

EVOLUTION DIAGRAMS
LEVEL 5 1988

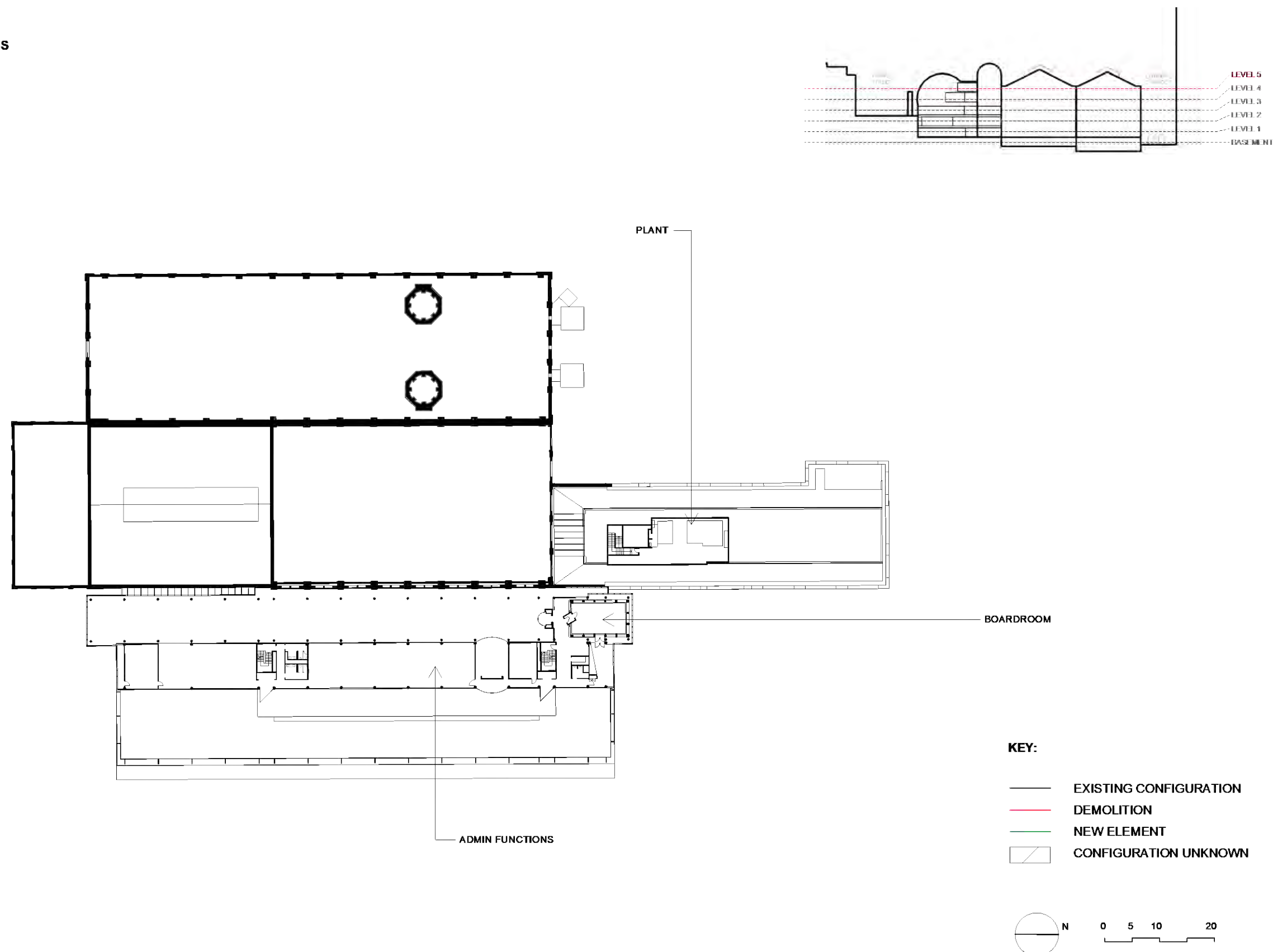


Figure 15: Stage II Powerhouse Museum Evolution Diagram for Level 5, 1988.

EVOLUTION DIAGRAMS
LEVEL 5 2013

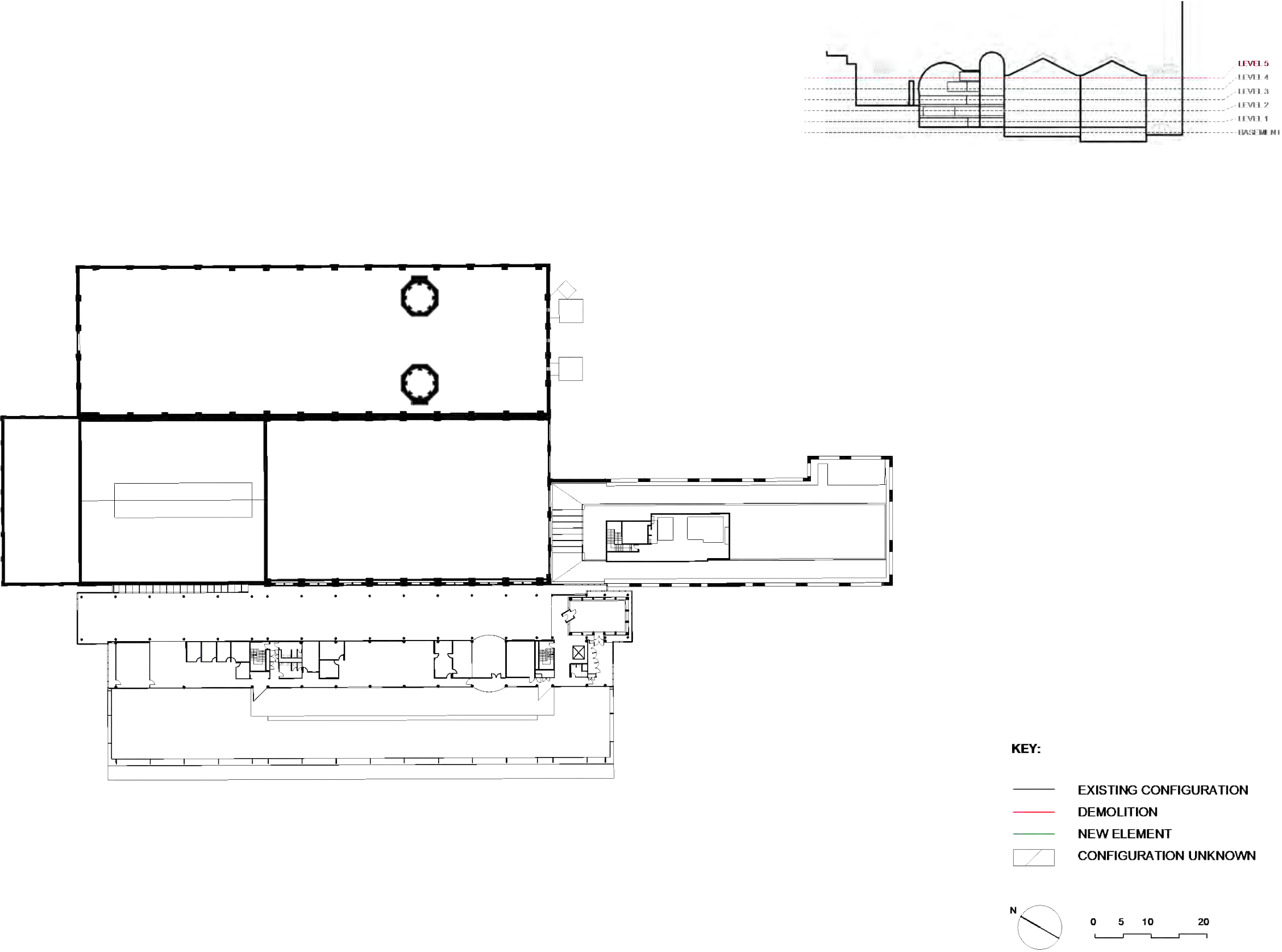


Figure 16: Stage II Powerhouse Museum Evolution Diagram for Level 5, 2013.

EVOLUTION DIAGRAMS
LEVEL 5 2022

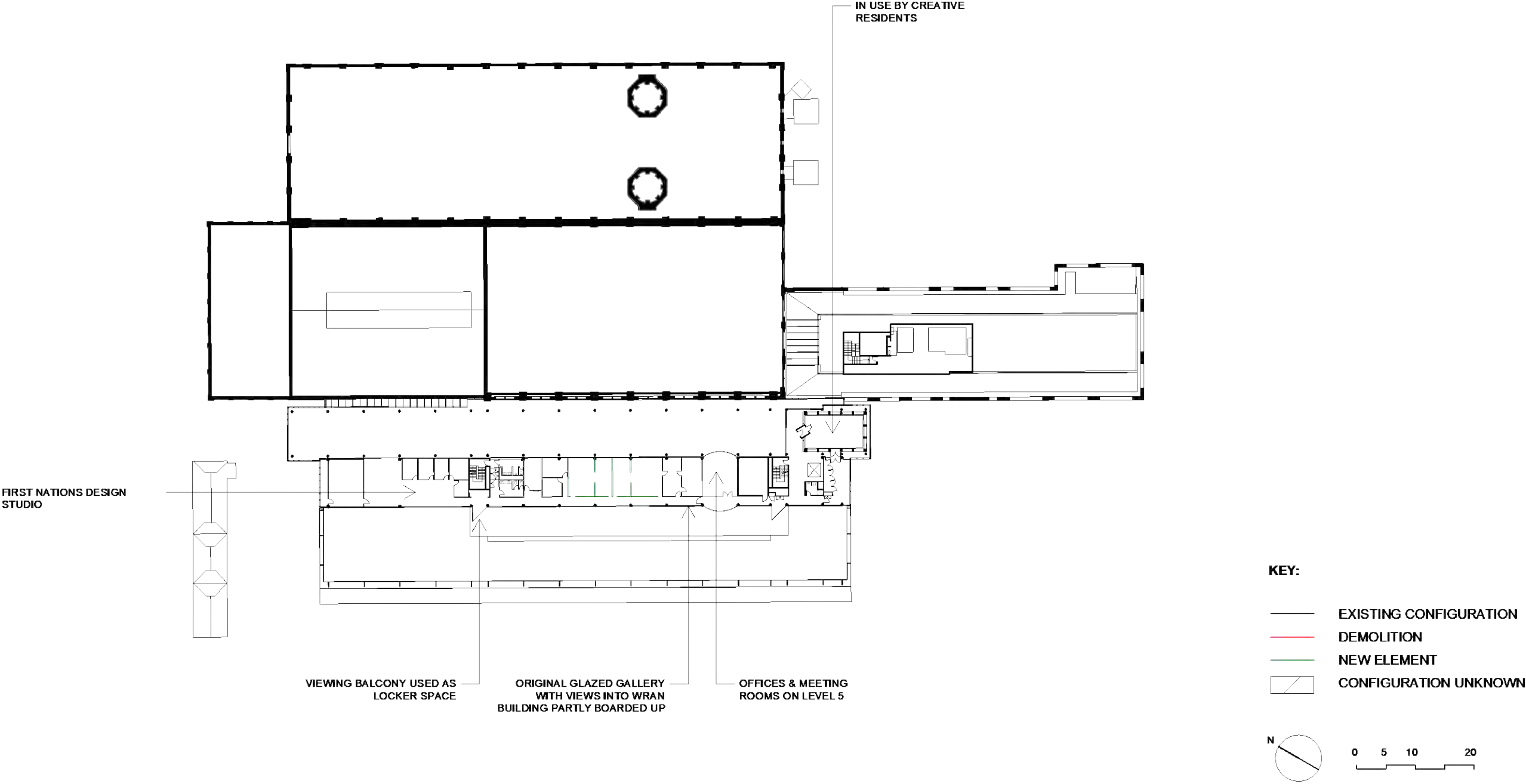
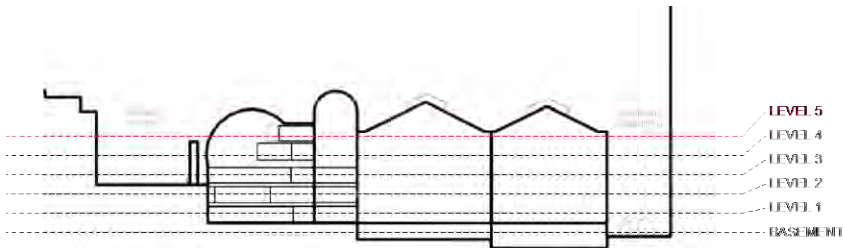


Figure 17: Stage II Powerhouse Museum Evolution Diagram for Level 5, 2022.

EVOLUTION DIAGRAMS
HARWOOD BUILDING BASEMENT 1981

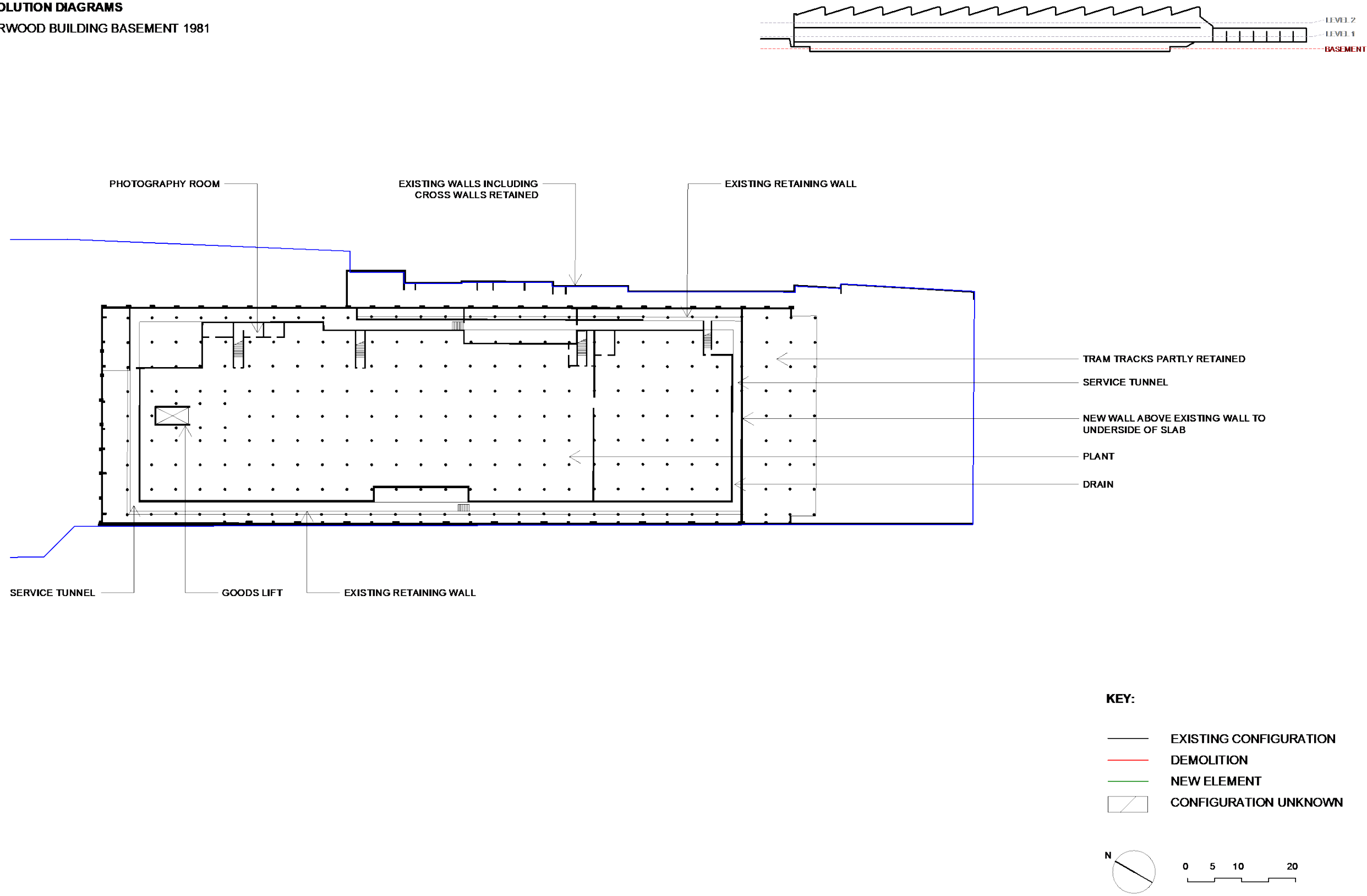


Figure 18: Stage I Powerhouse Museum Evolution Diagram for Basement Level, 1981.

EVOLUTION DIAGRAMS
HARWOOD BUILDING LEVEL 1 1981

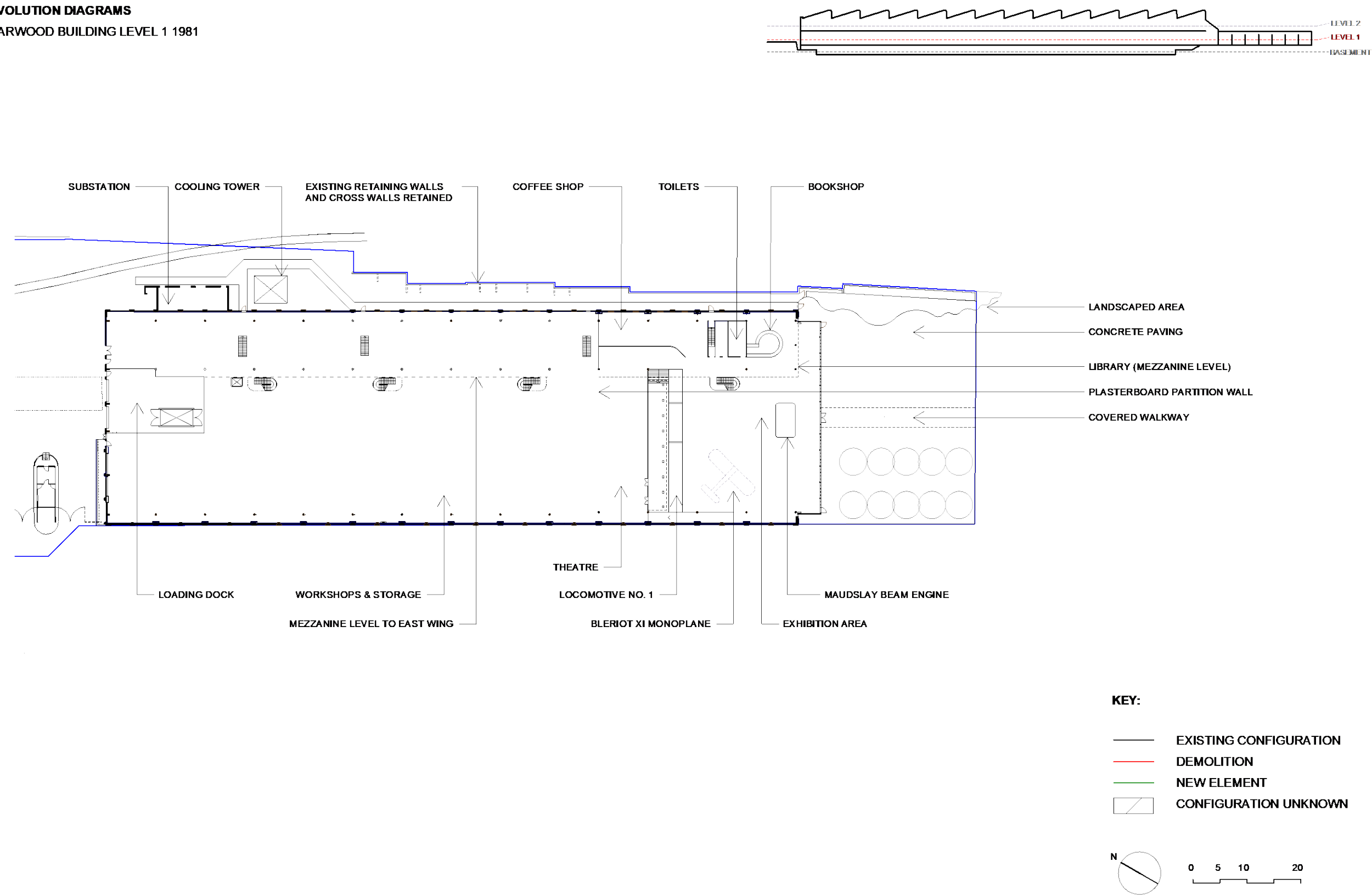


Figure 19: Stage I Powerhouse Museum Evolution Diagram for Level 1, 1988.

EVOLUTION DIAGRAMS
HARWOOD BUILDING LEVEL 2 1981

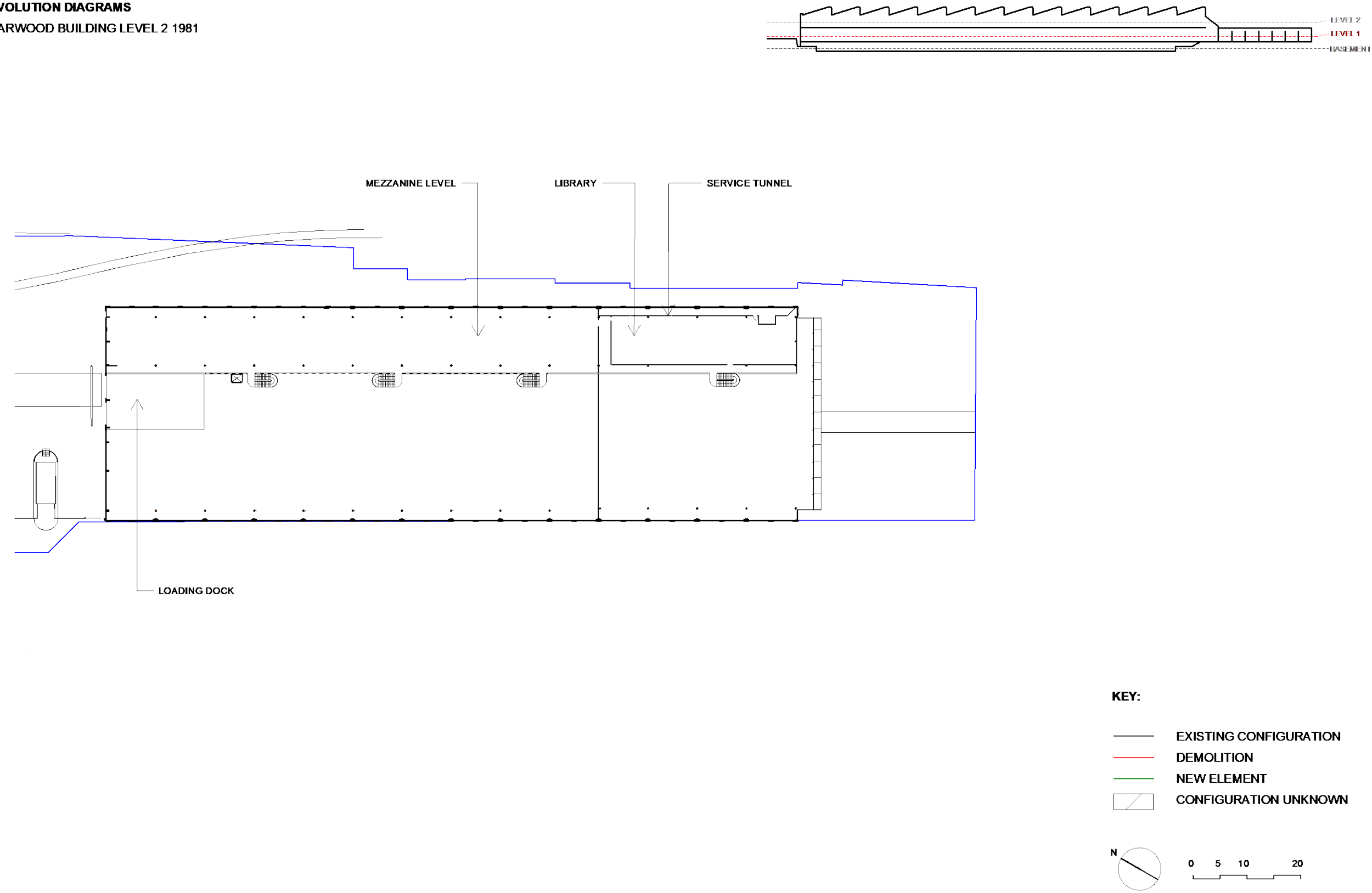


Figure 20: Stage I Powerhouse Museum Evolution Diagram for Level 2, 1988.

EVOLUTION DIAGRAMS
HARWOOD BUILDING LEVEL 1 1995

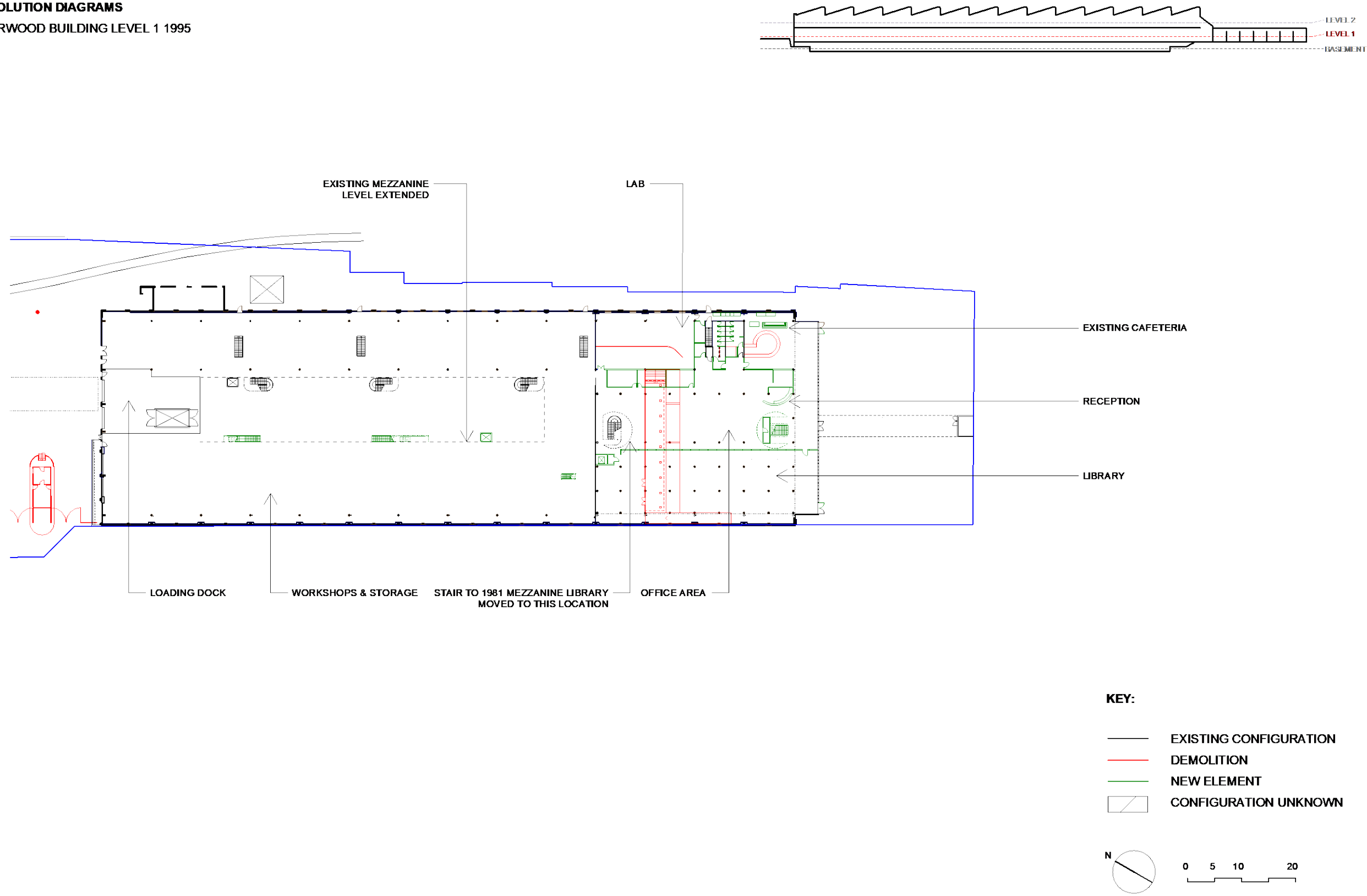


Figure 21: Stage I Powerhouse Museum Evolution Diagram for Level 1, 1995.

EVOLUTION DIAGRAMS
HARWOOD BUILDING LEVEL 2 1995

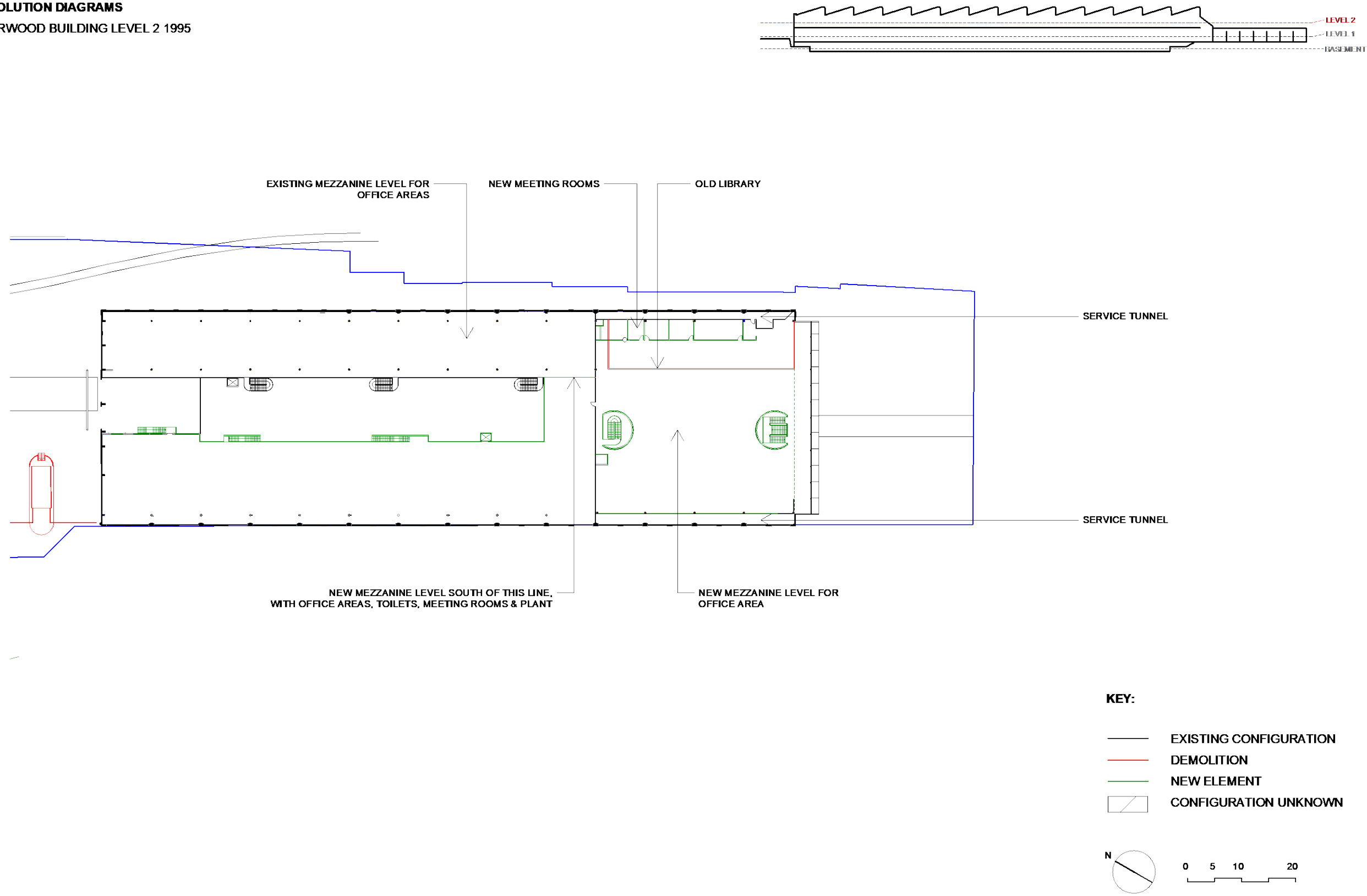


Figure 22: Stage I Powerhouse Museum Evolution Diagram for Level 2, 1995.

EVOLUTION DIAGRAMS
HARWOOD BUILDING BASEMENT 2022

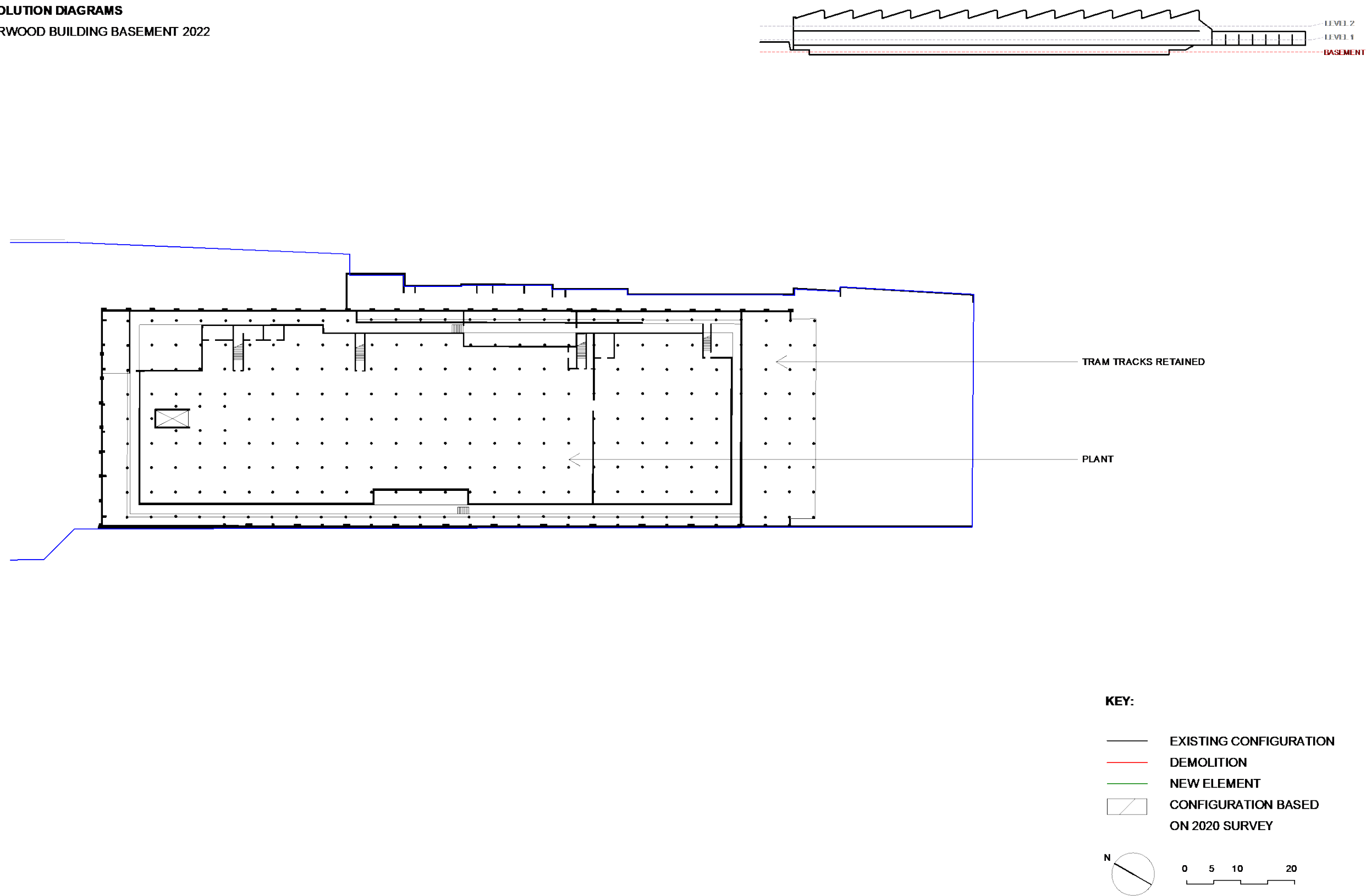
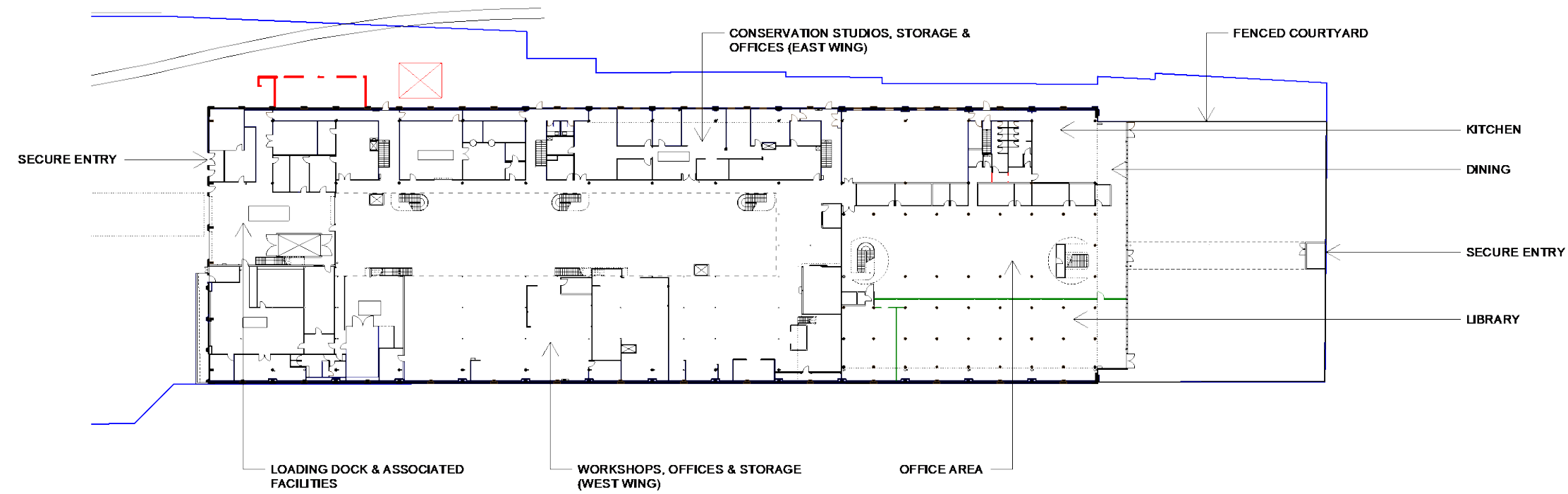
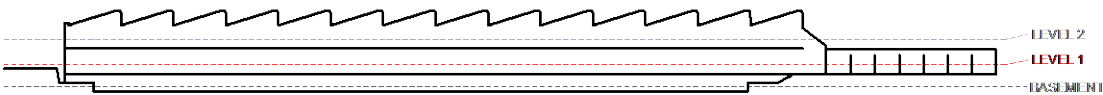


Figure 23: Stage I Powerhouse Museum Evolution Diagram for Basement Level, 2022.

EVOLUTION DIAGRAMS
HARWOOD BUILDING LEVEL 1 2022



KEY:

- EXISTING CONFIGURATION
- DEMOLITION
- NEW ELEMENT
- ▨ CONFIGURATION BASED ON 2016 SURVEY

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Figure 24: Stage I Powerhouse Museum Evolution Diagram for Level 1, 2022.

EVOLUTION DIAGRAMS
HARWOOD BUILDING LEVEL 2 2022

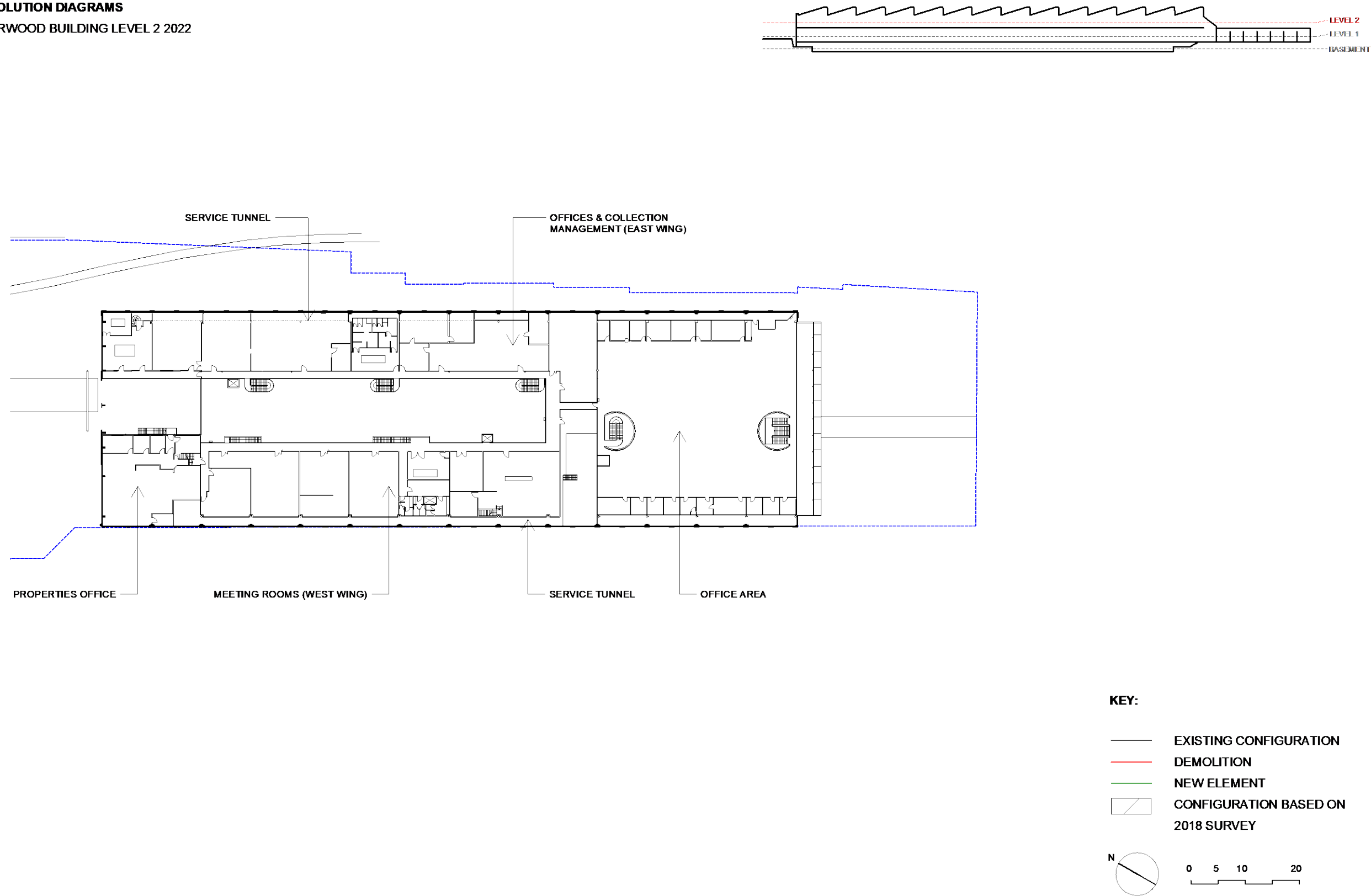


Figure 25: Stage I Powerhouse Museum Evolution Diagram for Level 2, 2022.

APPENDIX E

Powerhouse Museum
Design Principles (Draft),
Design 5 Architects

POWERHOUSE MUSEUM

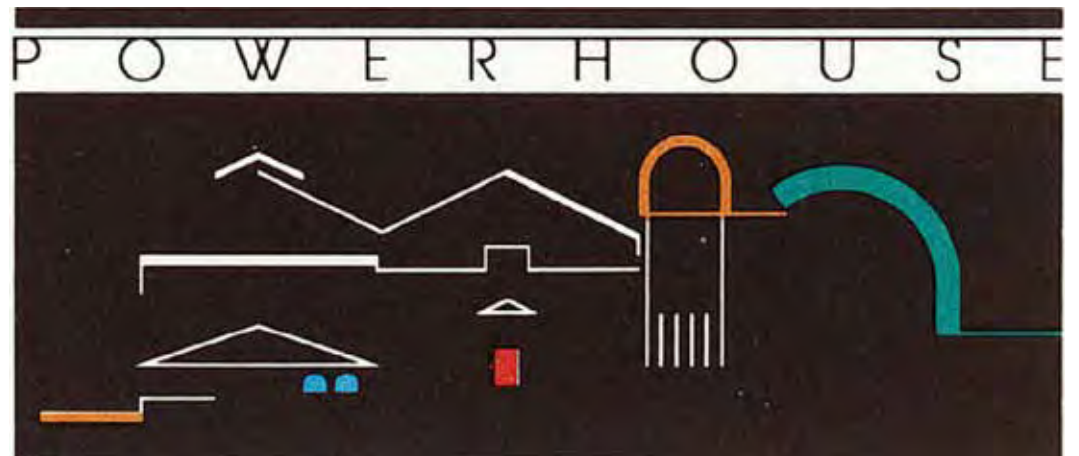
DESIGN PRINCIPLES

LIONEL GLENDENNING | ARCHITECTURE

RICHARD JOHNSON | EXHIBITION DESIGN

DRAFT | 13 OCTOBER

2021 | ULTIMO | SYDNEY





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INTRODUCTION

“Over 30 years and more than 20 million visitors, the Powerhouse Museum in Ultimo has become an outstanding cultural institution of state significance with a national and international profile.

Since the Museum’s 1st move to Ultimo in 1893, the Museum has been at the core of a sequence of changes - all strengthening the energy and identity of this Ultimo locale - ABC, Central Park, the Goods Line, Darling Harbour, Darling Park, UTS, Chippendale, Redfern, USyd, Notre Dame, Sydney TAFE and the expansion of start-ups, galleries and studios.

The Pyrmont Peninsula Place Strategy confirms Harris Street as the key frame for the development of Pyrmont Ultimo. As an instrument of public record and display, the Powerhouse has a pivotal role in supporting, recording, presenting and fostering connections in this creative space.”¹

As part of the Powerhouse Ultimo Renewal, the NSW Government aims to retain and regenerate the Powerhouse Ultimo.² The Museum of Applied Arts & Sciences informs the reimagining of the Museum with two significant objectives.

To facilitate the ongoing maintenance, conservation and refurbishment of the Museum, its architecture, and its collections, exhibitions.²

To safeguard the original design integrity of the Museum through the documentation of the history, vision and design intent for the 1988 Museum.¹

The history, vision and design intent are articulated in a set of Design Principles that act as a reference for the conservation of the building and its evolving role in Pyrmont Ultimo. The principles play a critical role in guiding the Conservation Management Plan which sets out how this vision can be retained into the future.

This document is structured into four parts;

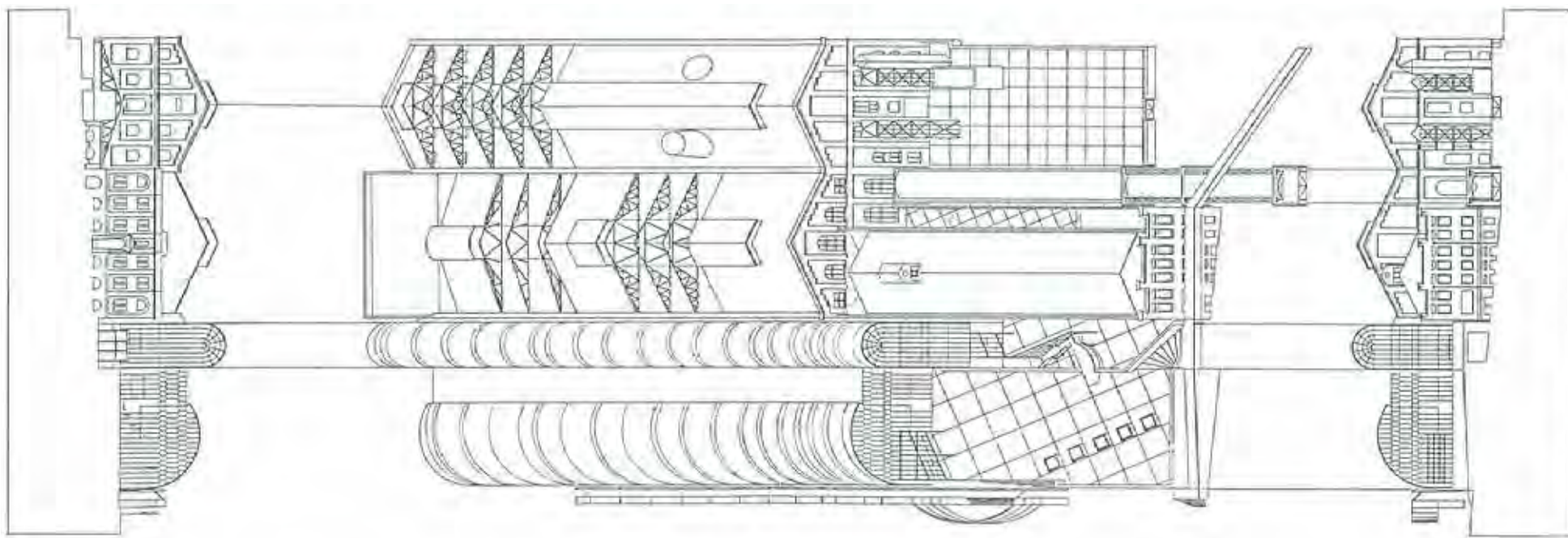
Part I - contains the objectives for the Design Principles accompanied by a brief history of the Museum.

Part II - contains Colin Wood’s 1988 discussion with Lionel Glendenning and Richard Johnson describing the vision for the 1988 design and the accompanying exhibitions.³

Part III - lists the fundamental principles underlying the designs.

Part IV - outlines the approach to the future of Powerhouse Museum and Powerhouse Precinct.

The Principles are based on writings by Lionel Glendenning and Richard Johnson, and on their recent conversations and site walk with Design 5 - Architects.



1 | Powerhouse Museum Axonometric Plan.

THE OBJECTIVES

The Design Principles have the following objectives:

- a) Outline and explain the 1988 vision for the building as Lionel Glendenning and Richard Johnson envisioned it, and identify the value of achievement in cultural heritage conservation, architecture, adaptive re-use, innovation and exhibition design.
- b) Inform the Conservation Management Plan (CMP), a separate document, with a clear understanding of the original design intent for the museum. These Principles set out why the museum was designed as it was, and the CMP sets out how these principles can be retained and respected into the future.
- c) In conjunction with the CMP, act as a reference that informs future proposals for thoughtful modification and change to the Museum's architecture and exhibition design, in order to present and preserve the significance of Museum and the Museum precinct in Ultimo.
- d) Inform a mutually advantageous relationship between architecture and future exhibitors. A synergistic dialogue between the two should aim to maintain and enhance the architecture, the exhibitions and people's experience of the two.

The following quotations by Lionel Glendenning and Richard Johnson capture their original vision for Powerhouse Museum, and ideas on its future. The principles act as a means to encourage exploration in any future changes to architecture and the exhibitions.

Lionel Glendenning

*"Buildings like this should live well beyond today, extending into the future the principles that we had put in place in early concepts developed in the great successes of 1988. Hopefully many of the principles are flexible enough to allow their growth and expansion into the future, with an awareness that certain elements are critically important, while others defined in this document have a range of possible development opportunities."*¹

*"We should see this document as a document that stabilises that position and makes an emphatic statement that the Museum is fundamental to understanding how the profession of architecture, museology, anybody who ever wants to think about how we go about making our world, as an example of how you have to work with what you have as much as your own creativity and societies' issues now and into the future."*¹

Richard Johnson

*"One of the things that's probably embedded in all of them is the idea of diversity, it applied to the building, it applied to the exhibitions, it applied to the curatorial ideas, it applied to the story telling, it applied to the exhibition design, it applied to the audience that came. So that created the richness, but it all came out of the collections in the first place."*²

*"At the detailed design level what it was trying to do was to add to and be part of the total Museum experience. I call it 'Design as a Continuum,' that there was a continuum of thought historically, there was a continuum in the collection upto the contemporary times, there was a continuum of curatorial thought and there was a continuum of design."*²

A BRIEF HISTORY

“The Powerhouse Museum was a 100 year Bicentennial investment in a core Sydney cultural institution, that in a radial city is accessible to all in New South Wales as well as Australian and international visitors. Adjacent to the CBD, in Darling Harbour, the genesis of the ‘creative precinct’ of the early development of Pyrmont, Ultimo, Eveleigh – a 5 min walk or tram ride from Central Station and buses in Broadway, on the city bus shuttle stops, and 8 km from the major domestic and international airports.”¹

“The original Powerhouse Museum collection was acquired from the exhibits in the Sydney International Exhibition of 1879, held in the purpose-built Garden Palace in the Botanic Gardens founded in 1880 as the Technological, Industrial and Sanitary Museum. It was established in the Garden Palace after the exhibition closed (as was the Art Gallery of NSW and the Australian Museum). Unfortunately the timber and steel building was destroyed by fire in 1882 and most of the original collection was destroyed. The collection was quickly rebuilt by the

first curator J. H. Maiden and in 1893 the Museum moved into its purpose built home, designed by W. E. Kemp in 1893, on Harris Street in Ultimo as the new Technological Museum. From 123 years ago to the present day the Museum (with the adjacent and integrated college precinct also designed by W. E. Kemp in 1893) has been a significant cultural and educational player in a locale modelled on the museum and education precinct of V&A + Science Museum in South Kensington, London.

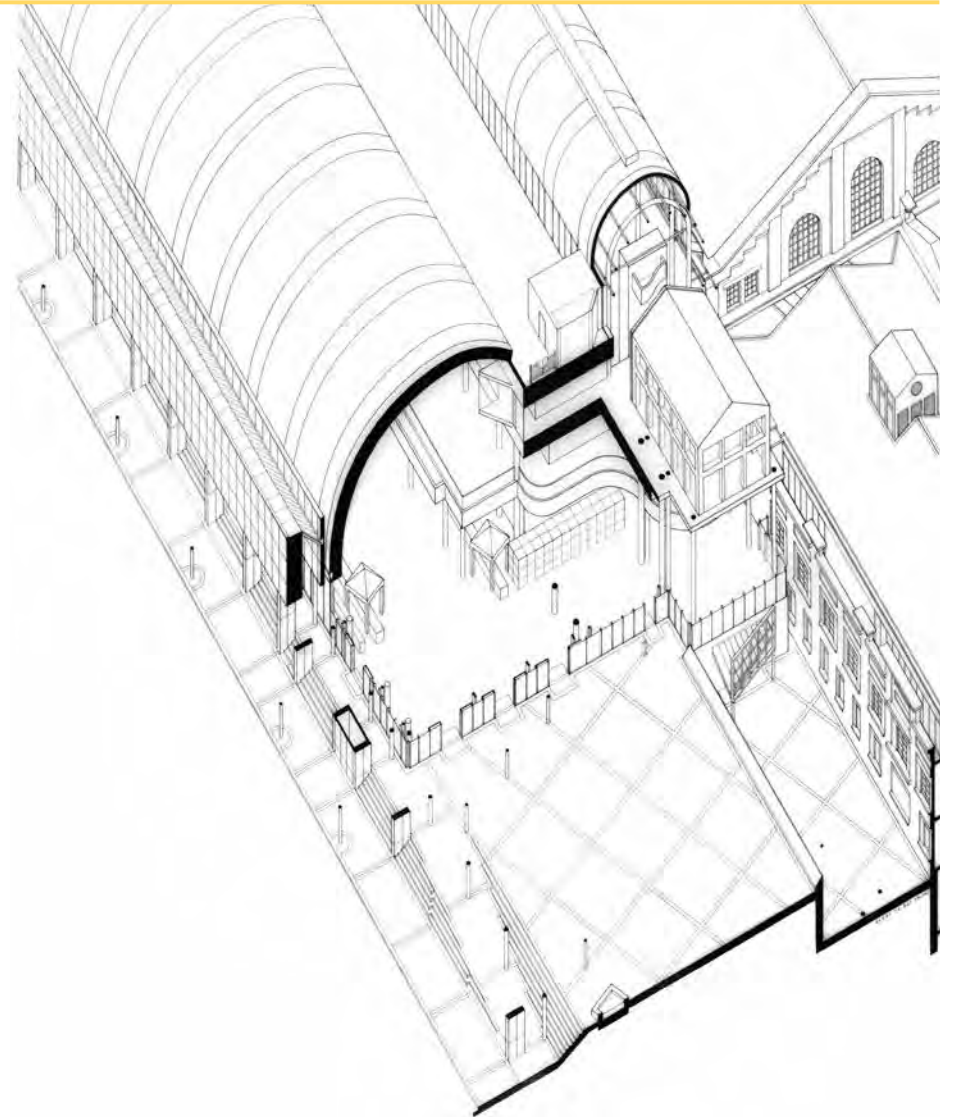
In 1896, the Museum opened its first branch museum in Albury, followed by Bathurst, Goulburn, West Maitland, Newcastle and Broken Hill – each attached to a technical college. Eventually all were closed because of lack of funding during the 1980s.

The Museum had become landlocked (with inadequate storage and facilities, and small substandard galleries over 3 levels) with no site adjacent to the Museum. The Museum Trust purchased the derelict Ultimo Tram Depot (opened 1899) for future Transport Museum in 1964.

The expanding University of Technology and large Sydney Technical College were dominating development of the adjacent sites. Since the late 1950s, numerous proposals had investigated a range of sites but none were considered suitable till the old Sydney Market site and the decommissioned Ultimo Power House became available.

The Minister for Public Works, Jack Ferguson commissioned a feasibility study with the MAAS to explore options for development of a museum to rival the Centre Pompidou in Paris. These studies resulted over 10 years later in the Powerhouse Museum in the recycled Ultimo Power House that established a new paradigm for museums in Australia, indeed the state of the art access to the collection was vastly enhanced. With the highest museum standards, exhibits that ranged from Australian goldfields jewellery, musical instruments, decorative and applied arts to giant aircraft and locomotives, steaming engines and industrial heritage icons – the 1785 Boulton and Watt steam engine, the Saturn V rocket engine and the Catalina flying boat.

The multiaward winning Powerhouse Museum became the litmus test for many new museums in Australia and internationally with museum and cultural leaders from the United Kingdom, USSR, China, Europe, Central Asia, Asia and the USA engaging with the Museum through VIP visitors, memoranda of understanding, study programs, staff exchanges, exhibition partnerships and tours, and object loans.”²

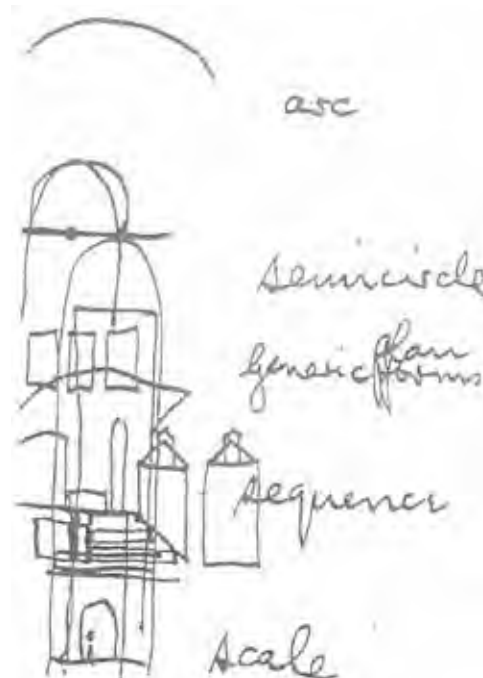


3 | An axonometric of the south west corner.

THE VISION

The 1978 Feasibility Study for the development of the Powerhouse Museum undertaken by the NSW Government Architects Office, (prepared by Lionel Glendenning with critical support from Norman Harwood, Curator MAAS and reviewed by the MAAS Director Staff as submitted), noted the opportunities and advantages offered by the Ultimo Power Station and Tramway Depot:

*For the purpose of developing a new Science and Technology Museum in the late twentieth-century, the site has outstanding potential. It is historically appropriate, structurally flexible and remarkably cost-effective. What could be more appropriate for such a Museum than the first major powerhouse in Sydney? And what building in Sydney has interior spaces built on such a generous scale to accommodate the Museum's exceptional transport and engineering collections?*¹



3 | An early conceptual figure by Lionel Glendenning.

ARCHITECTURE

LIONEL GLENDENNING

1988

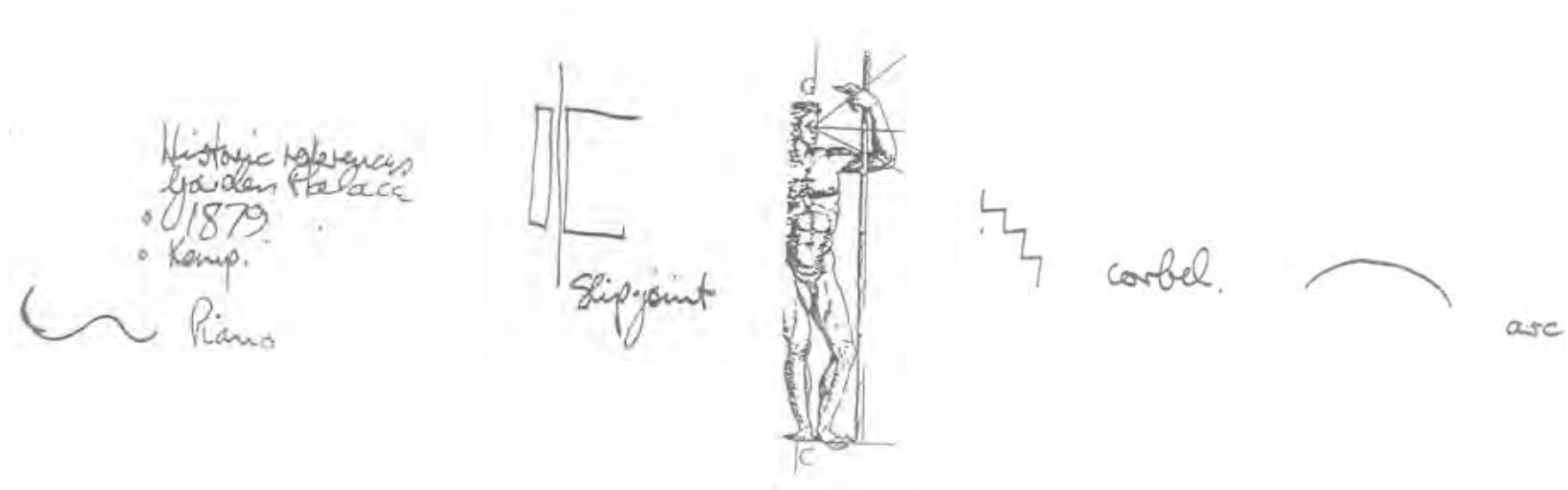
The following extracts have been taken from Colin Wood's 1988 discussion with Lionel Glendenning and Richard Johnson.¹ Lionel Glendenning describes his vision for the 1988 design and the accompanying collection.

"The beginnings of the Powerhouse Museum really begin with the Great Exhibition. In 1878 a building was very rapidly erected in London to great acclaim. Sydney had its own mini "Crystal Palace," the 1879 Garden Palace. This building was rapidly constructed, mostly wood on steel frame, and was destroyed in a conflagration in 1882 along with the Museum's first collection (elements and objects from the Garden Palace Exhibitions). The beginnings of the 1988 Powerhouse are reflected in the present design solution."

"The Architectural Brief was developed initially with Norman Harwood, Curator MAAS. There is always an evolutionary element in a Brief, but in this particular case Dr Lindsay Sharp, Museum Director had a view, an evolving view of the museums in that the traditional museum had pretty serious failings, particularly in its projection to the general public and he held that museums should change both their role and their ways of presentation; they needed to embrace the challenges of the new age. "

"The question of balance is always an issue. At this time the traditional approach was beginning to be reconsidered. The design resolution of the building offered variety and flexibility. This produced the opportunity for the museum to bridge the gap between the traditional style and the more radical, experimental, hands on experience, interactive type, of museum of today and the future potentially."

"In supporting the view that the Museum should offer the potential for traditional design options, being realised in certain exhibitions. There are parts of Museum exhibition design work that will be very beautiful, but explore quite traditional approaches to displaying objects of the collection. This spirit is reflected in the architecture in the retained character of and modified and drawn out of old architecture - the new architecture, and in the same way, the exhibitions don't deny the traditional view of museums, they embrace the old where it is appropriate."



4 | Early conceptual figures by Lionel Glendenning.

“The bottom line is the beautiful dichotomy between observer and object; that magical sense of wonder that occurs when one comes face to face with the real object. The feasibility study discussed ‘television,’ ‘media,’ and ‘image’; the fact that we have a society sated with television; the gap between self and reality. To give people reality was just about the biggest ‘turn-on’ that one could create. So that point at which interaction occurs between the observer and object was what the museum is all about. It’s really about that magic moment, that sense of wonder, that confrontation.”

“To do that the architecture explored very controversial, very powerful and yet very sensitive and responsive design concepts. There was, however, a period in the development of the exhibitions where the building was seen as both a threat and impossible to work with. And yet working with Richard Johnson I felt that here was

an opportunity. It just needed someone capable of making that connection between the new and the old in the architecture.”

“The collaborative design work has been subjected to the most rigorous scrutiny, from curators through a whole range of museum specialists. What has emerged is a pretty powerful design message; a project that’s unique and blazing new trails at a level that had never been achieved in this country, at least in this particular field.”

“Design has a voice on a whole range of issues in the Powerhouse Museum. It is built into committee structures so that there were key people who influenced a whole range of issues which normally the design community wouldn’t believe was their turf. The design groups established a direction, a concept and an approach in which quality was incorporated as fundamental. With the Powerhouse Museum, design has achieved a credibility.”

“... I believe that there is a need to ensure that the city’s patterns, the city’s connections, the city’s ‘feel’ are generated in the buildings, which may become the generator of new urban forms. It’s not a very fashionable position but the ego trippers have been destroying the city. My feeling about architecture is that it’s evolutionary and revolutionary and so the Powerhouse, for me, is a demonstration of my thesis that the most revolutionary architecture can be evolutionary, and that design by constraint, design in context, can produce far more powerful, far more exciting, far more successfully integrated solutions than those that represent the current prototype for the city.”



5 | Early conceptual figures by Lionel Glendenning.

“From its very beginning from 1898 the museum was built upon the guiding principle that the skin was enclosing the technology. It was changed, it was robust, it was adapted and I felt that I was part of that continuity. Such changes will go on. This is a beautiful aspect of museums; they have a life beyond all of us. so I am simply a part of a continuum and my modifications, adaptations and adjustments to this building were done without some of the constraints that might apply in other projects.”

“My feeling was that I was dealing here with a skin that was scarred, broken and had lesions, was modified and had band-aids. In effect, I've tried to recreate some of the feeling in the east facade with those black silhouettes which are the shadows of what was once there. I've tried to explain the robust broken nature of the facade.

- An echo.”



11 | An illustration of the interior of Wran building.

2.2

EXHIBITION DESIGN

RICHARD JOHNSON

1988

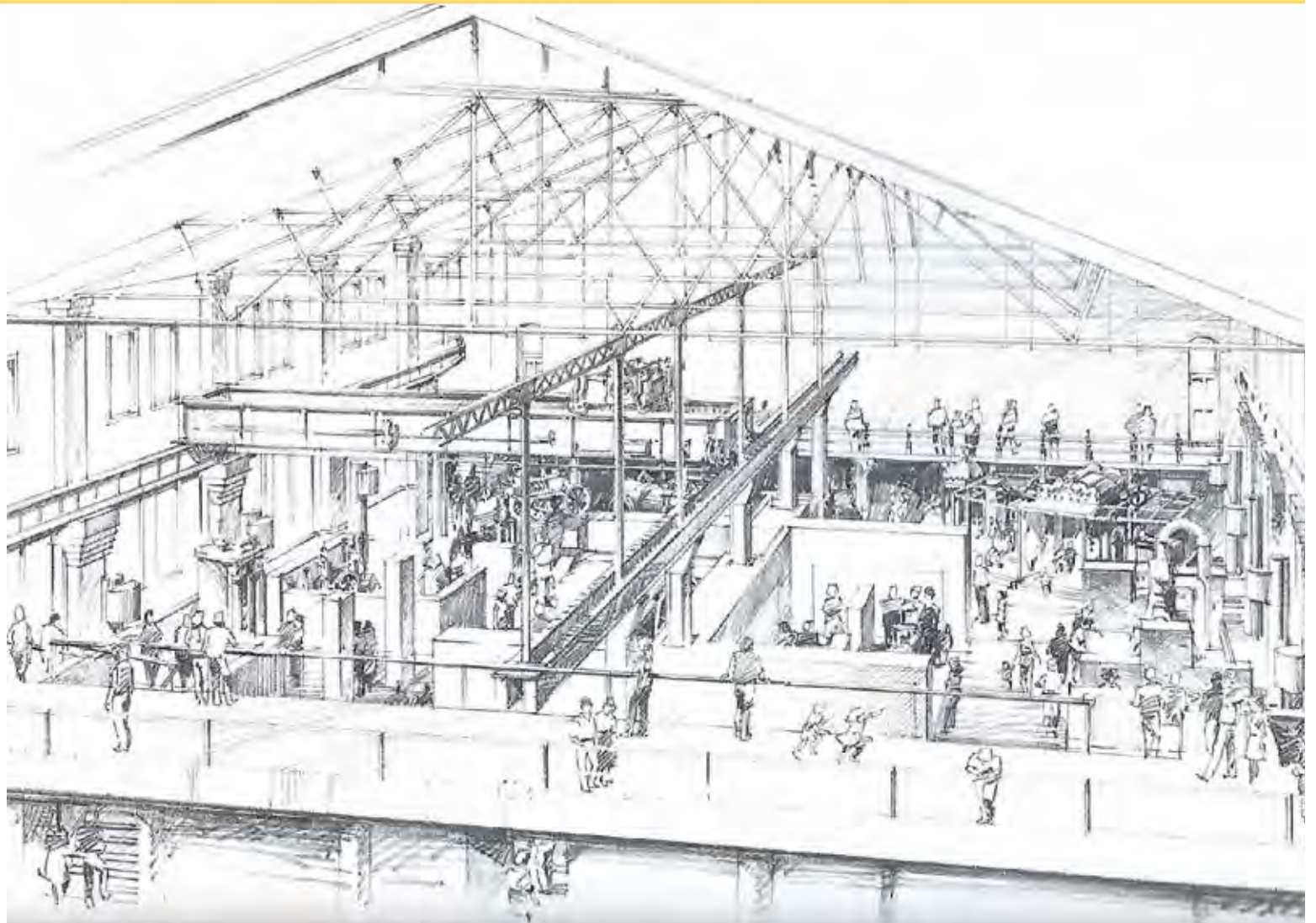
The following extracts have been taken from Colin Wood's 1988 discussion with Lionel Glendenning and Richard Johnson.¹ Richard Johnson describes his vision for the 1988 exhibition design.

"I suppose I have two roles. One is trying to give the exhibition design some cohesion as an overall activity. I am a consultant to the Powerhouse Museum, giving an overview and some criticism and direction to all of the exhibition design. No one had really looked at the exhibitions as a whole or from a design point of view. Most particularly they hadn't focussed on the fact that the exhibitions must feed from, and be part of, what Lionel Glendenning had already started; to grow and graft on to those things and exploit and add to what was already there rather than tussle against it"

"I see design art at its most effective as a continuum. It never stops. The building can open and the design is still there operating. The designer sets it in train with the client and various other bodies and people that inspire or generate the ideas. Those ideas and concepts have started the design process, generated it. Lionel Glendenning is carrying it through. Other

people will pick up and work with it. But to be most effective it shouldn't stop. People must identify with it and understand it. The design process is not simply something that happens sitting at a drawing board doing a couple of drawings, although there is a tendency in the community to think of it that way . . . People have simply got to be aware that design is not some mystical process. It is something they should understand and want to keep, want to maintain and build upon."

"It is a contextual building, a graft of old and new. It offered a great variety of spaces, immense scale, some of the largest spaces within which to display quite a diverse range of objects. Some objects are so tiny they could be overwhelmed by the space while others fit comfortably within it. So the space was very assertive, quite contrasting in some cases, but at the same time offered immense opportunities that a new museum would never offer.



11 | An illustration of the interior of the Engine House.

The collection is an old one and very diverse and includes some significant internally recognised symbols. I tried to build up a discipline, a way of structuring the exhibition design, based upon the way a visitor sees and moves through the building. This 'vista' perception was necessary to understand the ideas, the collections and the buildings."

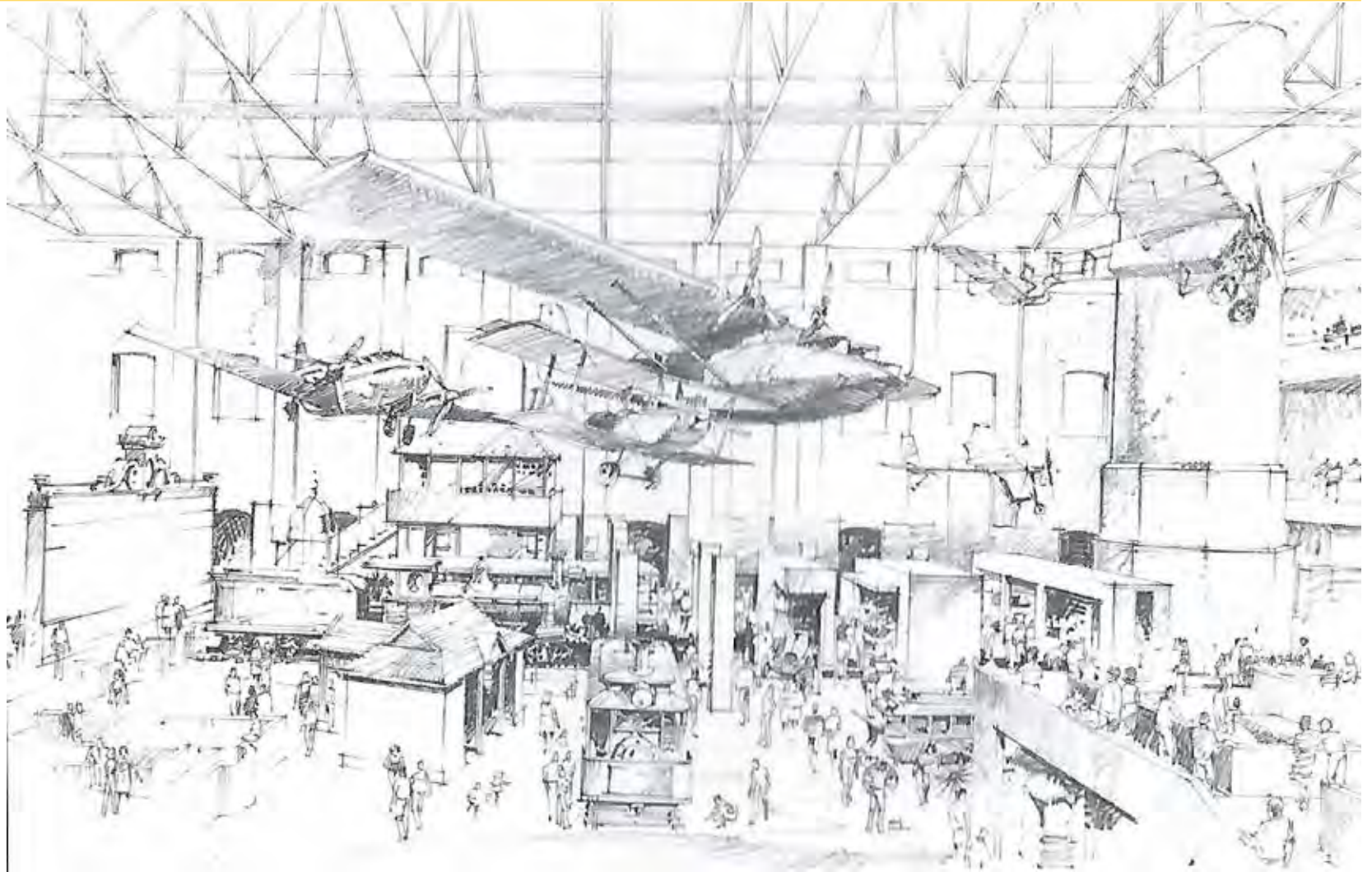
"First of all we have to understand how people will approach and enter the building, how they move through it, because some of the spaces are quite intimidating; big, grand, enormous volumes. The building is as it is because it evolved over such a long period of time. Like a city it has sort of loose fit circulation, there's no classical route through it. You don't enter a central exhibition hall and then relate back to the hall. It's not that sort of a building. It's not that sort of a collection either, and that makes it actually much more interesting to people. But at the

same time, every time we put another object, another statement, into the Powerhouse Museum, we could potentially confuse the reading of the building or the paths people have to take through it.

So we have to understand this and give people as they enter some comprehension of the total space, and then of the gallery space, and each bit that's devoted to an exhibition. The visitors have to comprehend the space, and feel comfortable with it, before they can focus on the exhibits. They must know where they are, and not feel they'll never find their way out of the maze.

Not only is the architecture challenging, but the objects and the ideas are also challenging. We try to give a range of different experiences so that if people are turned off by one particular thing, they can choose something else."

"There is quite a lot of learned debate among museum people that the 'black box environment' is the way to go for museums. This project has firmly convinced me otherwise. There are black box situations in the Powerhouse Museum, for individual exhibits, and they work well. But, overall one must have a balance. One nice thing about the project became very evident as soon as I walked through the site on the very first day. I felt here was a museum with a great range of diverse spaces, with a great diverse collection, with a whole range of thematic ideas that they wanted to project to the public. The architecture had responded to that diversity and contextualism and built upon the things that were already there and the exhibition design had to follow this lead.



11 | The Catalina flying boat 'Frigate Bird II' as the aerial centerpiece in the 1988 exhibition theme 'Bringing People Together.'

There were obvious constraints, there were also spaces that exhilarated because they had great shafts of natural light penetrating into them. From a museum point of view, some curators and others will tell you that it's impossible; that it just won't work and has to be blacked out. However, if museum design is generated by public perception, if visitors like the feeling of walking into a space flooded with natural light, why blacken it out? Why not, more cleverly, look at the design opportunities presented and try and control the environment in another way by building shelters or cocoons for things that are light sensitive."

"... if the whole of Powerhouse Museum had been steam trains and huffing and puffing, with all the noise and excitement, then that would set up a relatively boring pattern. It might initially excite but it wouldn't sustain people's interest. One of the great things has been to attempt to arrive at a balance of content, space, experience, interactivity and classical

presentation of an object for its own sake. It would be terribly wrong to have every exhibition with the same level of interactivity, or every single exhibition at the same level of excitement, noise or stimulation . . . And just as your mood will change momentarily as you're moving through a visit, or it will change from one visit to another, your needs and demands of the Powerhouse Museum will change. Every visitor needs change. They find their own way. They find their own special little spaces in what I see as the 'townscape' of the museum, just as we do in a town. And no two peoples' preferences are the same."

"We have placed what we call landmark objects in public spaces that will guide people through the museum . . . the Boulton / Watt Engine is a major landmark structure. Once you see it you never forget it, and you know where it is in the Powerhouse Museum. There are aircraft, there are small precious objects, exciting individual items that people will see and remember and know where they are. These

are located at key points, generally with an axial approach to them so that people can see them from a distance and remember where they are and fit them to the structure of the circulation."

"Another thing that's happening is that we're putting in an electronic information system in the main foyer and every exhibition is identified by a stunning photograph of a key object within the collection. So, we are identifying exhibitions and themes by key objects. Every exhibition will have a poster on display in the forecourt, so people (before they enter the building) will know broadly what are the themes and what the content is going to be like. When they get into the Powerhouse Museum, they are directed to a particular exhibition by the poster image which is incorporated into the electronic information system."

“... if you think about the design disciplines and specialist skills that have gone into the creation of the building, I don't think there would be any other building which would encompass and integrate so many of the design skills. Lionel Glendenning was talking about the theatrical set painters who painted the cloudscape. There are also audio and visual experts, there are sound experts, there are graphic designers, there are colour consultants, there are lighting design specialists, there are specialists in paint finishes, there are specialists in weaving special carpets... Public buildings actually demand the coordination and contribution of all that amount of design, technical and artistic expertise.”

“... it's like a town. It will evolve and details will change in an evolutionary way. That's how museums evolve. There's never sufficient money to redo the museum completely at any one point in time. That only happens once in a museum's life. So we've built in certain things that are less flexible than others in a hierarchy of broad elements to the fine grain. The most flexible are things like labels and text panels which are actually systematised to the point where the Powerhouse Museum, on its own desk-top computer can produce another instant label that will fit a perspex container. And if some fact is wrong they can change it. Additionally in some exhibitions there are items that, for conservation reasons, must be on constant change-over. Such items might be on display for only a matter of weeks or months before they are changed.”

DESIGN PRINCIPLES | 1988

"It is worth restating the meaning of Museum and then exploring the potential of the term as it applied to the Powerhouse Museum in Ultimo. As defined by ICOM, the International Council of Museums :

*A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment."*¹

The following principles are described by Glendenning (quoted in blue) and Johnson (quoted in green), and are illustrated where appropriate. Some of the quotations are reused due to their relevance for explaining different facets of the design principles.

ORIGINS: HISTORICAL REFERENCES

MUSEUM AS SYMBOL

MUSEUM & PRECINCT

MUSEUM & COLLECTION

OLD & NEW

ARCHITECTURE & EXHIBITION

INNOVATION & SUSTAINABILITY

ENTRY, ORIENTATION & MOVEMENT

ENGAGEMENT

COLOUR & LIGHT



¹¹ | The Interior of the Garden Palace, photographed in 1882. MAAS was given the ground and first floors in the south-west corner.



¹¹ | A close up view of the north western elevation of the Wran building.



¹¹ | Garden Palace Silhouette in the Wran Building as part of 1988 exhibitions.



ORIGINS: HISTORICAL REFERENCES

Beginnings in the Garden Palace, 1881

"The beginnings of the Powerhouse Museum really begin with the Great Exhibition. In 1878, a building was very rapidly erected in London to great acclaim. Sydney had its own mini "Crystal Palace," the 1879 Garden Palace. This building was rapidly constructed, mostly wood on steel frame, and was destroyed in a conflagration in 1882 along with the Museum's first collection (elements and objects from the Garden Palace Exhibitions). The beginnings of the 1988 Powerhouse are reflected in the present design solution."⁴

A reference to the rich history of the Museum of Applied Arts & Sciences (MAAS)

"The architectural design explored the rich history of the museum from its early beginnings in the great Garden Palace exhibition in 1879. The West Building (later Wran Building) and the galleria derive from the arched form of this earlier building whilst also creating spatial sequences that expand and augment the existing great rectangular volumes of the Turbine and boiler halls - the Ultimo / Pyrmont 'cliff of buildings.'²

Celebration of the correlation between Power Station and Museum's Transport collections

"What could be more appropriate for such a Museum than the first major power-house in Sydney? And what building in Sydney has interior spaces built on such a generous scale to accommodate the Museum's exceptional transport and engineering collections?"³

Embodiment of Industrial Revolution

"Unique to the Powerhouse Museum is the fact that the Museum's building - its historic fabric and contemporary architecture, and its Ultimo location - together with its diverse collection are metaphors for the overarching narrative that informs the Powerhouse Museum, for the Museum is born of the Industrial Revolution - its essence is designing and making for living."¹

The vision and design intent of the 1988 Museum

"A number of ideas are developed and explored in this project including:

- The great exhibition and railway buildings of the 19th century including Garden Palaces, Sydney; Melbourne Exhibition Building; Central Railway Station, Sydney.
- A contextual awareness and historic reference.
- Creating old and new linkages with the architecture of Ultimo and the Powerhouse.
- Architecture within Architecture. House within House.
- Adaption and reuse of existing fragments of the city.
- Separation, layering, transparency, screen, density, diversity, intervention."⁵



11 | An aerial view of Ultmo at completion of Stage I of the Museum.



11 | Boiler Hall during construction. The 1902 chimneys are now used as part of the air conditioning system.



11 | Colonnade along Harris Street in 1988, since partly demolished..

Recollection of our industrial past

"The building references the Garden Palace, Richard Johnson referenced the Garden Palace . . . Look how original that is, it has never existed before, how brilliant - a silhouette of a 'building as a building' - a ghost-like memory. The building references that through performance; through the Museum; and its beginning, and what you have is 200 years of incredible rich history."⁶

An Evolutionary Entity

"My feeling about architecture is that it's evolutionary and revolutionary and so the Powerhouse, for me, is a demonstration of my thesis that the most revolutionary architecture can be evolutionary, and that design by constraint, design in context, can produce far more powerful, far more exciting, far more successfully integrated solutions than those that represent the current prototype for the city."⁴

"... it's like a town. It will evolve and details will change in an evolutionary way. That's how museums evolve."²

Museums are storytellers / Museology is storytelling

"Museums are the narrative in a way, which is a wonderful thing if you see it as an opportunity, and develop them positively in that way."⁶

An archive for Ultimo's urbanity

"I believe that there is a need to ensure that the city's patterns, the city's connections, the city's 'feel' are generated in the buildings, which may become the generator of new urban forms."⁶

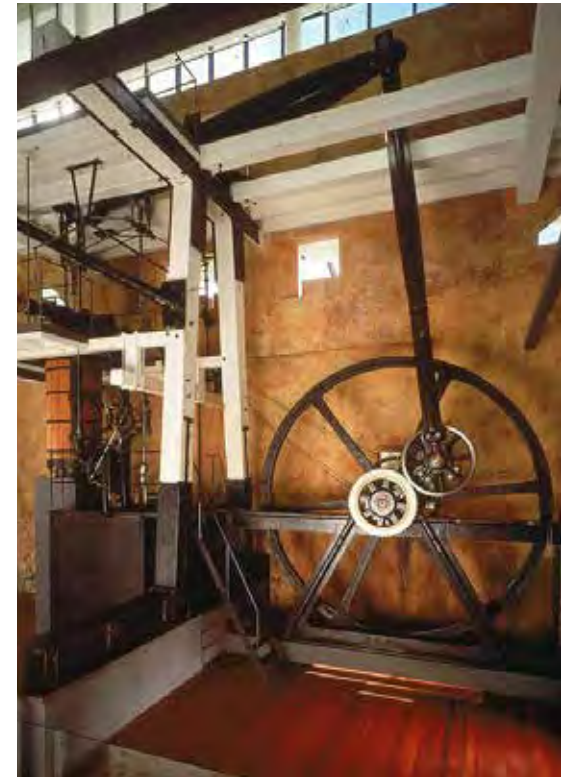
"Concepts like the vault, built a powerful urban element which became almost rhetorical verandah, a really overstated urban element which we all know and recognise."⁴



11 | The Engine House and Turbine Hall (foreground) during construction.



11 | Locomotive No. 1 pulled the first passenger train from Sydney Station (near where Redfern Station is today) to the Long Cove viaduct (near the present site of Lewisham) on 23 May 1855.



11 | Boulton and Watt steam engine, built in 1784 is oldest engine of its type to survive in the world. It is the Monalisa of the Museum's collections.



MUSEUM AS SYMBOL

Museum as a lighthouse

“Whilst the world is changing in unexpected ways, the Museum is a ‘lighthouse’ that connects us to an unknown future and a known past – a vital cultural link in these complex times.”¹

A leader in museology

“We’re one of the first museums in the world to steam all the objects - the great steam engines. For the Boulton and Watt, the museum replaced the bearings with new bearings in ways that would not damage the original object. We kept all the original bearings (they are in store). The whole system that was designed around the Boulton and Watt is done with careful conservation issues resolved to avoid any damage to the engine in any way possible. In fact, the conclusion that Jonathan Minns, a U.K. engineering expert came to, was that if we keep it warm and working, it is in its most safe form.”⁶

Cultural and social symbol

“The Powerhouse Museum is a collection which resonates, makes real the past, speaks of the present and looks to the future – it provokes thought and reflection and, it inspires. And it does all this through the stories that it tells – the themes embedded in the objects are incredibly rich and rewarding – people’s lives across time and space – across cultures.”⁴

“The museum was attracting great interest from sponsors, collectors and the media, establishing the museum’s pivotal place in the constellation of the Sydney’s cultural milieu.”²

“The museum opened in March 1988 to an amazing public reception to become internationally recognised as an institution that continues a tradition of eclectic, universal collecting (albeit considered), thoughtful communication, passionate advocacy and learned scholarship whilst maintaining its links to fine traditions.

In some small way the architecture contributes to this cultural memory.”²

“... the project began to capture the imagination of Sydneysiders.”²

“The Powerhouse Museum is the custodian of our cultural memory - DNA of our civilisation.”¹

Cultural engagement and partnerships

“The Powerhouse Museum became the litmus test for many new museums in Australia, and internationally with museum and cultural leaders from the United Kingdom, USSR, China, Europe, Central Asia, Asia and the USA engaging with the Museum through VIP visitors, memoranda of understanding, study programs, staff exchanges, exhibition partnerships and tours, and object loans.”⁶

Essence of Australia

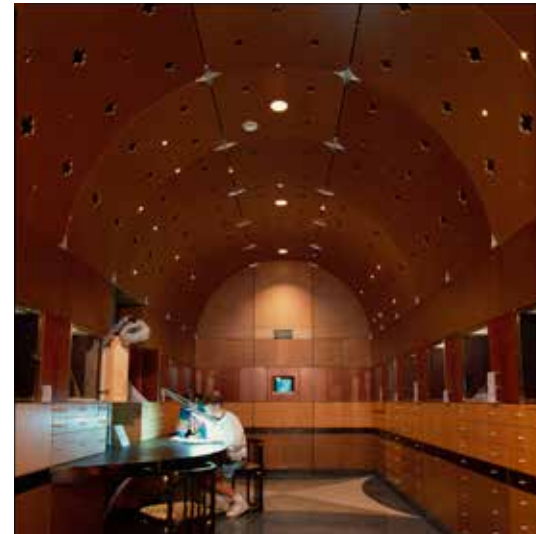
“The narratives of our nation - part of the world.”⁴

“So the sky is a trompe-l’oeil, it’s saying, “Look, I’m not afraid to decorate a building.” If you look at Jørn Utzon’s ceiling interiors for the Opera House, they were beautifully decorative, they were extraordinarily coloured draped curtains. So that’s the sky, capturing a piece of Australia. I couldn’t capture it enough, so I wanted that sense of infinity in the building.”⁶

“Whilst the modernist project continues in the architecture, the concept explores a historical and local contextual set of references in an open-ended plan that seeks to anchor the solution both in and of its time, referenced to the continuity of Australian architecture - an urban form highly innovative yet understood in its broader context.”²



11 | A copy of Lawrence Hargrave's box kite and Strasburg Clock displayed against the sky. The sky was painted by theatrical set painters from the Sydney Theatre Company.



11 | Exquisite cabinetry designed by Iain Halliday for 'Lace - A Study Centre' in the 1988 exhibition.

Hand and Mind - MIND and HAND

“At the Museum’s heart, it is about the power of creative and innovative minds combined with skilled and inventive hands - Hand and Mind - MIND and HAND.”¹

“Its intellectual goldmine is the knowledge base generated by curatorial research and scholarship which reveals the story behind every object and the links between.”¹

“... the most extraordinary thing about the museum and the project was how it brought together many high profile designers and architects in a way that other projects have not been able to do.”⁶

A symbol for sustainable reuse of buildings

“Sustainability and resource management - this project has its roots deeply embedded in the environmental movement and the idea that resources shouldn’t be wasted. That we can find ways to reuse our buildings... and the life of buildings lives beyond the ego of the last architect.”⁶

“... this building is an exemplar for saving old buildings and I think therein lies a real lesson for environmentalists let alone architects. And I think there’s a lesson to be learnt about the way we use our precious resources in society.”⁶

Agglomeration of design, technical and artistic expertise

“... if you think about the design disciplines and specialist skills that have gone into the creation of the building, I don’t think there would be any other building which would encompass and integrate so many of the design skills. Lionel Glendenning was talking about the theatrical set painters who painted the cloudscape. There are also audio and visual experts, there are sound experts, there are graphic designers, there are colour consultants, there are lighting design specialists, there are specialists in paint finishes, there are specialists in weaving special carpets... Public buildings actually demand the coordination and contribution of all that amount of design, technical and artistic expertise.”⁴

“There are quite a number of designers involved on the exhibition design side from a number of different firms.”⁴

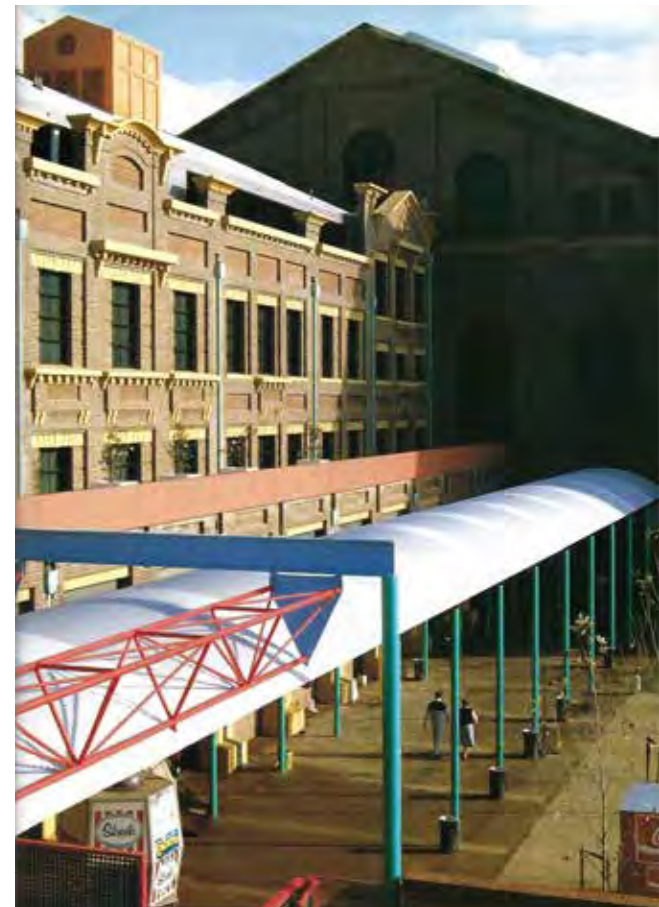
“Design has a voice on a whole range of issues in the Powerhouse Museum. It is built into committee structures so that there were key people who influenced a whole range of issues which normally the design community wouldn’t believe was their turf. The design groups established a direction, a concept and an approach in which quality was incorporated as fundamental. With the Powerhouse Museum, design has achieved a credibility.”⁴

Striving for best international museum standards

“Pragmatic decisions on achieving the best international museum conditions and standards, allowing for future changes, and creating a flexibility of circulation in a wide variety of gallery spaces were implicit in the architectural solution.”²



11 | Entry forecourt of the Museum with the Garden palace grid and the colonnade intact.



11 | Switch House Covered Way through the former Grace Bros Courtyard



MUSEUM & PRECINCT

A Museum Precinct for Ultimo | Sydney

“The Powerhouse Museum’s placement in the ‘creative precinct’ with UTS, ABC, the design studios of Surry Hills and Chippendale, Pyrmont and Eveleigh communications technology and IT start-ups is unique and synergistic, a critical element in the intellectual infrastructure of Sydney and NSW.”⁷

“The institution is one of the great repositories of collective memory and therein lies the redefinition of the museum . . . the architecture and the life of the project is as much heritage as the heritage issues that are identified as brick walls and all the other things. So therein lies the secret of the museum and I think that takes you to the future.”⁶

An anchor in Ultimo’s creative precinct

“As an instrument of public record and display, the Powerhouse Museum has a pivotal role in supporting, recording, presenting and fostering connections in this creative space.”¹

An identifier of its place

“. . . the importance of the urban sense of the large thing. Its’ one of the last remnants, one that’s linked to the warehouses along Ultimo, the great “cliff” of building, and retains that dynamic. I always refer to it as the medieval cathedrals and the village around it . . . and Pyrmont is just these giant cathedrals of industry, of warehousing (and all the rest of it), you get a great example of it there. Its volume . . . the contrast is so extreme, it’s like Canterbury Cathedral in its low scaled village.”⁶

“Adjacent to Sydney TAFE and UTS, the Museum is the core institution in the Ultimo ‘IT, education, design and cultural precinct’ - predating the government’s recent announcement of an AI-tech precinct by 127 years.”¹

A Museum embedded in its location

“. . . when you are an architect you need to have a greater sense of your responsibilities as a social being - professional working in a particular context that you become conscious of that context and use it in a creative way. You could argue that the Sydney Opera House did that. You know Jørn Utzon’s building is so contextual that people compare it with spinnakers, boats and harbours and all the rest of it.”⁶

Design cues derived from Ultimo’s industrial context

“And the other thing which is good is that it looks to the retention of the Harwood building. The roof followed the profile of the original Tram Depot building. If you get above Ultimo - there’s a wonderful photograph I have seen – an aerial photograph of Ultimo and Pyrmont with all these warehouse roofs - all ‘cross hatched’.

That link across the macro level and the urban level is well worth exploring - what is there from the heritage point of view. The profile of the roof is important, that was also considered in the Boiler Hall. They are all new trusses for various reasons - both structurally and otherwise, but it followed the profile of the original roof deliberately. A contextual awareness for the macro level of urbanity that existed between the spine of Ultimo - the warehouses. I call it the “cliff” of buildings, like the old sandstone cliff has been extended up Darling Harbour looking across from the city’s core. We have the opportunity to save it, it’s worth saving”⁶



11 | A model of Strasbourg Clock in the MAAS collection.



11 | Bookplate design entitled 'Wrought Iron and Enamelled Bronze Gate,' from the Lucien Henry Collection.



11 | Locomotive No. 1 on display in the Galleria. Note the delineation of old and new structure.



11 | 'Cirrus Moth' de Havilland 60X VH-UAU biplane in the 'Transport Collection' in the Boiler Hall.



MUSEUM & COLLECTION

Unique and Synergistic relationship between collections and the buildings

“The architecture needed to be a contradiction, a paradox, a labyrinth, to allow the discovery, the wonder, the excitement of finding anew the collection.”²

“One of the most powerful concepts that struck me immediately when I became involved, and guided a lot of our thinking was this rare synergy that existed between the real ethos of the Museum and its diverse collections. The diversity of the building fabric that Lionel Glendenning contemporised by adding new contemporary layers to; the diversity of stories that were being told; the diversity of the audience that was attracted (this wasn’t a specific audience, this was a very broad Church in a sense, of the people in Sydney and internationally that it appealed to). As a consequence, the detailed exhibition design was trying to do was to add to and be part of the total experience of the Museum. It wasn’t saying “Oh very well, that’s all good, but I need my ‘black box.’ I need to exclude all of that because I want to do something new.” Because that big picture is part of the detail.”⁸

“It is a contextual building, a graft of old and new. It offered a great variety of spaces, immense scale, some of the largest spaces within which to display quite a diverse range of objects. Some objects are so tiny they could be overwhelmed by the space while others fit comfortably within it. So the space was very assertive, quite contrasting in some cases, but at the same time offered immense opportunities that a new museum would never offer.”²

A correlation between Power Station and Museum’s Transport collections

“What could be more appropriate for such a Museum than the first major power-house in Sydney? And what building in Sydney has interior spaces built on such a generous scale to accommodate the Museum’s exceptional transport and engineering collections?”³

“The different scales and volumes of the spaces were a great match to the collection’s range and diversity—equally, the Power House itself was an excellent fit with the museum as a museum of industry and technology.”²

Museum’s buildings and the collections embody the Australian spirit

“This museum has a uniqueness, it has a quality that captures the mongrel character of Australia.”⁶

“When I think of the collections - it’s bound up in the society in a holistic way, which I think is distinctly Australian. So, it’s quite wonderful.”⁶

“These buildings represent the essential spirit that created Sydney, and the great Australian civilisation. There’s a lot to be understood about the impact of electricity on people’s lives. And this building was seminal very early in the adoption of electricity. And it’s an important artefact.

So, the museum is almost unique with this collection in this building - it’s quite an amazing fit. The uniqueness of the collection, and it’s appropriateness in these various spaces is wonderful. So often, buildings interfere with the understanding of the objects. This museum doesn’t do that, it has an affinity for the collections.”⁶

A repository of diverse collection

“The collection is an old one and very diverse, and includes some significant internationally recognised symbols.”²

Emphasising the role of design and technology in life

“The Museum was stimulating curiosity about science and technology with its collection decades before STEM education was an issue. As for STEAM - the Museum from its founding in 1880 has been all about the Applied Arts and the Applied Sciences.”⁴

“This is an irreplaceable historic context for audiences to be inspired about the history, synergies and potential of design and technology ‘to enrich the quality of life for all.’ (1945 MAAS Act)”⁴

Architecture and Collections: A mutually advantageous relationship

“At the time the decision to retain and recycle the existing building fabric posed huge complexities; particularly the sheer scale of the project was unique. Driven by the belief that it was not possible to construct new buildings of this scale with the restricted budget, and that the great breadth of the museum’s collections required a variety of spatial types from vast halls (Catalina flying boat) to intimate galleries (decorative arts), the museum’s signature element was decided.”²

Inspiration from the bowerbird-like nature of the collections

“The other insight was built around the eclectic, slightly mad, universal, bowerbird nature of the collection in an age of specialisation - this serendipitous finding of the breadth of the collection across the range of human endeavour and social existence posed a potentially impossible demand upon the architecture.”⁴

Deriving inspiration to innovate from the collections

“Using the museum’s extraordinary diverse collection as inspiration, and the curatorial and design genius; it is possible to explore and experience the narratives of lives and collection, with new technologies, interactives, multimedia rich techniques.”⁴



¹¹ | The interior of the Vran building in 1988. Note the slenderness and openness of the new structure in comparison to the robustness of the brick buildings which are displayed against the new upon arrival. This view through to the brick screen of the Turbine Hall strengthens this 'openness and transparency.'



¹¹ | Stage I exhibitions highlighting some of the museum's treasures in Harwood Building ahead of the opening of the 1988 Museum. The Bleriot XI monoplane (in the foreground) is very similar to the Bleriot aircraft that made the first epic flight across the English Channel on 25 July 1909.



OLD & NEW

Retention and adaption for future use

“At the time the decision to retain and recycle the existing building fabric posed huge complexities; particularly the sheer scale of the project was unique.. Driven by the belief that it was not possible to construct new buildings of this scale with the restricted budget and that the great breadth of the museum’s collections required a variety of spatial types from vast halls (Catalina flying boat) to intimate galleries (decorative arts), the museum’s signature element was decided.”²

“The initial architectural design included extensive reuse of the existing remaining fabric of the tram depot and powerhouse . . .”²

A clear relationship between new and old

“Develop a convincing combination of old and new in a positive manner.”⁵

“Modulate and sequence spatially the relationship between new and old buildings - accentuating, layering and contrasting.”⁵

“The new structures are deliberately not attached to the old buildings. In the Galleria, the glass does not touch the old building - it steps out over the cornice and goes down into the gutter behind the brick wall.”⁶

Harwood Building - Stage I of the Museum

“Staged over four elements, the first critical stage was the conversion of the derelict, collapsed Ultimo Tram Depot to a new conservation laboratory, workshops, store and most importantly, a ‘taste’ of the future museum. It was at this time that the name Powerhouse was used: constantly titling drawings ‘Museum of Applied Arts and Sciences’ was less than inspiring. ‘MAAS’ was meaningless - so using our ‘corb’ stencils, the project became the Powerhouse Museum. Later, arts secretaries sought to change this simple, effective brand to the ‘Museum of Human Achievement and Creativity’ and other pretentious titles, but the Powerhouse has become etched in the colloquial consciousness. Somehow the extraordinary breath of that initial observation of the eclectic, bowerbird-like collection, ranging across the broad range of human existence is captured in the word ‘Powerhouse’”⁴

The great cube of the existing Powerhouse Buildings

“The additive and sequential development of the original massive buildings to the east of the site is modulated by the intervention of structures inserted, layered and sequenced.”⁵

New forms drawn out of the old

“I have retained the character of and modified and drawn out of the old architecture, the new architecture . . . I have tried to make the architecture very controversial, very powerful and yet very sensitive and responsive.”⁴

“There was, however, a period in the development of the exhibitions where the building was seen as both a threat and impossible to work with. And yet working with Richard Johnson I felt that here was an opportunity. It just needed someone capable of making that connection between the new and the old in the architecture.”⁴

A subtle distinction between new and old

"My feeling was that I was dealing here with a skin that was scarred, broken and had lesions, was modified and had band-aids. In effect, I've tried to recreate some of the feeling in the east facade with those black silhouettes which are the shadows of what was once there. I've tried to explain the robust broken nature of the facade which has had brick in-fill."⁴

"Externally, the great brick halls of the old buildings have an enormous presence in important views from Darling Harbour and the city, matching in scale the wool stores and warehouses of the district. The new buildings have a much lighter construction in glass and metal, some of it brightly coloured and the new forms are large, bold and simple."⁶

"If you look at the building (Galleria), the building changes at the intersection of the various phases of the brick building; so there's a sense that the new columns are not just repetitive, ignoring what happened before. It's progressive development, which is not repeated, but acknowledged in the grid of the building (Galleria). Layering or the separation of the elements is deliberately done in a way to not be like the massive rectilinear, orthogonal character of the old building, but almost a contrast and a contradiction. And the curves or the tubular frames are slightly different, modern expression of what was being done in the Turbine and Boiler halls, rather than using the same steel frames. So, you get a more responsive, modern building. Even though you may not be totally aware of it, your brain is still registering that there's a link between the old and the new."⁶

Expressing the robustness of existing fabric

"The cubic volumes of the existing Powerhouse buildings.

Massive brickwork

Thickness

Dimension

Gravity

Solid."⁵



11 | The Board Room in the Galleria. The two cherubs painted across the sky represent new beginnings for the Powerhouse.



11 | The design approach adopted for the Museum's centenary of Federation exhibition, 'Visions of a Republic.'



11 | Christian Dior silk bridal gown displayed against the sky.



ARCHITECTURE & EXHIBITION

Embracing the bigger scale of the buildings in exhibition design

"We don't want the volume, the character and the sequence of spaces to be destroyed."⁶

"... if you are a creative and you are going to have small exhibition in the building, you need to embrace the bigger scale, the bigger dimensions and be aware of that what you are doing - idea of the 'buildings within buildings' ... "⁶

Exhibition design as a spatial design exercise

"It was a training ground for exhibition design in the country. Exhibition design prior to the Powerhouse was done by people who were graphic designers, they were not spatial designers."⁸

Critical armature links architecture and exhibitions

"An important step is to reinstate the critical armature linking architecture and exhibitions. This armature is the key framework mediating the internal architecture and the smaller scale of the exhibitions and other elements. This will reinstate the circulation which is both flexible and in sync with the building and conceptual sequences"⁴

"You have to use an intermediate element to register, to give a sense of purpose and focus to an exhibition within such big volumes."⁶

Exhibition design responds to its envelope

"There is quite a lot of learned debate among museum people that the 'black box environment' is the way to go for museums. This project has firmly convinced me otherwise. There are 'black box' situations in the Powerhouse, for individual exhibits, and they work well. But, overall one must have a balance."⁴

'Buildings within buildings'

"The Powerhouse and what I'm doing to it is like having a 'building inside a building.' The board room is the reversal. I put the Power House form, the rectangular prism of the building plan which is the barrel vault in section. I've reversed what I was doing, it's a reversal ... if you go into the building it's really important to look up and look at the Board Room in the galleria because it's a paradox, it's a play on the thing that was the Powerhouse itself which is the big rectangular volume."⁶

"What Richard Johnson did was to create an intermediate scale element within the spaces that captured the Board Room idea - 'a building within a building.'"⁶

Referring to the Board Room at the top level in Galleria

"It's a miniature Boiler Hall / Turbine Hall, its the primal hut, if you study the beginnings of architecture they say that architecture really emerged when that form of rectangular building with a pitched roof originated, and it captured the essence of architecture. So it's a 'building within a building' and it's reflective of how you might deal with the bigger spaces in the building."⁶

An intermediate scale to achieve an interplay between buildings, exhibitons and individual objects

"... work the scale of the building down to the object ..."⁶

"The intermediate scales between the objects and the small exhibitions and the architecture - the scale and dimension of the architecture need this mediating character within the spaces, which Richard Johnson and others were the designers of and which the Board Room at the top of the galleria - the little Board Room - 'a building within a building,' I used that term in '84. I wanted 'buildings within buildings' which would then be colonised by exhibitions as well as the big Boiler Hall exhibitions ..."⁶

"... increasing the depth and dimension of what you're doing to embrace that intermediate scale and reference the exhibitions in that overall umbrella of the museum ..."⁶

"... the architecture, the objects and the small scale exhibition is critical to the interpretation of these buildings ... it's an intermediary scale that mediates between the big vast character of the Boiler Hall and if necessary an individual object in that hall. That's the only way. If you put the object in the hall it's dead, the object can't survive."⁶

Integration of fabric, technology and museum's requirements

"Materiality and detail became critical with the integration of engineering systems; whilst maintaining the overall cost-time framework for the project became increasingly problematic as the demands of the museum became more profound and more and more teams were created to develop the museum's requirements."²

Progression in journey is expressed in architecture

"I have always had a love for baroque architecture of Francesco Borromini. In baroque architecture the curves are incidental to the way the space is manipulated. The Wran building has a half complete arc and this incompleteness takes you to the perfect expression of the arc in the Galleria. You are compressed by the building between the Wran building and the Galleria and then when you walk into the Galleria the explosion is extraordinary. That's what baroque architects did."⁶



INNOVATION & SUSTAINABILITY

Museum as a valuable investment

“The existing Power House buildings represented a valuable investment by our society both in time and collective memory and the thought that this resource should not be wasted was primarily a consequence of my interest in environmental issues and sustainability – issues that are now very much to the fore.”²

“This project sets a new paradigm for our industrial urban fabric - no longer can the major resource commitment of past investment be discounted or ignored in the future. Depreciation also represents appreciation when ‘values’ are considered. Twenty years ago, this consideration was radical. Pressure for demolition was intense. Retention of the remnant power as a ‘base resource’ from which the new Museum might emerge - an appropriate metaphor for a venerable institution - led quickly to many innovative systems that exploited existing elements of the structures - the spectacular volumes + spaces, the harbour cooling conduits, the structural capacities, free spans and the cultural memory - a link to a past and a reaffirmation of the value not only of past generations but our generation providing a link to the future generations - a cultural investment in the ‘collective memory.’ from this primary decision to forego demolition and to work with the existing fabric came countless innovations.”¹⁰

Responsiveness to our environment

“... this project is an exemplar of thinking that integrates those two fundamentally opposed ideas. You have the beginnings of the industrial revolution and the impacts of the industrial revolution and you’ve got a building that’s being recycled and saved and trying to adopt environmentally responsible attitudes.”⁶

“Sustainability and resource management - this project has its roots deeply embedded in the environmental movement and the idea that resources shouldn’t be wasted. That we can find ways to reuse our buildings ... and the life of buildings lives beyond the ego of the last architect.”⁶

Ingenuity in Design, Innovation & Sustainability

“... this building is an exemplar for saving old buildings and I think therein lies a real lesson for environmentalists let alone architects. And I think there’s a lesson to be learnt about the way we use our precious resources in society.”⁶

“The initial architectural design included extensive reuse of the existing remaining fabric of the tram depot and powerhouse ... ”⁶

Attention to design process and design detail

“... when I explore design concept for a building, as you begin the evolution of the design, and the drawings and the documentation, even through contract and detailing, the implications of the first concept being realised through all the subsequent work is critical. If it doesn’t it’s failing and you see the breakdown of concepts when they have big ideas and then the detailing lets it down.”⁶

Retention and adaption for future use

“For the Ultimo Power Station, demolition was a ‘collective lobotomy.’ Often infrastructure is a key element for our ‘mental maps’ of our environment that enhances our sense of oneself, our world and our experience - its removal is not just demolition of a physical structure but a removal of our reference points, a loss of resource, past investment and a coarse economic and cultural decision.”¹⁰

“At the time the decision to retain and recycle the existing building fabric posed huge complexities; particularly the sheer scale of the project was unique. Driven by the belief that it was not possible to construct new buildings of this scale with the restricted budget and that the great breadth of the museum’s collections required a variety of spatial types from vast halls to intimate galleries, the museum’s signature element was decided.”²

New technology complements extant fabric

“It’s interesting to also consider the many engineering issues posed by the project that sought similar defining positions; stratification of the large halls, titanium heat exchangers using Darling Harbour water and existing conduits for cooling and specialist lighting systems for various times in the museum’s day and unique structural systems, all developed with Dave Rowe, services engineer; Ian Norrie, structural, lighting and acoustics engineer, who joined the architectural team at this time to develop many innovative engineering prototypes for the project.”²

Fostering shared experiences through innovation in collaboration

“These shared and personal museum experiences will encourage and foster our imagination and thinking about the future of our cultural, technological and design development – inspiration underpinning aspiration.”¹

“When the ideas are right, appropriate and commonly owned, everyone wants ownership of the outcome.”⁸

A complex building

“This building is a complex building. A giant machine running at the highest museum standards that were developed from the museums in England, America. All the services designed operated to the highest standards, in terms of environmental response. The lighting, the security lighting and all the fluorescents. All the glazing in the building, it’s laminated with a special interlayer that filters out UV light, that’s why we can place objects in the galleria.”⁶

Referring to air handling system in the Boiler Hall

“They throw air across the space and stratify the spaces to best museum conditions, gradually tapering up through the building. They are critical to be retained, it’s the perfect solution. They were developed by Dave Rowe and it applies through the building. It was one of the really innovative things he did. They were designed very carefully and they do about four things – security, monitoring, air handling and humidity control. They are designed to spread the air evenly across a big volume and there was a lot of worry about throwing air that distance, at least half the width of the space without drafts and with proper mixing. They are quite sophisticated in a mechanical engineering way.”⁶

“... one of the things that has to be carefully considered with the Boiler Hall is that its structure depends on the load coming down from the trusses and the aircraft hanging from it. All that load is transmitted as compression to stop the brick work from going into tension. That’s how the structure works. If you take this out and lighten it you’re actually weakening the structure potentially.”⁶

Referring to the Switch House

“There were escalators within the building linking all the levels, so it could be operated independently from the rest of the building and use the entrance at the same time, that was the idea.”⁶

“Switch House was a simple ‘black box’ gallery. It was perfect for small scale exhibitions.”⁶

Deriving inspiration to innovate from collections

“Using the museum’s extraordinary diverse collection as inspiration, and the curatorial and design genius, it is possible to explore and experience the narratives of lives and collection, with new technologies, interactives, multimedia rich techniques.”¹



ENTRY, ORIENTATION & MOVEMENT

A sense of arrival

"A key to the architecture was the sense of 'beginning a journey,' hence the railway station metaphor, the space-capturing arch of Normanton railway station, Queensland."²

The meaning of Harris Street forecourt

"Reinstate Colonnade and explore options to extend structure to mark and define Harris St forecourt, including possible external museum cafe and shop."¹

"Reinstate paving as per 1988 design to express grid linked to Garden Palace."¹

The meaning of Harris Street Colonnade

"The Harris Street colonnade - intended to house design shops and showcases - was designed to mediate . . . between the grand scale of the power station and the tiny terrace houses across the street - a great verandah"⁹

Sequential development of spaces

"The spatial sequence beginning with the vaulted "railway station" ('sense of arrival')."⁵

"Enter at right angles to layering buildup. Then rotate to sequence (in-complete vault)."⁵

"Compression as the visitor moves to the Galleria."⁵

"Organising - memorable - monumental."⁵

"Great spaces and see beyond to the great original brick buildings through the arcaded screen of the west wall of the Turbine Hall."⁵

"We don't want the volume, the character and the sequence of spaces to be destroyed."⁶

". . . the intermediate elements that were part of understanding the spatial progression through the building. This issue of entries is critical and is going to be addressed in ways, which are extraordinarily complex but equally simple and conceptually stunning."⁶

Insertion, layering and sequence

"The additive and sequential development of the original massive buildings to the east of the site is modulated by the intervention of structures inserted, layered and sequenced."⁵

"Modulate and sequence spatially the relationship between new and old buildings - accentuating and contrasting."⁵

Referring to the meaning of gradual setback of levels in the Wran building and Turbine Hall

"The terraced overview."⁵

Galleria as an uncluttered spine that links spaces and guides movement

"Contributing to both variety and identity, the Galleria is the central organising space within the larger cubic volumes of the older buildings as well as a foci for movement and reciprocal views."⁴ "The Galleria is the building's axial street and source of interior light and space. Added to these multiple roles are vertical and lateral circulation paths. The pedestrian ramp adjacent the central lift rises free within the space at the bridge linking old and new."¹

Familiarising visitors with exhibitions upon arrival

"... we're putting in an electronic information system in the main foyer and every exhibition is identified by a stunning photograph of a key object within the collection. So, we are identifying exhibitions and themes by key objects. Every exhibition will have a poster on display in the forcourt, so people (before they enter the building) will know broadly what are the themes and what the content is going to be like. When they get into the Powerhouse, they are directed to a particular exhibition by the poster image which is incorporated into the electronic information system."⁴

Vantage points to orient the visitors

"We have placed what we call landmark objects in public spaces that will guide people through the museum ... the Boulton/ Watt Engine is a major landmark structure. Once you see it you never forget it, and you know where it is in the Powerhouse. There are aircraft, there are small precious objects, exciting individual items that people will see and remember and know where they are. These are located at key points, generally with an axial approach to them so that people can see them from a distance and remember where they are and fit them to the structure of the circulation."⁴

A navigable museum

"... every time we put another object, another statement, into the Powerhouse, we could potentially confuse the reading of the building or the paths people have to take through it. So we have to give people as they enter some comprehension of the total space, and then of the gallery space, and each bit that's devoted to an exhibition. The visitors have to comprehend the space, and feel comfortable with it, before they can focus on the exhibits. They must know where they are, and not feel they'll never find their way out of the maze."⁴

"The spatial character of building is read in our emotional experience of the architecture ..."⁶

"The organisation of the building be easily "read" by the visitor."⁵

An approachable museum

"It's surprising how many people are frightened in a big public space and that constrains the way they approach or explore a building and exhibits. So we have to make them comfortable and ensure that they aren't fatigued. In a building like this it's a much more important consideration because of its vast scale and its overall challenge."⁴

Museum journey designed to visitors' expectations

"I tried to build up a discipline, a way of structuring the exhibition design, based upon the way a visitor sees and moves through the building. This 'vista' perception was necessary to understand the ideas, the collections and the buildings."⁴

"We try to give a range of different experiences so that if people are turned off by one particular thing, they can choose something else."⁴

A coherent pattern of Museum's experience

"... I made maps of experience - so where was density of objects, where was the sound, where was the audio-visual, where were the interactives, where were the quiet spaces, where were the points of landmark objects, where could somebody delve and get into immense detail in a subject that fascinated them. And then I mapped it all out and I put it on layers of clear acrylic and I mapped these sensory perceptions with a coloured dot on the plan and then I put them all together ... and then when I did it to some of our emerging exhibitions, it was like reading music, you could actually see through the colour - the variation, the pauses, the changes of emphasis; you could read the experience of moving through the museum. The building itself did that and if the exhibitions negated that, it was all pointless to conserve those buildings."⁸



ENGAGEMENT

Fostering interaction and stimulation through powerful design

"To do that the architecture explored very controversial, very powerful and yet very sensitive and responsive design concepts."⁴

"Modulate and sequence spatially the relationship between new and old buildings - accentuating and contrasting."¹

"Each of us has a pattern of the city that we carry in our mind . . . The reaction that most people have to the Powerhouse is one of identification. They feel good, they respond to a lot of the retained elements and in a positive subconscious way."⁴

Avenues for varied experiences

"We try to give a range of different experiences so that if people are turned off by one particular thing, they can choose something else."⁴

A sense of wonder

"The bottom line is the beautiful dichotomy between observer and object; that magical sense of wonder that occurs when one comes face to face with the real object . . . To give people reality was just about the biggest 'turn-on' that one could create. So that point at which interaction occurs between the observer and object was what the museum is all about. It's really about that magic moment, that sense of wonder, that confrontation."⁴

The power of movement

"And the flight - the idea that things are all flying through the space . . ."⁶

An element of surprise

"Having an element of discovery."⁶

Referring to the balconies overlooking the transport collection in Turbine Hall

"The balconies are meant to be a surprise viewing point from the upper levels, to keep people interested, they would be surprises, exclaiming 'Oh, my God, who would have thought.'"⁶

An essence of Australia

Referring to the sky at either ends of Wran building

"Those clouds are actually exploited in the exhibits in the west building. As you enter through a tower structure, attention is focussed on the Strasburg clock with a cloud backdrop. It's the sort of item that stylistically would have been seen against a sky. In the middle ground there's a wonderful box kite of Lawrence Hargraves soaring up into the vaulted space. That's seen against the clouds. There's also the first major exhibition as you enter. It involves you up a long theatrical ramp, not only into the vault but up into the clouds. This creates an elevating experience of coming into a museum of concepts and ideas to explore and think on a different level to the everyday"⁴

". . . the vastness - the people it amazes every time. I see people walk in, the sky does affect them, they sense the infinite nature of the space."⁶

A balance of excitement, noise and stimulation

"One of the great things has been to attempt to arrive at a balance of content, space, experience, interactivity and classical presentation of an object for its own sake. It would be terribly wrong to have every exhibition with the same level of interactivity, or every single exhibition at the same level of excitement, noise or stimulation."⁴

Eclecticism, responsiveness and play

“With the overriding belief shared with Lindsay Sharp, Director MAAS that the ‘ah ha’ moment in a museum comes when the observer views the real object; this became the essence of the many decisions made about the architecture and the exhibition. The other insight was built around the eclectic, slightly mad, universal, bowerbird nature of the collection in an age of specialisation - this serendipitous finding of the breadth of the collection across the range of human endeavour and social existence posed a potentially impossible demand upon the architecture.”²

“And the flight - the idea that things are all flying through the space . . .”⁶

Careful integration of exhibition design tools

Referring to integration of interactives, audio visuals and graphics with the overall exhibition design and the buildings

“The scale, the dimensions and the way you move through the spaces, these things are intrinsically interacting as we experience the buildings and the exhibitions.”⁶

“But in themselves they are a recipe for chaos.”⁸

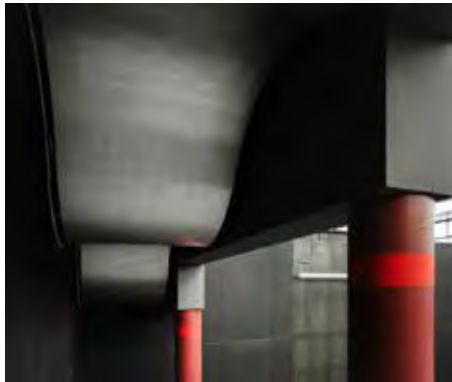
Uniqueness of the Museum generates interest

“The building is as it is because it evolved over such a long period of time. Like a city it has sort of loose fit circulation, there’s no classical route through it. You don’t enter a central exhibition hall and then relate back to the hall. It’s not that sort of a building. It’s not that sort of a collection either, and that makes it actually much more interesting to people.”⁴

A ‘Circuit Tour’

“Circuit tour for the person who can spend a brief half hour with the collection at a series of stops where an exhibit of some of the best pieces of the museum collections historically organised are available. From this overview if more time is available one could engage oneself a little more. If, as many visitors, you have a special interest or more time you may go onto any one of the great museum collections. This is better than dragging yourself through gallery after gallery to find the things you want to see.”⁵

“The idea of the museum was to not have an enfiladed way of doing things - you go here you go there, here’s the path, here’s the way you’ve to experience the building. It’s more a sense of being drawn into this experience. And you can come in and do it quickly. Or you can do it very detailed way, and come and be fascinated with an object and stay there and not feel that oh I’ve got to continue on now and go and do it all. So return visits were implicit in the design of this breakthrough idea that you don’t tell people what they’re going to do. You might have a way of experiencing the museum, but also a way for people with limited time.”⁶



11 | *Rippled ceiling over the stairs in the Powerhouse Theatre.*



11 | *The use of extraordinary colours in the Powerhouse Theatre.*



11 | *Transport collection in the Boiler Hall in 1988.*



COLOUR & LIGHT

Eclectic colours represent the real world

"I've battled with modernism's white hygienic view of the world. The world is coloured, its textured, it's not as pure."⁶

Use of exciting colours

"I became quite excited when George Freedman started to use all these wonderful colours . . . the hand rails are black and the green of the columns. But particularly the colours are intriguing and arouse great interest in a new modern Museum building."⁶

"The colours were driven by George Freedman's extraordinary sense of the way colours work together. When you go into the theatres, it's a bit of a shock, they are like jewels - they are full on colour."⁶

"George wanted to introduce a range of colours into the decoration of the walls as he was a colourist. He enjoyed working with a range of different colours - earthy mixes of grays, browns, greeny green and the windy blues."⁶

Use of colour and decoration in moderation

"The Powerhouse Theatre (big theatre) is simpler in comparison to the small theatre in architectural expression. It has coffered bays, and uses a combination of extraordinary colours. It's a shock for most modern architects who walk into the space. I was exploring the idea that there's something missing in the sterile world of modern architecture. We are relying on almost white or black forms. Don't be afraid of decoration, use it in moderation."⁶

"The other thing about modern architecture that worries me is this belief that somehow you can't decorate it. I think decoration is fundamental to our existence as human beings."⁶

Effective use of daylight to generate human interest

"There is quite a lot of learned debate among museum people that the 'black box environment' is the way to go for museums. This project has firmly convinced me otherwise. There are 'black box' situations in the Powerhouse, for individual exhibits, and they work well. But, overall one must have a balance."⁴

". . . if museum design is generated by public perception, if visitors like the feeling of walking into a space flooded with natural light, why blacken it out? Why not, more cleverly, look at the design opportunities presented and try and control the environment in another way by building shelters or cocoons for things that are light sensitive."⁴



Colours and design responses to capture fluidity and excitement of architecture

"I designed both theatres. George Freedman - the colour scheme. The Powerhouse Theatre (small theatre) is a play on art deco, Otto Wagner Post Office and the Mackintosh grid. It has a lantern shape ceiling, but it has a white illuminated ceiling with black grid, it's quite expressive. I have always been fascinated by the mark we make as an architect, and the idea of a scribble or a continuous ripple. The ceilings over the stairs in both the theatres have the rippled ceiling following you down, so one gets a sense of flow on the stairs. It has a neon stripe that follows the edge of the theatre."⁶

Referring to the red colour in steam vents in the west brick wall of Boiler Hall

"When architects colour drawings, the brickwork in section is coloured with dark red watercolour (international colour standards). It's a little architectural joke for other architects who visit the Museum."⁶

"When people look at the holes, they ask - What are these holes, why didn't you patch them and fill them up? But that's where the steam went through, it's part of the story of the building."⁶

Referring to the carpets designed by George Freedman

"The carpet was specially designed by George Freedman for the buildings. It has a neutral appearance from mid distance, but if you look at it close up, there are all these colours."⁶

Referring to the green grey colours of the columns in Wran building

"Wet concrete colour - it is an attempt to try and replicate that sense of it being fluid before it becomes solid."⁶

Referring to the Italian nougat tiles (with large stone aggregates) in the Wran building

"I liked the excitement, complexity and texture of the tiles against the fine grain of the stones. Everyone loved the tiles including the curators. A number of people have commented over the years - how they love it. It's a really exciting finish. The patterning of the tiles resembles the great cathedrals.

The floor pattern is critical to the site. It's exploring the way in which you can manipulate the variety of finishes to both be a margin and an infill element. The infill is rotated through 90 degrees and the texture of the margin is always at right angles."⁶

The 1988 Emery Vincent graphics

"The exemplary work that Garry Emery did - the corporate identity of the Museum, the building identity, the graphic design, the marketing, the publications, and the graphic imagery of the exhibitions were all integrated. And that was even inspired or connected to the design of the carpets, it was the same colours. That's an example of not only collaboration but interdisciplinary collaboration - where one design inspired the other."⁸

DESIGN PRINCIPLES I THE FUTURE

With evolution, exploration and collaboration at its heart, the Powerhouse Museum as part of the Ultimo Cultural Precinct would be managed based upon a set of fundamental design principles.

The comments by Lionel Glendenning and Richard Johnson are made in the context of their understanding of the Museum, its past, and its current and future needs.

The following principles are described by Lionel Glendenning (quoted in blue) and Richard Johnson (quoted in green).

A clear understanding of the 1988 Museum is essential to guide future interventions

“A major element implicit in what the Powerhouse did is missing in the way people are about to approach it.”⁶

“An understanding spatially, of what themes or collections or focus each space is going to have. You can’t design anonymous spaces without understanding what is the nature of this particular Museum.”⁸

Regeneration of Powerhouse for the 21st century

“It’s feasible for the government to announce an extraordinary expansion, an extraordinary capacity for the museum to move into the future, in a way that captures the imagination.”⁶

“One of the great possibilities of a regenerated Powerhouse is that synergy between what the Museum is trying to do, its collection, the fabric of the architecture, and the display technique; all work together in unison. And then it’s incredibly powerful because it is very very rare internationally, and we had that in 1988.”⁸

A Museum Precinct for Ultimo | Sydney

“... a coherent POWERHOUSE MUSEUM PRECINCT, which builds on the area’s and the Museum’s history and heritage, its contemporary design values which enhance and drive further development and create a new paradigm for the Museum to emulate the quantum change of 1988 which was a remarkable rebirth of this distinguished 1880 institution ...”¹

“As a precinct it should become an evolving bubble. This building in particular is part of the urban design character of Sydney.”⁶

Museum as the locus of Ultimo’s Creative Precinct

“As an instrument of public record and display, the Powerhouse Museum has a pivotal role in supporting, recording, presenting and fostering connections in this creative space.”¹

Harwood Building is intrinsic to the Museum

“Staged over four elements, the first critical stage was the conversion of the derelict, collapsed Ultimo Tram Depot to a new conservation laboratory, workshops, store and most importantly, a ‘taste’ of the future museum. It was at this time that the name Powerhouse was used ...”²

Advance the urban connections of the Precinct

“The success of the Goods Line evolution as a key pedestrian link presently ends at the Museum, as does the Hay Street to George St and the CBD beyond. These interactions at the Museum present real opportunities for the Museum to create direct links and nodal places / squares integrating with these successful developments and crafting opportunities for activation, and links creating new value adding elements of the Museum’s activities and exhibits.”¹

Referring to the north eastern end of Museum’s curtilage

“There’s a chimney base there which has been chewed up by part of the bridgework, but it’s original and it’s important not to damage it. I’ve been thinking about how to connect through under the bridge and the best solution is to keep the tram and the pedestrians together till you get to the point where you can take the pedestrian off and let the tram run, because once the tram leaves Central Railway it’s running on the street system. It comes up Hay Street on the true street system, there’s nothing to stop it carrying on briefly for another 100 or 200 meters, and this simplifies how you might treat it from an urban design point of view - it’s a tram running in the street.”⁶

Strive to achieve 'Interdisciplinary Collaboration'

"Before you go to the actual process of creating buildings, a group of intellectual minds comes together in a collaborative sense - in a respectful context where ideas and concepts are listened to, and discussed in ways that make the whole exercise an escalating process aimed at perfection."⁶

Hand and Mind - MIND and HAND

"At the Museum's heart, it is about the power of creative and innovative minds combined with skilled and inventive hands - Hand and Mind - MIND and HAND."¹

'Design as a Continuum'

Referring to the design intent in 1988:

"At the detailed design level what it was trying to do was to add to and be part of the total Museum experience. I call it 'Design as a Continuum,' that there was a continuum of thought historically and Lionel Glendenning added a contemporary layer; there was a continuum in the collection up to the contemporary times; there was a continuum of curatorial thought and there was a continuum of design."⁸

Design that interests and excites

"I have tried to make the architecture very controversial, very powerful and yet very sensitive and responsive." (Designworld)

"Opportunity to demonstrate interest in:

- consolidation;
- use of constraints as design generators;
- creating old and new linkages with the architecture of ULTIMO and POWERHOUSE;
- a contextual awareness and historical reference."⁵

Ensure highest quality design input

Referring to the gradual dilution of design quality in recent changes

"Ensure highest quality of design input"⁶

"Good design doesn't cost money."⁶

Strive for best international museum standards

"Pragmatic decisions on achieving the best international museum conditions and standards, allowing for future changes, and creating a flexibility of circulation in a wide variety of gallery spaces were implicit in the architectural solution."²

Preserve the integrity of the original architecture

"The cubic volumes of the existing Powerhouse buildings.

Massive brickwork

Thickness

Dimension

Gravity

Solid."⁵

Additional space / facilities

Referring to the Harris Street forecourt

"I think you should excavate here and put in a 20 storey building down like the State Library of NSW has on Macquarie Street (the Library has seven storeys below ground). The roof of it would be level 3 (entry level), and the edge (to Macarthur Street) could be cafes or shops. It would be a very simple thing to do."⁶

Reinstate the meaning of Harris Street forecourt

“Reinstate Colonnade and explore options to extend structure to mark and define Harris Street forecourt, including possible external museum cafe and shop.”¹

“Reinstate paving as per 1988 design to express grid linked to Garden Palace.”¹

‘A sense of arrival, generosity and welcome’

“A key to the architecture was the sense of ‘beginning a journey,’ hence the railway station metaphor, the space-capturing arch of Normanton railway station, Queensland.”²

“This issue of entries is critical and is going to be addressed in ways which are extraordinarily clever, but equally simple and conceptually stunning.”⁶

Retain the concept of ‘Layering-in’ from Harris Street

“The additive and sequential development of the original massive buildings to the east of the site is modulated by the intervention of structures inserted, layered and sequenced.”⁵

Manage the Galleria as an uncluttered spine that links spaces and guides movement

“The Galleria is “the building’s axial street and source of interior light and space. Added to these multiple roles are vertical and lateral circulation paths. The pedestrian ramp adjacent the central lift rises free within the space at the bridge linking old and new.”¹

“I think you could extend the Galleria to the end (Macarthur Street), embrace the Switch building and put that inside the building and link it down to the schools and coming in from the back courtyard. It would work brilliantly. You would have this amazing triple height space with the galleria coming through.”⁶

Referring to the northern end of the Galleria

“The view across to the Ian Thorpe Aquatic Centre would be quite interesting. The shape of the pool is reflected in the Galleria.”⁶

Potential for cross link connection

“The Switch House connection is a great opportunity for a cross link between Harris Street / Galleria / Goods Line square.”⁶

Referring to the northern end of Switch House and its possibility to be a grand entry into the museum

“It’s like a giant junction of all the elements that go out into the museum. You could link the lower level entry with the upper level entry through this space. You could take the back courtyard level right through the building, extend the Galleria right down into that level and bring all the school kids in there. Put in a set of escalators that serve each level, and, as you enter, you would look up through the building to beyond the Galleria. It would be quite an extraordinary thing. It would be like the big concourse at the Louvre. There could be shops, cafes and all the other free-standing elements within this grand space. It would be an articulation of the shopping feeling that you get across the way (along Hay Street) as you come up the Goods Line, onto this one level going right through till you are in the Galleria. The potential is wonderful.”⁶

Retain clear relationship between new and old

“Develop a convincing combination of old and new in a positive manner.”⁵

Referring to the brightly coloured stair cores at the south brick wall of Boiler Hall

“They were an intervention. Depending upon what happens in the rear courtyard, these could be removed or retained. New interventions in this courtyard have the potential to have the openness, accessibility and transparency that the Galleria offers. The robustness of this massive brick wall of Boiler Hall should be retained and new interventions should be lightened.”⁶

Re-establish the unique and synergistic relationship between collections and buildings

“The architecture needed to be a contradiction, a paradox, a labyrinth, to allow the discovery, the wonder, the excitement of finding anew the collection.”²

A comprehensible and navigable museum journey

“... give people as they enter some comprehension of the total space, and then of the gallery space, and each bit that's devoted to an exhibition. The visitors have to comprehend the space, and feel comfortable with it, before they can focus on the exhibits.”⁴

Museum Exhibition design not independent of the buildings

“The building had, if you sought it out - a natural geometric rigour, and therefore the insertions within the building needed to understand and take their cues from it ... if you don't understand it, you can't work with it”⁶

Referring to the distinction between an art gallery / art museum and the Powerhouse Museum

“The concept of museum has been diminished by the dominance of art galleries and their success in attracting huge number of people, and museology has lost its way a little. In a strange way, an art gallery can be divorced from its paintings, they have never had a tradition like museums have had, of really delving deeply and explaining themselves to the viewer, whereas the museums are the opposite of this. And this particular collection is so eclectic, so bowerbird-like, so societal, it's a very strange collection. It's like no other in the world that have experienced.”⁶

“Despite that diversity there was an electric synergy between the building fabric and its spaces, and the collections. Because even the decorative arts, which needed more intimate spaces, had the intimate spaces and everything worked together. And therefore that gave it an authenticity ... In most cases, the architecture of an art museum doesn't reflect the nature of the art.”⁸

Exhibitions should have a balance of excitement, noise and stimulation

“One of the great things has been to attempt to arrive at a balance of content, space, experience, interactivity and classical presentation of an object for its own sake. It would be terribly wrong to have every exhibition with the same level of interactivity, or every single exhibition at the same level of excitement, noise or stimulation.”⁴

Responsive design to reinstate and retain the authenticity of spaces in the buildings

“There is some sort of restitution necessary in the process of clearing out some of the egregious interventions by others. The damage done is so much - the openness of the Wran building, which was one of its features, has been blocked completely by a lot of plasterboard. The attempt to convert it into a black space bemuses me because great exhibits were placed in there from around the world, and no one ever said that the volume, the space was an issue.”⁶

“It wasn’t an issue if the exhibition designer understood that there was a natural light issue that had to be dealt with by cocooning the object in a showcase or by other exhibition design means. It is an easy way out to blacken everything. I often say, if you are putting a painting in a major room in the Louvre or in the Palace of Versailles and you wanted to hang it next to the window, and you said that “the window is not in the right spot, I am going to brick it up because I want the painting there.” You would put the painting somewhere it wasn’t in harm.”⁸

‘Buildings within Buildings’

“The intermediate scales between the objects and the small exhibitions and the architecture - the scale and dimension of the architecture need this mediating character within the spaces, which Richard Johnson and others were the designers of, but which I called up and which the board room at the galleria up the top - the little board room, a ‘building within a building,’ I used that term in 84. I wanted ‘buildings within buildings’ which would then be colonised by exhibitions as well as the big Boiler Hall exhibitions . . .”⁶

Embrace the scale of the buildings in exhibitions

“ If you are a creative and you are going to do a small exhibition in the building, you need to embrace the bigger scale and the bigger dimensions and be aware of that what you are doing to the idea of the buildings within buildings.”⁶

Reinstate the principles that underpinned the intermediate scale elements

“An important step is to reinstate the critical armature linking architecture and exhibitions. This armature is the key framework mediating the internal architecture and the smaller scale of the exhibitions and other elements. This will reinstate the circulation which is both flexible and in sync with the building and conceptual sequences”¹

New interventions to link architecture and exhibitions

“There is no point in recreating the interventions that I put into the Powerhouse that are now demolished. They were never intended to be permanent, some had a permanence well beyond the exhibition, but I envisaged that ultimately they would all go and the building would still be there, but the principle of them wouldn’t go. They would be replaced by better interventions that did the same thing functionally or aesthetically.”⁸

Undertake research to understand the complexity of the building

“This building is a complex building . . . It was a giant machine running at the highest standards, museum standards that were given to us from the museums in England, and America and we operated on that basis.”⁶

The potential in recycling and adaptive reuse

“The existing resource in buildings that the society has invested in, is worth working with and building up as contextual ways for great design.”⁶

A corporate identity for the Museum

“Reinstate and reconfigure the outstanding 1988 Emery Vincent signage and graphics scheme.”¹

An urban design study to resolve urban connections of the precinct

“As part of the revitalisation and activation of the Powerhouse Precinct, resolution of the urban design issues at the conjunction of Hay Street - ‘Urban Nest’ - Darling Drive, Light Rail, Macarthur Street and the Goods Line node. This key arrival node is an unresolved confusion of paving and levels, steep stairs and an assortment of residual walls and handrails, miscellaneous engineering elements - an urban design mess. With clear unambiguous urban design, a resolution of this important public arrival and transition place is vital. To that end, the City of Sydney Council, Light Rail and NSW Govt should commission an urban design study”¹

Explore and present Museum’s context and linkages

“Exploring the existing precinct, sites and architectural heritage through research and revelations underpinning Site Heritage Interpretation at all the Museum’s sites. For example, the Castle Hill historic plantation and the Museum’s early record of research and experimentation into the potential of Australia’s Essential Oils industry and, Native Timber industry.”¹

Familiarise the visitor with the rich history and heritage of the Museum

“Whole of the site interpretation of the history of the Museum’s precinct, site, all buildings, and of the institution of the Powerhouse Museum itself, will be a feature of the public’s experience of the one of Australia’s oldest museums.”¹

Celebrate the diversity and difference of people

“Engaging many audiences through the broad sweep of the Powerhouse Museum’s Collection, based on our social, cultural, technical and scientific history. The First State, recognising First Nations culture - the foundation of our nation’s prehistory, developing penetrating insights into the formative and developmental influences on today and into the future.”¹

Conserve the intangible heritage of the Museum

“Heritage at the moment is evolving into the beginnings of an understanding of the intangible benefits of a site or a building. We are focussed on the artefact - the physical reality, but not on the intangible. And the Powerhouse has all of those other layers of intangible benefits that go beyond the physical fabric - that’s the collections, the synergy of the collections and the building, it’s the building and the precinct, its inspiration as the training ground for designers . . .”⁸

A robust Conservation Management Plan that builds upon the Design Principles

“A properly prepared CMP guided by Design Principles to maintain the original design integrity of the Powerhouse Museum is essential . . . The CMP should be a robust framework to consider, debate and prioritise a range of options proposed in the master planning process.”¹

“The important thing about the CMP is that it should manage change in a sensitive, thoughtful way, and ensure that the quality continues and that we pass it on.”⁶

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Section 04: Design principles I The Future

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2. Jennifer Sanders. 'Realising Memories, Reminiscences and Thoughts: Jennifer Sanders with architect Lionel Glendenning' in Graeme Davison and Kimberley Webber (eds). *Yesterday's Tomorrows: The Powerhouse Museum 1880-2005*. Sydney: Powerhouse Publishing in association with UNSW Press, 2005, 230-239.
3. Thomson and Pilz. *A Study of the relocation of the Museum of Applied Arts and Sciences*.
4. Wood. "Powerhouse."
5. Lionel Glendenning, *Early Concepts ideas*.
6. Glendenning. 'Private Records of Discussion.'
7. Glendenning. *Inquiry into Museums and Galleries*. Submission No. 155b.
8. Johnson. 'Private Records of Discussion.' August 2021.
9. Elizabeth Farrelly, 'Dreaming: Power House, Dreaming House' in Davison and Webber (eds). *Yesterday's Tomorrows*, 227.
10. Lionel Glendenning, *Powerhouse to Powerhouse Museum*, August 26, 2008.

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2021 | ULTIMO | SYDNEY



APPENDIX F

Powerhouse Museum

Moveable Heritage List



L4154/2 Work cap, fabric / plastic / metal, owned by Hiram Lennon, safety officer at Ultimo Power Station, Sydney, New South Wales, Australia, maker unknown, 1940-1970

Work cap, fabric / plastic / metal, owned by Hiram Lennon, safety officer at Ultimo Power Station, Sydney, New South Wales, Australia, maker unknown, 1940-1970

Black fabric cap with black plastic brim and fabric braid around the edge of the crown. A metal badge is at the centre of the front of the braid.

Physical Numbering

Not physically numbered

Dimensions

Type	Length	Width	Height	Depth	Diam	Units
General		263	130	293		mm



L4154/1 Shaving brush, mug and razor, metal / wood / [hair], owned by Hiram Lennon, safety officer at Ultimo Power Station, Sydney, New South Wales, Australia, makers unknown/England, 1940-1970

Shaving brush, mug and razor, metal / wood / [hair], owned by Hiram Lennon, safety officer at Ultimo Power Station, Sydney, New South Wales, Australia, makers unknown/England, 1940-1970

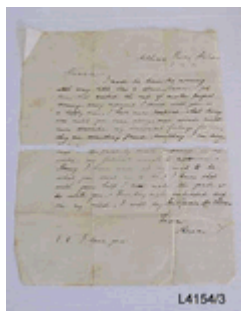
Shaving brush with wooden base painted brown. A gold coloured ring is at the top of the base. The brush consists of blonde coloured hair. Silver coloured mug with handle soldered to side. Silver coloured razor with bronze coloured handle.

Physical Numbering

Not physically numbered

Dimensions

See parts for dimensions



L4154/3 Letter, paper, owned by Hiram Lennon, Australia, 1940

Letter, paper, owned by Hiram Lennon, Australia, 1940

The love letter was written by Hiram Lennon of Ultimo Power Station to his fiancée Grace. The letter has been torn horizontally through the centre and is now in two halves. The letter is handwritten in black ink on a loose sheet of lined and margined paper and dated 2.10.40.

Dimensions

Type	Length	Width	Height	Depth	Diam	Units
General		200	250			mm

Dimensions refer to letter as a whole (the letter has been torn into two halves)



2000/26/1 Book, 'First Aid to the Injured', hardcover with paper cover, paper, published by St John Ambulance Association, London, England, 1938, used by Lloyd Birdsall, Ultimo Power Station, Sydney, New South Wales, Australia, 1939

A small, hard-cover book loosely covered with brown paper and inscribed by the donor's mother. White pages with black ink text and illustrations. Attached to the inside front cover is a diagram of the bones and arteries of the human body. 'First Aid/L. Birdsall/Ultimo Power Station' is written on the front of the brown paper in black ink. 'First Aid to the Injured' is the authorised textbook of the St John Ambulance Association. This is a copy of the 39th edition.

Physical Numbering

Numbered on verso inside last page, I.I. in 2b pencil

Dimensions

Type	Length	Width	Height	Depth	Diam	Units
General		108	135	20		mm

This refers to the book when it is closed.

No image

88/332 Photographs (8), black and white prints, featuring the Ultimo Power Station and White Bay Power Station, paper, photographer unknown, Ultimo, New South Wales, Australia, c. 1911-1925

Photographs, (8), black and white Ultimo & White-Bay Turbine Generator & Switch Eq. Australia, 1911-1925

Dimensions



85/123 Vesta case for matches, presented by the English Electric Co of Australia Ltd, in March 1923, commemorating the starting up of the first Australian-made steam turbo-alternator at Ultimo Power Station, Ultimo, New South Wales, Australia, silver, Australia, 1923, made by Magnus Goldring, Sydney

Vesta case for matches, presented by the English Electric Co of Australia Ltd, in March 1923, commemorating the starting up of the first Australian-made steam turbo-alternator at Ultimo Power Station, Ultimo, New South Wales, Australia, silver, Australia, 1923, made by Magnus Goldring, Sydney

Dimensions

Type	Length	Width	Height	Depth	Diam	Units
General		20	50	60		mm



96/1/1 Keys (13), attached, metal / leather, possibly Ultimo Power Station, Australia, 1924-1928

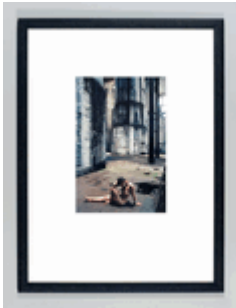
Keys, 13, metal/leather, [Ultimo Power Station], Australia, 1924-1928. A set of 13 keys, possibly used originally in the switch rooms of the Ultimo Power Station Switch House. Rooms A & D had 50HZ cycles generators. Some of the keys are marked for these rooms (see: vol 5 of the Ultimo Powerhouse Study).

Set of 13 keys, all attached to a circular cloth bound ring, consisting of 2 groups of 5 & 6, with 2 separate keys. All are attached to brass & cloth bound metal wires. Keys are identified by leather tags, and two brass tags.

Dimensions

Type	Length	Width	Height	Depth	Diam	Units
General		150	200			mm

Dimensions are of the entire set of keys



2007/25/4 Photograph, Chromogenic print, 'Model in boiler hall of the Ultimo Power Station', paper / wood, photographed by Jozef Vissel, Sydney, New South Wales, Australia, 1975-1980

Portrait photograph, 'Model in boiler hall of the Ultimo Power Station', type C, paper / wood, photographed by Jozef Vissel, Sydney, New South Wales, Australia, 1975-1980

Framed type C photograph of a nude female model sitting in the interior of the disused boiler hall of the Ultimo Power Station prior to its conversion to the Powerhouse Museum during the early 1980s. The model is reclining in the foreground and wears a necklace, earrings, bracelet, ring and watch. Inscription on reverse.

Physical Numbering

Numbered on the reverse lower right hand corner in 3B pencil.

Dimensions

Type	Length	Width	Height	Depth	Diam	Units
Framed	597	452				mm

The measurements above are of the frame only. The measurements of the print by sight only are 196(W) x 295 (L).



B579 Blueprints, section of Babcock and Wilcox boiler at Ultimo Power Station, paper, maker unknown, place of production unknown, c. 1930

Blueprints showing section of boiler recently installed at Ultimo Power Station, Sydney (SB). One mounted blueprint of the Babcock and Wilcox boiler unit installed at the Ultimo Power Station in 1930.

Dimensions



99/20/1 Pressure gauge, portable recording, metal / glass / paint, made by Foxboro-Yoxall Ltd / Alfred Snashall Pty Ltd, London, England / Sydney, New South Wales, 1934-1947, used at Ultimo and White Bay Power Stations, Sydney, New South Wales, Australia

Pressure gauge, portable recording, metal / glass / paint, used at Ultimo and White Bay Power Stations, Sydney, made by Foxboro-Yoxall Ltd / Alfred Snashall Pty Ltd, London, England / Sydney, New South Wales, 1934-1947.

Round-faced gauge with hinged glass front (catch is broken). Stand and handle (at top) in one piece bolted to the back of the gauge. Plate bearing the words 'Tech. Invest. Officer Ultimo Power Station' screwed onto the back of the gauge. Gas inlet at back below handle. Label on face has room for details of temperature and pressure, but the only information stamped into it for this gauge is: serial number E4710, chart 79805 type DIA, and one pen to record pressure from -3"W.G. to +3"W.G. (referring to the measurement of pressure from vacuum of 3 inch water gauge to positive 3 inch water gauge). The pen holder hangs from the top left of the gauge face. Attached to the metal rim holding the glass front is a metal label bearing the words 'Manufactured for Alfred Snashall Pty Ltd Civic House 477 Kent St Sydney NSW by Foxboro-Yoxall Limited'.

Physical Numbering

Numbered on back, inner rim of stand, in white ink, acetone in paraloid base coat with petroleum in paraloid top coat.

Dimensions

Type	Length	Width	Height	Depth	Diam	Units
General		335	390	140		mm

No image

97/44/1 Photographs (4), aerial views of Sydney streets, paper, Australia, c.1940s

Photographs (4), aerial views of Sydney streets, paper, Australia, c.1940s.

Four horizontal format black and white photograph prints on gloss paper. The photographs depict aerial views showing the development of Sydney streets. These photographs include:

view from the Ultimo power station across to the Darling Harbour goods yards with the city in the background;

view from the city end of Sydney to Central station and surrounds and Prince Alfred Park;

view from the Royal Botanical Gardens across Macquarie Street to Pyrmont Bridge and Darling Harbour; and

view across the Lavender Bay side of the Sydney Harbour bridge to Circular Quay, with the Royal Botanic Gardens in the left middle ground and the city in the background.

Physical Numbering

2B pencil on reverse

Dimensions

See parts for dimension information

APPENDIX G

Aboriginal History

Overview-Powerhouse

Ultimo

Aboriginal History Overview – Powerhouse Ultimo

FINAL DRAFT – April 2022

WARNING: Aboriginal & Torres Strait Islander readers should note that this document discusses, and contains images of, deceased Aboriginal people

Using this overview

This overview was prepared by Coast History & Heritage (Coast) for the Powerhouse Museum, to inform the preparation of a Conservation Management Plan for the Powerhouse Ultimo site. It was written by historians Michael Bennett and Paul Irish with assistance from Neenah Gray.

There are many more Aboriginal stories and linkages to the Powerhouse Ultimo sites and surrounds than this overview contains. It is not a comprehensive Aboriginal history of the Powerhouse Ultimo site and should not be read in this manner. It is intended only as a preliminary overview to flag some of the major themes in the Aboriginal history of the Ultimo/Pymont area. The overview was based on desktop research only, and is written from the perspective of non-Aboriginal historians. It is presented in a linear (chronological) fashion and we acknowledge that this may not reflect how past or present Aboriginal communities would relate to the site.

We have not included some images and content of a potentially personal and sensitive nature in this document because obtaining appropriate community and family permissions were beyond the scope of this initial research. More comprehensive research into Aboriginal connections to the area will be undertaken in future by the Powerhouse Museum, which will involve Aboriginal community collaboration, extensive archival research and incorporation of Aboriginal knowledge about the site. The outcomes from this research will present a more rounded and Aboriginal community focussed view of the Aboriginal history of the area, and will also ensure that appropriate permissions and attributions are obtained and used.

1 Before Tumbalong

These days it is hard to imagine how the lands around Tumbalong (Darling Harbour) looked before the arrival of Europeans in Sydney. The entire shoreline has disappeared beneath wharves and straightened shorelines, creeks flow in covered drains, and large buildings on either side obscure the lay of the land. Aboriginal people have witnessed these changes over recent centuries, but their ancestors experienced one far more fundamental – the creation of Tumbalong itself. Here we consider what archaeology and geology tells us about the birth of Sydney Harbour. We do not discuss Aboriginal creation stories, which would require detailed research and extensive consultation to ensure that this information is appropriately told from an Aboriginal community perspective.¹

If we wind back the clock 20,000 years, the world was at the height of the last ice age. There were no glaciers in Sydney but it was drier, 6-10 degrees colder and looked very different to today. Glaciers elsewhere in the world held vast amounts of water, resulting in sea levels more than 100 metres lower. Tumbalong, and indeed the entire harbour, did not exist. The ocean lay more than 10 kilometres further to the east, at the base of a cliff we know today as the submerged continental shelf.² Back then, more than 1,000 generations ago, Aboriginal people had already been living in the Sydney region for a long time.³ They knew this as a very different landscape (see **Figure 1**). Standing on today's harbour heads, they were not surrounded by lapping waves, but looked east over a vast coastal plain. Turning west, Sydney Harbour looked a bit like the landscape of the Blue Mountains most of us are familiar with – fingers of ridges looking down on a timbered valley with a river snaking along its floor.

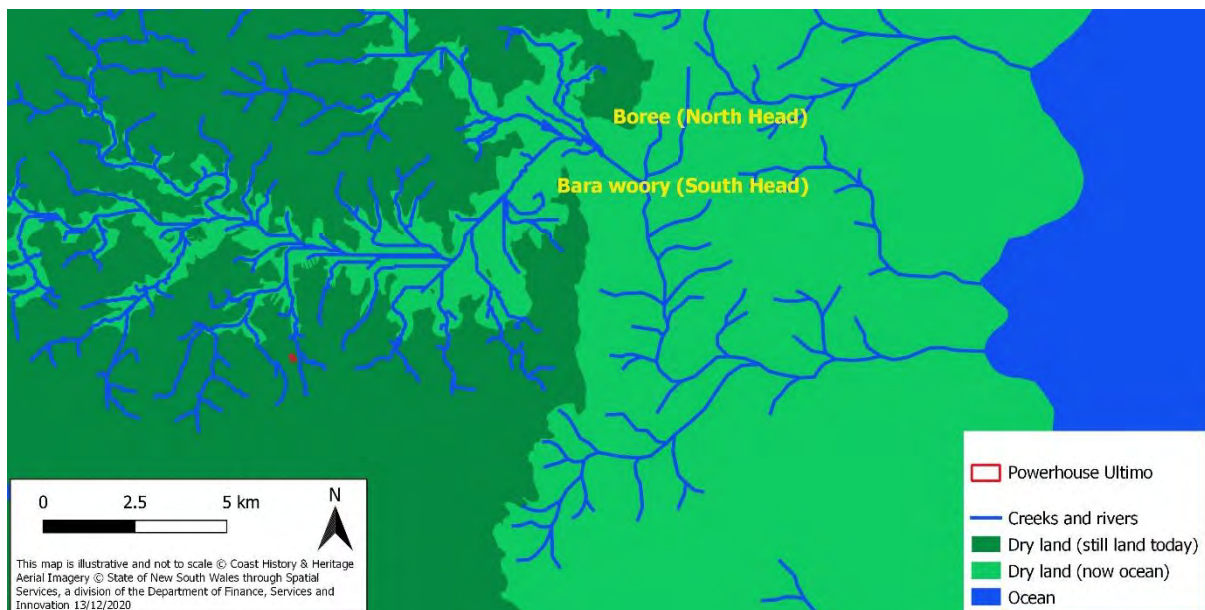


Figure 1. An impression of what Sydney looked like around 20,000 years ago.

[Spelling of Aboriginal place names follows Attenbrow 2010. *Sydney's Aboriginal Past*, Table 2.1. Source:⁴].

At this time, Tumbalong was not a bay, but a forested creek wending its way down to the main harbour river (**Figure 2A**). On either side of the creek the ridges of today's Ultimo and the Sydney CBD would have been covered in woodland. This was freshwater, inland country. Plants, birds and land animals probably provided most, if not all, of the food for people living around Tumbalong. They would have travelled around this area along ridges and creeks and could have walked right across what is now the harbour - perhaps not even needing a canoe to wade or swim cross the pre-harbour river.

About 18,000 years ago, the global temperature began to rise, sending glacial meltwater back into the ocean. Aboriginal people around Tumbalong would have seen or heard of this change as the waters at the base of the continental shelf cliff got higher and eventually began to creep across the coastal plain and between Boree (North Head) and Bara woory (South Head).⁵ The harbour gradually took shape, like a very slow-filling bath. Saltwater eventually began to fill the wooded gully of Tumbalong, until around 7,000 years ago the bay was formed. Over the next few thousand years the

seas rose and fell slightly but by around 3,000 years ago Tumbalong would have looked more or less like it did to Aboriginal people when they encountered Europeans in 1788 (**Figure 2B & Figure 3**).

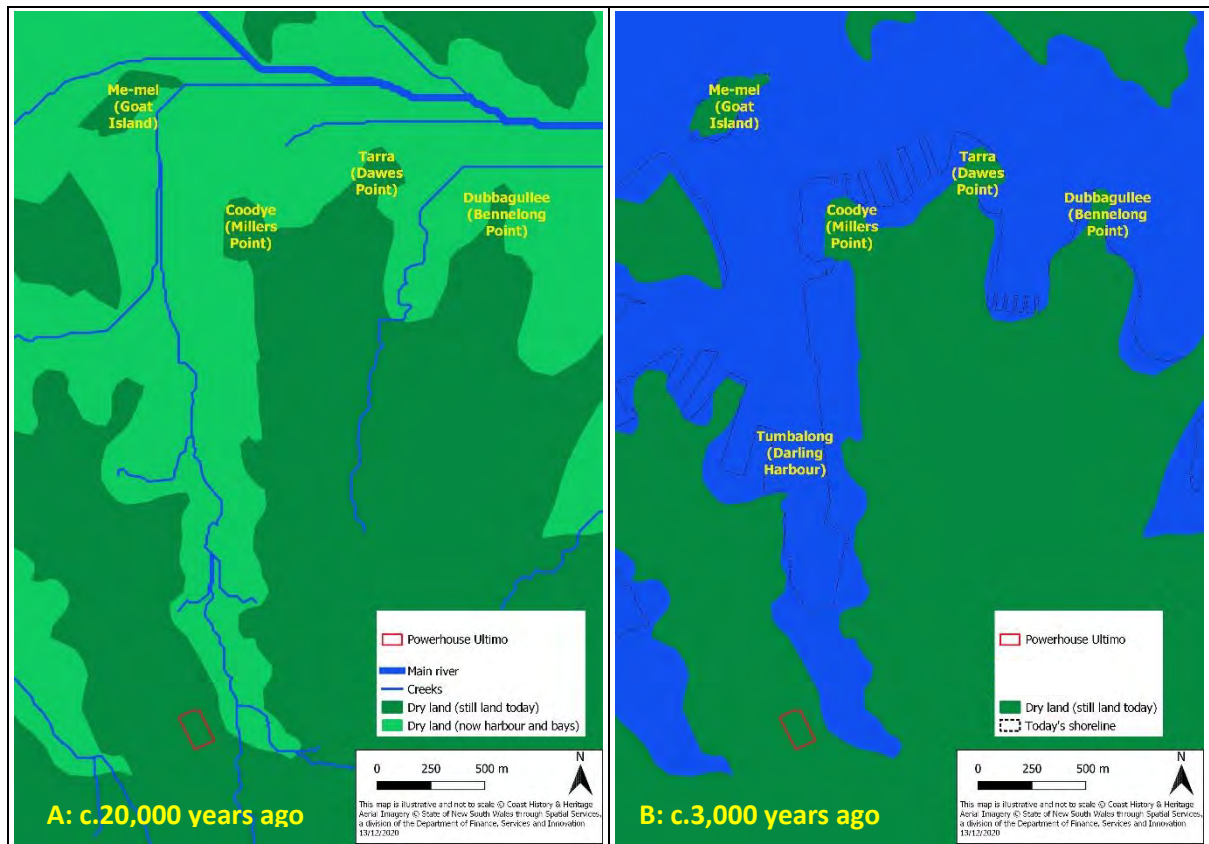


Figure 2. Tumbalong before and after sea level rise.

[Note: creeks and shorelines are approximate only. Spelling of Aboriginal place names follows official dual namings where available, or Attenbrow 2010. *Sydney's Aboriginal Past*, Table 2.1. Sources⁶].

2 On the shores of Tumbalong



Figure 3. View from the site of Sydney Observatory across the outlet of Tumbalong.

[The timbered hill behind the people is Barangaroo and behind that is Me-Mel (Goat Island). Tumbalong is the waterway extending left and the Parramatta River stretches into the distance. Source: Heath, J 1798, *By water to Parramatta; with a distant view of the western mountains, taken from the Windmill-hill at Sydney, 25 May 1798*, State Library NSW, DL Pd 764].

Recreating a sense of how Aboriginal people have lived around Tumbalong over the past few thousand years is difficult. The massive disruptions to Aboriginal life caused by the arrival of Europeans and the spread of the colony mean that we are often forced to rely on archaeological and historical records to supplement continuing community knowledge. The records are valuable, but have some important limitations. The historical records created by early Europeans in Sydney for example, provide a unique snapshot of Aboriginal life around the harbour. These are nonetheless taken from particular viewpoints. They missed more than they captured, and tried to explain what they saw by observation alone, while overlooking the very spiritual beliefs and cultural practices that influenced everything that Aboriginal people did. The legacy of this is far more than just a historical footnote, it has ongoing impacts today. For example, in areas like Ultimo in response to the seemingly basic question – who lived here?

Aboriginal people in Sydney related to the land through clans based around shared totems and a common male ancestor. Each clan probably had between 25 and 60 people, and these people had primary rights to their clan estate.⁷ The clan estates around the harbour were relatively well defined by early Europeans, and clan names literally referred to the people of each particular estate. As Governor Phillip wrote in 1790

From ‘the entrance of the harbour, along the south shore, to the cove adjoining this settlement [Tumbalong], the district is called Cadi, and the tribe Cadigal; the women Cadigalleon...The south side of the harbour from the above-mentioned cove to Rose Hill, which the natives call Parramatta, the district is called Wann, and the tribe Wanngal’⁸

What do we do with this information? According to early Europeans, and many later historians and archaeologists, these clan boundaries defined how Aboriginal people lived.⁹ Tumbalong, for example, was the ‘boundary’ between the Cadigal and Wanngal.¹⁰ But day to day, the Aboriginal people camped on both sides of Tumbalong and fishing its waters were smaller and more diverse groups (sometimes called ‘bands’) than entire clans. Women married into other neighbouring clans, so any family contained people from at least two different clans. Each individual had primary responsibilities to look after their own clan estate, but could also have responsibilities in other clan lands to which they were linked through parents, grandparents or by marriage. This web of responsibilities was constantly being re-spun and reconfigured as senior people passed, as babies were born and as couples married. Caring for Country drove the movement of Aboriginal people, binding them closer to the land.¹¹

So while it is probably correct to say that Ultimo, on the western shore of Tumbalong is Wanngal land, we should remember that this land also had meaning to the Aboriginal people living across the saltwater clans of coastal Sydney who linked back to the Wanngal. Based on this, we should avoid the temptation to assume (as many early Europeans did) that any Aboriginal person observed in a particular area was necessarily ‘from’ that clan. This is very important to bear in mind when we look at how Aboriginal people lived around and on the waters of Tumbalong.



Figure 4. The rough extent of tidal flats compared to today's shoreline.

It is hard today to get a sense of the Tumbalong that Wanngal, Cadigal and other coastal Aboriginal people knew intimately over the last few thousand years. Some early colonial images, like the 1798 sketch in **Figure 3**, give a sense of what the outlet of the bay into the harbour looked like and we can also imagine this from some of the other preserved woody headlands around the harbour. But what about the headwaters nearest to the Powerhouse at Ultimo? Early maps show us that there were extensive tidal flats of mud and sand here, home to the cockles which gave Tumbalong its early European name (**Figure 4**). Later reclamation of the foreshore completely remade this landscape, but archaeological and historical information give us clues as to how it was used by Aboriginal people.

As early colonial images and descriptions in coastal Sydney show, fishing was a central part of Aboriginal life on the harbour (**Figure 5**). Both women and men fished, though women were more frequently and continually seen fishing from nawi (bark canoes), with a fire burning on a clay pad in

the centre.¹² Men carried their fishing spears with them at all times, while women carried their hooks and string fishing line (made from twined bark) in a small bark container that resembled (fittingly) the canoes from which they frequently fished. Their canoes were mobile fishing platforms. The low draught allowed easy access to shallow bays like Tumbalong where shellfish could be scooped out of the mud, opened on the fire, chewed up and eaten or spat into the water as burley. Unsuspecting fish were hooked or speared, and the process continued. Women fished all day in their canoes and into the night, when men also took spears and torches into the shallows of the harbour bays. It is likely that fish traps were also used in some areas.¹³



Figure 5. Aboriginal people camped around the entrance to Tumbalong in the early 1880s.

[Note the canoes fishing the bay. Source: *Native camp, Cockle Bay with Parramatta River from Dawes Pt*, NSW State Library, Government Printing Office 1 – 09422]



Figure 6. Shells and stone artefacts from an Aboriginal camp (midden) at the head of Tumbalong.

[Note: the shells have been mixed in which mud and historical material from the reclaiming of the bay. Source: <https://www.sydneymarani.com.au/sites/darling-walk-midden/>].

Despite the massive changes to the shoreline, some traces of Aboriginal fishing camps have survived around Tumbalong. The remains of coastal campsites called shell middens have been found on both sides of Tumbalong in recent years. On the western side, one of these middens was found to be about 300 years old.¹⁴ Another midden on the opposite shore was found in 2009, mixed with historical materials from the reclaiming of the bay. These middens show that Aboriginal people fished cockles, rock oysters and mud whelks out of the mudflats and ate them on the nearby rocks (**Figure 6**).¹⁵ They may also have cooked fish like snapper and bream, as were found at another camp on the opposite side of Tumbalong, but no traces were found.¹⁶ Their wooden tools and weapons have also not survived in the ground, but several pieces of worked stone show that Aboriginal people fashioned implements at the camp. The stone for these implements probably originated in western Sydney, as it is not found locally.¹⁷ Stone artefacts have also been found at other camps to the southwest of the Powerhouse, around the mudflats of Blackwattle Bay.¹⁸

Aboriginal people would have slept at these camps in bark huts like the ones shown in **Figure 5** and **Figure 8**. They camped elsewhere on the rocky shores and ridges around Ultimo and Pyrmont in sandstone overhangs (**Figure 7**). Many of these have since been destroyed by the extensive sandstone quarrying that has taken place around the peninsula, but would originally have been numerous and variable in size, perhaps including some large enough to accommodate several families at a time. Aboriginal people sometimes created artworks in shelters such as hand stencils or outlined figures in pigment, and carved motifs into exposed sandstone rocks. While many such artworks are known from elsewhere in coastal Sydney, none have yet been documented in Pyrmont or Ultimo. This does not mean that they were none present, but more likely reflects the early destruction of sandstone outcrops through quarrying before they could be recorded. The sandstone ridges also contained springs, providing precious freshwater which flowed down into the salty bays below. One of these springs at Pyrmont was known as 'Tinkers Well'.¹⁹ It was located in a large rock shelter, and contained shells which were almost certainly from Aboriginal people living there (**Figure 7**).



Figure 7. Rockshelter and natural spring known as ‘Tinkers Well’, both at Pyrmont.

[Source: (left) – Paul Irish, 2012. (right) – “‘Tinker’s Well.’ An Everflowing Spring’, *Evening News* 12/12/ 1912, p. 11].

Both archaeological and historical records show that Aboriginal people continued to live, more or less, traditionally for decades after the arrival of Europeans. A single piece of worked glass fashioned into a tool at Ultimo shows the adoption of new materials into traditional practices, while colonial images and descriptions show that Aboriginal people were still camping and fishing around Tumbalong into the 1820s (**Figure 5** and **Figure 8**).²⁰ This continuity is important for showing the enduring strength of Aboriginal culture, but it does not mean that the arrival of Europeans in 1788 had little effect. The most devastating impact occurred just a year after they arrived, when a smallpox epidemic swept around the harbour and carried away a huge number of Aboriginal people.²¹ No reliable figures are available, but it seems likely that a majority of coastal Sydney people perished and it is certain that all families lost loved ones, and perhaps some entire families may have died. So when we look at colonial images of Aboriginal people around Tumbalong, like the one below, we should also think about how many more canoes on the water, and how many more huts and campfires on the shores and ridges, would have been there had the epidemic not occurred.



Figure 8. View from Millers Point to Tumbalong in the 1820s.

[Tumbalong extends up to the left to Ultimo. Source: Taylor, James ca 1819-1820, *Cockle Bay now Darling Harbour, ca 1819-20*, State Library NSW, ML941].

3 Living around a changing shore

In the 1790s, the survivors of the smallpox epidemic regrouped along old lines, perhaps drawing in more distant family connections to reconstitute their groups.²² They did so in a climate of trauma; of increasing dispossession as the Sydney colony grew; and of violent conflict. One documented incident took place west of the Powerhouse, possibly at the head of Iron Cove, a few months after Europeans arrived, when two convicts were speared and clubbed to death while gathering reeds for thatching roofs.²³ These kinds of violent incidents were rarely unprovoked, and were often the result of unrecorded violence perpetrated by Europeans, as some acknowledged at the time.²⁴ Although this frontier violence subsided around the harbour in the 1790s, the docks and huts around Tumbalong remained dangerous places for Aboriginal people. In 1817 for example, a young Aboriginal woman known to Europeans as Nanny Cabbage, was brutally attacked on the city shore of Tumbalong, and died of horrific injuries hours later without anyone acting on her desperate cries for help.²⁵

The brutal reality of life for Aboriginal people in colonial Sydney makes it all the more remarkable that they were able to remain. This owed largely to the enduring strength of their cultural connections, coupled with an adaptability to changing circumstances. Most notably, Aboriginal people cultivated relationships with Europeans that were of benefit to them. Also, it is important to note the uneven pace at which different parts of Sydney were transformed by the expanding colony. The pace of nineteenth century development along the bay and shore next to the Powerhouse influenced what Aboriginal people were able to do.



Figure 9. Looking southwest across Tumbalong to the fields of Ultimo in 1856.

[Source: Gill, Samuel Thomas 1856 'Pyrmont Bridge from Erskin [i.e. Erskine] Street Wharf' in *Scenery in and around Sydney*, Sydney, Allan & Wigley].

The Ultimo area was part of an early land grant to John Harris in 1803, and lands to the north and south were already being used by Europeans in the 1790s. But it was only from the 1860s after the subdivision of Harris's land, that major transformations occurred in the area.²⁶ In stark contrast to the opposite shore of Tumbalong, most of Ultimo remained farmland (**Figure 9**). As images and descriptions show, Aboriginal people still camped in this landscape for decades after the arrival of Europeans, around the shores of Tumbalong (**Figure 5** and **Figure 8**), above its mudflats (**Figure 10**) and most likely on the Ultimo estate where the Powerhouse later stood. In the mid-nineteenth century, Aboriginal children were still playing on the shore, and Aboriginal people would still 'come and gather oysters and cockles round the shores of the bay' as John Harris's grandson recalled.²⁷



Figure 10. Aboriginal camp above Tumbalong on the Parramatta Road in 1829.

[The visitor in the hat is Broken Bay man Bungaree, who was living in Sydney with his coastal Sydney wife Cora Gooseberry and their family. Source: Carmichael, J. 1829. *Sydney from the Parramatta Road* (National Library of Australia, PIC Drawer 2316 #S2787)].



Figure 11. William Annan in 1843.

This image was made the year before Annan died. Source: 'William Minam [Minan ?] Walamata Port Aitken' from *Portraits of the Aborigines of New South Wales Sydney*, 1843 (SLNSW PXA74, a624002).

It has been argued that the clearing of land at Pyrmont in the 1830s drove Aboriginal people south to Ultimo.²⁸ This is possible, but it is likely that they continued living around its rocky shores in rock shelters such as Tinkers Well, and continued fishing the waters. It is suggested that the fishing grounds at the head of Tumbalong were always favoured. Edward Smith Hill, who hunted and fished with Aboriginal people around Sydney in the nineteenth century, noted that the upper reaches of Tumbalong were 'celebrated for cat-fish', which Aboriginal people were 'very fond of'.²⁹ This is what Hill and Port Hacking man William Annan (c.1790s-1844) were after in the autumn of 1838 at Tumbalong when Annan was stung by a catfish and had to have his arm amputated (**Figure 11**).³⁰ Though he survived, his death six years later, triggered the formation of a volunteer committee to look after the surviving Aboriginal people around Sydney.³¹

Annan's story points to the complex and strategic relationships that Aboriginal people developed with some Europeans as colonial Sydney relentlessly grew in the nineteenth century.³² This allowed them to develop a network of 'friendly' places, even in the city. In 1846 for example, on the opposite shore of Tumbalong from the Powerhouse site, Jack Stewart and another Aboriginal man came to Robert McEwen's house on the Erskine Street wharf (**Figure 9**) looking for shelter and warmth, possibly because Stewart was ill. They were let into the house, provided with tea and left in the kitchen by the fire. Though Jack sadly passed away over that night, the familiarity of this incident suggests both a prior relationship and a sympathy (or certainly lack of fear) of Aboriginal people.³³ This was not universal though. In the same period though along Parramatta Road above Tumbalong, Aboriginal people were being abused by gangs.³⁴ They were also dying young. Charlotte Tamarrar, a familiar face around Ultimo with others from her 'tribe', passed away on the steps of a house there in 1844 at the age of 16,³⁵ and Mary Ann Burns died in her twenties in 1857 while living a hard life in the slums of Durands Alley (Haymarket).³⁶ These incidents remind us of the harsh realities faced by Aboriginal people, despite their resilience.

In the following decades, there are less records of Aboriginal people living around Ultimo. Perhaps the subdivision of Harris's estate by his sons in the 1860s, and the rapidly urbanising neighbourhood made it harder to camp around Tumbalong, or perhaps records just become scarcer. We know that some Aboriginal people were still living in the area. In 1868, an Aboriginal woman named 'Annie' was said to frequent Pyrmont, and also knew Gamay (Botany Bay) man Johnny Malone, which suggests that Ultimo and Pyrmont were still in the orbit of coastal Sydney people.³⁷ But by the 1880s and 1890s, as the Powerhouse, railways and land reclamation were transforming Tumbalong and Ultimo into an industrial landscape, coastal Sydney people were slowly moving out of their camps around the harbour to the Aboriginal fishing settlement at La Perouse.

This move was driven by the formation of the Aborigines Protection Board in the early 1880s, after decades of government indifference to the welfare of Aboriginal people in Sydney (and throughout NSW). Under pressure by missionaries and the police to intervene, the government established the Board as a means of coordinating government assistance to Aboriginal people. Initially the Board had no legal powers, but it could influence Aboriginal people's lives by where, how, and if it distributed aid. In coastal Sydney for example, La Perouse became the primary place where government assistance could be obtained. The result was a slow drift of Aboriginal people from various places around the harbour and Gamay. By 1900 La Perouse was virtually the only settlement in use.³⁸

Those that continued to visit the inner city often had to contend with greater police surveillance. There are records from the 1890s and 1900s of the repeated arrests of Aboriginal people, some with ties to the coastal Sydney area.³⁹ By this time the Aboriginal people (mostly women) documented in Ultimo and Pyrmont tended to come from outside of Sydney, and often worked as domestic servants. The twentieth century pathway of legalised child removal and indentured service had not been established, and it is often hard to trace how or why these women came to Sydney. Some may have come for work or to escape the draconian control of the government.

4 Urban and industrial living



Figure 12. Tumbalong in the 1840s and 1900s.

[Overlay by Coast 2022. Source: Wells, W.H. 1843. *Map of the City of Sydney* (State Library NSW, Map Z M2 811.17/1843/2); *Map of the City of Sydney, NSW, 1903* (3rd Edition). Compiled, Drawn and Printed at the Department of Lands, Sydney, N.S.W. 1903, Historical Atlas of Sydney, City of Sydney].

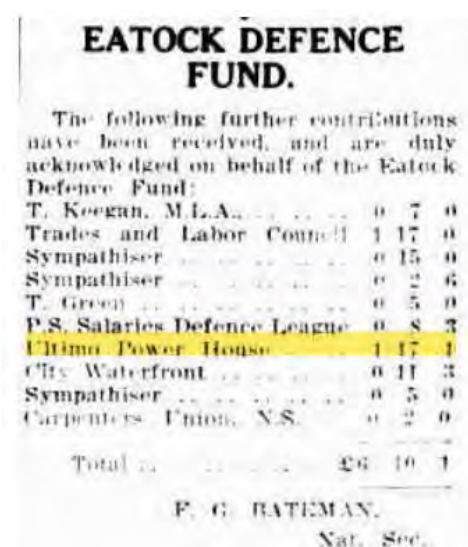
The completion of the Ultimo Power House in November 1899 is emblematic of the dramatic changes that took place to the landscape and Aboriginal occupation throughout the nineteenth century. Maps shown in **Figure 12** compare the 1840s and 1900s and clearly show the transformation. It was now an industrial and urbanised landscape, unsuitable for traditional activities such as fishing and hunting. The old shoreline was no longer visible, hidden beneath brick buildings, hard-paved roads and rail lines. Nevertheless, the Aboriginal story of the peninsula continued into the twentieth century as Aboriginal people from Sydney and distant parts of the colony adapted economically, socially and politically in attempting to find a place in broader society. They had new obstacles to contend with, including increasing government control exemplified by the passage of the Aborigines Protection Act in 1909 which gave the Aborigines Protection Board various powers to remove children and determine who was eligible to live in Government institutions known as reserves.

Aboriginal people from outside of Sydney continued to account for the majority of those connected to the peninsula in the early 1900s. Not surprisingly, many struggled to find a secure place in society, and like in earlier years stories of police arrests for both petty and more serious crimes are sadly common.⁴⁰ But not all recorded Aboriginal interactions were with the police. Sport was a

means by which Aboriginal men in particular could find a place in broader society in the early 20th century. Some Aboriginal men excelled at boxing – Jerry Jerome won the Australian middleweight belt in 1912 – and the gyms near central Sydney attracted Aboriginal competitors. The Metropolitan Club on Harris Street staged regular boxing contests in the early 1900s. In late March 1900, an Aboriginal boxer named “Warrigal” defeated his opponent in the fourth round. Further information about “Warrigal” is unknown, although the word means “wild dog” or “dingo” in the Wiradjuri language.⁴¹

There is also evidence of an Aboriginal woman from western Sydney living at Ultimo in the early 20th century, also outside the criminal justice system. Harriett Martha Locke was born at Blacktown in the late 1880s. Her grandmother, Maria Locke, is recognised as an important matriarch for many Darug descendants in western Sydney. An early student at the Parramatta Aboriginal School, Maria lived much of her life at Blacktown on land where the Aboriginal School was transferred to and nearby to early land grants given to several Aboriginal men.⁴² Her daughter-in-law Sarah Castle (Harriet’s mother), also came from a prominent Darug family. Sarah gave information about the Darug language to ethnographer R.H. Mathews in the 1890s.⁴³ Harriett was living at Ultimo in February 1913 when she married Scotsman Alexander Walker Petrie at Redfern. It is uncertain why Harriett was living at Ultimo before her wedding – perhaps she was working as a domestic servant for a local non-Aboriginal family (her occupation on her marriage certificate is listed as “domestic duties”). Harriet does not appear to have remained at Ultimo for long. By 1922 she was living at Parramatta when she summoned her husband to court for abusive language. The couple were already living apart and divorced several years later. Harriet remained in Parramatta at least into the 1930s, living on lower Harris Street towards the river.⁴⁴

Some Aboriginal families who moved and settled in Sydney were able to find employment and a degree of stability. Lucy Eatock from the Rockhampton district, Queensland, moved to Sydney via Brewarrina in western NSW in the early 1900s. Politically active, she joined the Industrial Workers of the World (an organisation that supported socialist revolution) and later the Australian Labor Party. Several of her sons may have been members of the Communist Party. The extended family lived near The Rocks and other inner-city suburbs. The sons became increasingly active politically as the Great Depression threatened the security of the working class. Both participated in a series of protests against the decision of the Lang NSW Government to require the completion of a form containing personal details before the dole would be paid. Noel Eatock was arrested at what became known as the Glebe Dole Riot in October 1932 when baton-wielding police charged a group of 500 people at the Glebe Town Hall who had gathered to discuss their opposition to the dole form. Eatock was arrested, charged and later convicted for assaulting two officers. Workers’ groups rallied around Eatock and the others who were arrested



EATOCK DEFENCE FUND.		
The following further contributions have been received, and are duly acknowledged on behalf of the Eatock Defence Fund:		
T. Keegan, M.L.A.	0	7 0
Trades and Labor Council	1	17 0
Sympathiser	0	15 0
Sympathiser	0	2 6
T. Green	0	5 0
P.S. Salaries Defence League	0	8 3
Ultimo Power House	1	17 1
City Waterfront	0	11 3
Sympathiser	0	5 0
Carpenters Union, N.S.	0	2 0
Total	2	6 10 1
P. G. BATEMAN, Nat. Sec.		

Figure 13. Ultimo Power House workers contribution to the Eatock Defence Fund

[Source: ‘Eatock Defence Fund’, *Workers’ Weekly* 14/7/1933, p. 3].

and raised money for their defence fund. One group who contributed were workers at the Ultimo Power House who donated £1.17.1 (**Figure 13**), a significant sum that only one other group was able to match (the Trades and Labor Council).⁴⁵

Aboriginal people became increasingly active in the political sphere in the 1960s about issues that related directly to their lives such as citizenship and land rights. An organisation which attracted prominent political campaigners was the Foundation for Aboriginal Affairs, which had its headquarters on 810-812 George Street, just a few hundred metres from the Powerhouse. Speakers such as Charlie Perkins, Harry Williams and Chicka Dixon (from the NSW south coast) spoke about issues such as the 1967 Referendum and Land Rights. Many Aboriginal people from Redfern and the inner-west attended these events.⁴⁶ Another purpose of the Foundation was to provide support to the increasing number of Aboriginal people who were migrating to Sydney from rural NSW. Many lived in Redfern, but other families were scattered in various suburbs throughout the inner-west, including adjacent suburbs to Pyrmont and Ultimo.

5 Conclusions

Without even scratching the surface of available records for the Ultimo and Pyrmont areas, this overview has shown that Aboriginal people continued to live a traditional lifestyle around Tumbalong and the peninsula. It is evident that culture continued to be practiced for many decades after the arrival of Europeans, despite the cumulative impact of disease, dispossession and conflict. The shoreline and waters continued to provide many crucial resources for survival. Coupled with enduring cultural connections, and an adaptability to changing circumstances, this allowed Aboriginal people to live as much as possible on their own terms as Sydney grew around them in the nineteenth century. Towards the end of the century though, urbanisation and industrialisation greatly changed the landscape, and the advent of government surveillance and control of Aboriginal people greatly restricted their lives. Aboriginal people no longer camped around Ultimo, but instead worked and socialised in the area, sometimes travelling from interstate to start a different life. The connections continued through the twentieth century as the number of Aboriginal people living in the inner city increased with new forms of social and political activity emerging.

How the actual site of the Powerhouse was used by Aboriginal people in the past is not yet clear. More research both in archives and particularly with Aboriginal community members will no doubt reveal currently undocumented connections. For example, this overview has not considered Aboriginal connections to the Powerhouse as a Museum since 1988, or Aboriginal people who may have worked at the Ultimo Power House or in nearby industries including the railway. However, we can see even from this brief overview that this part of the western shore of Tumbalong was, and remains, Aboriginal Country, much as this is now obscured. It forms part of a broader Aboriginal landscape that was used for thousands of years and through to the present day, as Aboriginal people have adapted to both localised changes in the expanding colony, and to laws and policies that controlled and restricted their lives and opportunities.

Many more stories are no doubt yet to be told.

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- ⁵ Attenbrow 2010. *Sydney's Aboriginal Past*, p. 38.
- ⁶ Developed by Coast 2021 based on data and maps in Albani, A.D., Rickwood, P.C., Quilty, P.G. and Tayton, J.W. 2015. 'The morphology and late Quaternary paleogeomorphology of the continental shelf off Sydney, NSW', *Australian Journal of Earth Sciences* 62, pp. 681–694; Derricourt, R.M. 2010. 'The South Head peninsula of Sydney Harbour: boundaries in space and time', *Journal of the Royal Australian Historical Society* 96, pp. 27–49; Wilson, K.M. & Power, H.E. 2018. 'Seamless bathymetry and topography datasets for New South Wales, Australia' *Sci. Data* 5:180115 doi: 10.1038/sdata.2018.115 and other data from Spatial Services NSW
- ⁷ Attenbrow 2010, *Sydney's Aboriginal Past*, pp. 22-30, 57-58.
- ⁸ Attenbrow 2010, *Sydney's Aboriginal Past* p22; Phillip, A. "Letter from Governor Phillip to Lord Sydney 13/2/1790 " *Historical Records of New South Wales* 1, no. 2, p. 309 [author's addition in square brackets]. The suffix 'gal' actually means the men of Cadi or Wann, while 'galleon' refers to women. Also note numerous spellings – Wangal, Wanngal, Cadigal, Gadigal
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- Peninsula. It seems therefore that King was also referring to Darling Harbour just as Phillip had. See Attenbrow 2010, *Sydney's Aboriginal Past*, pp.24, 26.
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- ¹⁶ <https://www.sydneybarani.com.au/sites/campsite-lilyvale/>. Registered with Heritage NSW as Aboriginal site #45-6-2629 and #45-6-1853.
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APPENDIX H

Draft Conservation Management Plan Community Consultation Report (March 2022)

Powerhouse Ultimo – Conservation Management Plan Engagement 'What we heard' Consultation Report

Create NSW | Powerhouse Ultimo
March 2022



aurecon
*Bringing ideas
to life*

**Aurecon pays respect to Elders past,
present, and emerging and recognises
and celebrates the diversity of
First Nations communities and their
ongoing cultures and connections to the
lands and waters of NSW.**

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Executive summary

On 4 July 2020 the NSW Government announced the Powerhouse Museum at Ultimo (Powerhouse Ultimo) would be retained and renewed as the anchor of the Ultimo Creative Industries Precinct, Museum Discovery Centre at Castle Hill, Sydney Observatory and the future flagship museum Powerhouse Parramatta.

The land is owned by the Museum of Applied Arts and Sciences Trust and includes the original Ultimo Power Station buildings, the Wran building (temporary exhibition hall opened in 1988), the Harwood building and the former Ultimo Post Office. Some components of the buildings on the site are heritage listed.

The Ultimo Creative Industries Precinct with the Powerhouse Ultimo at its core sits within the context of the new Darling Harbour precinct and the Central Station renewal to the south, adjoining the late-night trading areas of Haymarket. It is in a unique position for renewal, contributing to the future of the Pyrmont Peninsula and supporting partnerships with creative, technology and innovation industries in inner Sydney.

As part of the Conservation Management Plan, and on behalf of the Powerhouse and its partner Create NSW, Aurecon engaged and consulted with the community and key stakeholders on what they valued about Powerhouse Ultimo, including what works well and where the opportunities are for improvement. These key questions have gathered insights that will inform the social significance of the Powerhouse Ultimo to the community and its key stakeholders.

In the lead up to the Powerhouse Ultimo Open Weekend seven facilitated feedback sessions were held with staff and volunteers.

The Powerhouse Open Weekend was held over 19 and 20 March and included:

- five public consultation sessions as well as a private consultation session with Guilds, Honourable Associates and Associations
- Creative Industry Residents open studios
- guided and curated tours
- interactive sessions for kids
- Powerhouse Histories multimedia exhibition

The online survey was publicly available between 3 to 20 March (2.5 weeks). The consultation session with First Nations community was held on 21 March.

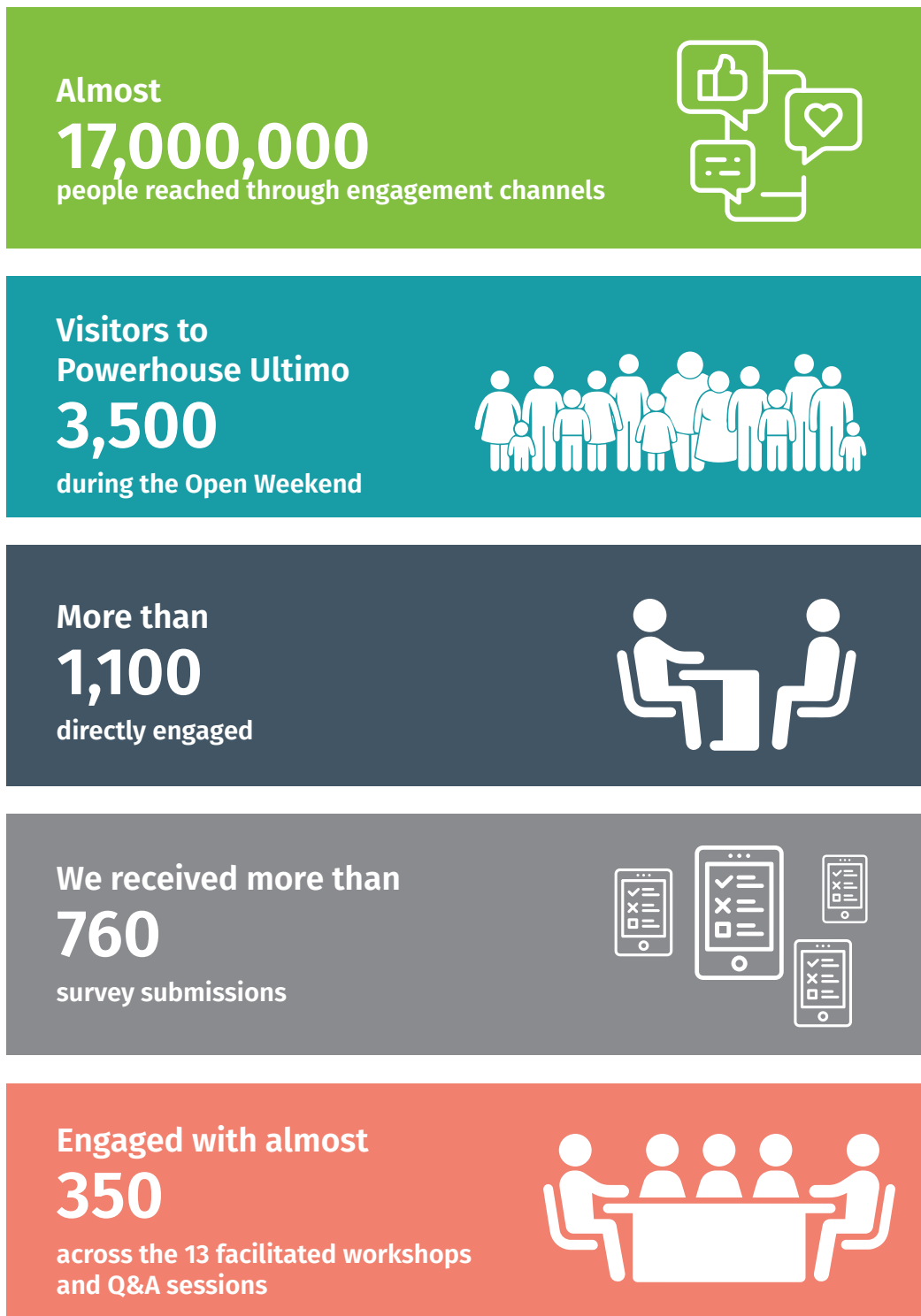
During the consultation period:

- almost 17 million people were reached via socials (15,000+), email (145,000+) and advertising (16 million+)
- there were more than 3,500 visitors to Powerhouse Ultimo during the Open Weekend
- more than 1,100 people were directly engaged
- we received more than 760 survey submissions
- we engaged almost 350 people across the 13 facilitated workshops and Q&A sessions

Powerhouse Ultimo is loved by many people.

- 94% of people engaged identify Powerhouse Ultimo as either important or very important
- People highly valued key elements of the Powerhouse Ultimo including exhibitions (82%), collections (61%) and the history of the building (54%). People also valued the central location of the museum, its industrial and transport history and its architectural significance to Ultimo
- The Boulton and Watt Steam Engine was named as the most memorable exhibition. Interactive play exhibitions were also cited as a big attractor for visitors, as were science, engineering and technology exhibitions
- The exhibitions (77%), conservation of heritage (59%) and customer service (52%) were rated as the top three things that worked well at the Powerhouse Ultimo. Maintenance (27%), conservation of heritage (22%) and exhibitions (20%) were rated as the top three things that could be improved
- 88% of people engaged found the Powerhouse Ultimo was easy to find and 83% found it easy to access. However additional wayfinding signage throughout the museum was cited as important for many people (88%) saying the museum was hard to navigate once inside
- Other recommendations for improvement included:
 - changing the entrance to the Powerhouse Ultimo, with many people suggesting a new entrance to face the Goods Line and city
 - better use of outdoor space for families and children's interactive play
 - changes to back of house elements such as storage, a fit for purpose loading dock and improved event space including the ability to install new exhibitions during opening hours
- Almost 80% of survey respondents were aged 30+ and 34% of them visit the Powerhouse Ultimo at least once or twice a year.

Figure 1 - Executive summary snapshot





1

Introduction

1 Introduction

1.1 Project overview and context

As part of the renewal process, a Conservation Management Plan (CMP) is being prepared for Powerhouse Ultimo. The CMP is used to guide the use, management and change of a place.

The CMP will follow the principles and processes for caring for significant places, outlined in the Australia International Council on Monument and Sites (ICOMOS) Burra Charter. The objective is to achieve the best possible conservation of significant values for the place within the context of the real-world management circumstances of the item. The CMP is a primary resource in guiding changes when these are considered for a significant place and is required as part of a development application.

The report typically will detail the follow:

- Description of the place – buildings, elements, setting and context
- Research into the history of the place and its evolution – documentary and physical
- Assessment of significant values – historic, aesthetic, technical, social and spiritual
- Summary statement of significance
- Details of factors that may impact conservation, use and management
- Policies to guide conservation and management
- Resources consulted
- Appendices

A previous Conservation Management Plan for Powerhouse Ultimo was prepared in 2002. This 2022 Conservation Management Plan will look to:

- Understand the original design ideas and intent for Powerhouse Ultimo
- Assess the significance of all parts of the site
- Include history and associations of First Nations with the site
- Consider public esteem and associations to Powerhouse Ultimo
- Identify the significant tangible and intangible values of the site including historic, aesthetic, scientific, social, and spiritual
- Consider constraints and identify opportunities to guide future changes to the site for its continued use as a museum
- Review policies to reflect site conditions, including internal and external changes
- Reflect current principles for the management of heritage assets
- Reflect changes to NSW heritage and planning legislation.

1.2 Project objectives

Aurecon has been engaged by the Powerhouse and its partner Create NSW to support the development of Powerhouse Ultimo's Conservation Management Plan.

The project objectives include:

- Support the timely delivery of Powerhouse Ultimo's Conservation Management Plan (CMP)
- Engage the public and key stakeholders in the CMP process and broader Powerhouse Ultimo Renewal project
- Integrate the Museum's First Nations Engagement Strategy with the CMP process
- Set context for the Powerhouse Ultimo Design Competition.



2

Consultation

2 Consultation

2.1 Communication and engagement objectives

The following priorities for engagement were developed using the Heritage Council of NSW's '[Statement of best practice for conservation management plans](#)':

- Provide quantitative and qualitative evidence of the museum's social significance to the community
- Provide opportunities for the community to comment on the social significance of Powerhouse Ultimo, including tourism potential and alignment with the activation of the creative precinct
- Identify how Powerhouse Ultimo forms the identity of the community and its aesthetic surroundings
- Accurately represent a diverse range of feedback on the social significance of Powerhouse Ultimo
- Provide opportunities to present, interpret, engage and celebrate Powerhouse Ultimo with the community and key stakeholders
- Engage with First Nations community members on the social significance of Powerhouse Ultimo and the land on which it resides.

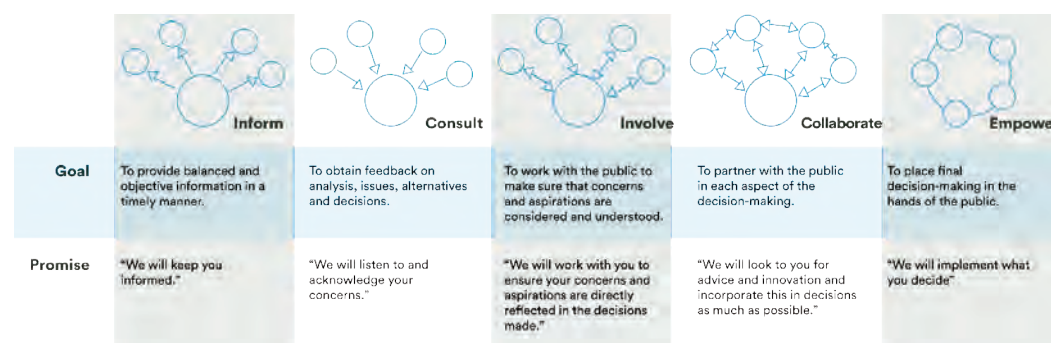
Our aim was to achieve this by:

- Engaging the community through a wide range of accessible and inclusive channels and platforms
- Collecting key sentiment, ideas, thoughts and considerations from the community and key stakeholders through a streamlined access point
- Providing clear timeframes around the consultation period to enable maximum participation
- Identifying key stakeholders and groups that have a connection to Powerhouse Ultimo
- Using the museum as a stimulus to activate public participation in the engagement.

2.2 Engagement framework

The International Association of Public Participation (IAP2) engagement framework will be used to guide all engagement activities throughout the life of the project. This framework helps to establish the role of community and other stakeholders in the engagement process and their impact on the decision-making outcomes of a project. The level of engagement will vary depending on the project phase and stakeholder influence/ impact.

Figure 2 - IAP2 Spectrum of Public Participation



Source: International Association for Public Participation – IAP2 International. Public Participation Spectrum

2.3.1 Stakeholders and the community

One of the main objectives of the consultation was to ensure that the engagement was comprehensive, and a diverse range of stakeholders were engaged. Our stakeholders were identified during earlier consultation for Powerhouse Ultimo and were grouped as per below.

Table 1 – Targeted stakeholder list

Government Institutions DPC Create NSW DPIE Department of Transport Greater Sydney Commission Destination NSW NSW Government Architect Heritage NSW Greater Sydney Commission Youth Panel Local Government City of Sydney Lord Mayor City of Sydney Deputy Lord Mayor City of Sydney Councillors City of Sydney Council staff	Peak Groups Accessible Arts	Surrounding businesses Surrounding residents Youth groups Sydney residents Sydney businesses	Sulphide Street Railway & Historical Museum Synagogue of The Outback Museum The Albert Kersten Mining and Minerals Museum (Geocentre) Port Macquarie Museum, Regional Museum volunteer Shellharbour City Museum, Regional Museum staff New Italy Museum, Regional Museum volunteers
Elected Members Deputy Lord Mayor of Sydney (Ms Jess Scully)	Aboriginal and Torres Strait Islander Representatives Metropolitan Local Aboriginal Land Council NSW Aboriginal Land Council	Regional Arts and Museums Arts Eastern Riverina, Regional Arts NSW Arts Mid North Coast, Regional Arts NSW Arts North West, Regional Arts NSW Arts OutWest, Regional Arts NSW Arts Upper Hunter, Regional Arts NSW Murray Arts, Regional Arts NSW Arts Northern Rivers, Regional Arts NSW Orana Arts, Regional Arts NSW Outback Arts, Regional Arts NSW South East Arts, Regional Arts NSW South West Arts, Regional Arts NSW Southern Tablelands Arts, Regional Arts NSW West Darling Arts, Regional Arts NSW West Riverina Arts, Regional Arts NSW Museums & Galleries NSW Bega Valley Regional Museum Old School Museum Merimbula Eden Killer Whale Museum Cobargo District Museum Tumut and District Historical Society Museum Adelong Alive Museum Batlow Museum Weethalle Whistle Stop Museum The Ungarie Museum and Historical Society Wyalong Museum Blue Mountains Historical Society and Tarella Cottage Museum Glenbrook and District Historical Society and Museum Mount Victoria and District Historical Society Museum Mount Wilson Historical Society and Turkish Bath Museum Valley Heights Locomotive Depot Heritage Museum Lithgow Small Arms Museum Eskbank House Museum Parkside Cottage Museum Narrandera Albury Library Museum Jindera Pioneer Museum Holbrook Submarine Museum Station Master's Residence at Culcairn Headlie Taylor Header Exhibition at Henty Woolpack Inn Museum, Holbrook Wymah Museum Sir Henry Parkes Museum Tenterfield Transport Museum Tenterfield Railway Museum Sydney Tramway Museum Sutherland Shire Historical Society and Museum Great Cobar Heritage Centre Moruya and District Historical Society Museum Batemans Bay Heritage Museum Narooma Historical Society Greens Gunyah Museum Yamba Museum – The Story House Maclean Bicentennial Museum and Stone Cottage Lawrence Museum Alumny Creek School Museum Nambucca Historical Museum Bowraville Folk Museum Frank Partridge VC Military Museum Mary Boulton Pioneer Cottage and Museum Nambucca Headland Museum Silverton Gaol and Historical Museum	Media Sydney Morning Herald Australian Financial Review ABC The Australian The Daily Telegraph Inner West Courier
Powerhouse Senior Leadership Executive Trustees Members Volunteers Staff Casual staff Former trustees Recent donors Creative Industry Residents Artists' in Residence Generations Music Fellow	Business Business NSW Sydney Business Chamber Pyrmont/Ultimo Chamber of Commerce Committee for Sydney		
Arts, culture and heritage Australian Museum Transport Heritage NSW Museums & Galleries NSW National Trust of Australia ICC Sydney Exhibition Centre	Powerhouse Affiliated Societies National Space Society of Australia Philatelic Association of NSW The Royal Australian Historical Society National Trust of Australia (NSW) The Royal Photographic Society of Great Britain The Pyrmont History Group The Colour Society of Australia The Academy of Technology and Engineering Flute Society of NSW Antique Arms Collectors Society of Australia The Silver Society of Australia Australian Numismatic Society Oral History NSW Australian Woodwork Association of NSW Watch and Clockmakers of Australia Walter Burley Griffin Society Inc The Knitters Guild of NSW Inc The Jewellers and Metalsmiths Group of Australia The Early Music Association of NSW The Aviation Historical Society of Australia (NSW Branch) The Australiana Society The Australian Ceramics Association The Asian Arts Society of Australia Inc Royal Aeronautical Society Sydney Space Frontier Society Australian Lace Guild NSW Branch Australian Design Centre Association of Australian Decorative & Fine Arts Societies (Paddington) The Wedgewood Society of NSW The Twentieth Century Heritage Society of NSW The Doll Collector's Club of NSW Sydney City Skywatchers Oriental Rug Society of NSW Ceramic Study Group Ceramic Collectors Society Association of Australian Decorative & Fine Arts Societies (Kuring-Gai) The Embroiderers' Guild NSW Inc The Quilters' Guild Inc		
Knowledge Institutions UTS UNSW TAFE Sydney University of Sydney Department of Education Ultimo Public School International Grammar School Sydney Sydney Secondary College Blackwattle Bay Campus Forest Lodge Public School St Andrew's Cathedral School Inner Sydney High School Australian Performing Arts Grammar School Western Sydney University University of Notre Dame Sydney School of Entrepreneurship Sydney Knowledge Hub INCUBATE Sydney Startup Hub Ultimo Community Centre	Community groups Save the Powerhouse Powerhouse Museum Alliance Pyrmont Action Group Inner West Mums CBD and Harbour Village Coalition of Glebe Groups Council of Ultimo/Pyrmont Associations Forest Lodge and Glebe Coordination Group Friends of Pyrmont Point Glebe Community Action Group REDWatch Ultimo Village Voice Pyrmont History Group Community members		
Intersecting Precincts Atlasian Greater Sydney Commission Sydney Fish Markets South Eveleigh Precinct (Mirvac) Carriageworks Transport Heritage NSW (also under Arts and Cultural Leaders) Commonwealth Bank Data 61 Darling Square ICC Sydney ICC Sydney Theatre Ian Thorpe Aquatic Centre			

2.4 Consultation snapshot

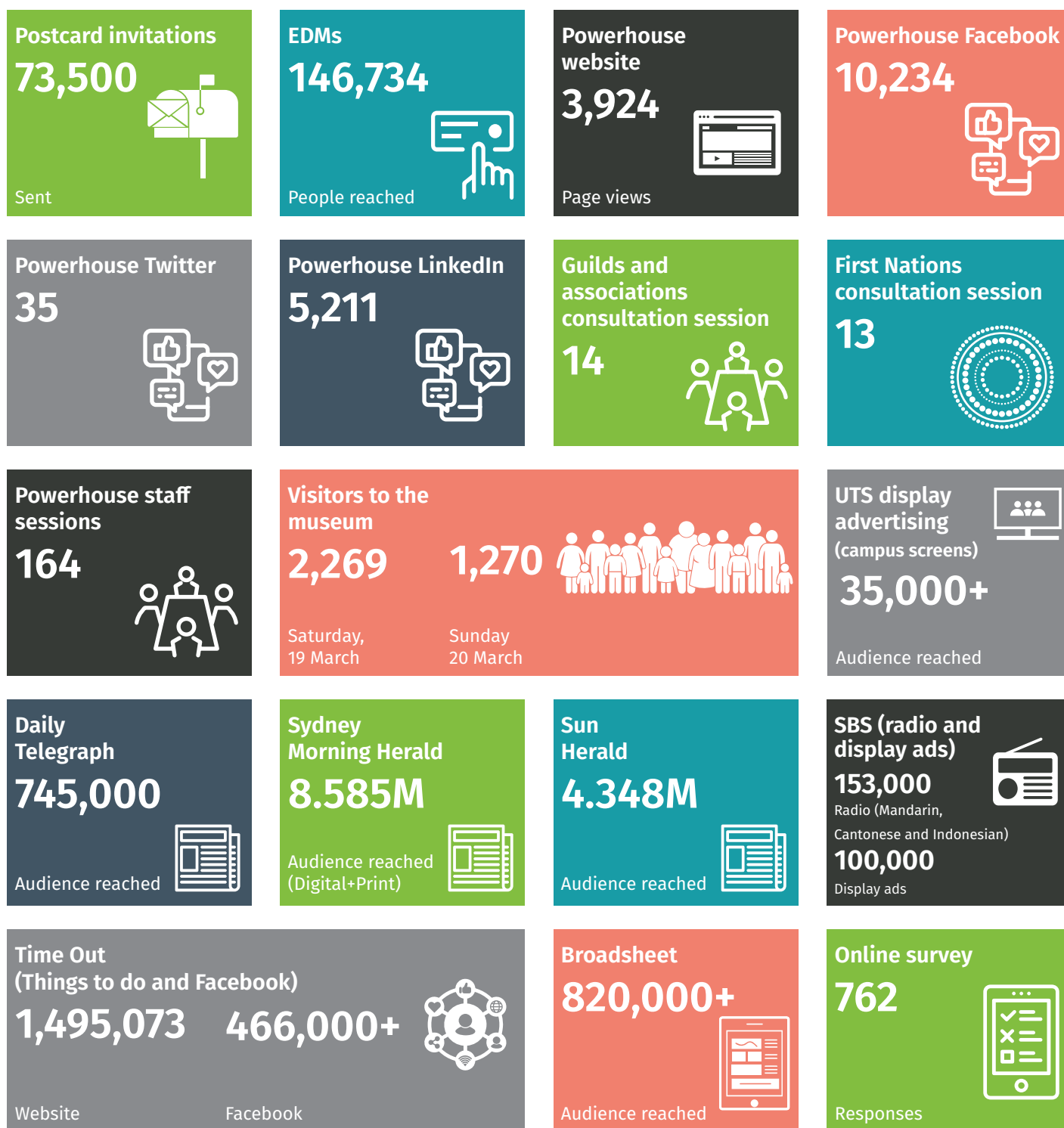
Communication during the preparation of the Consultation Management Plan is essential to ensure stakeholders and the local community were aware of the project and able to provide feedback on the social significance of Powerhouse Ultimo.

A wide variety of traditional and digital tools and channels were used to reach a diverse audience.

At the end of the consultation period, the outcomes achieved demonstrated high levels of engagement from both the key stakeholders and the community. The insights and feedback received were detailed and well informed.

A snapshot of the consultation, the channels and tools used for engagement is shown below and we will explore the Open Weekend and online survey in more detail on the following pages.

Figure 3 - Consultation snapshot



2.4.1 Powerhouse Ultimo Open Weekend

A face-to-face event was held to attract members of the public to Powerhouse Ultimo. By activating the space, we encouraged visitors to reflect on the space whilst also promoting the museum and creative precinct.

Through the use of diverse and accessible feedback options (in person, digital, self-guided or supported feedback) we sought to diversify our feedback for the Conservation Management Plan and encourage members

of the community that may not be captured through other engagement channels to take part in the process.

Powerhouse Ultimo Open Weekend was held on 19 and 20 March, in conjunction with the museum's Nowruz celebration. Several spaces and special events were organised to encourage high visitation.

Below are activation tools that were chosen for the event:

Table 2 - Event activations

Activation	Delivery format	Description	Audience experience	Target stakeholder groups
Memory Lane	Audio visual exhibit	A collection of archival footage and photos of Powerhouse Ultimo's history and past exhibitions. Voice overs were completed by Margaret, a volunteer for over 30 years.	Visitors were encouraged to connect with the building and reminisce on personal experiences of the space.	Local businesses and neighbours, past visitors of the museum, broader community, guilds and associations, First Nations community.
Creative industry residents open studio	Tour/talk	Showcased the future of the Powerhouse as a creative precinct by exhibiting inside the artist's studios on site.	Visitors were able to tour the studio space.	Local businesses and neighbours, broader community, schools and universities, Regional Arts and Museums, guilds and associations.
Guided Tours by volunteers and curators	Face-to-face	Encouraged visitors to connect with the building, exhibitions and collections and reminisce on personal significance and value of Powerhouse Ultimo.	Visitors were able to attend guided tours by curators, staff and volunteers.	Local community, broader community, schools and universities, First Nations community, guilds and associations.
Family Adventure Trails	Printed/digital collateral, QR codes, survey	Encouraged visitors to attend the face-to-face event, explore the museum and discover new experiences whilst providing feedback.	Visitors were given a finder's sheet with exhibits/hidden items to find around the museum. They completed the finder's sheet and was asked to fill out the survey for a chance to win a prize.	Families, local businesses and neighbours, schools and universities, disability groups and community members, First Nations community.
Interactive children's feedback	Face-to-face, interactive	Encouraged visitors to attend the event face-to-face. Allow young children an opportunity to express what do they value about the museum.	A station was set up with paper and colour pencils. Children were asked to draw parts of the museum they like.	Families.
Public consultation sessions on the CMP	Face-to-face, open forum	Informed participants and visitors about the renewal, CMP and provided a chance to provide feedback on the social significance of the museum.	Provided interested visitors with information relating to the renewal. Using plain English to explain the CMP and gave time for audience to ask questions and provide feedback.	Local businesses and neighbours, broader community, guilds and associations, disability groups and community members, schools and universities, First Nations community.

2.4.2 Online survey

Feedback was collected from the wider community through an online survey, swipEngage. A QR code was available on all promotional materials and collateral to maximise the opportunity to respond. The online survey was promoted through print and radio advertising, adverts at UTS, a postcard letterbox dropped to residents and businesses in Ultimo and Glebe, as well as via the Powerhouse website, email and social platforms.

The overarching purpose of the survey was to:

1. Identify key demographic groups that have interacted with the engagement campaign
2. Understand general sentiment and specific concerns of the most interested and critical stakeholders as well as if and how this is likely to shift
3. Understand general sentiment and specific concerns of the broader community and how it aligns with more critical stakeholders
4. Provide stakeholders with the opportunity to provide input and get their feedback to inform the CMP.

Stakeholders who attended the Powerhouse Ultimo Open Weekend on 19 and 20 March were also invited to participate in providing feedback via the survey.

Staff were positioned at key areas and activations to maximise feedback collected, including the following locations:

- Front entrance
- Café
- Creative play located in front of the Powerhouse Histories activation
- Experimentations.

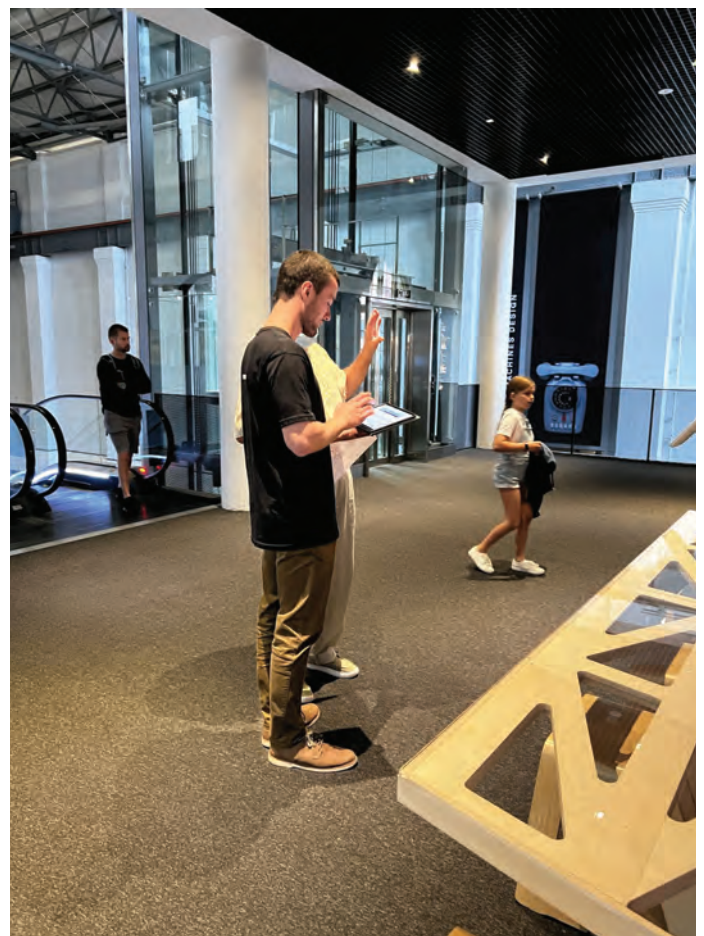
The survey aimed to understand what visitors' value about Powerhouse Ultimo, including what works, what doesn't and what people would change. Additional surveys were created in Simplified Chinese and Indonesian in the event in-language feedback was needed.

The same set of questions were asked across all consultation activities to enable comparative data for the purpose of the CMP. This ensured feedback opportunities are consistent and measurable across segments groups.

Refer to Appendix B for the survey questions.



SwipEngage survey being taken by community member at Open Weekend event





3

Findings and key insights

When completing the survey, respondents were asked questions regarding the following topics:

The value of
Powerhouse Ultimo to
them

Way finding, navigation
and accessibility

What works well

What requires
improvement

Below are some key insights provided from the results.

**Top three ways that help
visitors navigate the
museum**



- 57% Guides and volunteers
- 52% Arrows and directions
- 33% Organisation of exhibitions

**Top three things that work
well at the museum**



- 77% Exhibitions
- 59% Conservation of heritage
- 52% Customer service

**Top three things that
could be improved**



- 27% Maintenance and renovation
- 22% Conservation of heritage
- 20% Exhibitions

**88% find the museum
difficult to navigate**



**88% agree the museum
is easy to find**



**83% agree the museum
is easy to access**



**94% rate Powerhouse
Ultimo as 'important' and
'very important'**



From the online survey we gathered feedback and comments from respondents on what they valued about Powerhouse Ultimo. The image below showcases the different topics mentioned in the responses.

Figure 6 - Values by volume of interest



Questions 1, 2 & 3 – Value of Powerhouse Ultimo

These questions focused on what the respondent valued about the existing Powerhouse Ultimo. Questions inquired into the building itself, the respondents' sentiment and particular elements of the building that held special meaning.

Ninety-four percent (94%) of respondents ranked Powerhouse Ultimo as either important or very important. Feedback focused on the museum's value in its centralised location in Sydney (for locals and overseas tourists who visit), the industrial and transport history of the museum and the architectural significance of the space.

The Boulton and Watt Steam Engine was one of the most memorable exhibits for respondents. Interactive play also ranked highly as an attractor for visitors to the museum and people remarked on the impactful exhibitions based around science, engineering and technology.

Questions 4,5 & 6 - Getting to and around Powerhouse Ultimo

These questions focused on the respondent's experience with locating and accessing Powerhouse Ultimo. Questions explored potential barriers to navigating the museum and investigated what people found helpful when navigating the space.

A majority of respondents found Powerhouse Ultimo easy to find (88%) and access (83%).

Building layout was one of the highest ranked categories when respondents were asked what make it difficult to navigate the museum. Of the respondents that ranked building layout hard to navigate (88%), 34% visit the Museum at least once or twice a year.

Additional wayfinding signage throughout the museum was cited as important with many people saying the museum was hard to navigate once inside.

Question 7 – What works well at Powerhouse Ultimo

This question asked respondents about what areas of Powerhouse Ultimo currently worked well. The exhibitions (77%), conservation of heritage (59%) and customer service (52%) were rated as the top three things that worked well.

Responses in the free text area of the question also remarked on the collection and the museum's appeal to children and families. Respondents praised the interactive exhibits such as *Experimentations*. Respondents also highlighted the improved experience following the upgraded amenities (café) and looked for further integration and connection into the surrounding precinct.

Question 9 – Areas for improvement at Powerhouse Ultimo

Respondents were asked to identify areas for improvement at Powerhouse Ultimo. Maintenance (27%), conservation of heritage (22%) and exhibitions (20%) were rated as the top three things that could be improved. Feedback on this question is captured below on category and comment. There was also a strong request for more interactive and family orientated exhibits and activities.

Table 3 - Areas for improvement

Restoration and maintenance	Education facilities / programs	Café and amenities	Collections	Exhibitions	Building features	Entrance
<ul style="list-style-type: none"> Exhibitions require renewal Architectural features of the building require restoration Better maintenance on the building. 	<ul style="list-style-type: none"> Education facilities need to be updated Dedicated education programs for all age groups and education levels Water education More school visits Support for regional schools to travel to the museum. 	<ul style="list-style-type: none"> Café options to be improved Café feels sterile Better coffee at the café Improve toilet amenities Improved café Better access to toilets around the building Relaxed outdoor space where people can eat, and children play Better use of outdoor spaces Better selection of food at café Easier to find toilets More places to eat Outdoor bar/café More options in cafe for dietary requirements and dietary choices (gluten free, dairy free, halal, vegetarian, vegan). 	<ul style="list-style-type: none"> Collection signage is too small Preservation of unique artifacts Collections that can travel to each museum and regionally More responsive process for donating to the collection Better acquisition of collections More visiting collections Better process for donating cultural artifacts 	<ul style="list-style-type: none"> Interactive science exhibitions More technology/ science exhibits More costume and textiles exhibitions More funding to maintain exhibitions Larger exhibition spaces Exhibits need refreshing New and diverse exhibitions Exhibits that display Australian culture A renewed focus on industrial and science exhibitions and displays, presented in a meaningful and interactive way More technical knowledge of exhibits More permanent exhibits More informative labels on exhibits Virtual exhibits Better use of the spaces More focus on technology and engineering Bring back original exhibitions Accessible exhibitions that are easy to explore and understand. 	<ul style="list-style-type: none"> Solar garden on the roof top Need more natural light from roof. 	<ul style="list-style-type: none"> Customer service could be more welcoming at the entrance Front façade of building is uninviting (blacked out windows on Harris Street) Entrance needs to be more welcoming - currently feel like you're intruding with no sense of welcome Use the Goods Line for the main entrance The front entrance needs to be reoriented towards the city/Goods Line/Darling Square Include a visible information desk at the entrance providing a warm welcome Warmer entrance experience Easier to find entrance.

Table 4 - Areas for improvement feedback continued

Activities for children and family	Signage and wayfinding	Heritage	Promotion and advertising	Events	Interactive experience	Connection to surrounding precincts	Access
<ul style="list-style-type: none"> • Bring back the children's playground on the ground floor • More children's events • Children's workshops outside of school holidays • Spaces for children and families • Bring back the Wiggles exhibition. 	<ul style="list-style-type: none"> • External signage needed for what exhibitions are on • Building layout needs improving • Layout of building needs to be less confusing • Simple layout • More signage and natural lighting • Better directions and use of ramps • Better layout of exhibitions • Signage to show what level you are on. 	<ul style="list-style-type: none"> • More information on the heritage of the building • More information on the history of the building • Display Sydney's industrial heritage 	<ul style="list-style-type: none"> • More community outreach on what the Powerhouse is doing • More advertising for the museum • Branding of the museum needs to be clearer • More advertising on social media • Better promotion of exhibitions • Advertisements around the museum for what exhibits are on. 	<ul style="list-style-type: none"> • Fewer events at Powerhouse Ultimo • Interactive family events. 	<ul style="list-style-type: none"> • More interactive play for adults and kids • Interactive workshops for the public. 	<ul style="list-style-type: none"> • Visual connection to Sydney • Connect the Goods Line with the Darling Harbour and Haymarket precincts • Link to the surrounding precinct and heritage. 	<ul style="list-style-type: none"> • Convenient parking • Improved entrance on Harris Street • Better access to public transport • Improved pram access around the museum • Sensory accommodations for neurodivergent • More representation of Aboriginal culture • Access to the Harwood building including the collections and library • Improve safety around the museum • Keep entry free

3.2 Facilitated staff and volunteer workshops

Aurecon facilitated a series of staff and volunteer sessions via Zoom engaging staff on the following questions below:

- What do you value about Powerhouse Ultimo?
- What works well at Powerhouse Ultimo?
- What doesn't work well at Powerhouse Ultimo?
- What are the opportunities for change, improvement or efficiencies?
- Are there any other issues relevant to your role/function?

Responses from staff and volunteers indicated that wayfinding and staff navigation between the Harwood and Wran Building is a historic issue. The lack of back-of-house areas, fit-for purpose loading dock and event spaces challenges staff daily from an operational perspective. Many spaces in the museum are perceived as hidden or

under-utilised. Staff also highlighted the importance of correct building environmental monitoring and controls to ensure the collection is kept up to international museum standards. Physical and cultural accessibility were also raised as important.

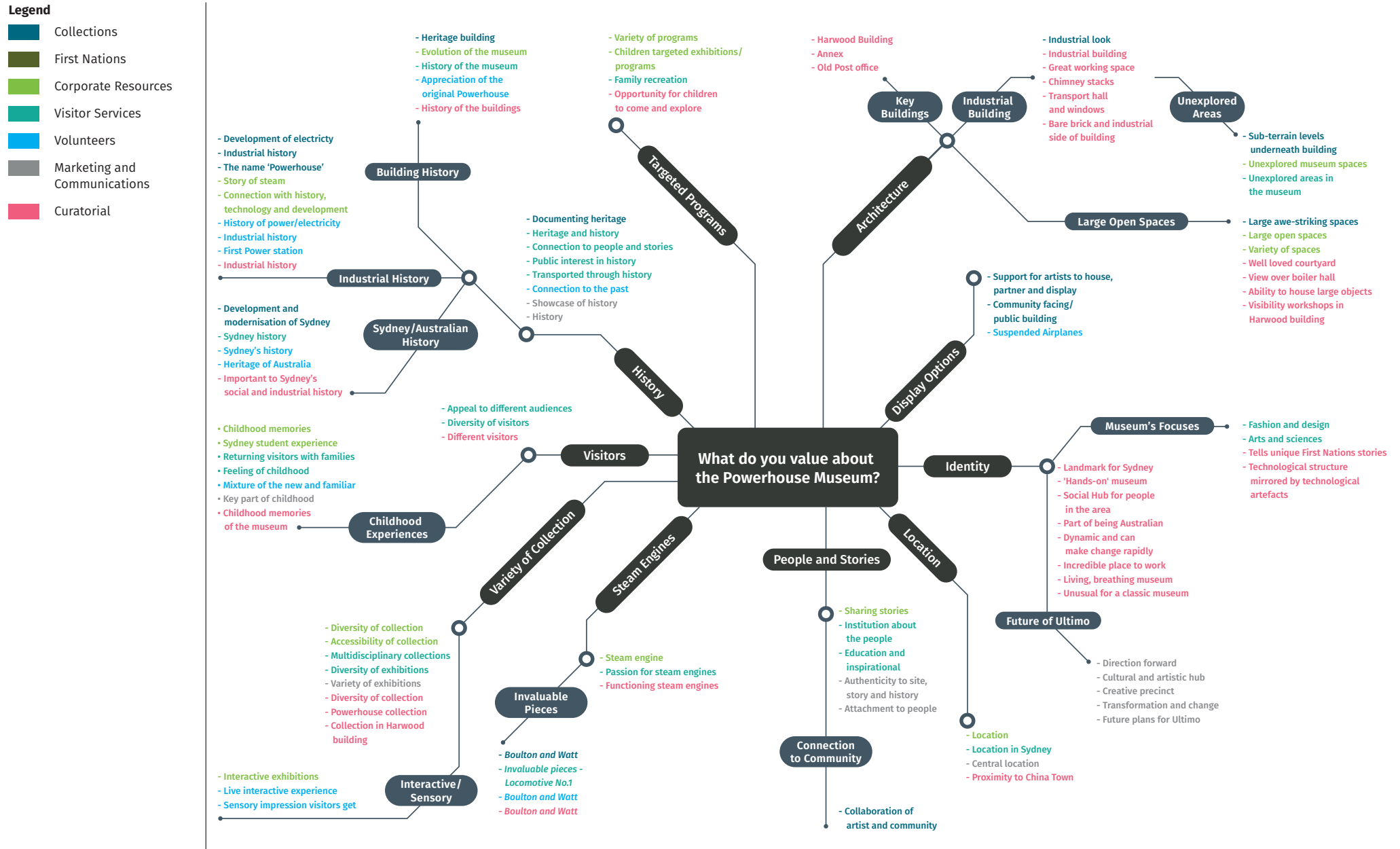
Question 1: What do you value about the museum?

An analysis of responses from staff was conducted on what they valued most about the museum. Responses were then collated into key themes which are featured below.

Table 5 - Feedback on what staff and volunteers value

Value	What we have heard?
History	<ul style="list-style-type: none"> • History and architecture of the museum • Industrial history and history of the building • Origin of the museum as a power station • Unique opportunity to showcase the history of power and electricity in Sydney • Connection to the history and modernisation of Sydney and Australia
Returning visitors	<ul style="list-style-type: none"> • Diversity of visitors • Diverse collection and programming appeals to different audiences • Fond memories of visiting the museum as a child, now able to bring their own children and grandchildren • Key experience for Sydney students, many staff indicating they visited the museum as students
Collection and exhibitions	<ul style="list-style-type: none"> • Diverse collection and variety of exhibitions • Invaluable pieces including <i>Boulton and Watt</i> and <i>Locomotive No.1</i> • Functioning steam engines • The collection is prepared in the Harwood Building
Architecture	<ul style="list-style-type: none"> • Unique architecture • Large spaces that bring an 'inspiring' experience • Ability to display large objects e.g. suspended airplanes • Key buildings of importance eg. North Annex, Harwood Building, old post office • Unavailable areas to the public eg. unfinished basement • Industrial look and aesthetic including bare brick, large windows and chimney stacks
Creative Precinct	<ul style="list-style-type: none"> • Future of Powerhouse Ultimo as a creative precinct and potential to increase visibility of the creative residents
Location	<ul style="list-style-type: none"> • The museum is central to the Sydney CBD and close to key Sydney sites including China Town and Darling Square
Museum focus	<ul style="list-style-type: none"> • Large variety of themes that the museum focuses on including: <ul style="list-style-type: none"> – Science – Innovation – Fashion and design – Arts

Figure 7 - Map of feedback from staff feedback sessions



Question 2: What works well at the museum?

An analysis was completed of the staff workshops providing a list of different aspects of the museum that they thought worked well.

Table 6 - Feedback on what works well

What works well at the Museum?	What have we heard?
Museum spaces	<ul style="list-style-type: none"> Large open spaces Small spaces to create a more intimate atmosphere
Plant room	<ul style="list-style-type: none"> Has large ventilation ducts and is easy to navigate to other parts of the museum
Open plan office	<ul style="list-style-type: none"> Open plan office is working well

Question 3: What doesn't work at the museum?

Feedback from the staff on what doesn't work well at the museum was collated. The responses were separated and compiled into categories.

Table 7 - Feedback on what doesn't work well

What doesn't work at the Museum?	What we have heard?
Storage	<ul style="list-style-type: none"> Storage is not accessible during museum opening hours Positions of storage rooms at the museum needs to be carefully considered
Exhibition spaces and Installation	<ul style="list-style-type: none"> Positioning of the columns make it difficult to design exhibition spaces High ceilings and open spaces functioning make it difficult to install infrastructure The space is non-regular and not grided Solid slab so there is no sub floor access Heritage spaces with limitation where the lighting team can install lights Museum spaces too dark
Back of house	<ul style="list-style-type: none"> Lack of back of house areas. Navigation around the museum is difficult Hard to move anything around the museum Exhibition spaces cannot easily be sectioned and closed off – installation needs to be done outside of museum operation hours
Loading dock	<ul style="list-style-type: none"> Loading dock is too small There are often issues with large deliveries They cannot get containers into the loading dock
Moving between the Harwood Building and Wran Building	<ul style="list-style-type: none"> Environmental climate when transferring collections Congestion and pedestrian foot traffic including pets, delivery drivers and people with children etc
Underutilised space	<ul style="list-style-type: none"> The spaces that are currently closed off to the public The unfinished basement Powerhouse Learning Centre (PLC) Hidden corners of the museum that are not often visited
Environment and climate control	<ul style="list-style-type: none"> Challenge to keep collection conditions up to international museum standard Door needs to be double layer to create airlock Humid and temperature Large windows/light damages objects
Amenities	<ul style="list-style-type: none"> Location of the shop and café outside the museum is perceived to be separate Location and signage of toilets can be improved
Way finding and navigation	<ul style="list-style-type: none"> Ensure new building is open, to provide better flow through the museum Friendly and more casual design Architecture and spaces that are flexible and adaptable over time

What doesn't work at the Museum?	What we have heard?
Positioning, location, and visitor experience	<ul style="list-style-type: none"> • There is a need to reorientate the entrance of the museum to face the rest of the city • Harris Street entrance feels redundant • There is a disconnection between Powerhouse Ultimo and spaces and communities around it
Student and education experience	<ul style="list-style-type: none"> • Student entry through the courtyard and Powerhouse Learning Centre (PLC) is bad experience • Storage options and educational spaces should be considered as they current do not work well • Educational spaces should have more visibility and have natural lighting • Shelter and spaces outside should be added for students to have lunch
Volunteer workspaces	<ul style="list-style-type: none"> • The volunteer workspaces with the long desk is soulless and when speaking the voice is carried throughout the whole room • The spaces are inhibiting • The Volunteers sometimes have to work in the lunch room

Question 4: What are the opportunities for change, improvement, or efficiencies?

Comments provided regarding opportunities, improvements or efficiencies have been compiled in the table below.

Table 8 - Feedback on opportunities and improvements

Category	Team	Location/Idea	Opportunity
Way finding	Corporate Resources Curatorial Marketing and Communications	Building	<ul style="list-style-type: none"> • Ensure new building is open, to provide better flow through the museum • Friendly and more casual design • Architecture and spaces that are flexible and adaptable over time
Building/Facilities	Corporate Resources Volunteers Curatorial	Forecourt	<ul style="list-style-type: none"> • Provide cover at the level 3 courtyard entrance to ensure visitors are protected from the weather conditions • Importance of making use of the front area continuously instead of just once a year • The forecourt is a barren space and odd way to enter the building. Many visitors come from Central station through the Goods Line
Building/Facilities	Corporate Resources	Loading dock	<ul style="list-style-type: none"> • Ensure loading dock serves multiple purposes and think about how it should integrate back into the museum • Ensure the loading dock can sustain the huge amount of activity transporting objects to and from Castle Hill • Provide security
Events	Corporate Resources	Events	<ul style="list-style-type: none"> • Would like to see more paid events and function • Events space
Environment and Sustainability	Corporate Resources	Adaptive Reuse	<ul style="list-style-type: none"> • In 1988 the Museum was a benchmark for adaptive reuse. Would like to see if this can be a focus again
Exhibitions	Visitor Services	History	<ul style="list-style-type: none"> • Display images of what the museum was previously like, include old photos with a plaque explanation • Use of digital history board alongside objects to tell its life span
Amenities	Visitor Services Collection	Bathrooms	<ul style="list-style-type: none"> • Bathrooms in the foyer (main entrance near Harris Street) • Bathrooms down in the collection stores
Accessibility	Visitor Services Curatorial	Accessibility	<ul style="list-style-type: none"> • Provide more ways to engage with audiences eg. audio guides, braille, signage/plaques at wheelchair height • Multi-language resources • Quiet spaces for accessibility • Compelling and intriguing design for all ages
Building/ Facilities	Visitor Services	Break space	<ul style="list-style-type: none"> • Provide outdoor uncover spaces for families that are activated
Exhibition	Visitor Services	Interactive	<ul style="list-style-type: none"> • Exhibitions to have interactive and multi-sensory elements

Category	Team	Location/Idea	Opportunity
Exhibition	Collections Curatorial Marketing and Communications	Exhibition spaces	<ul style="list-style-type: none"> Flexible and adaptive exhibitions spaces The ability to expand and contract is challenging Design opportunities to be able to create a space that is more intimate Spaces to prep, gather objects and dressing mannequins White box spaces – issues relating to hearing café and bathroom noise when looking at objects Flexible spaces that can be activated in multiple ways
Building/Facilities	Collections Curatorial	Storage	<ul style="list-style-type: none"> Never enough storage Provide versatile storage spaces to cater for a wide range of object types and sizes Provide spaces to stage, prepare and complete back of housework across all three sites Basement storage in the Harwood Building
Building/Facilities	Collections	TAFE	<ul style="list-style-type: none"> Would like to reclaim the old TAFE building for decorative arts
Exhibitions	Collections Volunteers Curatorial	Exhibitions	<ul style="list-style-type: none"> Bring the locomotives back into the courtyard Focus on steam exhibitions and Sydney's history Cabinet of curiosity (connection with the old style of displays) Stories about innovation Reflect the ethnic, social and cultural diversity in Sydney Visual representation of buildings history – sensory exhibitions and photographs and footage Ensure the exhibitions are not hidden away Include something natural
Creative Industries Residents	Collections	Australian innovation	<ul style="list-style-type: none"> Opportunity for Australian design, artists and strategies to be built into the fabric of the building. From flooring to furnishing to support Australian makers and designers
Creative Residents	Curatorial	Creative Residents	<ul style="list-style-type: none"> Greater collection presence of the creative residents and research fellows together with a thoughtful entrance More visibility to Creative Industries Residents and teams. Showcase as a living, breathing, active museum Creative and research, prototyping spaces and studio spaces that can be booked
Exhibitions	Volunteers	Energy	<ul style="list-style-type: none"> Look at the original function of the powerhouse including power and energy Look at all aspects of energy including how energy works in humans
Exhibitions	Volunteers	Textiles	<ul style="list-style-type: none"> Develop the textiles area Expand the collection so it is not only lace on display This is important for emerging designers and students
Buildings/ Facilities	Volunteers Curatorial	Harwood Building	<ul style="list-style-type: none"> Preserve Harwood Building – provide additional exhibition space Acknowledge the importance of the Harwood building as the launching pad for workshop/storage facility Pathway from the Harwood workshop underground through the museum
Buildings/ Facilities	Volunteers	Former Post Office	<ul style="list-style-type: none"> Very important building, there are plenty of post offices around Sydney that are gone Should focus on the building, cannot change but repurpose it to reflect the social history of NSW
Buildings/ Facilities	Curatorial	Children	<ul style="list-style-type: none"> Access for large locomotives to make their way into the museum and the forecourt
			<ul style="list-style-type: none"> Ensure the architects understand the requirements of the steam engines The machines require low pressure but high volumes of steam

Category	Team	Location/Idea	Opportunity
Buildings/ Facilities	Curatorial Marketing and Communications	Theatre/ Theatrette	<ul style="list-style-type: none"> Spaces that honour children and young people and thoughtfully created for these visitors
Building/Facilities	Curatorial	Lifts	<ul style="list-style-type: none"> Decent size lift
Exhibitions	Curatorial	First Nations	<ul style="list-style-type: none"> Have more permanent Indigenous programming
Building/ Facilities	Marketing and Communications	Gates	<ul style="list-style-type: none"> Dismantle the old junction gates as it does not match Create a functional space tied to the Goods Line
Buildings/ Facilities	Marketing and Communications	Staff spaces	<ul style="list-style-type: none"> Private bookable staff meeting rooms VC compatible Functional kitchen Space in building design with future technologies in mind

Question 5 - Are there any other issues relevant to your role/function?

Table 9 - Feedback on any other issues

Other	What have we heard?
Researchers feedback	<ul style="list-style-type: none"> External staff and researchers want to ensure that the presence of the collection be kept at Ultimo When visitors travel to do their research, they want to travel within the CBD
Community engagement	<ul style="list-style-type: none"> More community engagement is needed Museum Victoria looks to community support for their programming Bring Sydney and NSW into the museum, there is currently a disconnect as the museum sits in Ultimo, it caters for other audiences

3.3 First Nations Workshop

An engagement session with First Nations community members took place on 21 March and was organised and facilitated by the newly formed First Nations Directorate of the museum. Questions asked during this feedback session included:

- What memories do you have of Powerhouse Ultimo?
- How often do you come to Powerhouse Ultimo and what makes you want to visit?
- What do you value about Powerhouse Ultimo, including the site and the Museum?
- Do you hold any special associations with specific buildings, parts of the site or exhibitions (past and current)?
- What would make it easier to visit Powerhouse Ultimo more regularly?
- What stories do First Nations communities want to tell through Powerhouse Ultimo?
- How can Powerhouse Ultimo reflect First Nations cultural values?
- This is the start of ongoing conversation and relationship building; we want to design and shape our engagement process to meet community needs and expectations. How do you like to be consulted?

Feedback from First Nations community members identified connection with the museum and representation in exhibited collections as being a high priority. Feedback highlighted the importance of art that reflect First Nations culture and recognised the individual stories of the community. The use of outdoor space and the land was raised as important and future plans to use the space were supported with further consultation of the First Nations community. Food and culture were also identified as big drivers in attracting First Nations community members to the museum and creating an accessible and welcoming environment.

Question 1 : What memories do you have of Powerhouse Ultimo?

Feedback was provided by participants on the memories they have of Powerhouse Ultimo.

Table 10 - First Nations feedback on Powerhouse Ultimo memories

What have we heard?
<ul style="list-style-type: none"> Have not visited the Powerhouse Ultimo very often Some only visited during school trips There is a lack of First Nations stories, history, and representation in the collection

Question 2: How often do you come to Powerhouse Ultimo and what makes you want to visit?

Responses were gathered from the participants on why they want to visit the Powerhouse Ultimo.

Table 11 - First Nations feedback on visitation

What have we heard?	
First Nations representation	<ul style="list-style-type: none">• Would visit more often if there was a focus on the history and culture of First Nations community members• More First Nations exhibitions• <i>Bayagul: Contemporary Indigenous Communication</i> was a great exhibition of interest
Museum experience	<ul style="list-style-type: none">• Would like a culturally safe experience

Question 3: What do you value about Powerhouse Ultimo, including the site and the museum? Do you hold any special associations with specific buildings, parts of the site or exhibitions (past and current)?

Participants were asked what they valued most about the museum. Responses included:

Table 12 - First Nations feedback on values

What do you value about Powerhouse Ultimo?	What have we heard?
Architecture	<ul style="list-style-type: none">• Unique architecture including:<ul style="list-style-type: none">– Tin roofs– Large windows– Open space
Exhibitions	<ul style="list-style-type: none">• Tactile nature of exhibitions• Ability to ignite curiosity• Potential to spark curiosity for First Nations community members

Question 4: What would make it easier to visit Powerhouse Ultimo more regularly?

Responses below outline the ideas put forward by the participants when asked the question 'what would make it easier to visit Powerhouse Ultimo'.

Table 13 - First Nations feedback on accessibility

What have we heard?
<ul style="list-style-type: none">• Acknowledgement of the contribution of First Nations engineers and scientists to STEM, as well as the industrial history of the Powerhouse site, including on the railways and Power Station• Acknowledgement of the contribution of First Nations community members to early inventions• Celebrate the entirety of Australia's history including 60-80,000 years of pre-colonial existence, the British invasion, First Nations resilience and the subsequent waves of immigration• Clearly positioning a First Nations artwork / cultural object at the museum entrance would send a powerful signal about representation and draw people in• First Nations performances particularly school holiday programs• First Nations decorative arts and fashion

Question 5: What stories do First Nations communities want to tell through Powerhouse Ultimo?

Participants covered a large range of ideas when asked to identify stories that they want to tell.

The ideas below outline some responses provided when asked about the stories First Nations communities wish to convey through the Powerhouse.

Table 14 - First Nations feedback on storytelling

What have we heard?
<ul style="list-style-type: none">• Use of audio and visuals to tell local histories from Creation until now• Moving away from just the collection of cultural objects to the acknowledgment of cultural knowledge and placing the emphasis on relationships• Look at First Nations involvement above and beyond science and technology• Stories that connect the younger generation and older mob, showing more heroes or role models within communities• Stories relating to Country and the Sydney area• Embed First Nations design principles in the spaces in the renewed building• Using Indigenous cultural plant knowledge to express the application of science

Question 6: How can Powerhouse Ultimo reflect First Nations cultural values?

The conversations capture regarding the question ‘how can Powerhouse Ultimo reflect First Nations cultural values’ sparked feedback from the participants.

Table 15 - First Nations feedback on cultural values

What have we heard?
<ul style="list-style-type: none">• Value the space between the inside and outside• Acknowledgement of Country – have markers on the history of the place• Invest First Nations Values• Include the First Nations experience of living in Urban environments and how they can invite non-indigenous peoples to see and learn• Focus on contemporary Aboriginality and what that means• Think beyond the museum as a cultural space and more about culture itself• Include night markets and stalls from First Nations creators

Question 7: How do you like to be consulted?

First Nations community members prefer face-to-face, in person conversations. They welcome the opportunity to meet and cook together and have a conversation with food. Additionally, consultation in regional areas is invited.

3.4 Live consultation sessions

During the open weekend visitors were invited to attend a facilitated consultation session in Powerhouse Ultimo Theatrette. There were five sessions available to the public over the weekend and an invitation only session for the guilds and associations on Sunday 20 March. Feedback was collected on the following key questions:

- What do you value about Powerhouse Ultimo?
- What works well at Powerhouse Ultimo?
- What doesn't work well at Powerhouse Ultimo?
- What are the opportunities for change, improvement or efficiencies?
- Other

Ninety-four percent of respondents identify Powerhouse Ultimo as either important or very important. People highly valued key elements of the Powerhouse Ultimo including exhibitions (82%), collections (61%) and the history of the building (54%). People also valued the central location of the museum, its industrial and transport history and its architectural significance to Ultimo.

The *Boulton and Watt Steam Engine* was cited as the most memorable exhibition. Interactive play exhibitions were also cited as a big attractor for visitors, as were science, engineering and technology exhibitions.

The exhibitions (77%), conservation of heritage (59%) and customer service (52%) were rated as the top three things that worked well at the Powerhouse Ultimo. Maintenance (27%), conservation of heritage (22%) and exhibitions (20%) were rated as the top three things that could be improved.

Eighty-eight percent of people engaged found Powerhouse Ultimo was easy to find and 83% found it easy to access. However additional wayfinding signage throughout the museum was cited as important with many people saying the museum was hard to navigate once inside.

Other recommendations for improvement included:

- changing the entrance to Powerhouse Ultimo, with many people suggesting a new entrance to face the Goods Line and city
- better use of outdoor space for families and children's interactive play
- changes to back of house elements such as storage, a fit for purpose loading dock and improved event space including the ability to install new exhibitions during opening hours

Almost 80% of survey respondents were aged 30+ and 34% of them visit Powerhouse Ultimo at least once or twice a year.

An analysis was completed on the responses and then collected into key themes as seen in the image below.

Figure 8 - Live consultation questions flow chart

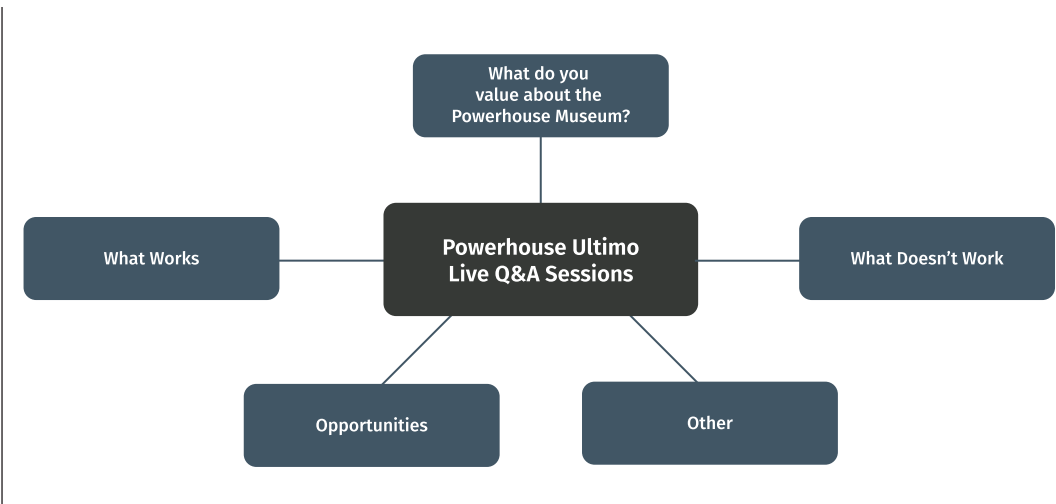


Figure 9 - 'Question 1: What do you value about the Powerhouse Ultimo?' map

Legend

- Session 1
- Session 2
- Session 3
- Session 4
- Session 5
- Session 6

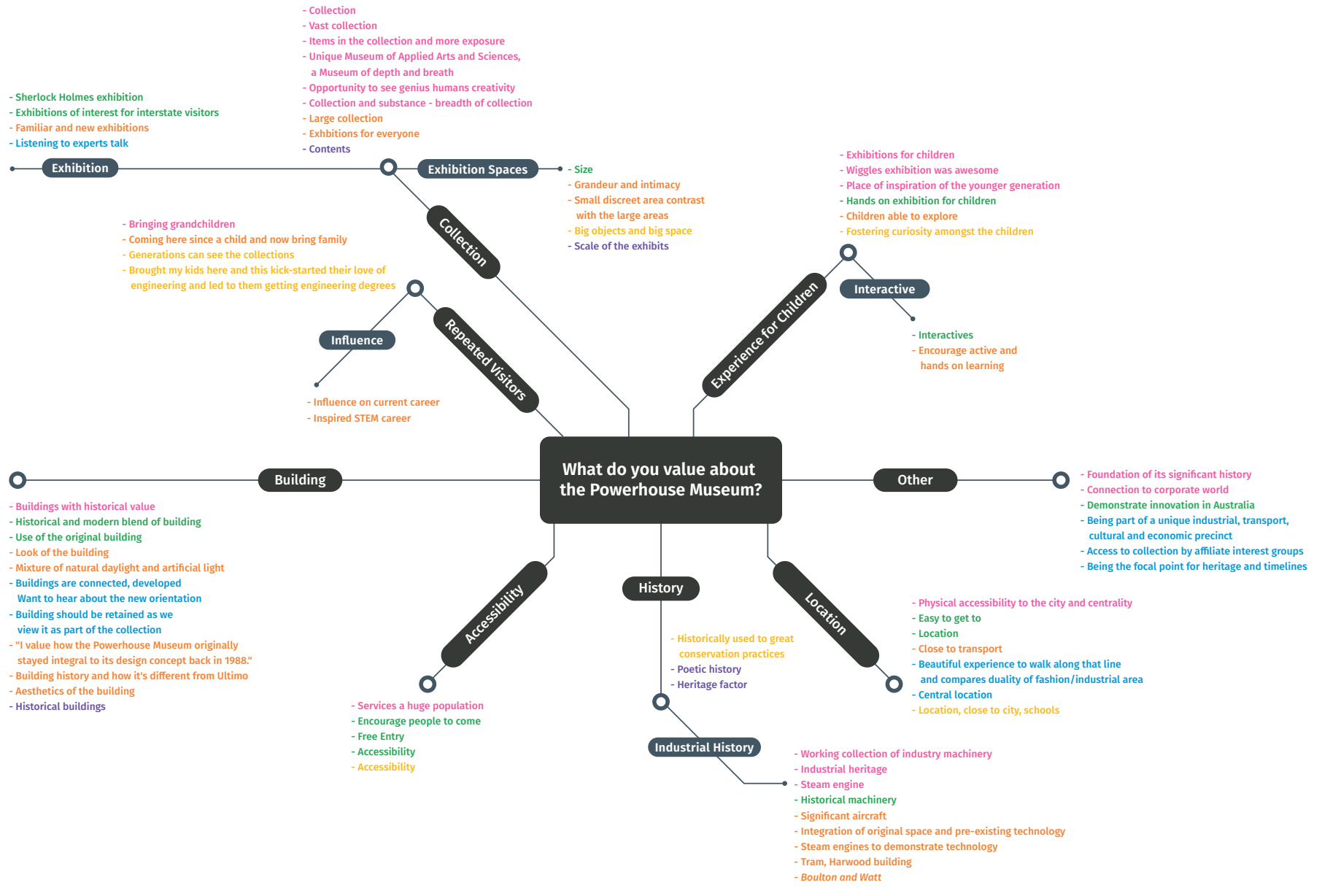


Figure 10 - 'Question 2: What works well at Powerhouse Ultimo' map

Legend

- Session 1
- Session 2
- Session 3
- Session 4
- Session 5
- Session 6

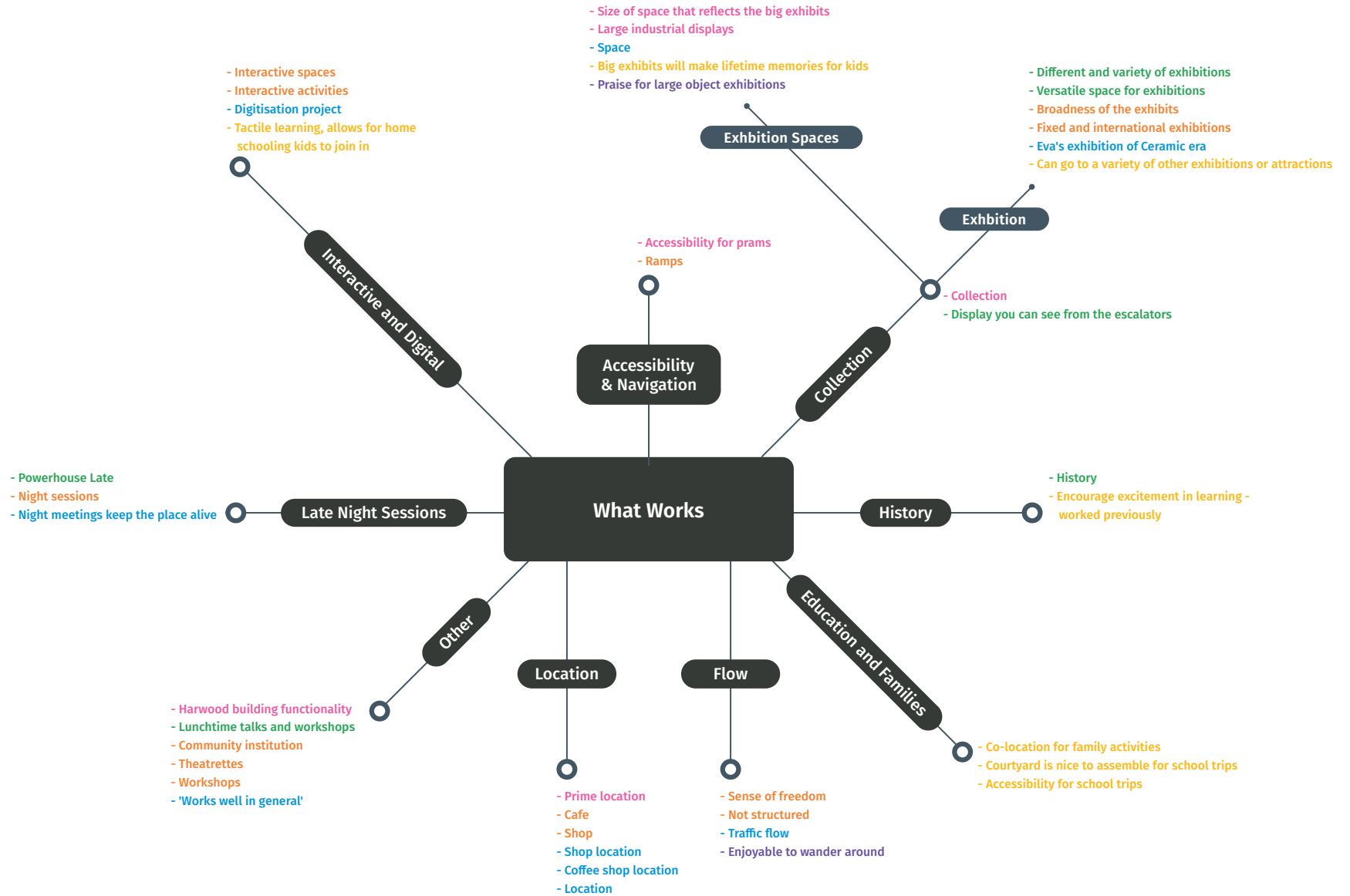


Figure 11 - 'Question 3: What doesn't work well at the Powerhouse Ultimo' map

Legend

- Session 1
- Session 2
- Session 3
- Session 4
- Session 5
- Session 6

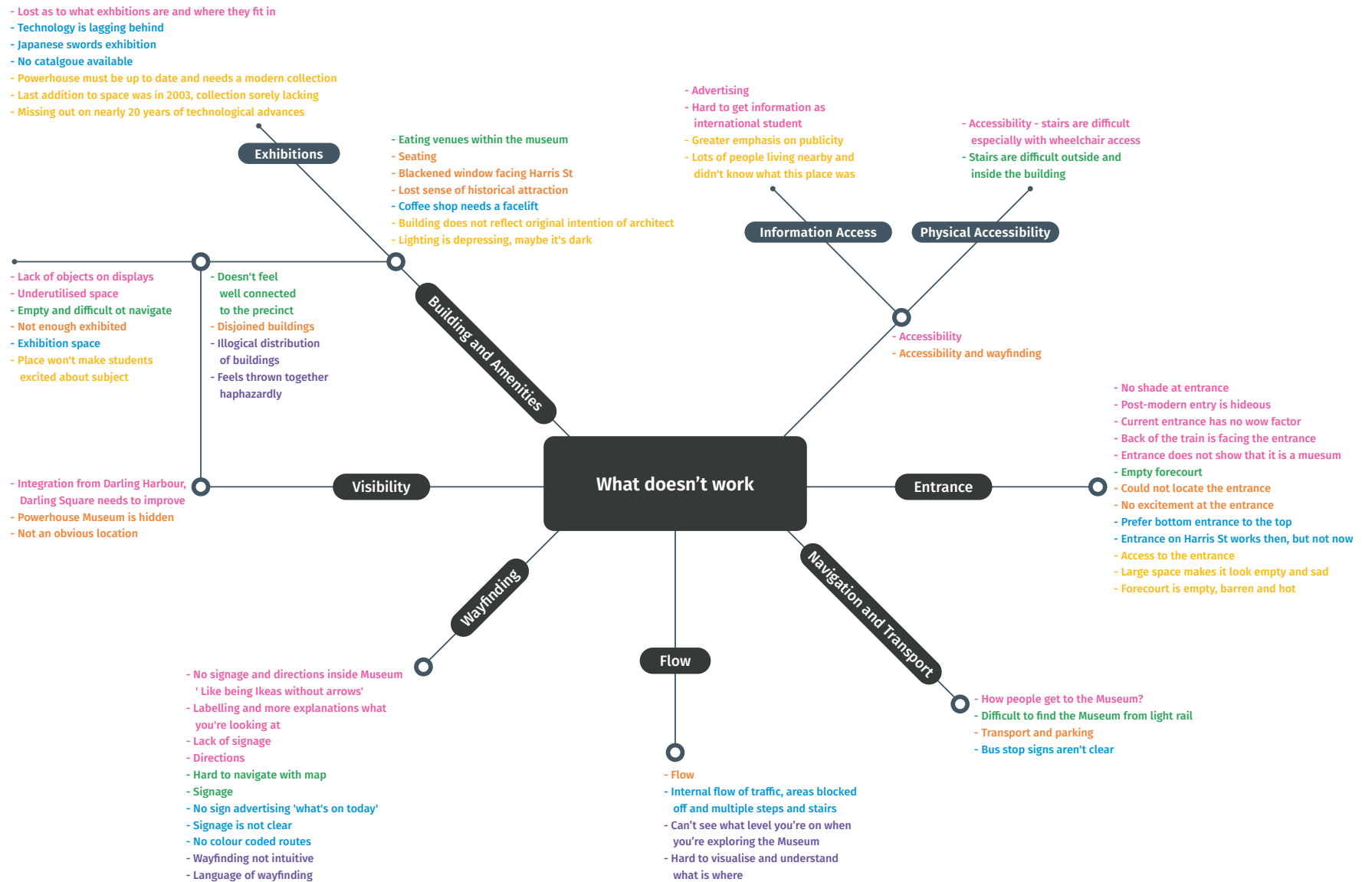


Figure 12 - 'Question 4: Opportunities' map

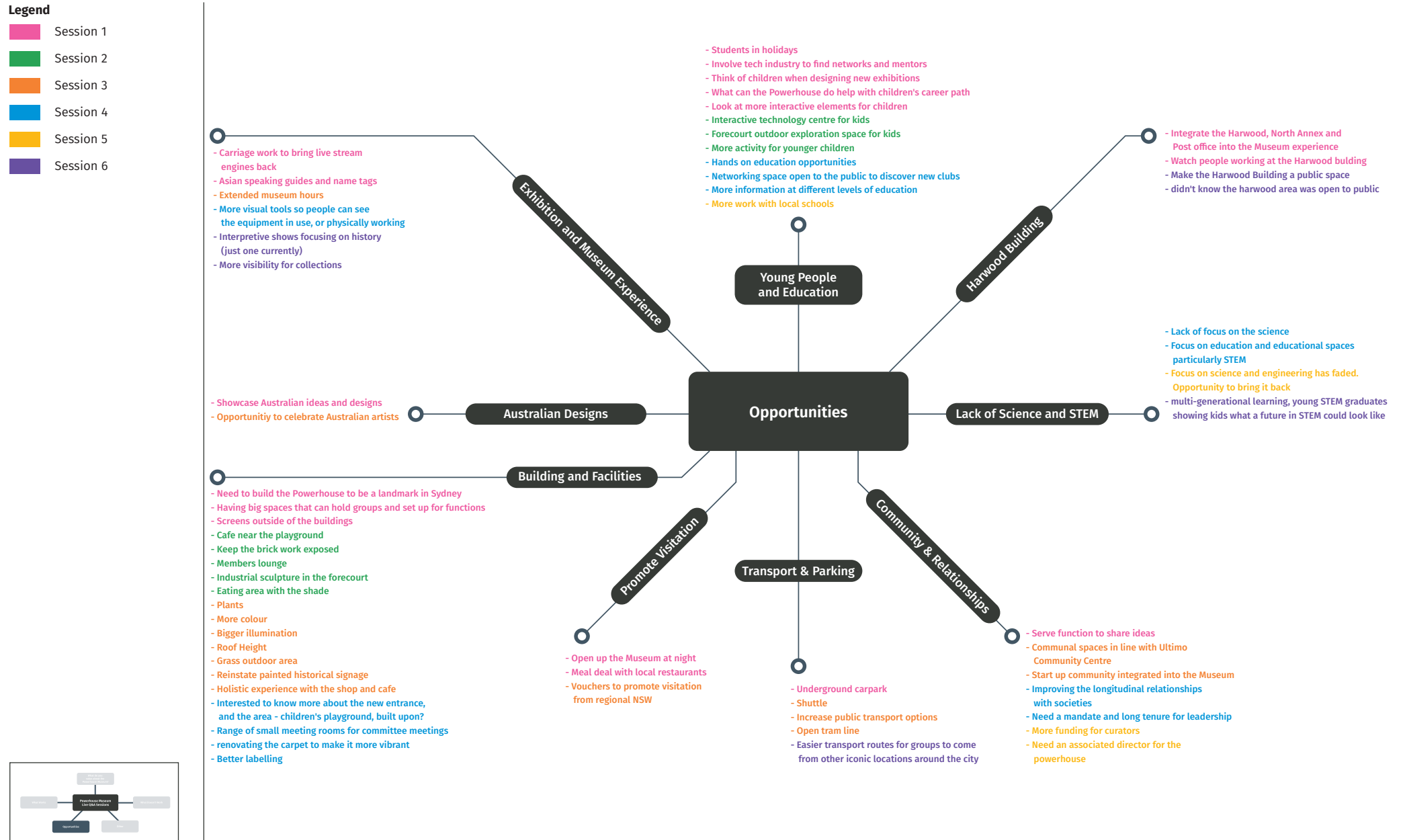


Figure 13 - 'Question 5: Other comments' map

Legend

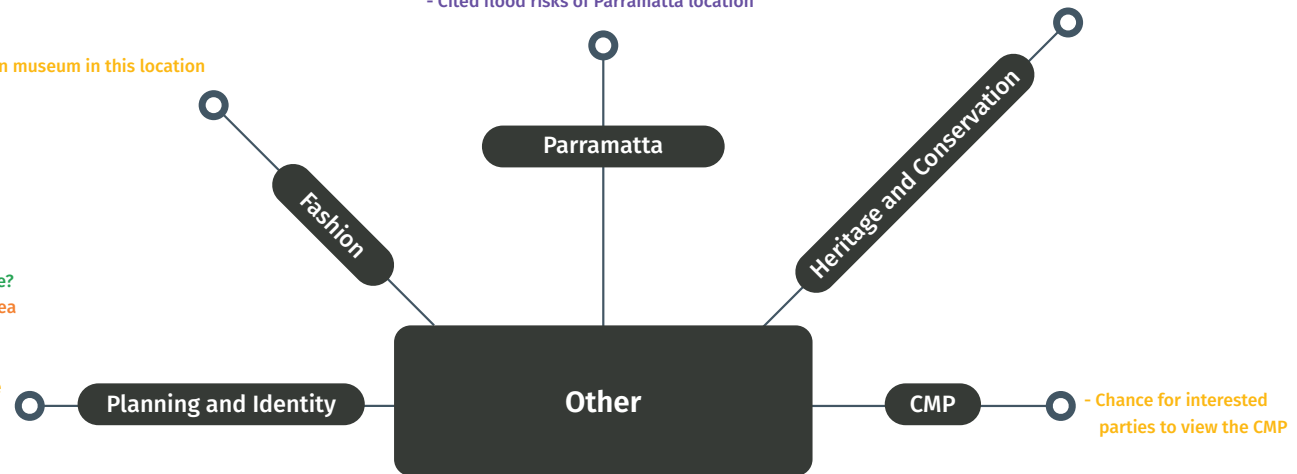
- Session 1
- Session 2
- Session 3
- Session 4
- Session 5
- Session 6

- Identity of the museum is important - we need to cover the breadth. Fashion is only a small part of design.
- Language - use of the word fashion - be careful how you treat fashion (ephemeral - immediate idea that disappears)
- Choose terminology carefully
- Fashion will bring people
- Stakeholder does not want a fashion museum in this location

- Understand what the identity for Powerhouse will each museum have?
- Discussion with town planning in area
- Strong heritage focus - no residential buildings
- Wants to keep it as a cultural centre

- Cited flood risks of Parramatta location

- Concern that the Harwood Building is not Heritage listed
- Acknowledge of all stages the museums history and architecture
- Continue to evoke the original architecture whilst being renewed
- Area of concern - decorative arts collection



3.5 Memory lane postcards

During the open weekend activation an exhibit was displayed in the museum showcasing photos and videos from the archive. Visitors were asked to reflect on their most memorable experience at the museum, writing on the back of a postcard. The purpose of this activity encouraged visitors to look back to the past and identify their personal connections to Powerhouse Ultimo. Below show key themes in a word cloud, larger words occurred more frequently in the feedback received.

Figure 14 - Word cloud generated from postcard reflections




Figure 15 - Postcard example from 'Charlie'

Powerhouse Ultimo is undertaking a historic renewal. As part of this process, a Conservation Management Plan is being prepared to help guide the future design and use of the museum.


What's your favourite memory of Powerhouse Ultimo?
Share your thoughts below and submit them to our event staff.

the big plane

charlie

 You can also take our online survey by scanning the QR code

Engine Hall, Ultimo Power Station, 1905
Powerhouse Archive

 **NSW**
Government

Museum of Applied Arts & Sciences

3.6 Interactive children's feedback session

During the open weekend children were invited to answer the question 'What do you value about the museum'. Children could answer using drawing materials.

Larger exhibits within the museum were prominent in the children's responses with a focus on transport modes and the sciences. Children identified the *Locomotive No 1*, Space, Transport and the experimentations area as some of their most memorable exhibits within the museum.

Figure 16 - Interactive children's feedback





4

The Way Forward

4 The Way Forward

The insight received during consultation will be considered as part of the development of the Conservation Management Plan (CMP). The CMP process is expected to be completed by mid-2022.

Engagement with stakeholders and the community remains ongoing, with the community expected to provide feedback at the next stage of planning and design. The dedicated contact details for the project team (phone and email) remain available and open for comments and questions.

Comments and feedback received during the current consultation will inform the development of future engagement which will help shape future activities to ensure they are effective and informative.

We thank our community and stakeholders for their involvement in shaping the future of the Powerhouse Ultimo.

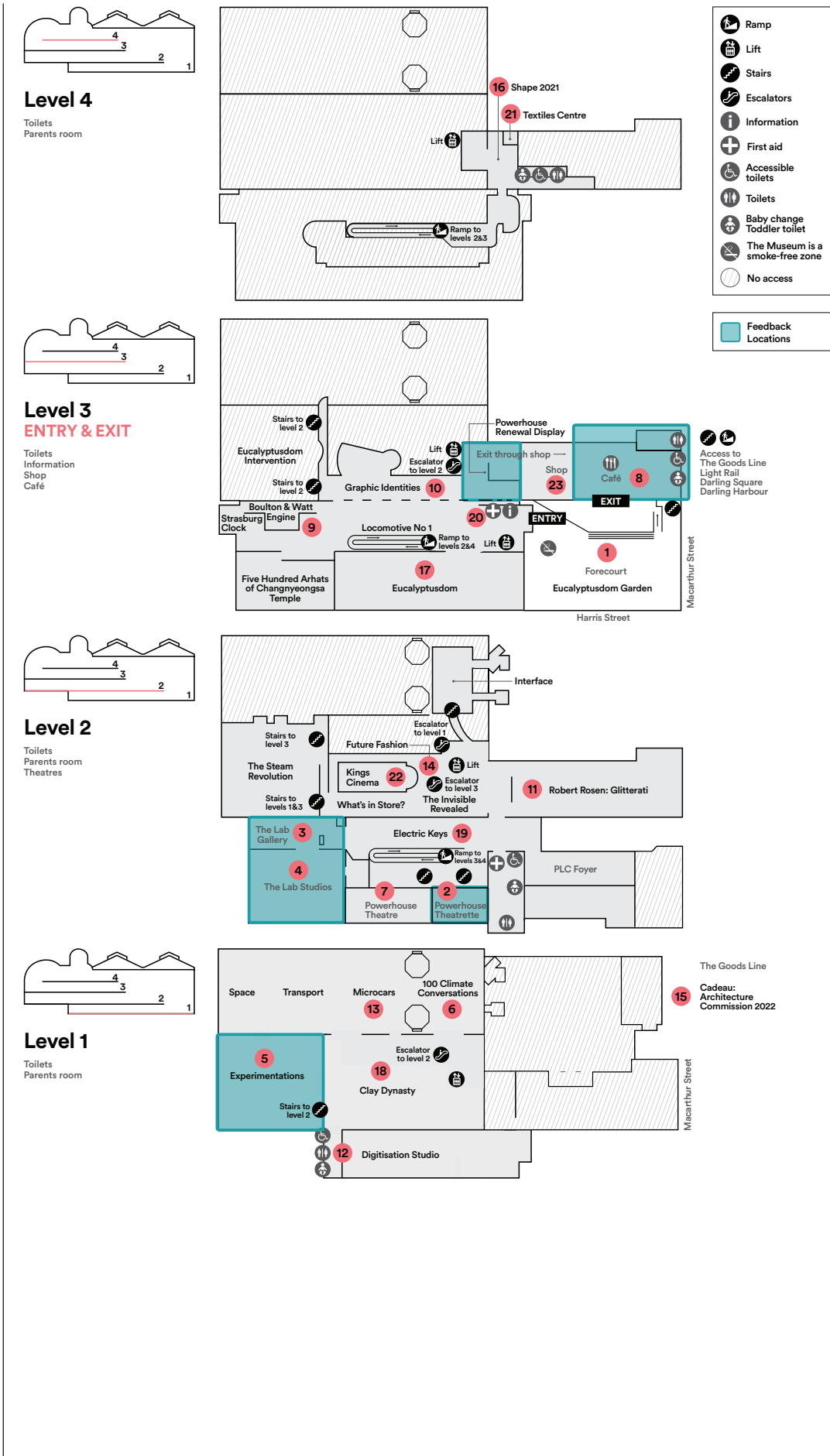


5

Appendices

Appendix A - Powerhouse Ultimo Open Weekend Site Map

Figure 17 - Powerhouse Ultimo Open Weekend Site Map



Appendix B - Online Survey Questions

Figure 18 - swipEngage survey questions

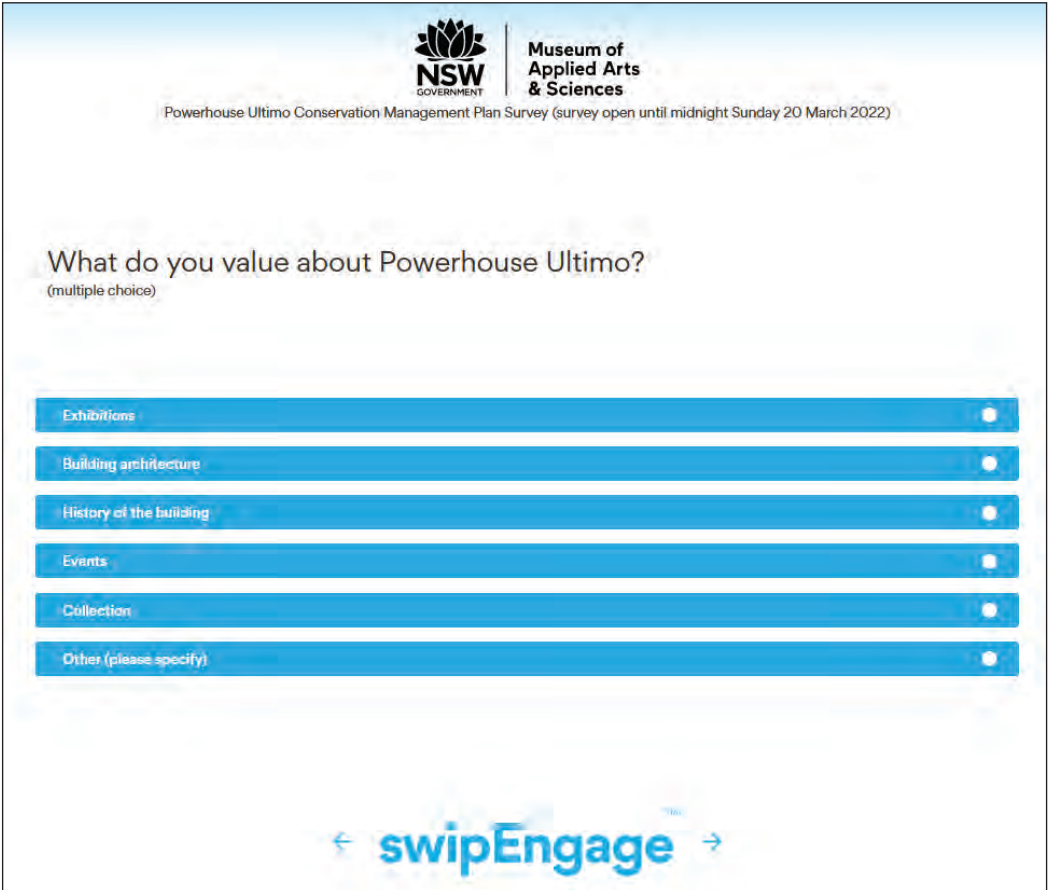
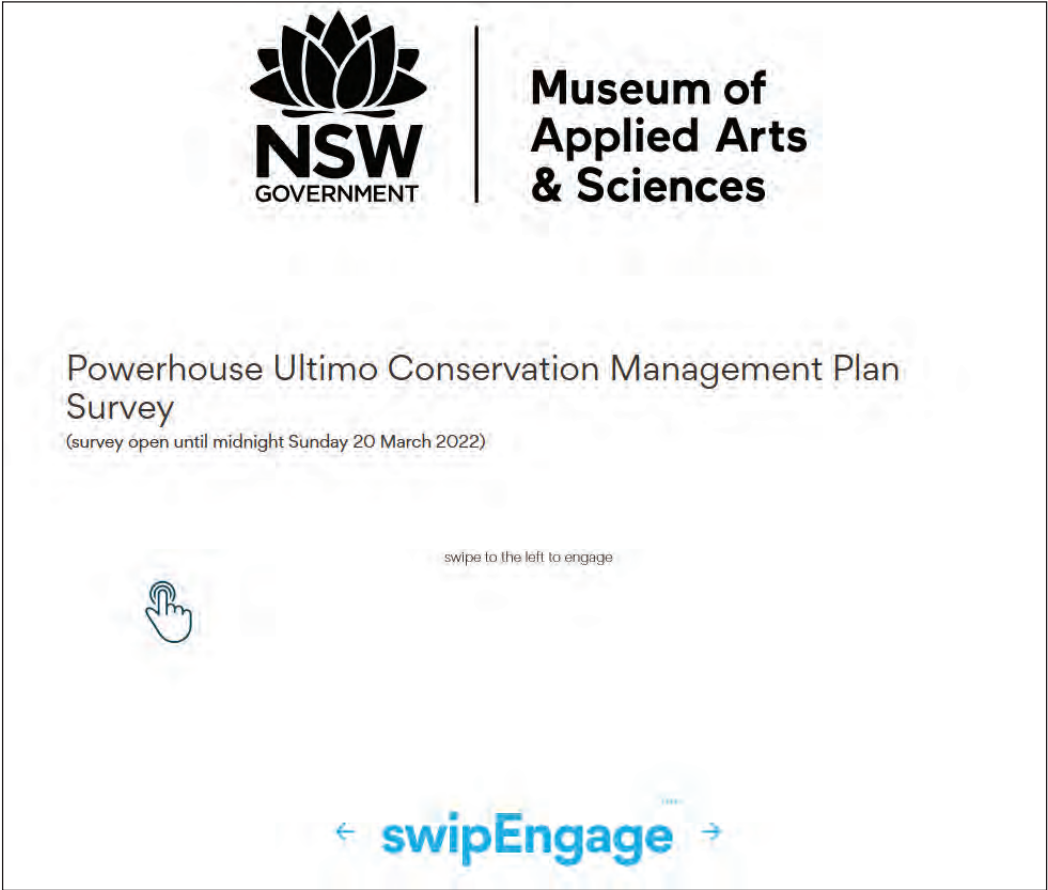



Figure 18 - swipEngage survey questions



Museum of Applied Arts & Sciences

Powerhouse Ultimo Conservation Management Plan Survey (survey open until midnight Sunday 20 March 2022)

What do you value about Powerhouse Ultimo?
(multiple choice)

Exhibitions

Building architecture


History of the building

Events

Collection

Other (please specify)

swipEngage



Museum of Applied Arts & Sciences

Powerhouse Ultimo Conservation Management Plan Survey (survey open until midnight Sunday 20 March 2022)


Are there any features/buildings/spaces within Powerhouse Ultimo that hold special meaning for you?

Yes (please specify)

No

swipEngage

Figure 18 - swipEngage survey questions



Museum of Applied Arts & Sciences


Powerhouse Ultimo Conservation Management Plan Survey (survey open until midnight Sunday 20 March 2022)

Do you think that Powerhouse Ultimo is easy to find?

←

swipEngage

→



Museum of Applied Arts & Sciences

Powerhouse Ultimo Conservation Management Plan Survey (survey open until midnight Sunday 20 March 2022)


Do you think it is easy to access/enter Powerhouse Ultimo?

←

swipEngage

→

Figure 18 - swipEngage survey questions



Museum of Applied Arts & Sciences

Powerhouse Ultimo Conservation Management Plan Survey (survey open until midnight Sunday 20 March 2022)

What makes it difficult to navigate Powerhouse Ultimo and its spaces?
(multiple choice)

Guides

Building layout

Organisation of exhibitions


Arrows and directions

Other (please specify)

←

swipEngage

→



Museum of Applied Arts & Sciences

Powerhouse Ultimo Conservation Management Plan Survey (survey open until midnight Sunday 20 March 2022)

What works well at Powerhouse Ultimo?
(multiple choice)

Customer service

Exhibitions

Maintenance and renovation

Conservation of heritage

Events

Guides and navigation

Amenities (café, gift shop, toilets)


Other (please specify)

←

swipEngage

→

Figure 18 - swipEngage survey questions



Museum of Applied Arts & Sciences

Powerhouse Ultimo Conservation Management Plan Survey (survey open until midnight Sunday 20 March 2022)

What helps you navigate Powerhouse Ultimo and it's spaces?
(multiple choice)

Arrows and directions


Building layout

Guides/volunteers

Organisation of exhibitions

Other (please specify)

← swipEngage →



Museum of Applied Arts & Sciences

Powerhouse Ultimo Conservation Management Plan Survey (survey open until midnight Sunday 20 March 2022)

What requires improvement at Powerhouse Ultimo?
(multiple choice)

Customer service

Exhibitions

Maintenance and renovation

Conservation of heritage

Events

Guides and navigation

Amenities (café, gift shop, toilets)

Other (please specify)

← swipEngage →

Figure 18 - swipEngage survey questions



Museum of Applied Arts & Sciences

Powerhouse Ultimo Conservation Management Plan Survey (survey open until midnight Sunday 20 March 2022)

Where did you hear about this survey?
(multiple choice)

Social media

Newspaper

Powerhouse Ultimo website

Radio

Flyer


Word-of-mouth

Other (please specify)

←

swipEngage

→



Museum of Applied Arts & Sciences

Powerhouse Ultimo Conservation Management Plan Survey (survey open until midnight Sunday 20 March 2022)

How often do you visit Powerhouse Ultimo?

Never visited

Visited once or twice in my lifetime

Every few years

Once or twice a year

Several times a year


At least once a month

←

swipEngage

→

Figure 18 - swipEngage survey questions



Museum of Applied Arts & Sciences

Powerhouse Ultimo Conservation Management Plan Survey (survey open until midnight Sunday 20 March 2022)

Which age group best represents you?

Under 12 years old

13-18 years old

19-25 years old

26-30 years old

31-50 years old


51-70 years old

71 years or older

←

swipEngage

→



Museum of Applied Arts & Sciences

Powerhouse Ultimo Conservation Management Plan Survey (survey open until midnight Sunday 20 March 2022)

Please provide the postcode in which you live.

Please type here...


Characters left: 2000

←

swipEngage

→

Figure 18 - swipEngage survey questions



Museum of
Applied Arts
& Sciences

Powerhouse Ultimo Conservation Management Plan Survey (survey open until midnight Sunday 20 March 2022)

Do you have any further comments or questions?


Please type here...

Characters left: 2000

←

swipEngage

→



Museum of
Applied Arts
& Sciences

Powerhouse Ultimo Conservation Management Plan Survey (survey open until midnight Sunday 20 March 2022)

Please provide your email address if you'd like to stay updated on Powerhouse Ultimo Renewal Project.

Please type here...

Characters left: 2000

←

swipEngage

→

Appendix C - Collateral

Figure 19 - Collateral produced for Powerhouse Ultimo



POWERHOUSE OPEN WEEKEND 19–20 March 2022

Learn more about the historic renewal of Powerhouse Ultimo.

Join us for behind-the-scenes tours, meet our creative industry residents, learn more about our history and participate in live feedback sessions.

Powerhouse Ultimo is undergoing transformative renewal. To inform the renewal we are developing a Conservation Management Plan to guide the future design, use and management of your much-loved museum. As a member of our community, we would love to hear what the Powerhouse means to you and your ideas on our renewal.

Register at: ma.as/openweekend



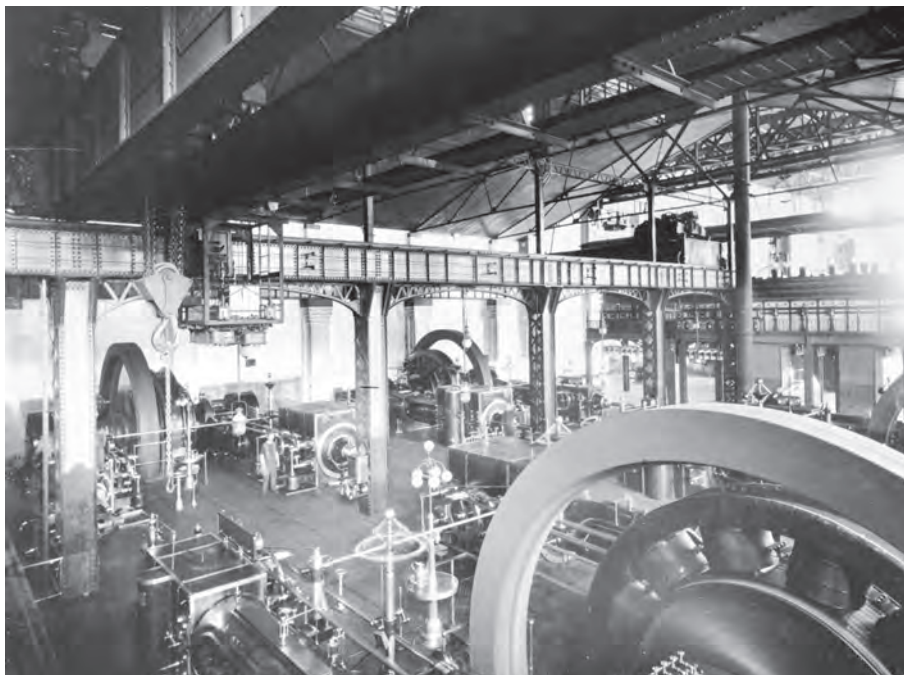
Can't make it?
Scan the QR code to have your say
via our online survey.

Image: Artist's impression of Powerhouse Ultimo created by Mogamma



Museum of
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& Sciences

Figure 19 - Collateral produced for Powerhouse Ultimo



Powerhouse Ultimo is undertaking a historic renewal. As part of this process, a Conservation Management Plan is being prepared to help guide the future design and use of the museum.

What's your favourite memory of Powerhouse Ultimo?

Share your thoughts below and submit them to our event staff.



You can also take our online survey
by scanning the QR code

Engine Hall, Ultimo Power Station, 1905
Powerhouse Archive



Museum of
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Figure 19 - Collateral produced for Powerhouse Ultimo

[ART & DESIGN](#) | [ENTERTAINMENT](#) | [FASHION & STYLE](#) | [FOOD & DRINK](#) | [THINGS TO DO](#) | [TRAVEL](#) | [CITY FILE](#) | [THE GROUP](#)

1700, Queen's Lane, Ultimo, NSW 2015

Open Long at Ultimo

POWERHOUSE ULTIMO OPEN WEEKEND

19-20 March 2022

[MORE >](#)

Controversial Tasmanian Arts Festival, Dark Mofo, Announces Its Line-Up for 2022

After a Covid cancellation in 2020 and boycotts in 2021, Mofo wants to wipe the slate clean. "We're beginning a new era of Dark Mofo, exploring the ideas of rebirth, reincarnation, and new life."

104. Home State Entertainment Week, Dark Mofo, Dark Mofo 2022. Photographs: Courtesy of Dark Mofo Open Weekend

Published on 19 March 2022
in [CITY & TRAVEL](#)

[SHARE](#)

It's been a turbulent couple of years for Tasmania's largest festival, Dark Mofo. Museum of Old and New Art (MONA) cancelled it in 2020 due to Covid, and last year saw calls to boycott the event after opponents called for Native people to be given a more central role in the festival.

It had a series of protests, with Kinohiki Mookoo, a Torres Strait Islander and writer, calling for a "rebirth and renewal" of the festival, while artist Marcus White pulled out of the event.

It makes this year's theme of "renewal" – whether successful or simply painful – all the more timely. "We're beginning a new era of Dark Mofo, exploring the ideas of rebirth, reincarnation, and new life," the festival director Leigh Carmichael said in a press release.

POWERHOUSE ULTIMO OPEN WEEKEND 19-20 March 2022

More specifically, the theme is meant to reflect on our collective struggles from the pandemic. "We're privileged to have some internationally renowned artists confirmed for this year, alongside existing locals. It feels like the cultural world is re-emerging post-Covid, and we feel the festival."

All takes place across two weeks, from June 8 to 22. It's worth noting that the festival is a mix of performance and arts events, with one week from June 8 to 12 the focus will be on performance and arts events, with one week from June 13 to 22 the focus on photography and sculpture. Dark Mofo is also a mix of arts and culture, with one week from June 8 to 12 the focus on performance and arts events, with one week from June 13 to 22 the focus on photography and sculpture.

Dark Mofo is on from June 8-22. The full program will be announced in April.

[darkmofo.com.au](#)

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"I Don't Really Care for the Rules of English": Jazz Musician, Author of How to Make a Basket, on Writing in Language
ENTERTAINMENT

"He Totally Saved My Life": All About Women's Panelist Elly-Mae Barnes on Parenting With a Disability
ENTERTAINMENT

Australian Film 'Wash My Soul in the River's Flow' Documents the Love and Songs of Soulmates Archie Roach and Robyn Hunter
ENTERTAINMENT

POWERHOUSE ULTIMO OPEN WEEKEND

19-20 March 2022

CONTRIBUTE TO THE FUTURE OF POWERHOUSE ULTIMO
Live consultation sessions
Meet our Creative Industries Residents
View eight free exhibitions with curator-led tours
Discover our Family Adventure Trail
masd.openweekend

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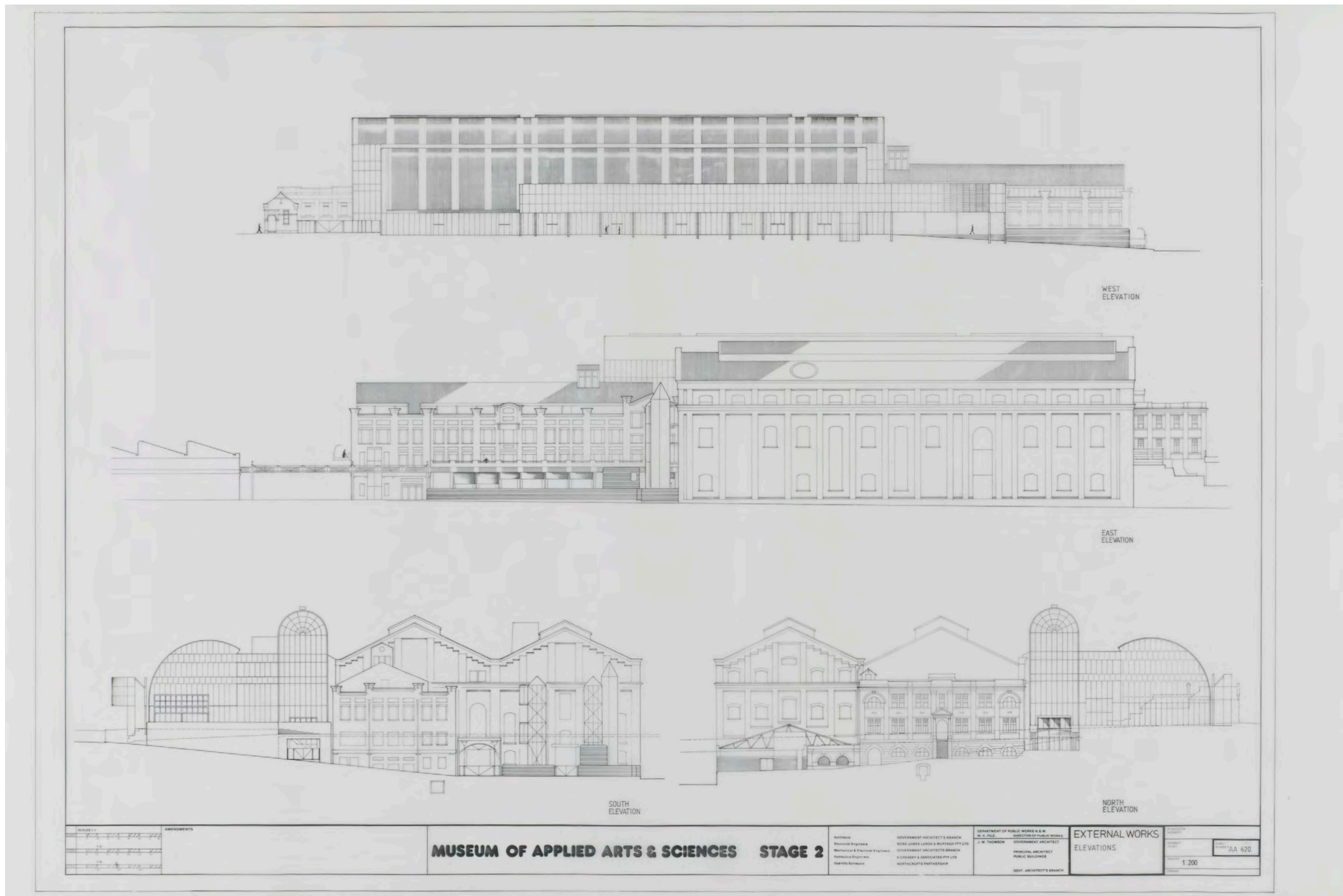
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APPENDIX I

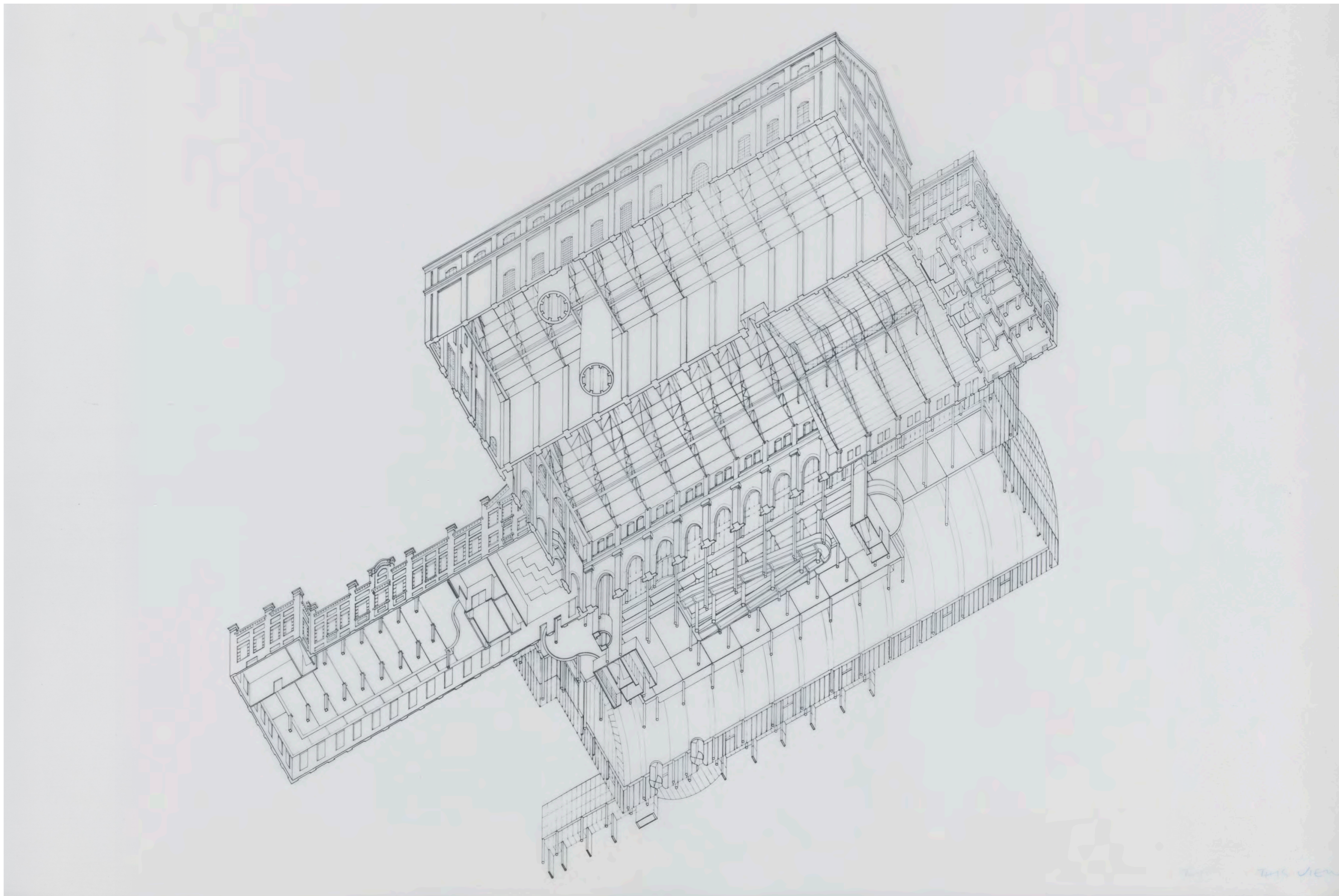
Powerhouse Ultimo Stage 2

Architectural Drawings by

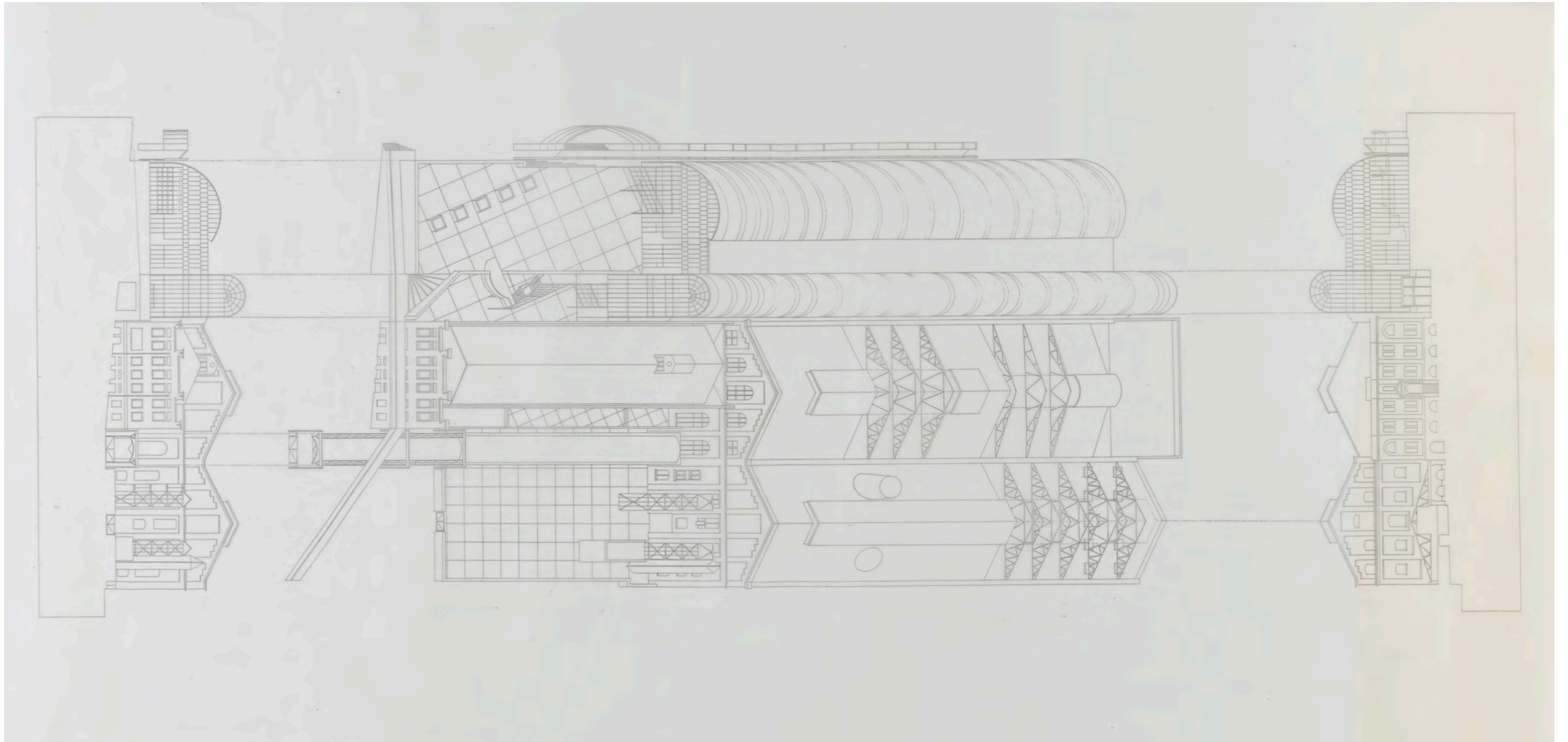
Lionel Glendenning



Appendix I.1 2008/88/1 Architectural drawings (14), Powerhouse Museum, tracing paper / microfilm / ink, designed by Lionel Glendenning, made and used by New South Wales Department of Public Works, Sydney, New South Wales, Australia, 1987



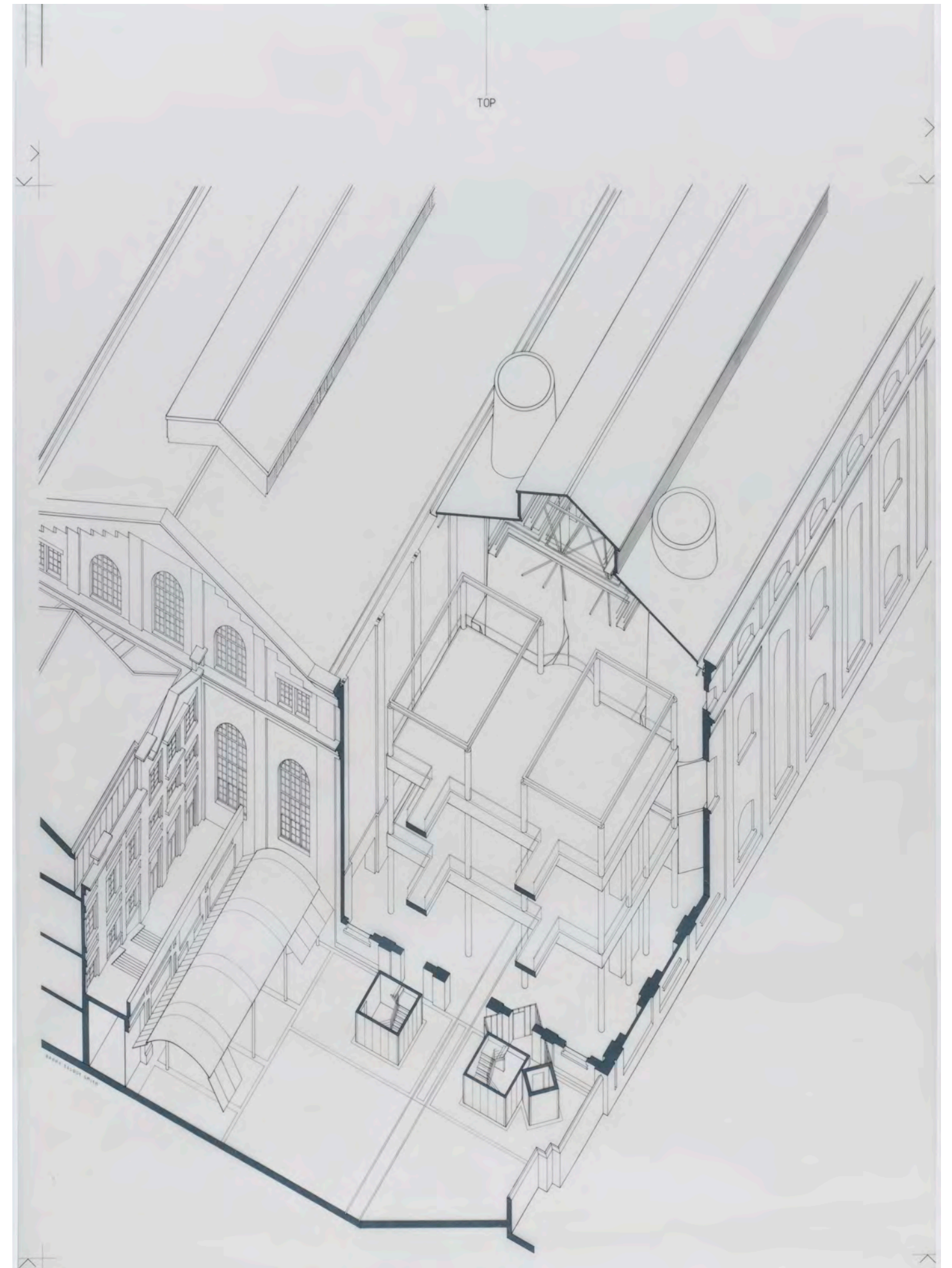
Appendix I.2 2008/88/1 Architectural drawings (14), Powerhouse Museum, tracing paper / microfilm / ink, designed by Lionel Glendenning, made and used by New South Wales Department of Public Works, Sydney, New South Wales, Australia, 1987



Appendix I.3 2008/88/1 Architectural drawings (14), Powerhouse Museum, tracing paper / microfilm / ink, designed by Lionel Glendenning, made and used by New South Wales Department of Public Works, Sydney, New South Wales, Australia, 1987



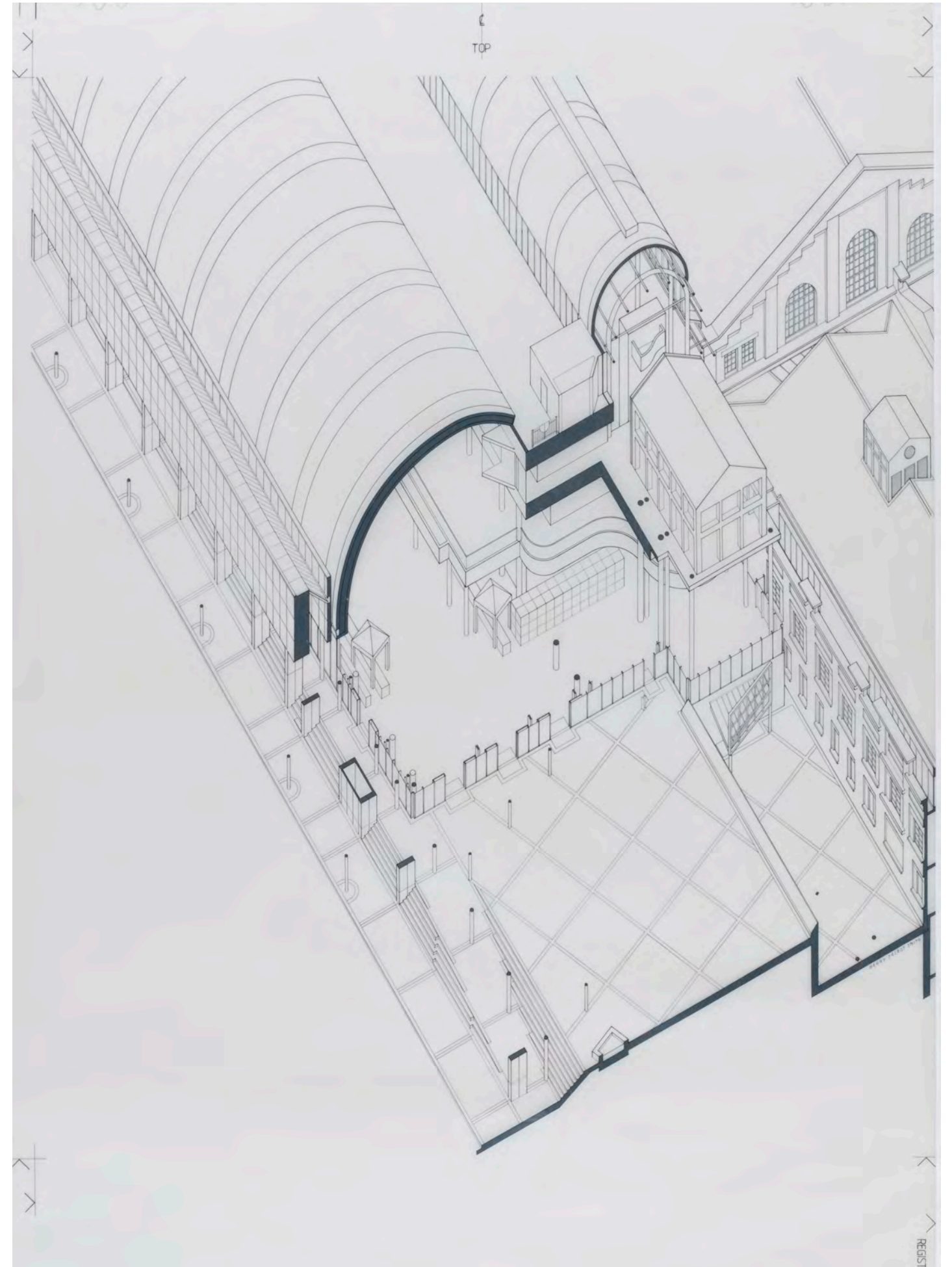
Appendix I.4 2008/88/1 Architectural drawings (14), Powerhouse Museum, tracing paper / microfilm / ink, designed by Lionel Glendenning, made and used by New South Wales Department of Public Works, Sydney, New South Wales, Australia, 1987



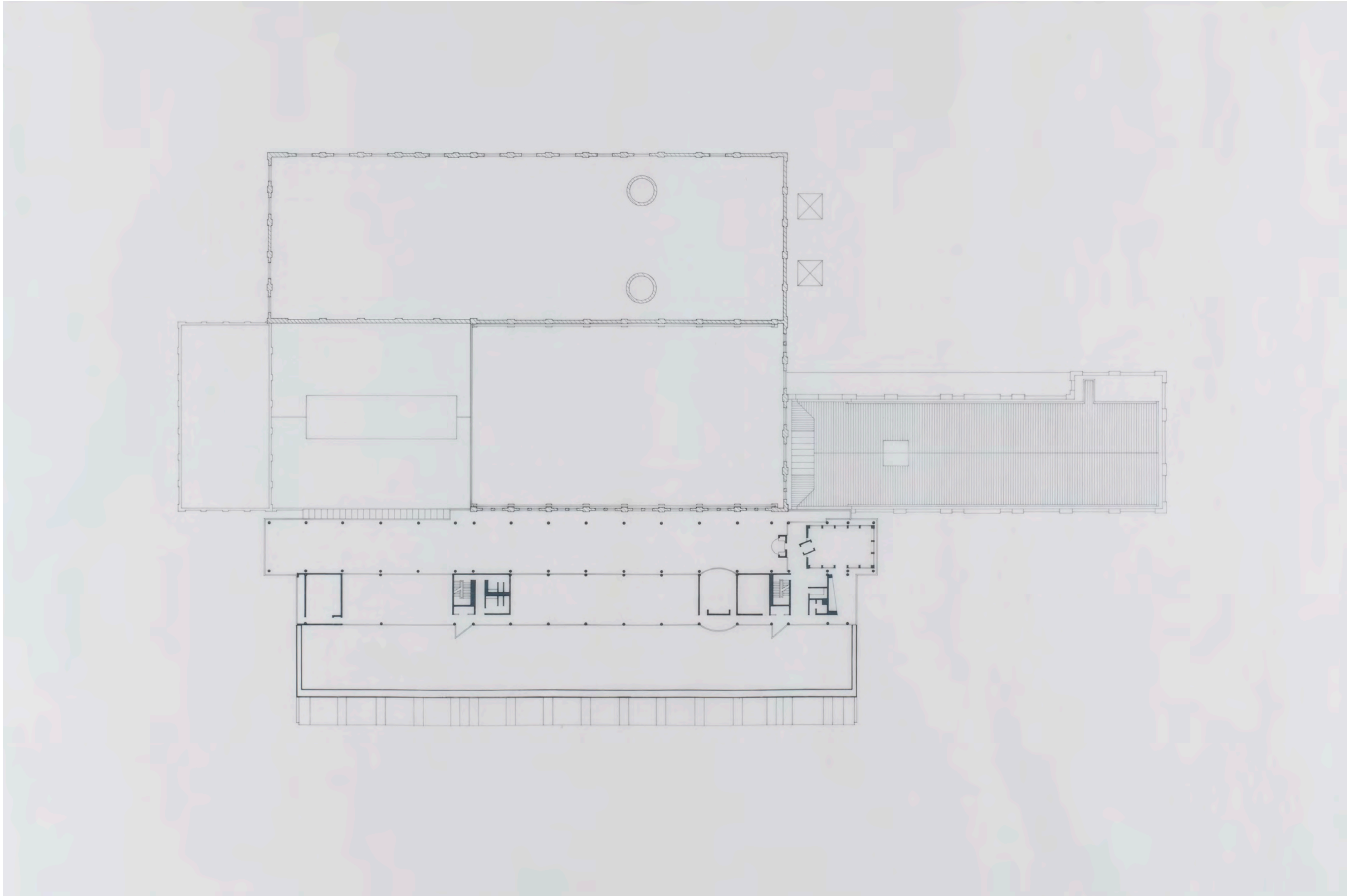
Appendix I.5 2008/88/1 Architectural drawings (14), Powerhouse Museum, tracing paper / microfilm / ink, designed by Lionel Glendenning, made and used by New South Wales Department of Public Works, Sydney, New South Wales, Australia, 1987



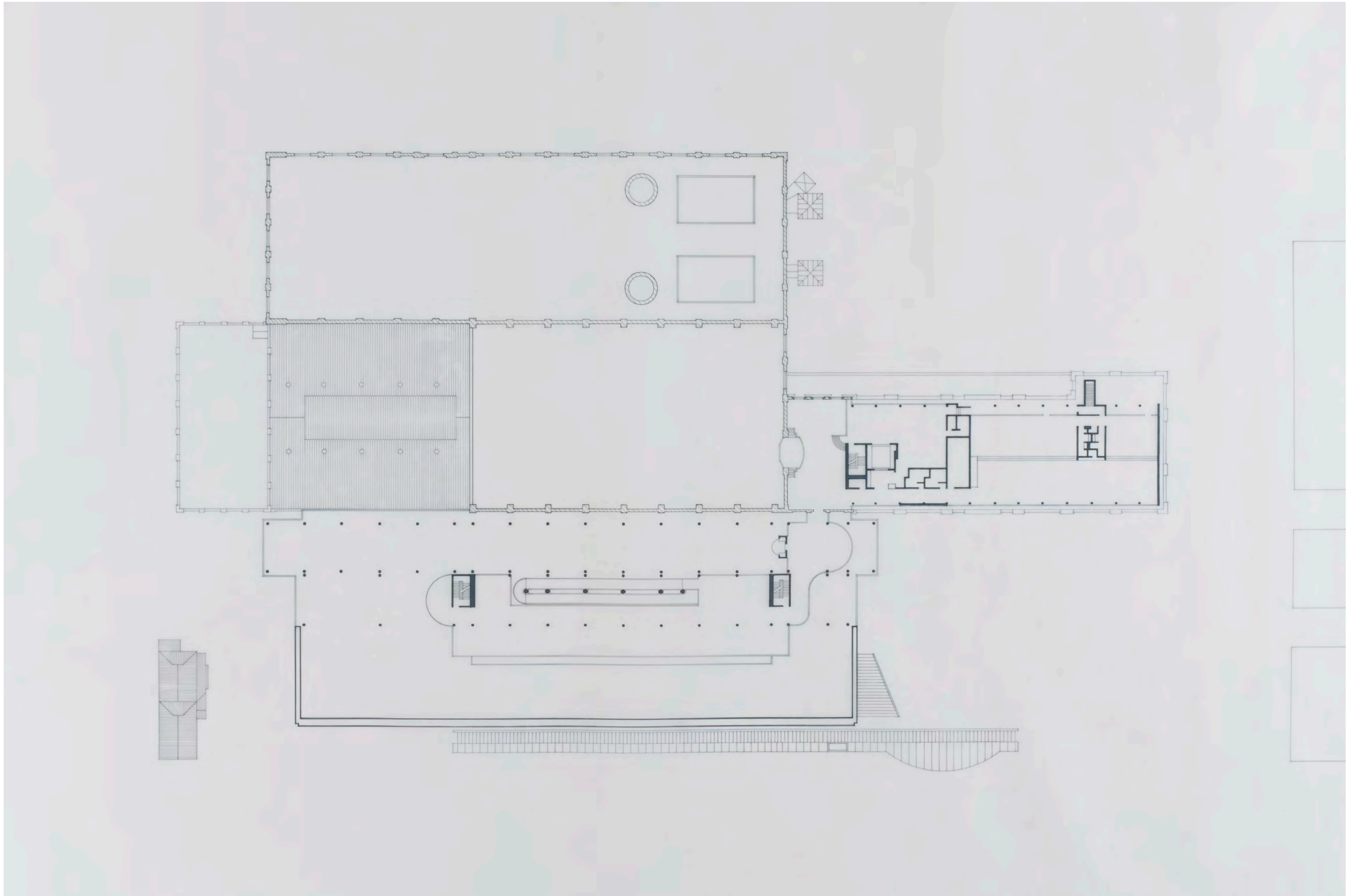
Appendix I.6 2008/88/1 Architectural drawings (14), Powerhouse Museum, tracing paper / microfilm / ink, designed by Lionel Glendenning, made and used by New South Wales Department of Public Works, Sydney, New South Wales, Australia, 1987



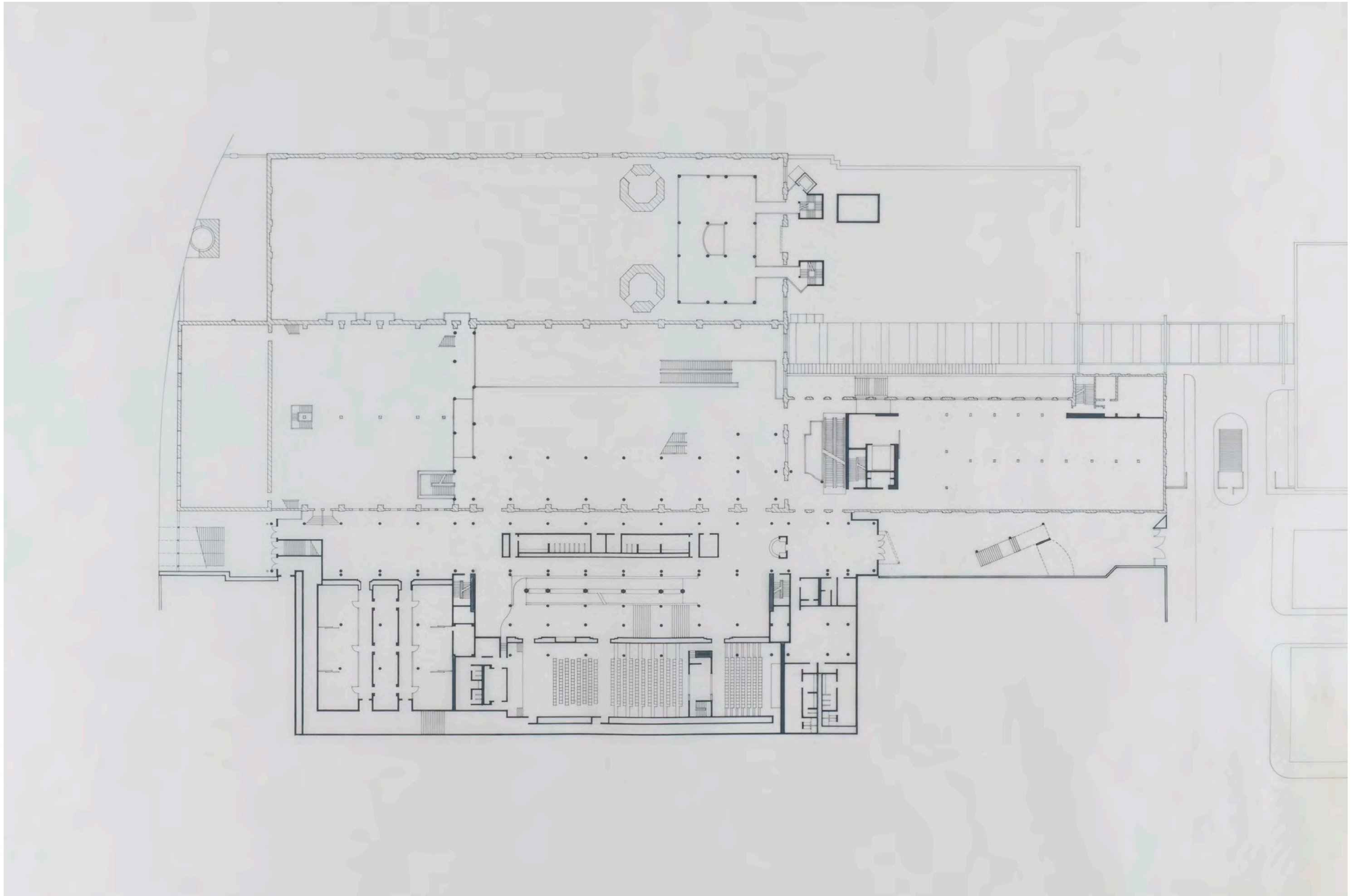
Appendix I.7 2008/88/1 Architectural drawings (14), Powerhouse Museum, tracing paper / microfilm / ink, designed by Lionel Glendenning, made and used by New South Wales Department of Public Works, Sydney, New South Wales, Australia, 1987



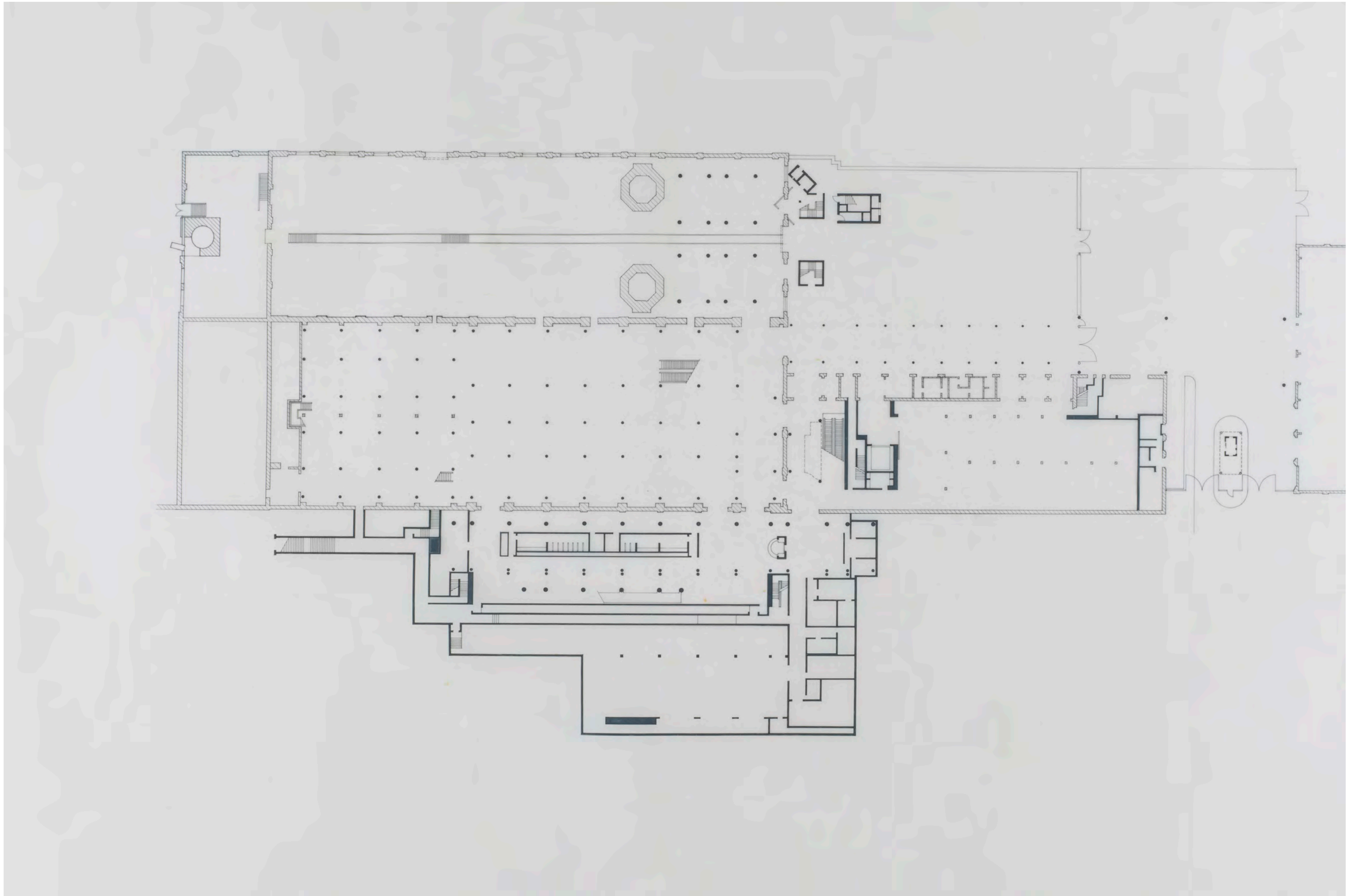
Appendix I.8 2008/88/1 Architectural drawings (14), Powerhouse Museum, tracing paper / microfilm / ink, designed by Lionel Glendenning, made and used by New South Wales Department of Public Works, Sydney, New South Wales, Australia, 1987



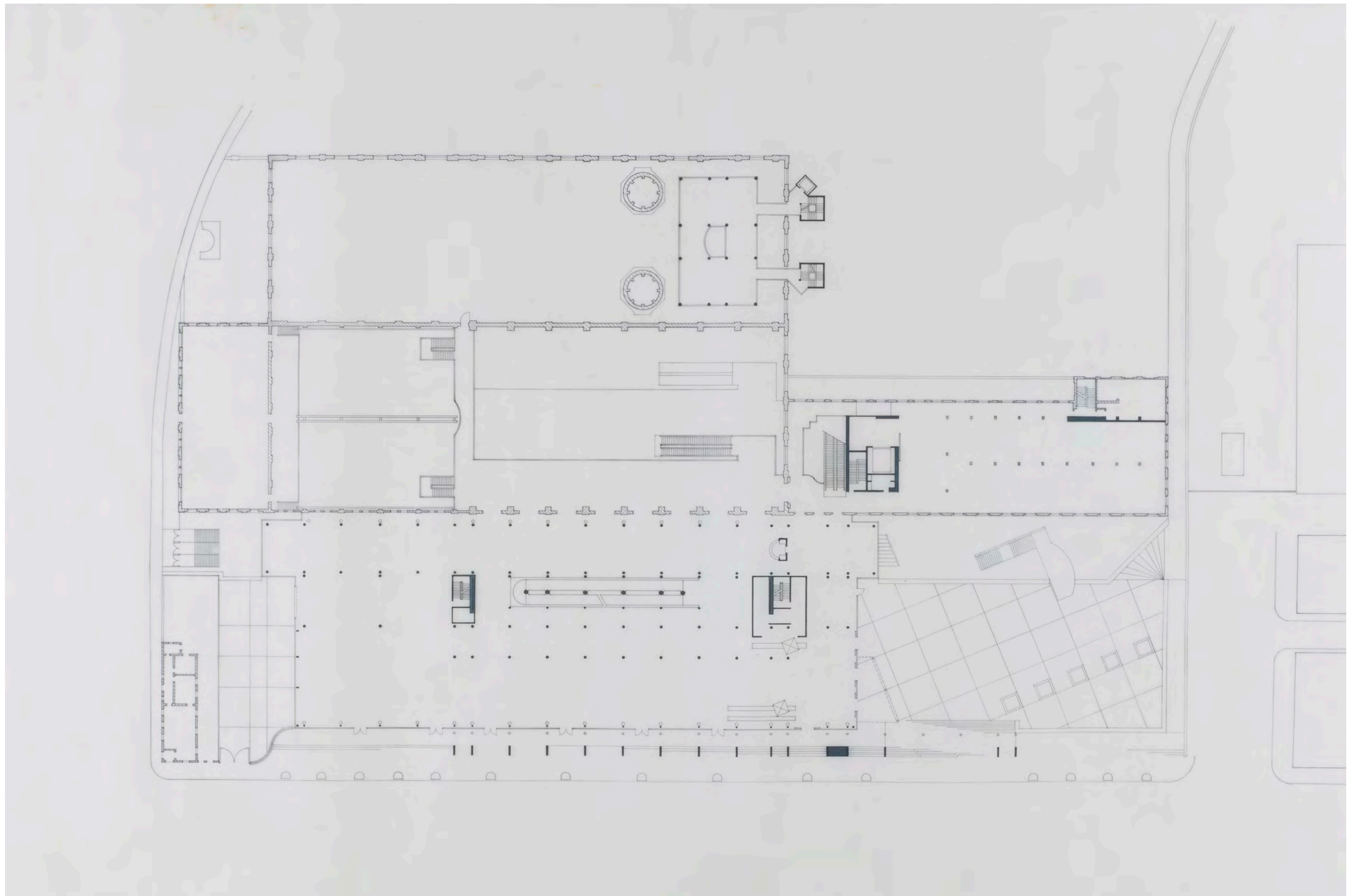
Appendix I.9 2008/88/1 Architectural drawings (14), Powerhouse Museum, tracing paper / microfilm / ink, designed by Lionel Glendenning, made and used by New South Wales Department of Public Works, Sydney, New South Wales, Australia, 1987



Appendix I.10 2008/88/1 Architectural drawings (14), Powerhouse Museum, tracing paper / microfilm / ink, designed by Lionel Glendenning, made and used by New South Wales Department of Public Works, Sydney, New South Wales, Australia, 1987



Appendix I.11 2008/88/1 Architectural drawings (14), Powerhouse Museum, tracing paper / microfilm / ink, designed by Lionel Glendenning, made and used by New South Wales Department of Public Works, Sydney, New South Wales, Australia, 1987



Appendix I.12 2008/88/1 Architectural drawings (14), Powerhouse Museum, tracing paper / microfilm / ink, designed by Lionel Glendenning, made and used by New South Wales Department of Public Works, Sydney, New South Wales, Australia, 1987