

The Grounds as a Threshold to the Museum

'The architectural achievement of the building was not matched by the landscape design.'
Montagu Evans, 2011, The Evolution of the Grounds and their Significance

In our proposal, the grounds will have a dual function, conceived not only as a threshold for people visiting the Museum, but also as a recreational and educational space for local residents - a garden of discovery and pleasure.

Existing Grounds

Alfred Waterhouse's original plans for the grounds were never fully implemented. His landscape proposal of flower beds, paths and fountains was more reminiscent of Victorian municipal planting, and his vision for the grounds certainly did not match his architectural ambitions for the Museum. The subway connection into the East Grounds also created an approach that was never originally intended. In addition, the existing carriage ramp leading to the entrance obstructs the potential connection of the East and West grounds, leaving the West grounds under used. The existing entrance terrace does not provide level access through the main entrance into the Great Hall.

Design Proposal

Our design concept unifies the East and West Grounds in the form of two large stone and garden ramps that meet to form a raised parvis in front of the main entrance. We propose to replace the existing carriage ramp, or rather 'bury' it beneath the new stepped landscape. This enables connection of the Grounds and provides, for the first time, a fully inclusive approach to the entrance porch and Central Hall, delivering accessible step-free access for all visitors into the Museum.

A key aim of our proposal is to define clearly the individual character of the East and West Grounds, yet unify and fully integrate the grounds as a whole through the principle of an evolutionary trail. This trail reflects the Museum's content and takes visitors on a journey through the evolution of plants and species as well as an experience of the mineral world. The landscape should be perceived as a contemporary interpretation of Waterhouse's original concept for the grounds, a natural evolution in the Darwinian sense of the original design.

Extinct/Extant Species

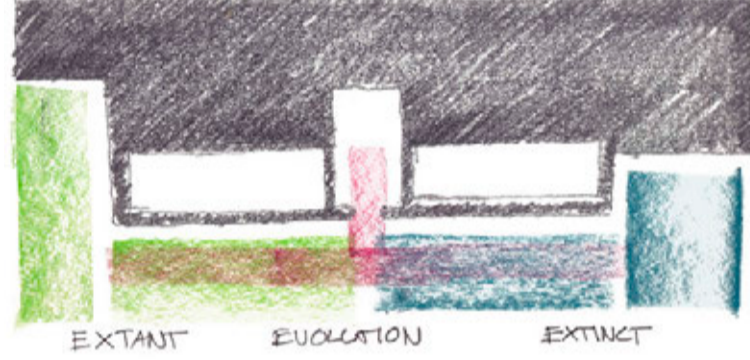
In the East Grounds, the extinct species and geological world are expressed through a wide ramped path in stone containing embedded artefacts, such as minerals and fossils. In the West Grounds, the extant species are represented in the terraced gardens and the 'Evolution Garden' — a living collection of natural species — echoing the internal organisation of the Museum.

Exhibiting the Museum Collection

The design of the gardens encapsulates the idea of the evolution of natural species and the scientific process of classification, ordering and progression. This methodical sequence of labelling and preserving materials is evoked in the ordered and layered arrangement of the new parvis terraced steps, the succession of the botanical collections and terrariums set within the grounds. The grounds aim to reflect the distinctive identity and content of the Museum, extending the display and interpretation of its collection into the new landscape as an 'Outside Gallery.'

Parvis

At the top of the ramps, the parvis offers a vantage point with views over the East and West Grounds, as well as a closer look at the fine ornaments on the south facade and Romanesque porch. A final ramp spanning over the existing steps, like a drawbridge, leads visitors to the Central Hall. Beneath the new parvis and ramps, the buried existing ramp is revealed as archaeology by inserting a new cafe and educational space/shop.



Concept diagram



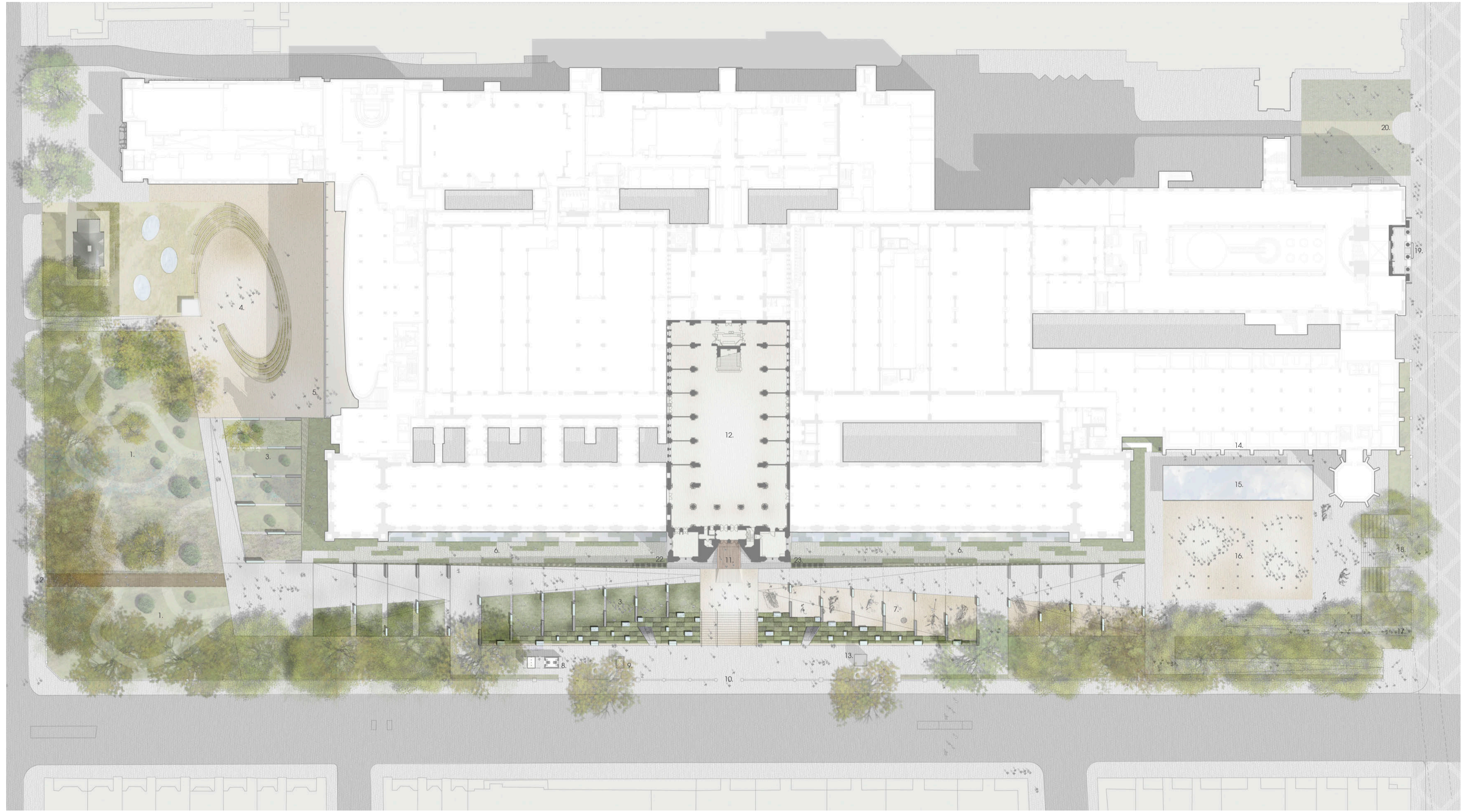
Stepped landscape, Peru



Natural History Museum Collection



Capitoline Hill, Rome

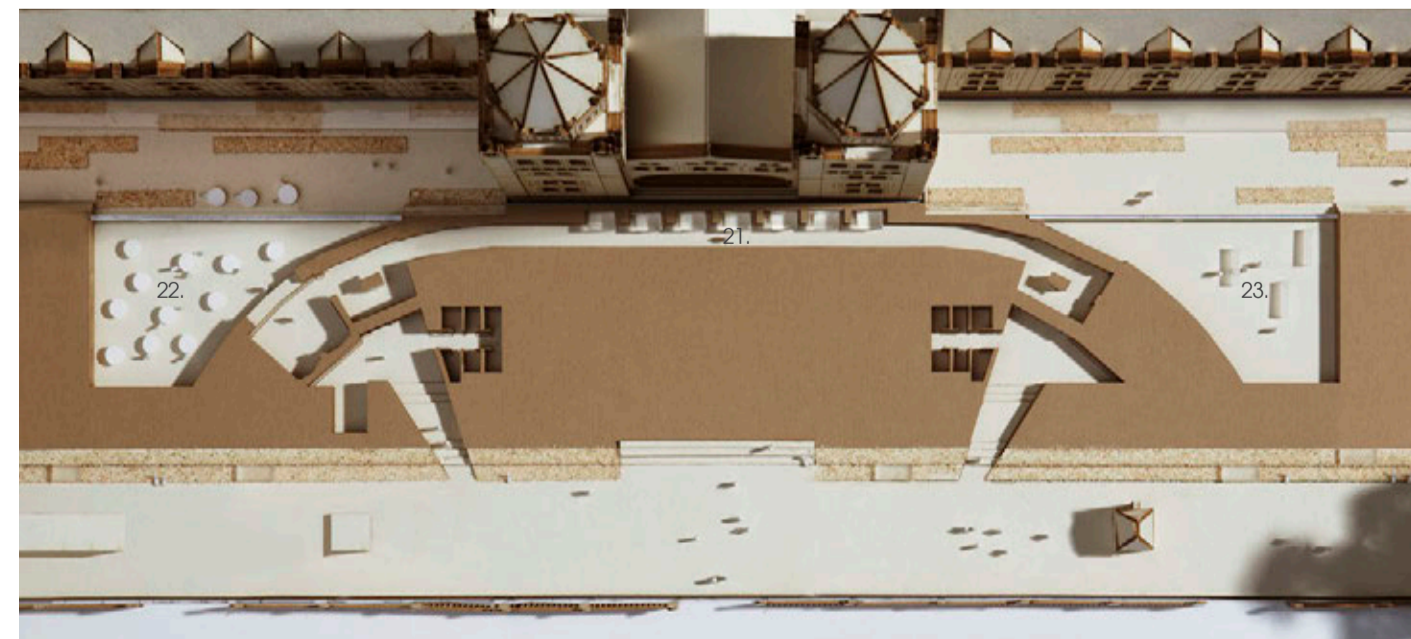


Key

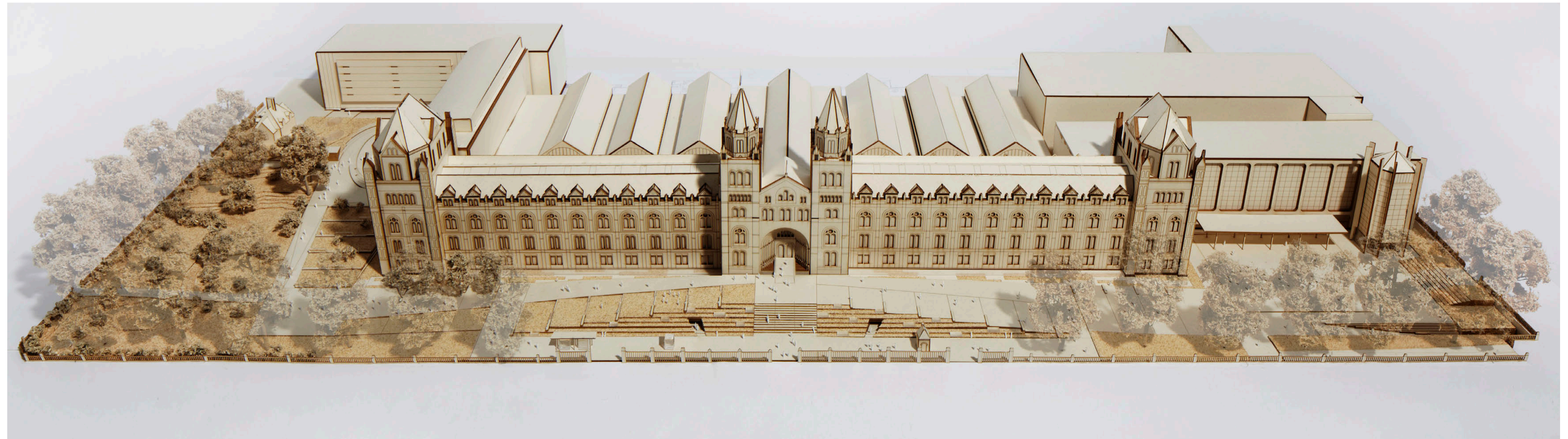
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|----------------------------|------------------------------------|----------------------------|------------------------------------|---|------------------------|
| 1. Wildlife Garden | 5. Darwin Centre Entrance | 9. Lift | 13. Security Hut | 17. Underground Access | Below Ground Level |
| 2. West Entrance | 6. Water Gardens/Reflecting Pools | 10. Proposed Gate | 14. Restaurant (within undercroft) | 18. Proposed Entry from Exhibition Road | 21. Proposed Gallery |
| 3. Stepped Garden | 7. Mineral Ramp | 11. Parvis/Entrance Bridge | 15. Pavilion | 19. Exhibition Road Access | 22. Cafe/WC |
| 4. Existing Darwin Terrace | 8. Ticket Booth/Information Centre | 12. Great Hall | 16. Proposed Square | 20. Exhibition Road Lawn | 23. Education Space/WC |



Sunken cafe/Education space



Below ground plan



Cromwell Road perspective

Masterplan

Context

The Natural History Museum grounds are one of the few public open spaces south of Hyde Park, offering recreational facilities for the local residents and families of South Kensington as well as the many people visiting the Museum. Our design aims to enrich these existing qualities, with a focus on:

- Providing a place like nowhere else, a space between a London square and a botanic garden where the natural world is celebrated
- Improved recreational facilities, both for visitors and local residents - places to sit, to picnic, to play - with added amenities such as cafés, shops and restaurants
- Reinforcing the individual characters of the East and West Grounds, with their contrasting ambiances, level of activities and visitors to enhance the overall civic realm

Masterplan

The Paleontology Square
This is a large public space paved with stone to allow overlaying of temporary exhibitions or seasonal activities such as the winter ice rink. When not in use, the square is punctuated and choreographed by a series of circular discs collecting rainwater, and water jets providing fountains or mist. This is a very active civic space, designed to accommodate large numbers of visitors and activities.

Sloped Gardens
A large slope forms part of a prominently mineral landscape leading to the main entrance of the Museum. The ramp is punctuated by large monolithic benches in various British stone types, and interrupted by a regular rhythm of perpendicular shallow drainage channels, reminiscent of those found on mountain paths.

Parvis
A large parvis sits at the top of the slope. It provides step-free access to the main entrance porch and Central Hall through a lightweight bridge ramp. A series of large landscaped steps opposite the Museum entrance lead towards a lower parvis containing a series of ticket booths assembled under a large canopy. Within the steps, two symmetrical stairs lead down to a cafe and bookshop.

Stepped Gardens
A series of large stepped gardens is stitched into a ramp along the western front facade of the museum, offering informal seating opportunities.

Evolution and Wildlife Garden
New planting symbolizing past millennia and native flora would be introduced to enhance the existing wildlife garden.

Temporary Events

Permanent features will be complemented with temporary exhibitions, combining cultural events with playfulness and recreational activity:

- A new Pavilion - a flexible and adaptable space for temporary displays and larger scale activities
- Temporary exhibitions on the ramps, reflecting specific themes within the Museum collection
- Integration of existing seasonal activities - such as the Butterfly House - into the 'Extant' Western grounds, outside the Darwin Centre
- Incorporating smaller activity spaces into the wildlife garden, feeding into the Museum's educational programme

Connectivity And Accessibility

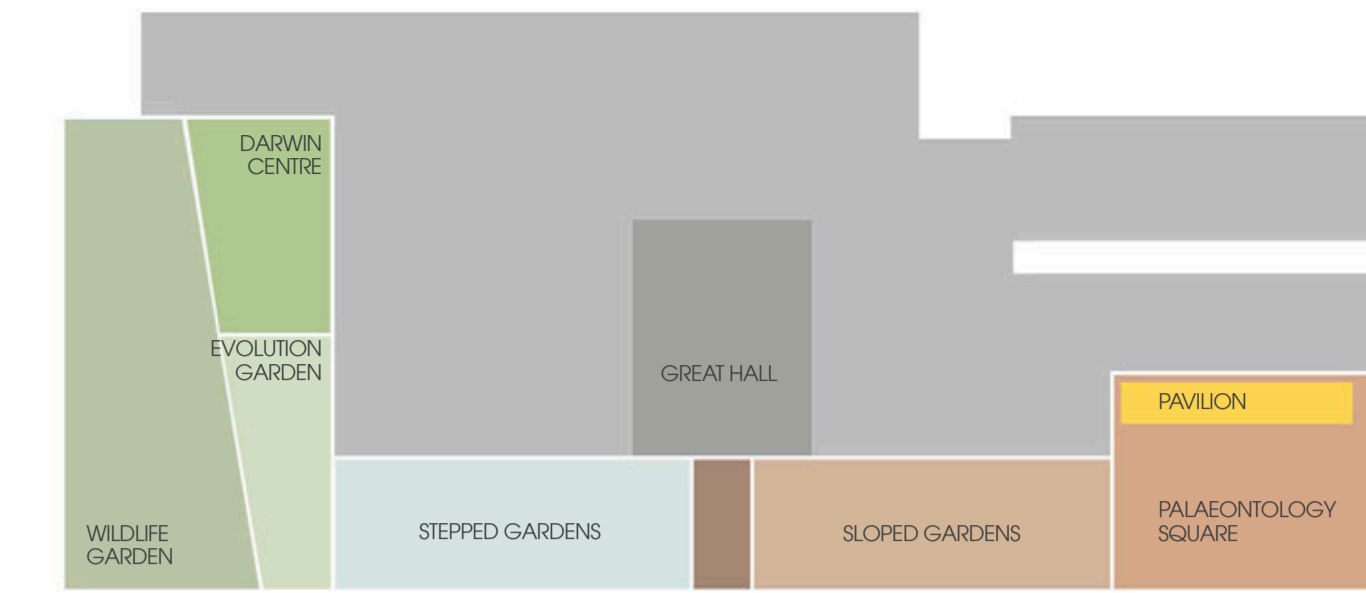
Our design resolves connectivity and imbalanced accessibility issues by:

- Reinstating a new raised walkway into the grounds to encourage use of the West Entrance
- Utilising the existing gate at the Darwin Centre as a pedestrian entrance from Queens Gate
- Introducing a new central gate to facilitate access from Cromwell Road to the new parvis
- A linear ramp linking the pedestrian tunnel to the East Grounds providing level access
- Improving the ramp from the corner of Exhibition Road, allowing pedestrians and delivery vehicles enhanced access into the East Grounds
- Creating a large new opening within the existing railings on Exhibition Road

Crowd Management

The design has been tailored to support a range of queuing and access management arrangements, to improve the welcome experience and to reduce the barrier created by large queues of visitors buying tickets for exhibitions in the Central Hall:

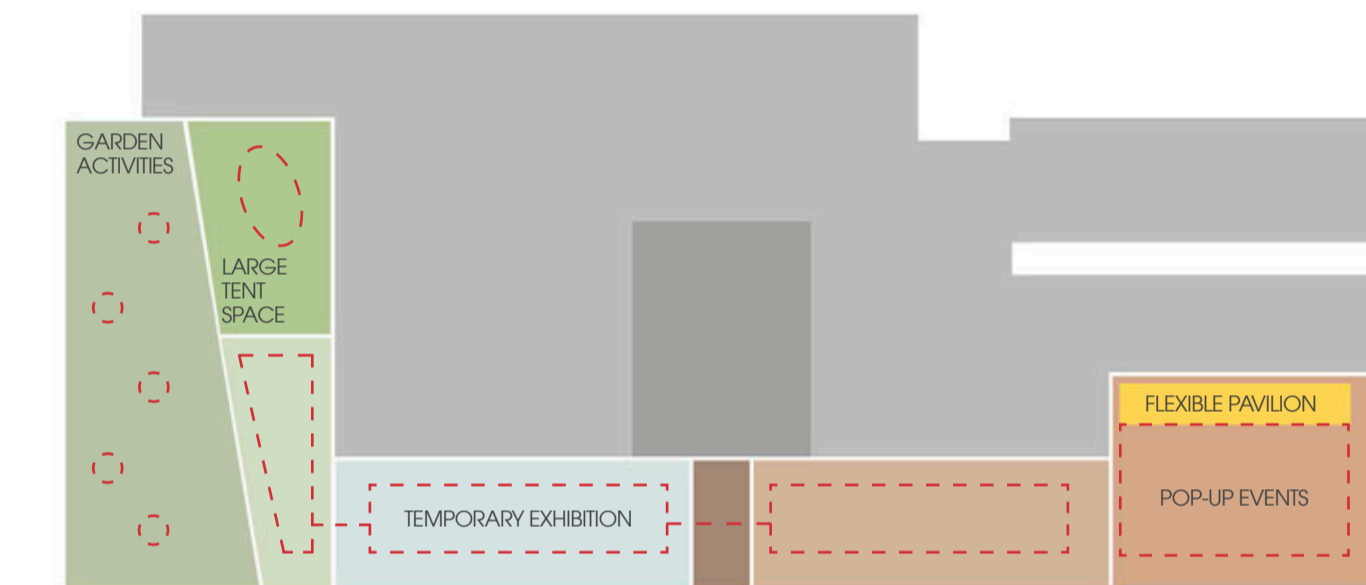
- Ticketing counters are relocated into a new pavilion within the grounds
- On-site amenities within the grounds are complemented by an education/welcome/induction area for large groups
- Coach parking is relocated to the West Entrance



Masterplan



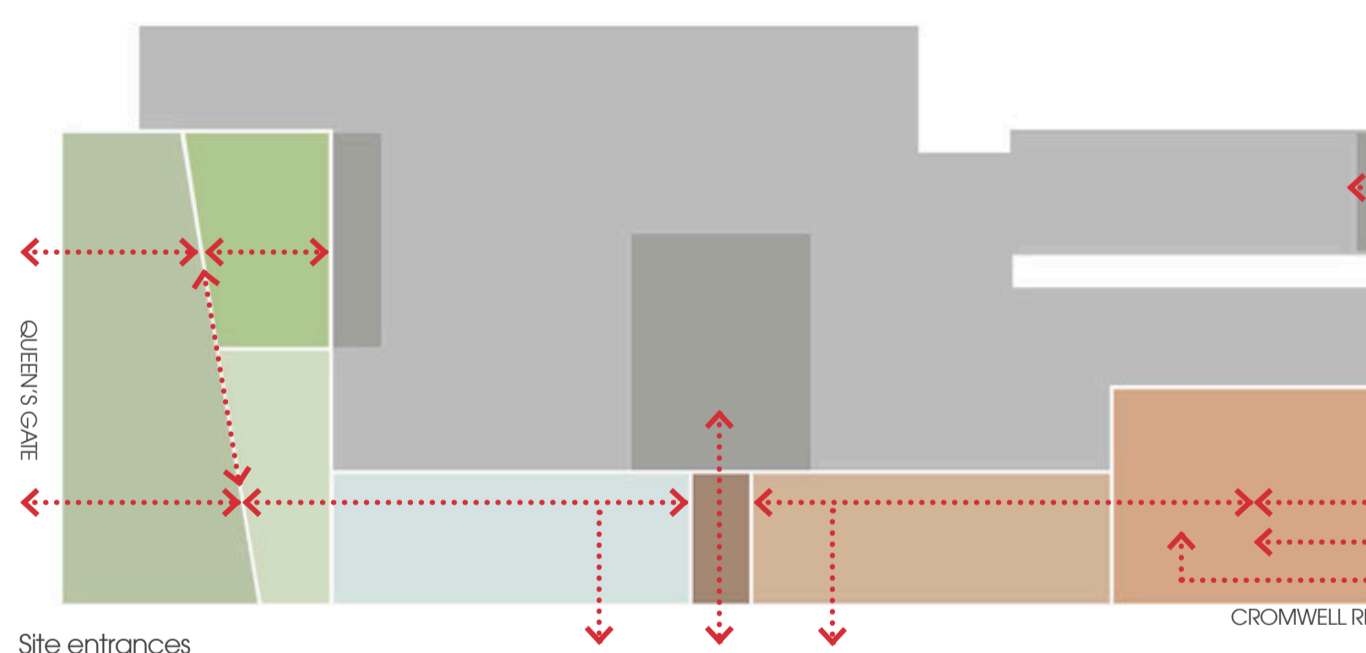
Activity



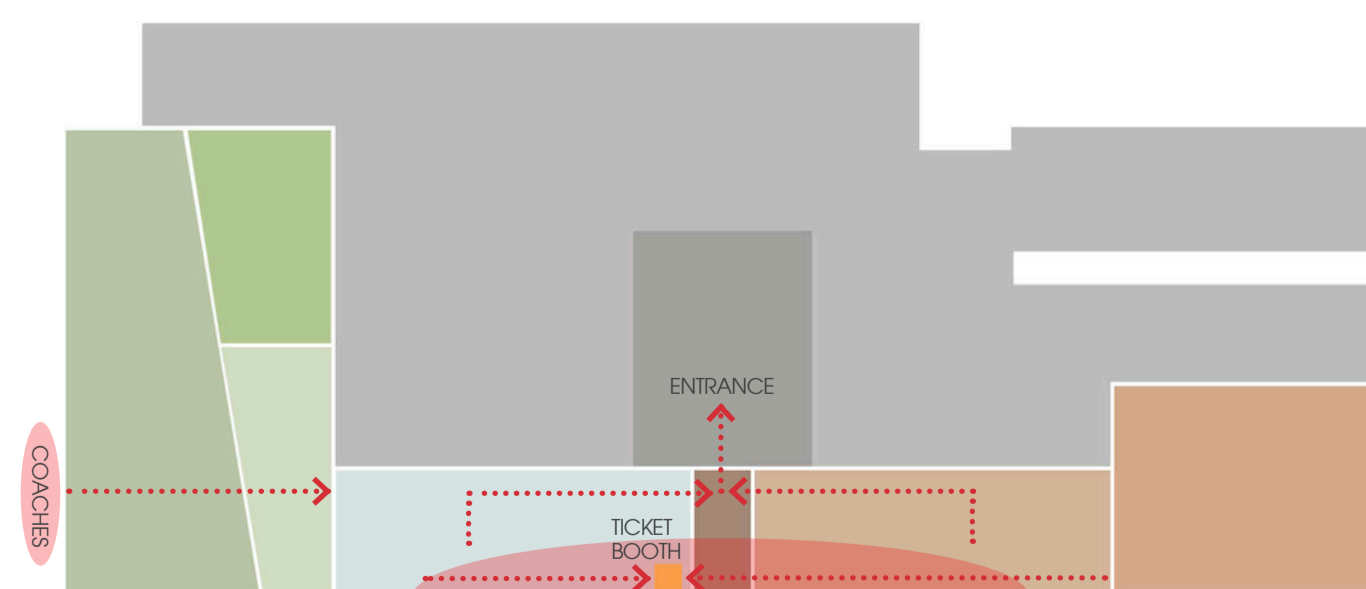
Temporary events



Approach



Site entrances



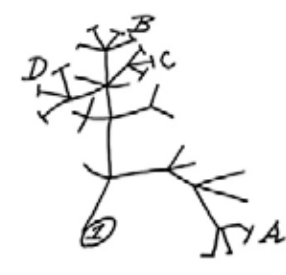
Queuing system



West approach



East approach



Evolution Garden

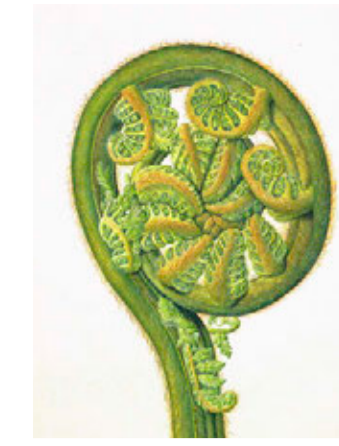
The gardens form an Outside Gallery with a living collection in the West, fossil elements on the Eastern mineral side and sculptural terraria throughout the site that can be used for changing exhibits. The grounds include water, plants, stones and fauna, each element telling a story of life on earth. The Western, quieter side of the grounds will have an Evolution Garden. It begins opposite the Darwin Centre with water, mosses and ferns, and illustrates evolutionary relationships via Cycads, Ginkgo, Wollemi Pine and native Conifers. The southern part of the garden focuses on the London Flora Project along with aspects of change within regional vegetation.

The Thinking Path

The trails reflect the 'thinking path' conceived by Charles Darwin and put in place at Downe House, his family home. Darwin strolled along this sand-covered path which wound through woods and lead back to the house, contemplating the determining aspects of his theory of evolution and natural selection.

'I think it inevitably follows, that as new species in the course of time are formed through natural selection, others will become rarer and rarer, and finally extinct. The forms which stand in closest competition with those undergoing modification and improvement will naturally suffer most.'

Charles Darwin, 1859, The Origin of Species



Dicksonia Antarctica



Encephalartos Ferox



Ginkgo Biloba



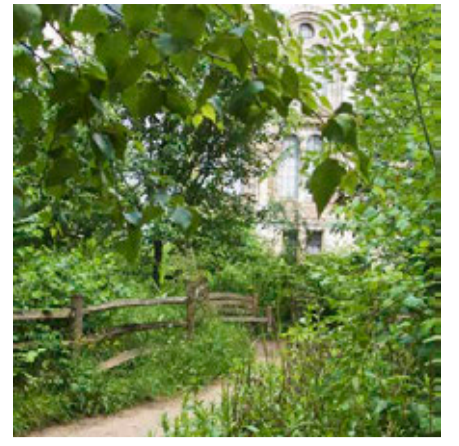
Wollemia Nobilis



Papaver Orientale



Rosa



Existing wild garden

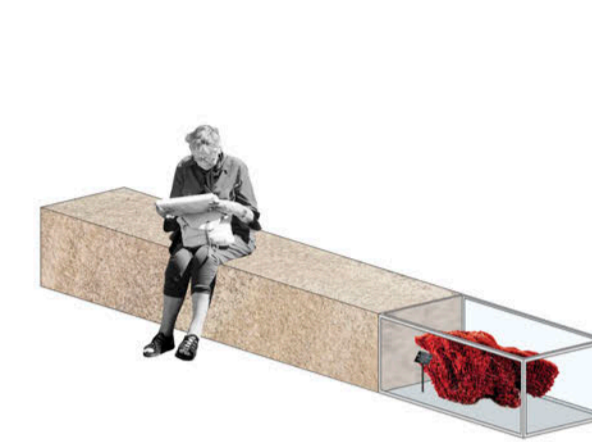
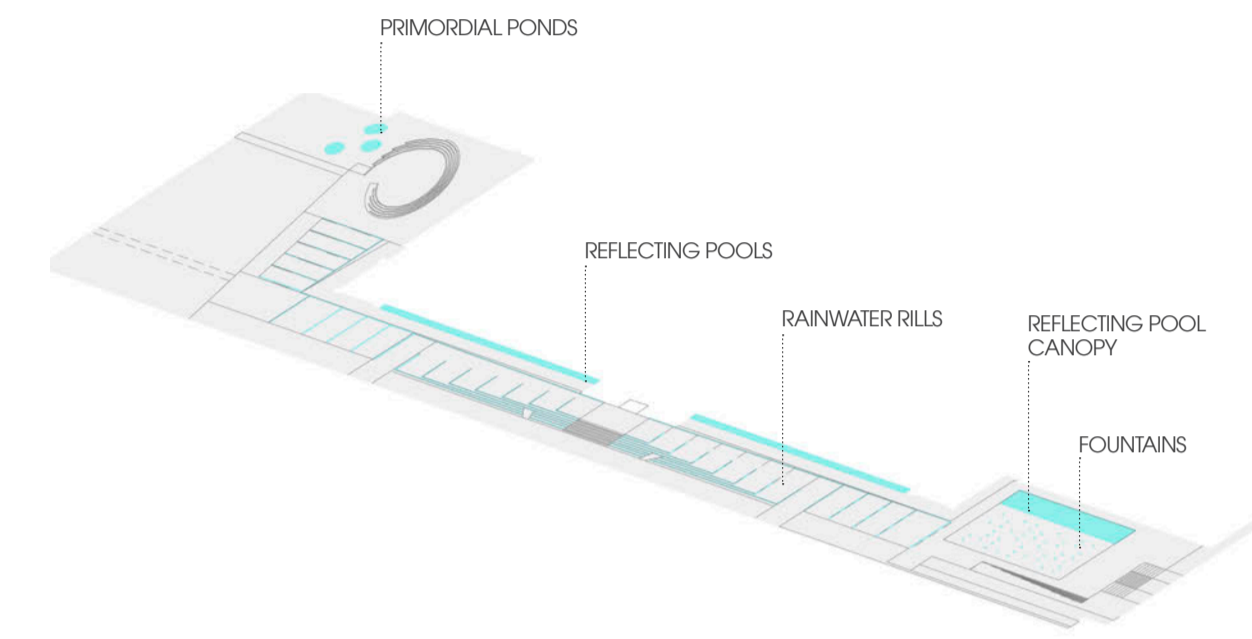


Hydrology

The first trail is based on the theme of water, its importance as an invaluable source in the creation and sustenance of life on earth. A network of open drainage, rills, pool, ponds and springs evolve throughout the grounds as water travels down the inclined landscape. The playful use of water will add enjoyment for visitors, following a tradition seen in historic gardens where water was used as a means to educate and entertain.

'Water is the driver of all Nature.'

Leonardo da Vinci, 1452-1490



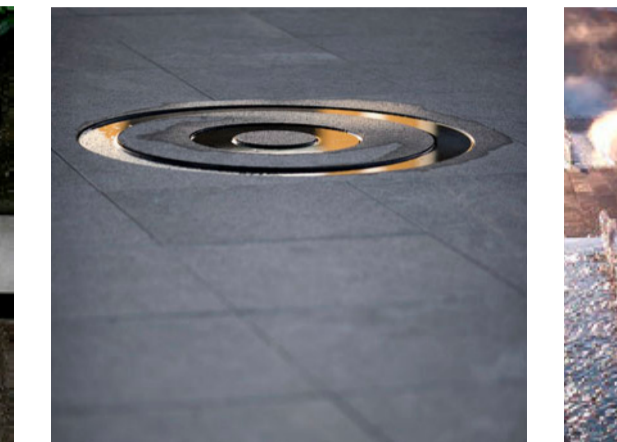
Bench terrarium



Rills



Fountain



Captured pools



Mist



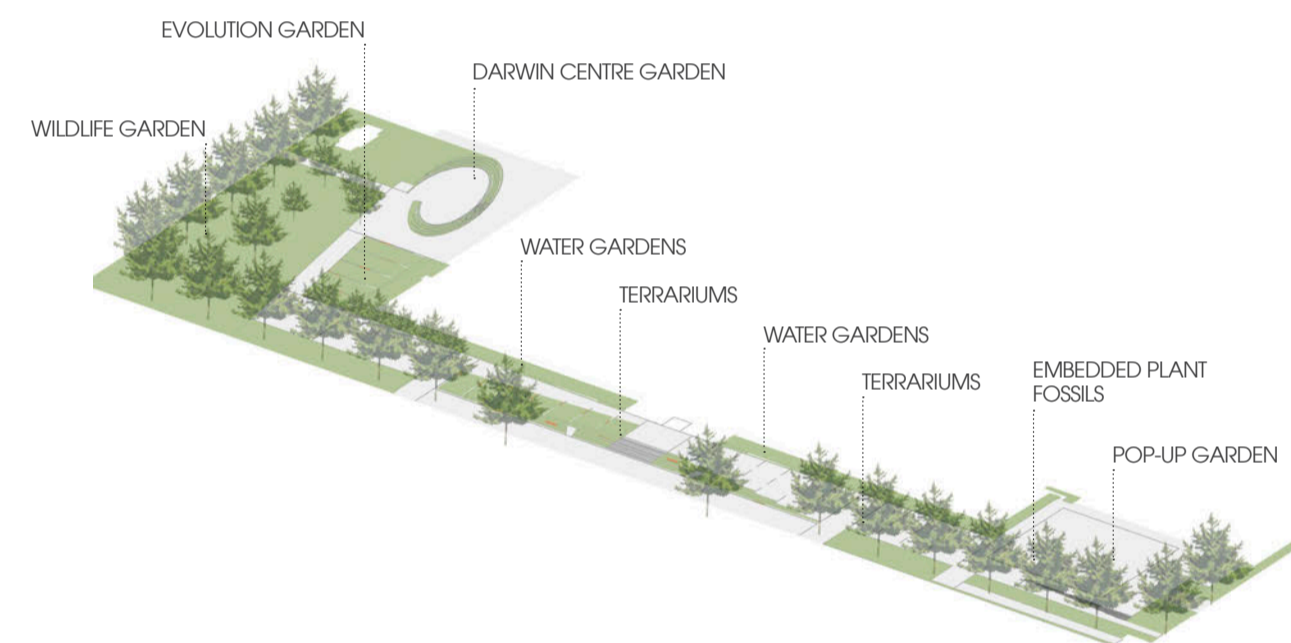
Botany

The second trail is a botanical trail, through the living collection of the evolution gardens and the native garden. The southern terrace with its wide, raised beds could be permanently planted or display a programme of changing exhibits related to the Museum's collection themes, such as Sweet Pea, used to illustrate Mendel's theories on genetics.

A network of terrariums, or glass displays that contain specimen plants, fossils or other exhibits act as garden lanterns providing low level lighting to the pedestrian routes in the evening. These terrariums would be disseminated among the grounds, and could host temporary exhibitions of exotic plants from Kew or other collections.

'The science of the vegetable kingdom, is one of the most attractive, most useful, and most extensive departments of human knowledge. It is, above every other, the science of beauty.'

Sir Joseph Paxton, 1838, Peter Parley's Encyclopedia of Botany



Terrarium



Victorian era terrarium



Plant fossils



Evolution garden



Formal planting

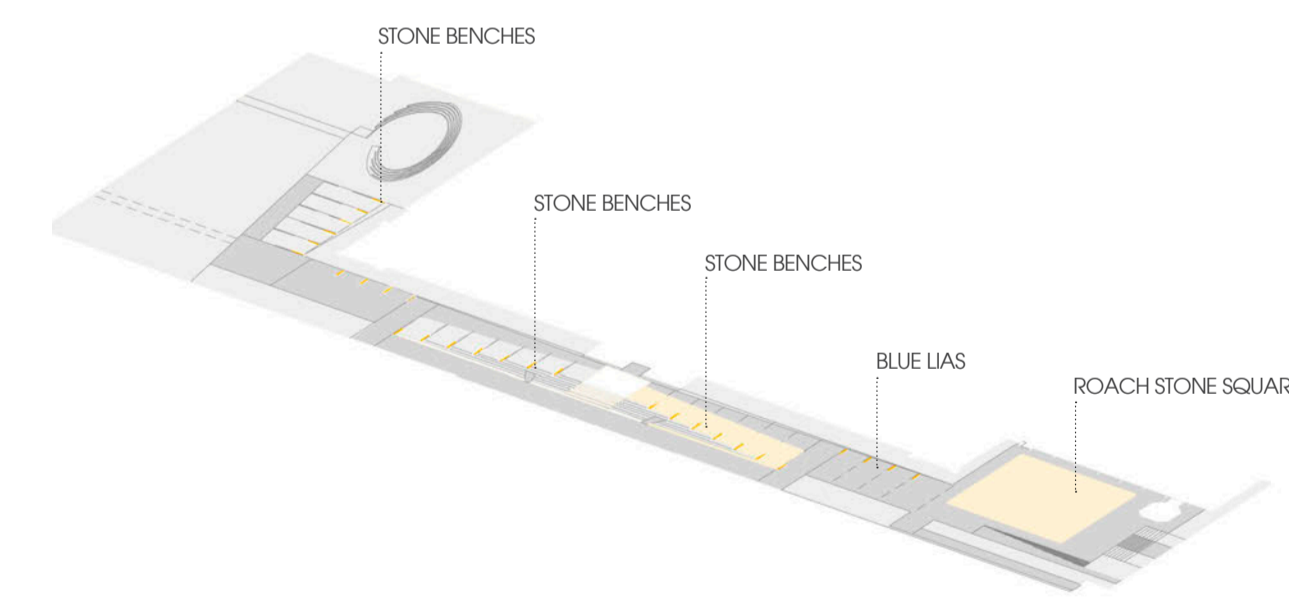


Geology

The geological trail uses a range of native British stone types. Starting at ground level with Portland Roach and Blue Lias both rich in fossil and continuing with an array of other stone including lime stone, sandstone, slate, quartz and granite. Each stone is used individually for the monolithic benches spread along the grounds, a similar strategy to the one adopted by the contemporaneous Oxford University Museum of Natural History, where columns surrounding a central court are made of different British decorative rock.

'It was a very fine fragment of lias with ammonite impressions, exquisitely clear, microcosms of macrocosms, whirled galaxies that Catherine-wheeled their way across ten inches of rock.'

John Fowles, 1969, The French Lieutenant's Woman



Raised terrarium



Lyme Regis cliffs



Blue Lias



Portland Roach



Giants Causeway

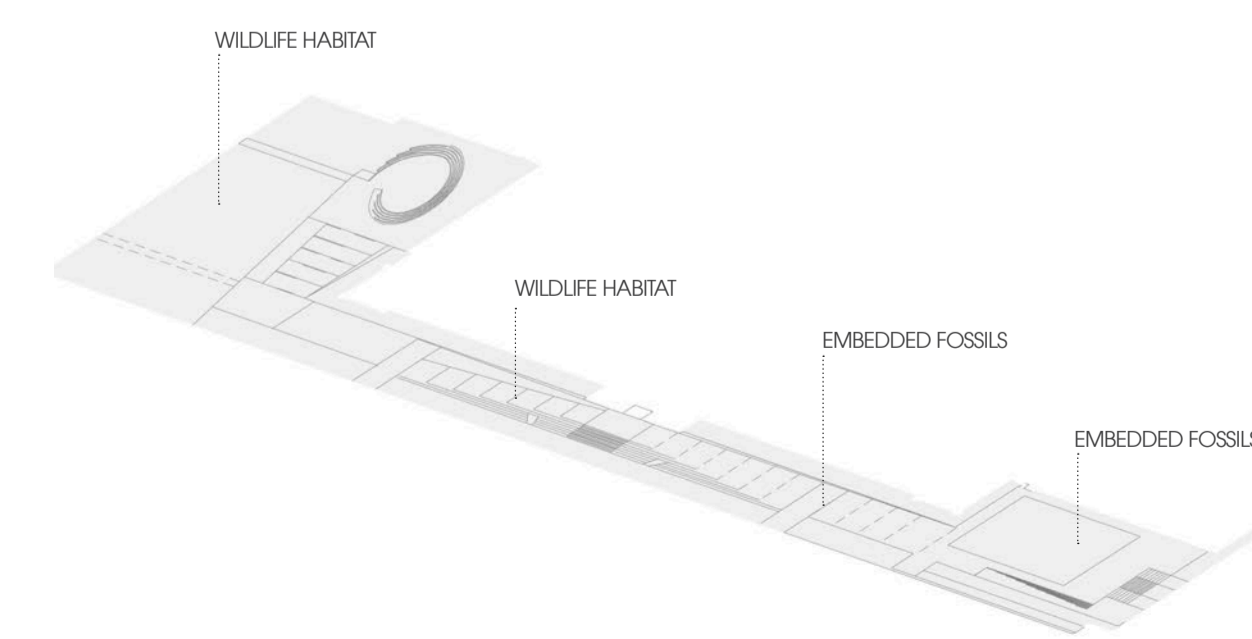


Zoology

The zoological trail starts with fossils in the East Grounds. These are imbedded into the hard surface, captured in either Portland Roach - a limestone rich in fossils from the Jurassic period - as well as Blue Lias, another fossil rich limestone, found in the famous Lyme Regis cliffs. Larger fossils of extinct species could be carved into the stone paving and seating along a trail that would lead onto the Western Grounds. In this area, visitors could also discover living species from insects to small mammals and birds located in the more sheltered environment of the Evolution and Wild life gardens.

'It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is the most adaptable to change.'

Charles Darwin, 1859, The Origin of Species



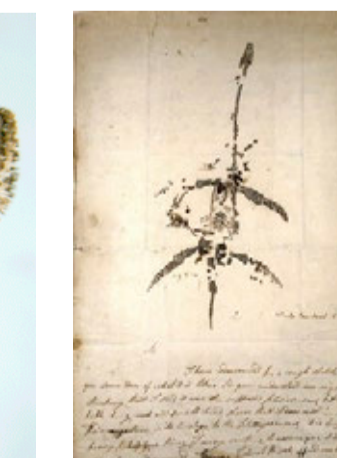
Embedded display



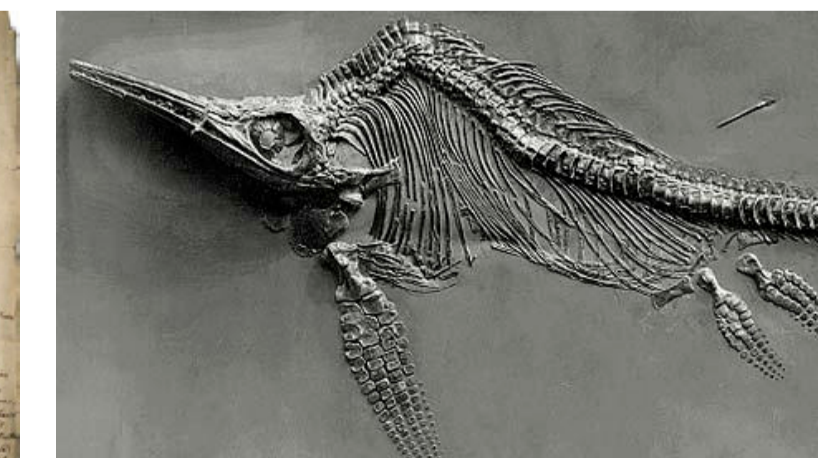
Collecting insects



Protected species



Mary Anning's fossils



Embedded fossils

Controlling Construction Risks: Phasing

Our approach allows for a phased delivery, providing flexibility to accommodate Museum funding arrangements and operational needs. For instance:

- Phased construction of ramps, maintaining access to main entrance and minimising disruption at entrance area
- Keeping the East approach operational during improvements to the West ramps and vice versa, encouraging use of the Gloucester Road underground station as a pedestrian route and enhancing overall access to the Grounds

Phased elements would be managed to avoid costly interim temporary solutions, mitigating any risk to the Museum's reputation with fundraisers. In a broader sense our approach also seeks to compliment and enable the planned redevelopments for the Museum interior.

Approach To Landscape Construction and Maintenance

Controlling construction risks: Tree protection

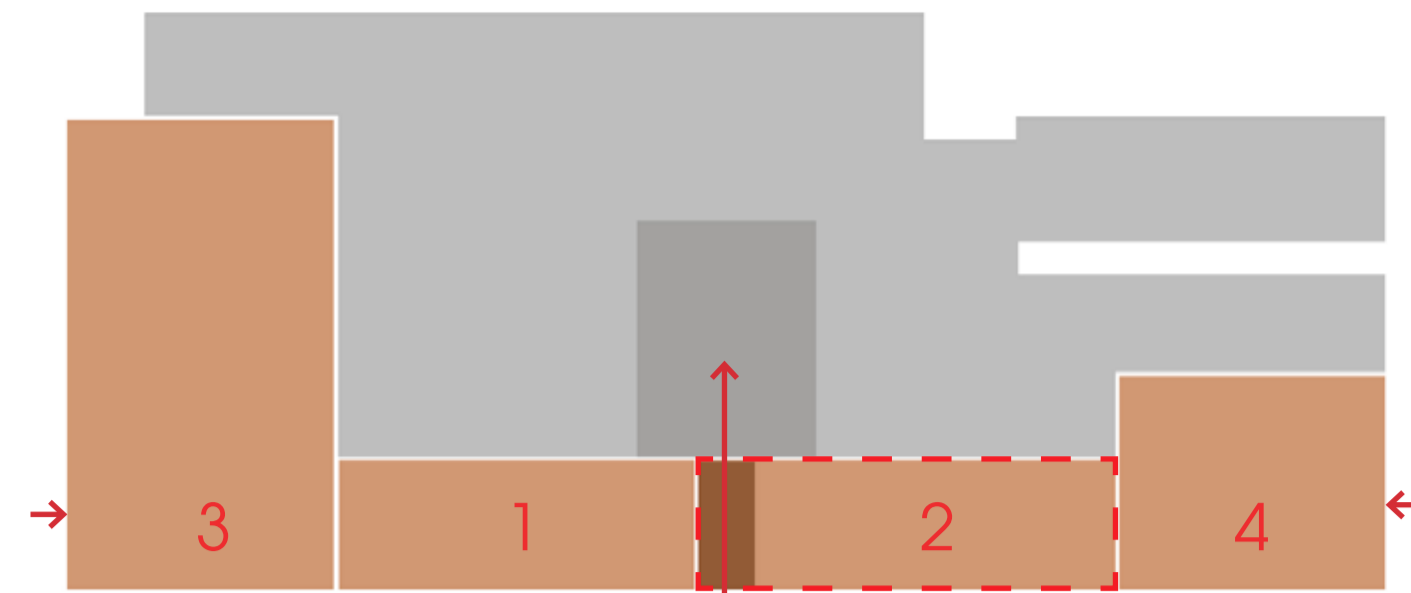
Our approach to landscape design intends to retain existing plane trees, with a suspended structure developed to minimize any disruption to tree roots while meeting the DDA requirements for level changes.

Tree root surveys and a careful assessment of the design will ensure that any adverse impact on the trees or root distribution is mitigated. The wildlife garden is maintained and enhanced, to preserve its existing species while increasing biodiversity by providing further habitat opportunities for insects, small mammals and birds.

Maintenance

The landscape design enhances and diversifies the variety of usable green space.

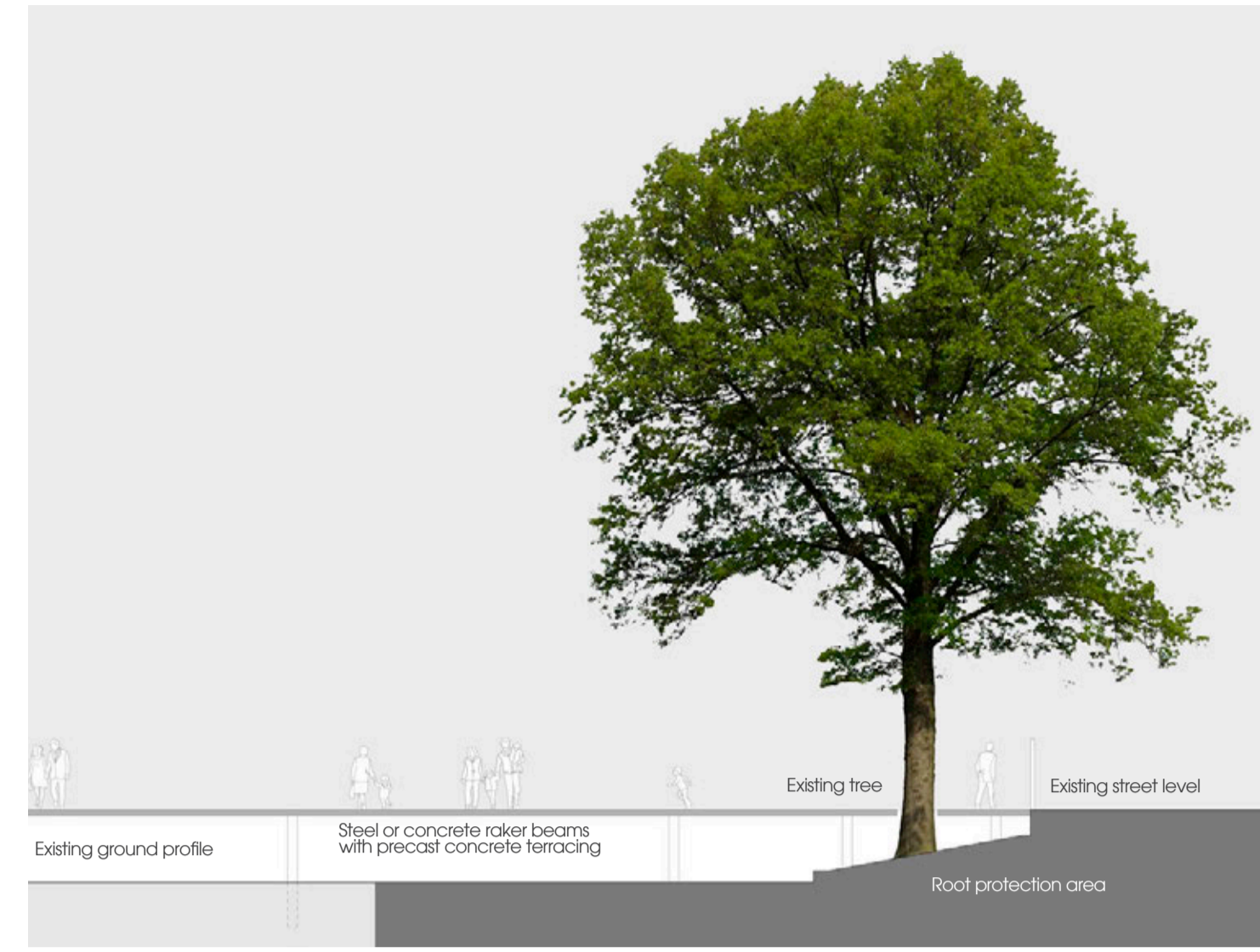
Our approach to the landscape framework offers a level of flexibility to accommodate a maintenance strategy without compromising design quality. Consultation with the Museum's scientific and management teams will establish the right balance between ambition and feasibility for increasing the biodiversity and maintenance of the grounds.



Potential phasing



Maintaining access



Existing tree bridging structure



Stepped garden

Environmental Approach

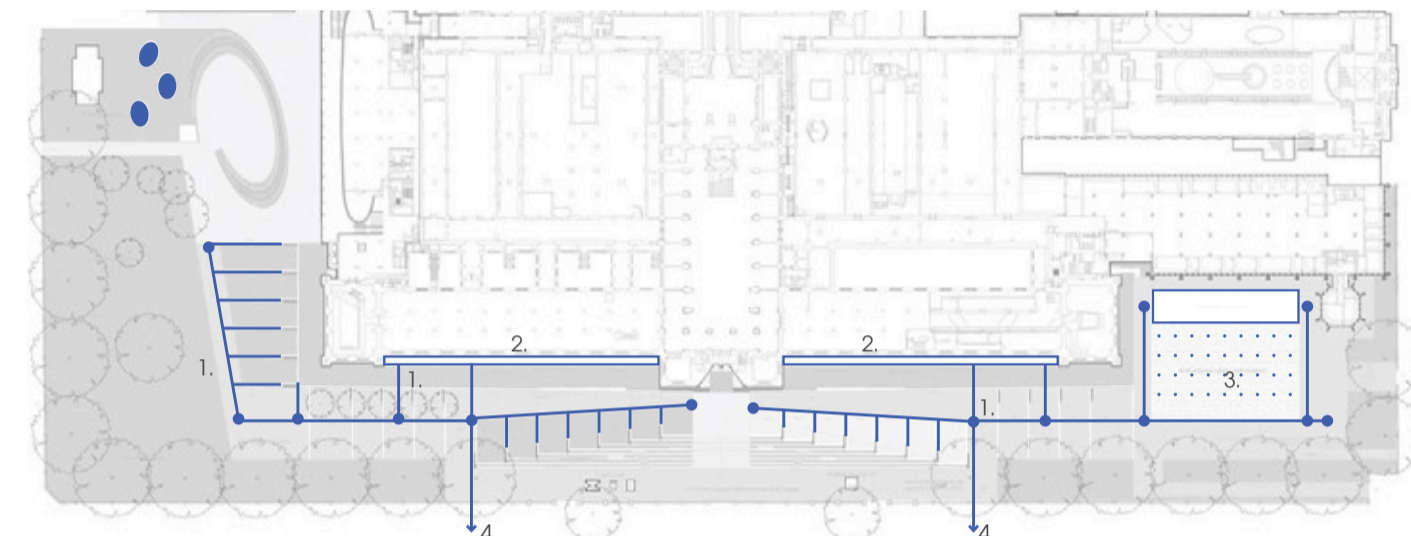
A surface water drainage and collection strategy is integrated into the new Grounds. Water flow will run at surface level through open channels and rills, conveying water at a shallow depth for optimum integration within the landscape strategy.

Water flows into landscaped bio-retention areas adjacent to the Museum, enhancing biodiversity and mitigating flood risk with the additional benefit of use for irrigation.

Structural Engineering Approach: 'Burying' the Ramp

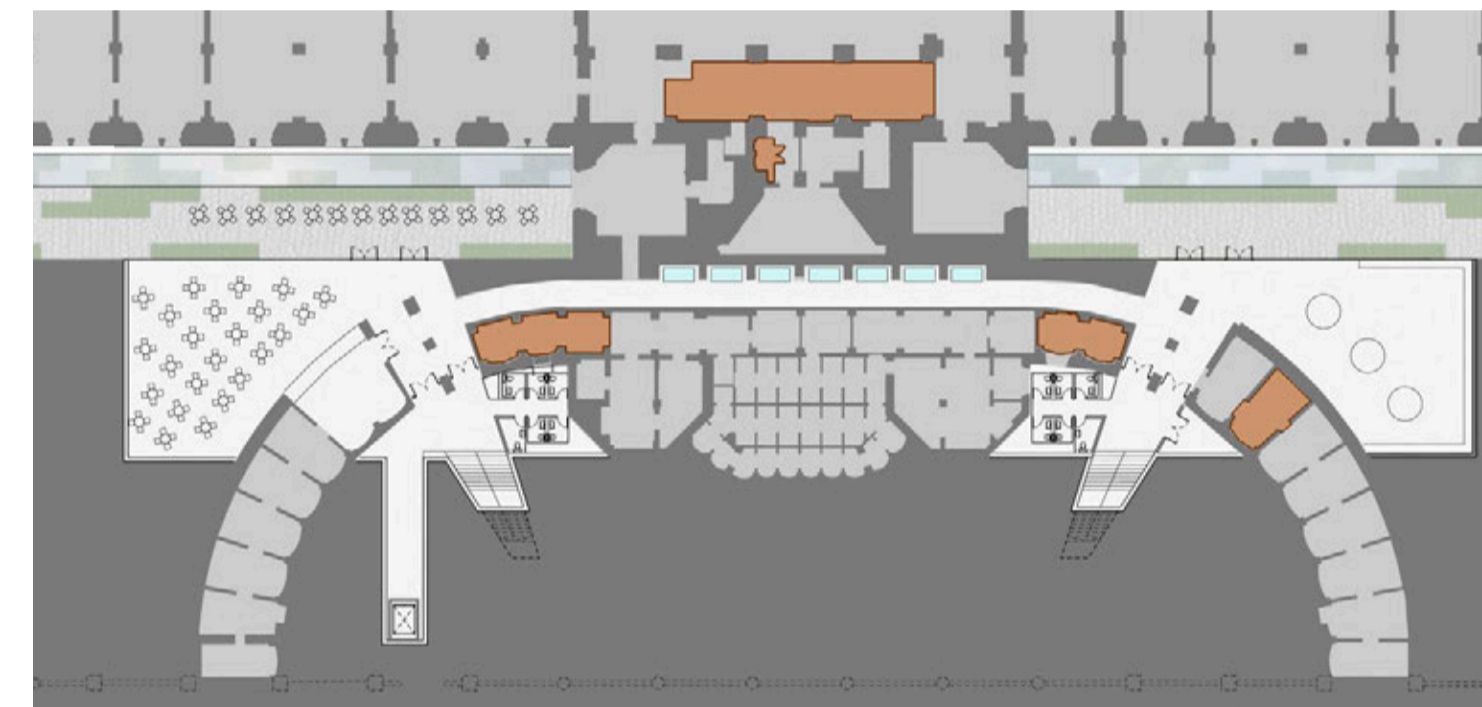
Our design creates a significant area of new public space over the Grade I listed ramp, through construction of a single storey structural frame which bridges over the existing ramp. This structure would be constructed in either steel or concrete, depending on the final depths available between the existing ramp slab and the new finish levels. Foundations will be carefully considered to avoid the existing ramp structure and its foundations.

Beyond this zone, retaining walls will be constructed at the transition space between the bridging structure and the lower ramp levels. Constructed as earth build-up, the walls create the ends of a box in which new accommodation can be housed.

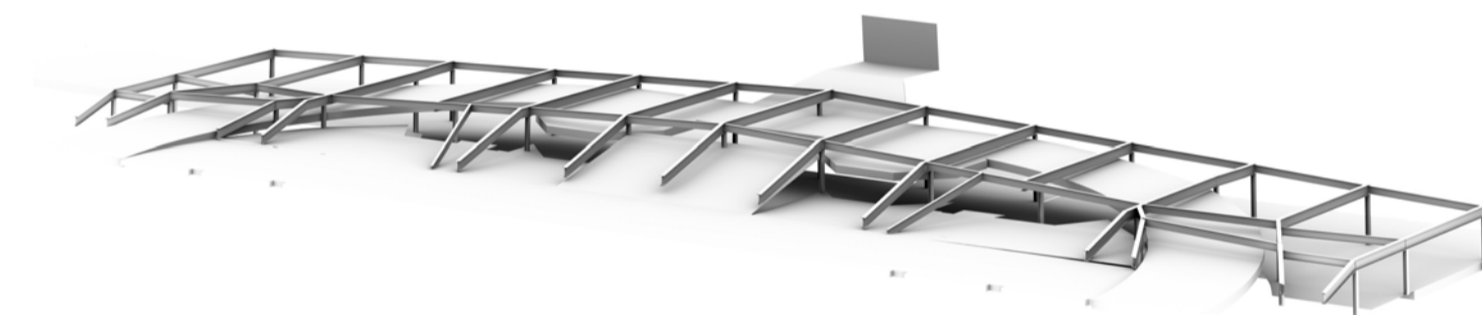


Sustainable water collection system

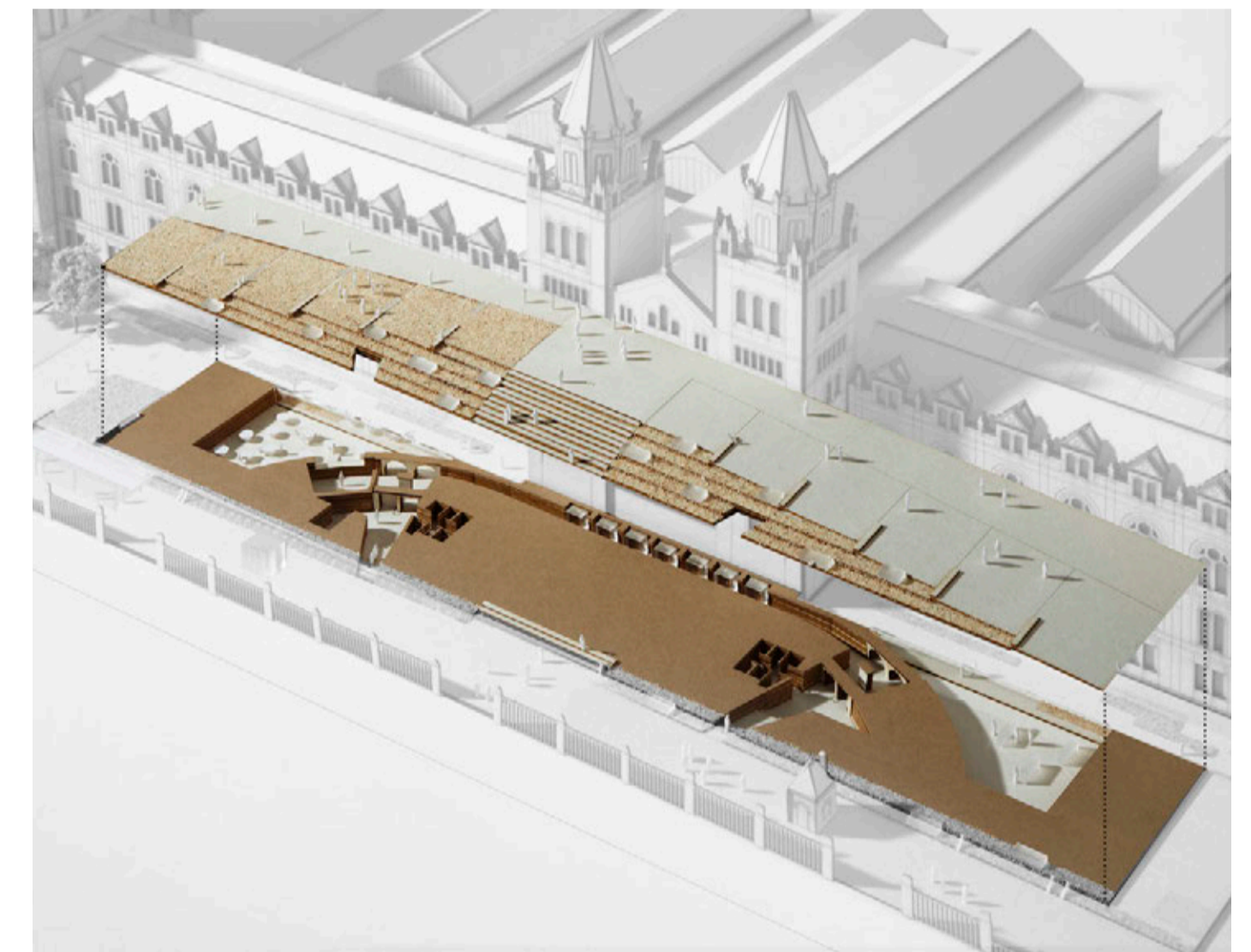
- Key
1. Open drainage/irrigation rills
 2. Rainwater collection pools
 3. Fountain
 4. Discharge into the sewers



Existing ramps showing retained plantroom



Existing ramps with proposed bridging structure



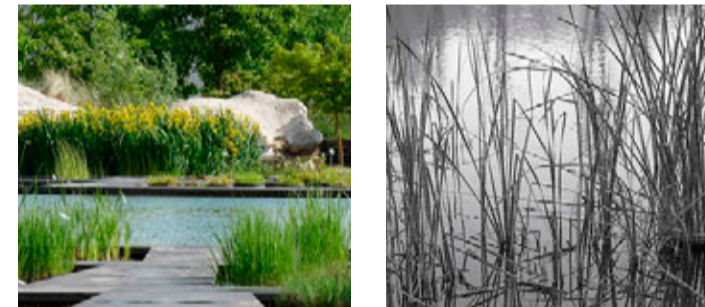
Proposed ramps showing Café/Education space below

Integrating Services

The introduction of structure above, and accommodation around the ramp zone will require some re-routing of air intake and extract paths to serve existing plantrooms which remain in-situ and undisturbed. These take the form of discretely expressed elements, incorporated into the new raised landscape.

Lighting and ventilation plant for new café and amenity spaces at basement level will be incorporated into the spaces below the suspended public area.

Existing electrical panels below the ramp will serve lighting across the public spaces. Retention of existing services and plants below the ramp zone, with minimal structural and services modification has value benefits as costs are reduced.



Water planting

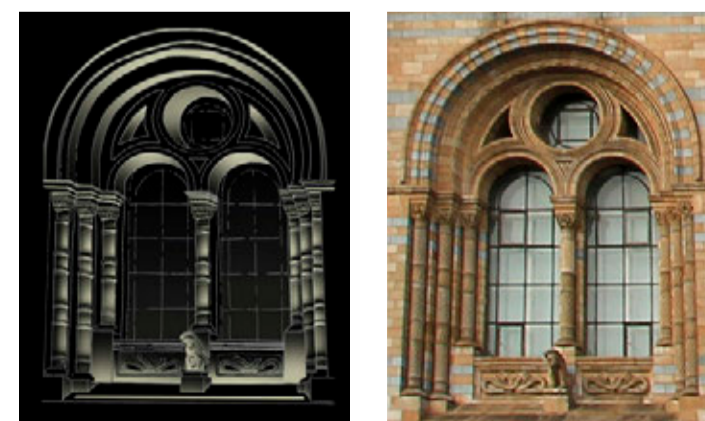
Lighting Approach

Our design emphasis will be towards the precise and unobtrusive control of artificial light, providing safe and secure night-time illumination in a manner that compliments the landscape design, reinforcing the thematic trail and enhances the selected materials.

Our approach incorporates a more sympathetic lighting treatment to the existing façade to create a subtle but arresting backdrop to the proposed landscape, highlighting the architectural forms and rich details in a manner similar to the Great Hall interior. The approach presents the façade of the Museum as a series of 'Rooms', transforming it into a fascinating night-time exhibit and supplementing and enhancing the landscape design.

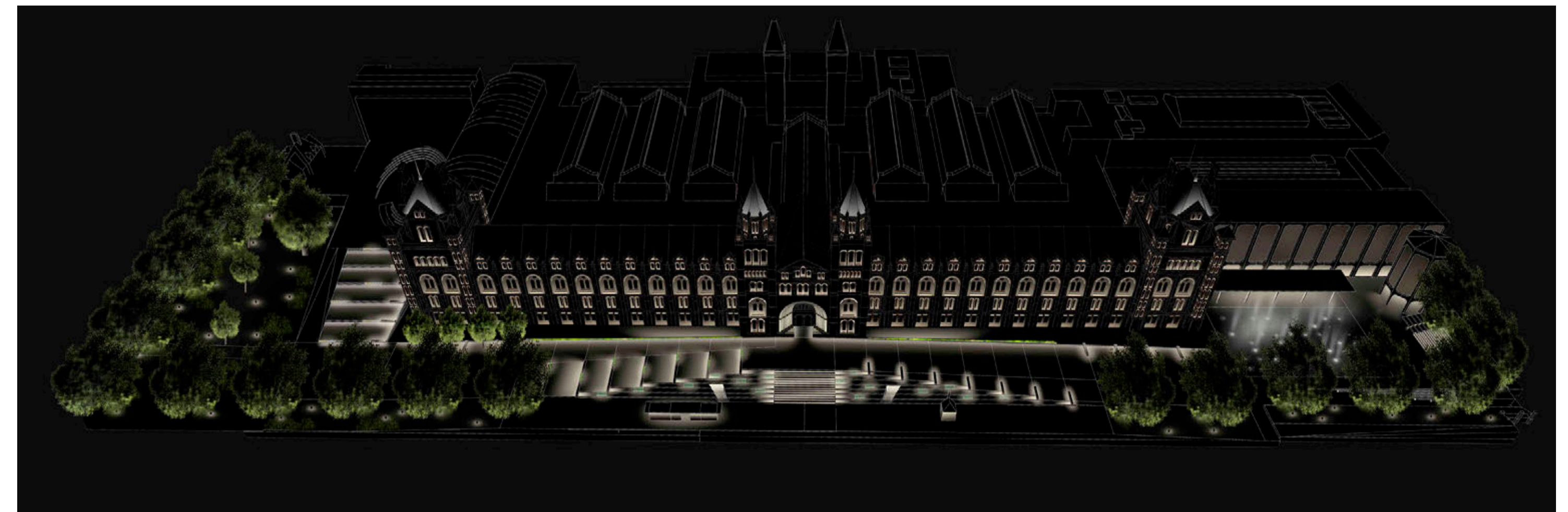


Terrarium lighting



Window reveal, night

Window reveal, day



Cromwell Road, night view