to the north of the gardens and a 1932 plan shows the gardens essentially as they had been in 1894. (Figure 31)

5.2 The gardens were finally built on in 1939. This was the bunker for No.5 Region War Room, a control centre. This has been briefly written up in the website *Subterranea Britannica*, which reproduced an aerial photograph showing the bunker, indicated by an arrow. (Figure 32) The following text is taken from this article.

5.3 'After the war the London war room was sealed and remained so until 1976 when the land was required for an extension to the Natural History Museum. [The Palaeontology Building] The external walls were found to be 6 feet thick which made demolition difficult and expensive. It was therefore decided to incorporate it into the new extension with more storeys being added on the roof and a further building added to the front of the bunker on the site of an old tennis court. The rear wall was clad in brick in line with the rest of the new extension and is no longer recognisable. The original entrance to the bunker was from the basement of the Geological Museum where a tunnel sloped down into the control centre. This tunnel was removed during the new development and the area between the Geological Museum and the new extension is now a service road. The bunker is now accessed at either end by the original stairs that can now be accessed from the extension.' A plan of the bunker in its current state is shown in Figure 33.

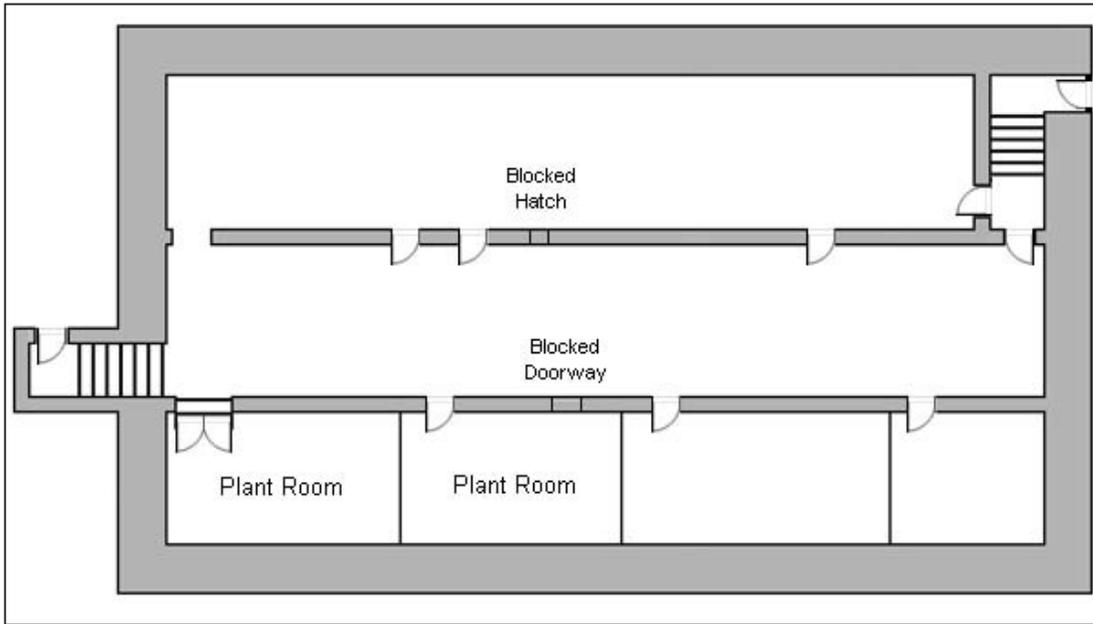


Figure 33. From Subterranea Britannica website

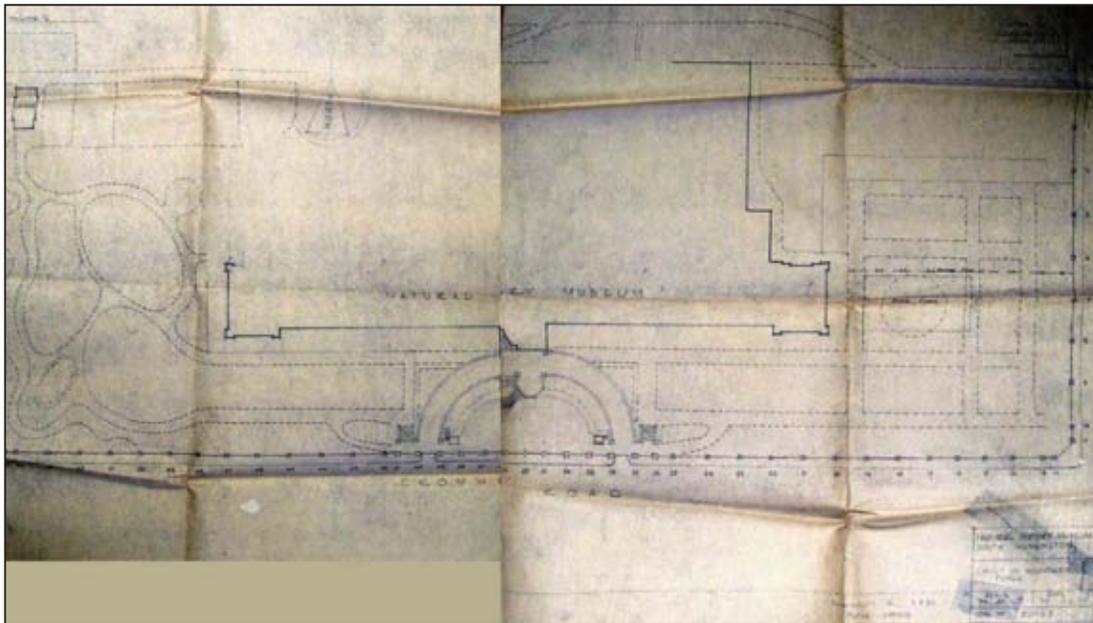


Figure 34. April 1950. TNA WORK 17/311

5.4 A 1950 plan does not show the bunker, but indicates the site of the tennis court. (Figure 34)

Note on the 'Museum Lane'

5.5 The access/service road to the rear of the site has changed in character over time. According to the 1894 Ordnance Survey plan (see figure 20) it was entered via a lodge and gate to the east but did not appear to run continuously across the site. There was a secondary access from the lodge to the west, a back entrance, it appears, to the Museum.

5.6 Early in the 20th Century (see figure 21, page 22, the road has become continuous across the site with service access gates and lodges at either end, apparently servicing the Museum only. On that plan, it is simply called 'New Roadway'.

5.7 Later it is labelled 'Common Road', but still appears only to be associated with NHM. A 1914 plan (where it is noted as 'Private Road', figure 26, page 26), and by 1932 it is partly developed by the present building that spans it. It appeared to provide some access to the Science Museum.

5.8 However, the plan evidence is contradictory and further research could establish exactly how access evolved over time.



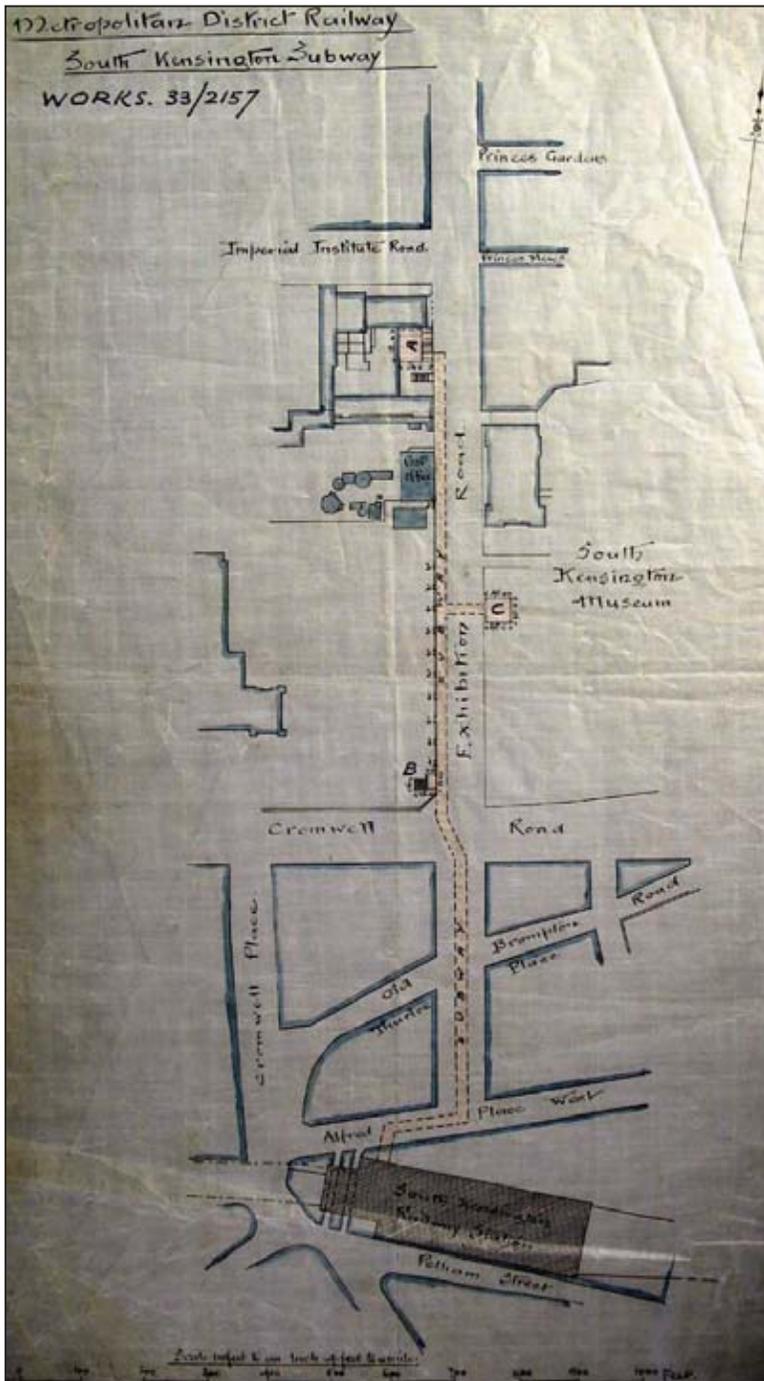


Figure 36. TNA WORK 33/2157

- 6.1 This had its origins in an 1872 plan to build a pneumatic railway running from South Kensington Station through Albertopolis. (Figure 35) Nothing came of this. London rats would have been no less destructive than their country cousins who ate the leather seals which Brunel had employed in his South Devon atmospheric railway. In 1878 Myles Fenton, the General Manager of the Metropolitan Railway, wrote to the Trustees of the Museum asking if they had any objection to the construction of a pedestrian subway which would pass under Exhibition Road. Waterhouse stated that there were no structural difficulties with regard to the Museum building and the Trustees replied that they had no objection to the project, but that they were unable to provide any financial assistance, as Fenton had hoped.

- 6.2 The Railway pressed ahead with the project and the tunnel was largely completed by 1885. An entrance to the NHM grounds was constructed but wrangles over access to the V & A were extraordinarily prolonged and a connection there was not made until 1910. The story of the subway and the V & A has been told by John Physick in *The Victoria and Albert Museum. The History of its Building*. London, 1982. An undated plan shows the subway as projected and constructed. (Figure 36)

- 6.3 Thus, and in simple terms, Waterhouse did not plan for a subway access linking the Metropolitan Line railway with the institutional buildings to the north. The garden layout here provided an expedient spur to make the connection, but there was no planned access designed with the grounds' layout in mind, either from a landscape perspective or to create a particular view of the Museum building for visitors arriving under the cover of the subway.
