



# COCKATOO ISLAND / WAREAMAH DRAFT MASTER PLAN

NOVEMBER 2023

PREPARED FOR SYDNEY HARBOUR FEDERATION TRUST



## **ACKNOWLEDGEMENT OF COUNTRY**

**"This is not a site, it is a Songline.  
A connection to the memories of family that have been embedded in this Country  
and its earth, water, stars and sky since time began."**

**Foster, Paterson Kinniburgh & Wann Country 2020**

**"Ngeeyinee bulima nandiritah  
May you always see the beauty of this earth"**

**Shannon Foster  
Registered Sydney Traditional Owner  
and D'harawal Knowledge Keeper**



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First Nations cultural guidance in development of the Draft Master Plan has been provided by Shannon Foster of Bangawarra, representing Traditional Owners.

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Introduction

The Sydney Harbour Federation Trust (the Harbour Trust) was established in 2001. The sites managed by the Harbour Trust are Cockatoo Island / Wareamah, North Head Sanctuary in Manly, Headland Park in Mosman, Sub Base Platypus in North Sydney, Woolwich Dock, the former Marine Biological Station at Watsons Bay, and Macquarie Lightstation in Vaucluse. These sites are unique places, each possessing extraordinary natural beauty, and rich heritage values. Layers of First Nations, convict, colonial and military heritage, together with diverse and endangered ecological habitats characterise the sites.

While originally intended to be a transitional body, the Harbour Trust has evolved into a permanent agency, responsible for supporting a range of activities. This includes management of sites, adaptive reuse of the assets, and initiatives to activate public domain. Conservation, protection, and interpretation of these nationally-significant places are our primary objectives. The Harbour Trust annually welcomes over 2 million visitors to our sites with a mix of recreational activities, events, cultural partnerships, and commercial enterprise. We provide public access to 130 hectares of land on or near Sydney Harbour.

This document, the Cockatoo Island / Wareamah Draft Master Plan, is the third of three master plans the Harbour Trust is producing in 2023. The first Draft Master Plan to be published was Middle Head / Gubbuh Gubbuh earlier this year, and the Draft Master Plan for North Head Sanctuary was published for review in September. This document focuses on the largest island in Sydney Harbour. It is a detailed examination of the site's cultural and natural heritage values, it's constraints and opportunities, and presents our long term vision of place. Master planning for this significant site marks considerable change for the Harbour Trust. It sees enhanced engagement with community, state and local government stakeholders, including First Nations community members and knowledge holders, building on a consultation process that began with the Cockatoo Island Dialogue in 2019.

Our work is just beginning, but as we move ahead we aim to continue to work with and listen to the community and in particular, engage with this site as Country and with its knowledge holders. We hope to build a deep and enduring relationship with First Nations communities that enriches the stewardship of this precious island.

Janet Carding, Executive Director,  
Sydney Harbour Federation Trust



Cockatoo Island / Wareamah from the air ( Source: Six Maps)



# 1.0

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## Executive Summary

## 1.1 Executive Summary

## 1.2 Artist Impression Aerial Views

### 1.3 Draft Master Plan Vision and Objectives

## 1.4 Approach, Methodology and Team



1.1 Executive Summary

The Cockatoo Island / Wareamah Draft Master Plan presents a new vision for island reactivation and transformation, to become the vibrant and connected heart of Western Sydney Harbour.

It offers a sympathetic spatial response to Cockatoo Island / Wareamah’s layers of complexity and opportunity, with re-imagined and authentic places and spaces to enable new and expanded visitor experiences, staged adaptive reuse and place-transformation over time.

Importantly, the Draft Master Plan will help ensure Cockatoo Island / Wareamah is no longer a standalone, somewhat isolated place, and that its many closed and unused buildings are restored and given new purpose as the island is reconnected to the cultural fabric of the city and of the nation. As a UNESCO World Heritage site, it can be proactively positioned for its international significance as a platform of the Australian story to be better understood, and to become a premium Australian heritage experience. It can also be central to Sydney Harbour tourism and island experiences, maritime ecology and ecosystem restoration, part of pre-eminent festivals and major events, and connected with whole-of-harbour First Nations experiences.

The Harbour Trust defines a master plan as two things. Firstly, a robust analysis of an area to establish key constraints and opportunities. Secondly, using these insights to inform a spatial design response. This design response helps to ensure a coordinated approach to future renewal, underpinned by a set of key actions and guiding principles. Key actions are further supported by design and delivery strategies.

In short, a master plan proposes a future vision of place. It outlines the full potential, rather than what current funding permits, so future decisions on projects and staging can be made strategically. This proposal is not a finished ‘solution’ to the island but – consistent with the island’s history of transformation – enables a new chapter of change, attracting visitors, families, tourists, artists, businesses and workers to re-discover and enjoy Cockatoo Island / Wareamah as a must-visit destination on Sydney Harbour.

The Draft Master Plan has been created within the statutory framework for the island, including the World, Commonwealth, and National heritage listings, together with the Harbour Trust’s 2003 Comprehensive Plan and 2018 Cockatoo Island Management Plan. It also takes on board previous community consultation, including First Nations consultation.

Detailed analysis and feasibility studies have examined the island from a variety of perspectives, and the results have been synthesised into a multi-faceted collage of context and character, that starts with the resilience of its sandstone foundations.

By working with the fundamental spatial, material and cultural characteristics of the island, the design response clarifies and weaves together four distinct layers of history and heritage, and fuses them with improved circulation, better land use, and supporting infrastructure to create a Draft Master Plan of 18 key elements, which emerges from the unique qualities of place.

- The four historic themes that map out natural and cultural heritage journeys around the island are:
- 1. Natural History of the Island
  - 2. Connecting with Country
  - 3. Convicts, Prisoners and Schoolchildren
  - 4. Dock Working, Ship Building and Defending Australia

An enhanced arrival journey via water commences within a new arrival square and new orientation hub in the convict-built Convict Workshop. Here visitors can choose their route to move around the island and explore, supported by digital guides, new lifts, and improved wayfinding.

- For each of the journeys, the Draft Master Plan details the activities and interpretation that visitors will experience including:
- Exploring Caring for Country through the replanting of native species and reconnection of the escarpment to the water at the enhanced northern park
  - Exploring marine life returning at the artificial reef

- Canoe-making as cultural practice and kayak hire that supports First Nations business
- Exploring the Barracks precinct, with the kitchen, mess and sleeping quarters for convicts interpreted, and learning their stories of resilience, rebellion and escape
- Discovering the history of the girls and boys reform schools that once isolated young people on the island
- Visiting Fitzroy Dock, which may, after investigation, be emptied of water and displayed so visitors can appreciate the achievement of excavating its vast volume by hand and its use to repair and maintain ships and submarines
- Hands-on experiences about maritime engineering and design for families
- The story of Cockatoo Island’s role in Defending Australia through two world wars
- An immersive evening program that through a looped walk tells the story of the island’s transformation, uses and occupants over time, weaving together the historic themes through sound, light and projections.

The focus is on transforming the visitor experience so the island becomes a must-see Sydney destination, attracting new and repeat visitors with more reasons to visit and return, and encouraging visitors to extend their stay into the evening and overnight.

Importantly, the island will continue to be used for maritime activities and over time this will grow through collaborations, boat building and repairs, and indigenous-owned businesses. Cultural and creative activities will also be expanded across the island, along with the Harbour Trusts ongoing event programming.

The Draft Master Plan also considers opportunities for a wider range of food, beverage and accommodation offerings, able to mature and evolve as visitation grows.

It sets out the technical constraints relating to infrastructure, utilities, transport and access, and asset renewal, and how to address them so that visitors, tenants and those hosting and attending events and conferences will have better access, power, data, water, back of house and other supporting services. Long-term environmental sustainability and resilience has been considered throughout.

Through its transformation, the Draft Master Plan gives Cockatoo Island / Wareamah a future as significant as its rich past, and builds on its bedrock of resilience, with the natural and cultural values that make such an important contribution to Australia’s history and the world’s heritage.





## 1.2 Draft Master Plan Aerial View Looking West Present Day





# 1.2 Draft Master Plan Aerial View Looking West Artist Impression

KEY

- 1. New ferry wharf
- 2. Arrival square
- 3. The Convict Workshop
- 4. Fitzroy Dock
- 5. The Industrial and Turbine Halls
- 6. Eastern Apron
- 7. Marine ecology reefs
- 8. Potential cafe/restaurant
- 9. Accommodation



Source: Tyrrell Studio/Doug & Wolf



## 1.2 Draft Master Plan Aerial View Looking East Present Day





1.2 Draft Master Plan Aerial View Looking East  
Artist Impression

KEY

- 1. Northern Parkland
- 2. Marine ecology reefs
- 3. Recreation and camping
- 4. Slipways Pool
- 5. Slipways Small vessel access
- 6. The Southern Apron



Source: Tyrrell Studio/Doug & Wolf



1.3 Draft Master Plan Vision and Objectives

Draft Master Plan Vision

This Draft Master Plan envisions a future for Cockatoo Island / Wareamah that:

- Acknowledges the traditional ownership of First Nations peoples to the lands and waters of Wareamah, establishing, protecting and interpreting First Nation values of place.
- Conserves, interprets, and protects the outstanding universal values of place as stated under the sites’ UNESCO World Heritage listing.
- Rehabilitates the lands, and conserves the built form to retain and enhance the unique character of Cockatoo Island / Wareamah.
- Revives the ‘working harbour’ industrial site, transforming the island to support a range of new, and appropriate uses that connect the island into the fabric of day to day Sydney life.
- Supports and enhances Sydney’s cultural and creative life, providing capability that drives significant and sustainable visitation and tourism.
- Evolves to provide an economically resilient and self-sustaining long term future for the island as a highly valued nationally significant cultural heritage asset.

Draft Master Plan Objectives

The Draft Master Plan objectives are:

1. Establish, Conserve, and Protect First Nation values of place (cultural heritage objective)
2. Conserve, Protect and interpret the World Heritage Outstanding Universal Values (WH OUV) under listing (cultural heritage objective)
3. Rehabilitate the islands lands, waters, and built assets for use and benefit of future generations (Environmental and Community objective)
4. Enhance access to connect the island and its precincts into the fabric of day to day Sydney life and a whole of island visitor experience (urban context and public benefit objective)
5. Establish Cockatoo Island / Wareamah as a place of significant visitation and tourism, sought-after food and beverage, accommodation, events, creativity and employment (statutory, economic and commercial objective)
6. Establish complementary uses, revenue streams and partnerships that evolve to ensure a financially sustainable long term future (financial objective)



## 1.4 Approach, Methodology and Team

The Draft Master Plan Consultant Team has worked in close collaboration with the Harbour Trust, informed by a range and depth of expertise, extensive existing documentation, new studies, and targeted stakeholder discussions to add currency and rigour to previous work.

The resulting Cockatoo Island Draft Master Plan establishes a vision for island transformation over time, which is feasible, viable and deliverable, and which outlines a market tested and sustainable long term financial position. Under the leadership of Mott MacDonald (lead consultant and precincts advisory) and Tyrrell Studio (design lead).

The approach was shaped around three areas of interwoven expertise drawn from a multidisciplinary team consisting of nine specialist sub-consultancies covering 19 areas of expertise.

The three areas of expertise include:

### 1. Precincts Advisory

Offering expertise in transforming nationally significant places with complex political, stakeholder, technical, heritage, financial, and delivery challenges and interdependencies. This included:

- Focusing on collective outcomes and value creation
- Examining a self-sustaining future informed by market studies, benchmark reviews, and visitation assessments
- Consolidating multiple inputs and managing complex interdependencies
- Proposing an incremental delivery strategy developed around viability and buildability

### 2. Market viability and technically feasibility

Ensuring the Draft Master Plan is feasible and viable:

- Gathering insights from over 200 previously completed Trust studies
- Completing new specialist market assessments to gather current market insights on viable land uses and activation opportunities across maritime, accommodation, food and beverage, tourism, conferencing, cultural and creative opportunities
- Benchmarking analysis of global comparator sites and visitor experience
- Detailed technical assessments across key risk areas including transport and access, utilities and infrastructure, strategic assets management and cost reporting

### 3. Integrated design - place, country and heritage

Creating an aspirational vision for the future of Cockatoo Island / Wareamah, bringing together its multiple layers of complexity and opportunity into a spatial design response, interwoven with expertise across:

- Place, landscape architecture and urban design
- Connecting with and designing for country
- Heritage architects, heritage consultants and industrial archaeologists
- Spatially representing the findings and insights from multiple studies, and preceding work

The multi-disciplinary team of experts comprised the following specialists:

### Precincts Advisory

Mott MacDonald (lead consultant):

- Precincts advisory
- Project leadership and project management

Klok Advisory:

- Precincts and self-sustainment advisory
- Visitation and tourism analysis

### Integrated Design

Tyrrell Studio (lead designer):

- Urban design & landscape architecture

Bangawarra:

- Connecting with and designing for Country

Mott MacDonald:

- Heritage consultants & heritage architects
- Industrial archaeologists

OCP Architects:

- Heritage architects

Ian Hoskins:

- Historic themes and narratives

Tyrrell Studio & Doug and Wolf

- 3d Visualisations

Market Studies

Left Bank Co:

- Creative and cultural
- Visitor experience and benchmarking

Thompson Clarke Shipping:

- Maritime

Dransfield:

- Accommodation

Asset Analysis informing the Master Plan

Mott MacDonald:

- Transport and access
- Infrastructure and utilities
- Climate resilience

MBM:

- Quantity surveyors

Duratec:

- Strategic Asset Management



# 2.0

## Background

### 2.1 Harbour Trust Strategic Direction

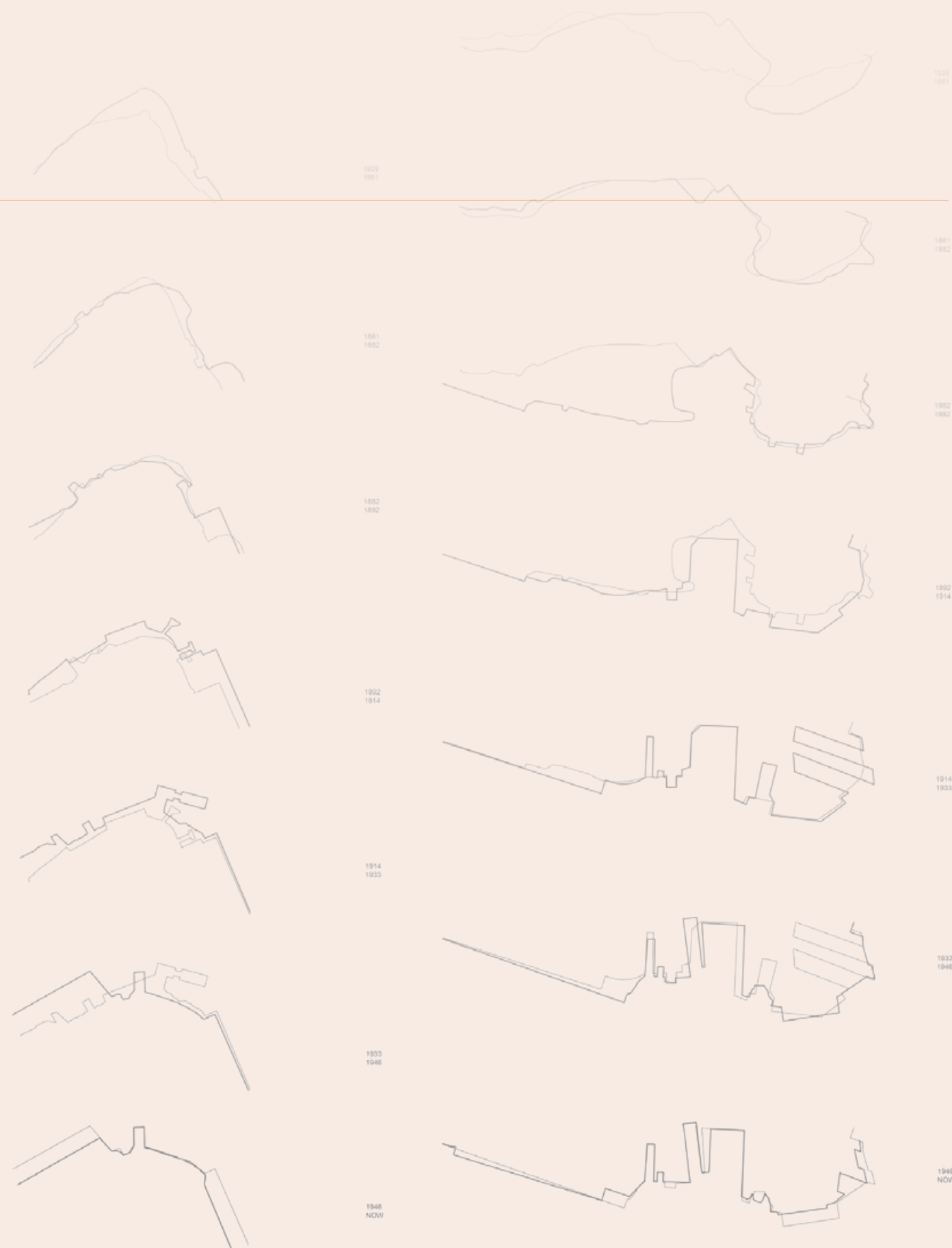
### 2.2 Statutory Planning Context

### 2.3 UNESCO World Heritage Listing Context

### 2.4 Heritage Context

### 2.5 2021 Draft Concept Vision & Community Feedback

### 2.6 Visitation and a Self-Sustaining Future





## 2.1 Harbour Trust Strategic Direction

### Harbour Trust objectives and outcomes

The Harbour Trust is responsible for the management of sites of nationally and internationally significant cultural, natural, industrial and heritage value located around Sydney Harbour. These places reveal our nation's rich stories and their ongoing connection to First Nation's history as well as the nation's colonial, military and industrial past. Many carry Commonwealth, National, and World Heritage listings.

They also provide critical links between the marine harbour habitat and the remnant bushland of Sydney. The *Sydney Harbour Federation Trust Act 2001* specifies a series of objectives, and with the recent amendments, these objectives are no longer time-limited but ongoing in perpetuity. The Harbour Trust's target outcome is enhanced appreciation and understanding of the natural and cultural values of Sydney Harbour and its contribution to the national story and world's heritage for all visitors, through the remediation, conservation and adaptive reuse of, and access to, Harbour Trust lands on Sydney Harbour.

To achieve this outcome the Harbour Trust actively researches and makes accessible knowledge of our multilayered history and stories, including their importance to First Nations people. Through remediation and use, both the sites and their buildings are enlivened through the creation of communities which encourage a sense of place and belonging.

The Harbour Trust also develops relationships and collaborations with community organisations, partners, funders, and supporters. Fostering such long-term relationships requires the Harbour Trust to be responsive, transparent and consistent in its discussions with stakeholders. These relationships and collaborations are important, as the Harbour Trust must currently raise all the revenue required to sustain its activities in operating its network of sites.

To better link its high-level objectives and outcomes to tangible every day work, the Harbour Trust developed an operational mission in 2021-22, with significant input from staff. Its eight key tenets are:

1. Be trusted to manage these iconic sites, and to be relied upon and do what we say
2. Be authentic and knowledgeable about our sites' cultural, natural and heritage values
3. Enliven our sites by their remediation, use of the buildings, and by building a community around them
4. Share stories to enhance, amplify and make accessible the values of our sites and encourage a sense of place and belonging
5. Partner and collaborate to deliver mutually beneficial outcomes with community, that foster long-term relationships
6. Raise revenue through our sites, and with our partners, funders, and supporters to sustain our activities
7. Strive to be an employer of choice, with enabling systems and processes
8. For First Nations people, develop and create a universal place of welcome, supported by deep, long-term trusting relationships and exchange of knowledge

The Cockatoo Island / Wareamah Draft Master Plan aligns with this mission and will support its delivery.

### Purpose of the Draft Master Plan

The Government Architect NSW (GANSW) provides general guidance as to the purpose of master planning:

Master planning is a method for defining clear strategies for the physical, economic, and social transformation of places. Planning for change in the physical, social, and economic fabric of places requires an integrated process achieved through the efforts of many – clients, professionals and local communities.

Master planning is a fluid and iterative process, with many people contributing to the initial investigations, the proposals as they develop and to their delivery. People – residents, visitors and ultimate users of the spaces and buildings – are at the heart of any master plan.

A successful master plan must:

- Raise aspirations and provide a vehicle for consensus amongst stakeholders
- Take into account likely implementation staging
- Fully integrate with the land-use planning system
- Enable new uses and opportunities that fulfil the potential of a site without diminishing core site attributes or values
- Result from a participatory process, providing
- Stakeholders with the means of expressing their priorities for regeneration
- Guide and determine all key future regeneration decisions including stage investment

A successful master plan will embody a community's collective vision and values to create sustainable places for living, working, and recreation.

Source: GANSW Advisory note V2. 2018



## 2.2 Statutory Planning Context

This section outlines the planning framework that will guide the future use of Cockatoo Island / Wareamah.

### Sydney Harbour Federation Trust Act 2001

The objects of the Harbour Trust are set by the Sydney Harbour Federation Trust Act 2001 (Harbour Trust Act), which are to:

- Ensure that management of Trust land contributes to enhancing the amenity of the Sydney Harbour region
- Protect, conserve and interpret the environmental and heritage values of Trust land
- Maximise public access to Trust land
- Establish and manage suitable Trust land as a park on behalf of the Commonwealth as the national government
- Co-operate with other Commonwealth bodies that have a connection with any harbour land in managing that land
- Co-operate with New South Wales, affected councils and the community in furthering the above objects

The Harbour Trust Act also requires the Harbour Trust to prepare a Plan for the lands it manages, as discussed below.

### Harbour Trust Comprehensive Plan

The Comprehensive Plan was made under the Harbour Trust Act and was approved in 2003 by the then Minister for the Environment. The Comprehensive Plan is a broad strategic plan which sets out a vision for all Harbour Trust sites and includes a process for preparing more detailed Management Plans for specific places, such as Cockatoo Island / Wareamah. Section 5 of the Comprehensive Plan sets out the Harbour Trust's vision for Cockatoo Island / Wareamah. It identifies the island's potential to be a special place to visit, where its distinct elements are developed as a collection of complementary attractions. The Comprehensive Plan proposes the revival of working maritime facilities, and the realisation of the island's potential as a cultural venue at a landmark harbour location. Section 3 of the Comprehensive Plan sets out overarching objectives and policies for all of the Harbour Trust sites.

### Environment Protection and Biodiversity Conservation Act 1999

Cockatoo Island / Wareamah is listed under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) as a World Heritage Place, a National Heritage Place and a Commonwealth Heritage Place (refer to Sections 2.3 and 2.4).

At the strategic level, the EPBC Act requires Heritage Management Plans to be made for places on the World, National and Commonwealth Heritage lists.

At the implementation level, all 'actions' on Harbour Trust land must be considered in accordance with the EPBC Act. For actions on Commonwealth land, or by a Commonwealth agency, Sections 26 and 28 of the EPBC Act respectively require approval for actions that have, or are likely to have, a significant impact on the environment.

### Cockatoo Island Management Plan

Harbour Trust Management Plans are site specific plans that refine and detail the site objectives and outcomes established in the Comprehensive Plan. They identify desired outcomes, suitable land uses, and how a site's environmental and heritage values should be protected and interpreted. The Cockatoo Island Management Plan was also made to satisfy the requirements of the EPBC Act for the management of a World, National and Commonwealth Heritage place. The current Management Plan for Cockatoo Island / Wareamah took effect from 24 January 2018.

### Related Harbour Trust policies and guidelines

The Harbour Trust has a number of general policies and guidelines that guide works and activity at Cockatoo Island / Wareamah. Relevant policies and guidelines include the *Harbour Trust's Reconciliation Action Plan, Corporate Plan, Events and Activations Strategy, Stakeholder Engagement Strategy, Heritage Strategy and Recreation Strategy*. This Draft Master Plan has been prepared with regard for these policies.

### 2023 Cockatoo Island / Wareamah Master Plan

While not a statutory document, the finalised Cockatoo Island / Wareamah Draft Master Plan will inform the future direction of the place. The implementation of works and activities identified in the Draft Master Plan will be subject to the assessment process described below.

### Assessment of actions

The Harbour Trust assesses and approves actions on its lands in accordance with the Harbour Trust Act and Regulations, the EPBC Act, the Comprehensive Plan and the Cockatoo Island Management Plan.

The Harbour Trust will consult with the community about significant proposals. In the rare circumstance where a proposed action has the potential to pose a significant impact on the environment or heritage values, then it would also be referred to the Minister for the Environment for further assessment and approval under the EPBC Act.

### Plans and policies made under state legislation

The Harbour Trust Act specifically excludes any land owned by the Harbour Trust from the operations of state planning law. This includes State Policies (SEPPs) and Regional Environmental Plans (REPs) prepared by the State Government and Local Environmental Plans (LEPs) prepared by councils (although it should be noted that as unincorporated land, Cockatoo Island / Wareamah does not fall within any local government area). Notwithstanding this, the Harbour Trust has regard for plans and policies made in accordance with state legislation in order to ensure consistency and best practice. Plans considered by the Harbour Trust include District Plans prepared by the NSW Government; SEPPs related to Sydney Harbour and Coastal Management; and supporting policies and plans related to protection of the environment as well as the NSW Government Architects Connecting with Country Framework.



## 2.3 UNESCO World Heritage Listing Context

Cockatoo Island / Wareamah is a place of exceptional cultural, historical and social heritage values – it is unique, layered with complexity, and an iconic destination within Sydney Harbour. Cockatoo Island / Wareamah is one of eleven penal sites, which together constitute an outstanding and large scale example of the forced migration of convicts, who were condemned to transportation to distant colonies of the British Empire.

The common feature of all properties inscribed on the World Heritage List is that they meet the requirements for Outstanding Universal Value (OUV). To be considered of Outstanding Universal Value a property needs to meet one or more of the 10 criteria set, meet the conditions of integrity and authenticity, and have an adequate system of protection and management to safeguard its future.

Together, the 11 complementary sites contained within the Australian Convict Sites meet conditions of authenticity and integrity and satisfy two of the ten criteria for World Heritage Listing as follows:

- Criterion (iv): to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;
- Criterion (vi): to be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance.

Australia is a signatory to the World Heritage Convention. By doing this Australia recognises that the identification and safeguarding of heritage located in their territory is primarily their responsibility and agrees to do all they can with their own resources to protect their World Heritage properties.

The system of statutory protection is held within the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). All the sites forming the Australian Convict Sites are inscribed on the National Heritage List such that they are protected by the EPBC Act. Additionally, properties owned or managed by the Commonwealth or its agencies are included in

the Commonwealth Heritage List. This obliges Commonwealth agencies such as the Harbour Trust to protect World Heritage properties in their remit as matters of national environmental significance.

Management of Cockatoo Island / Wareamah has been assisted through the development of a suite of heritage and conservation documents and technical studies. Heritage Design Guidelines, developed as part of this suite of studies, have consolidated the recommendations contained within each to guide the Draft Master Plan.

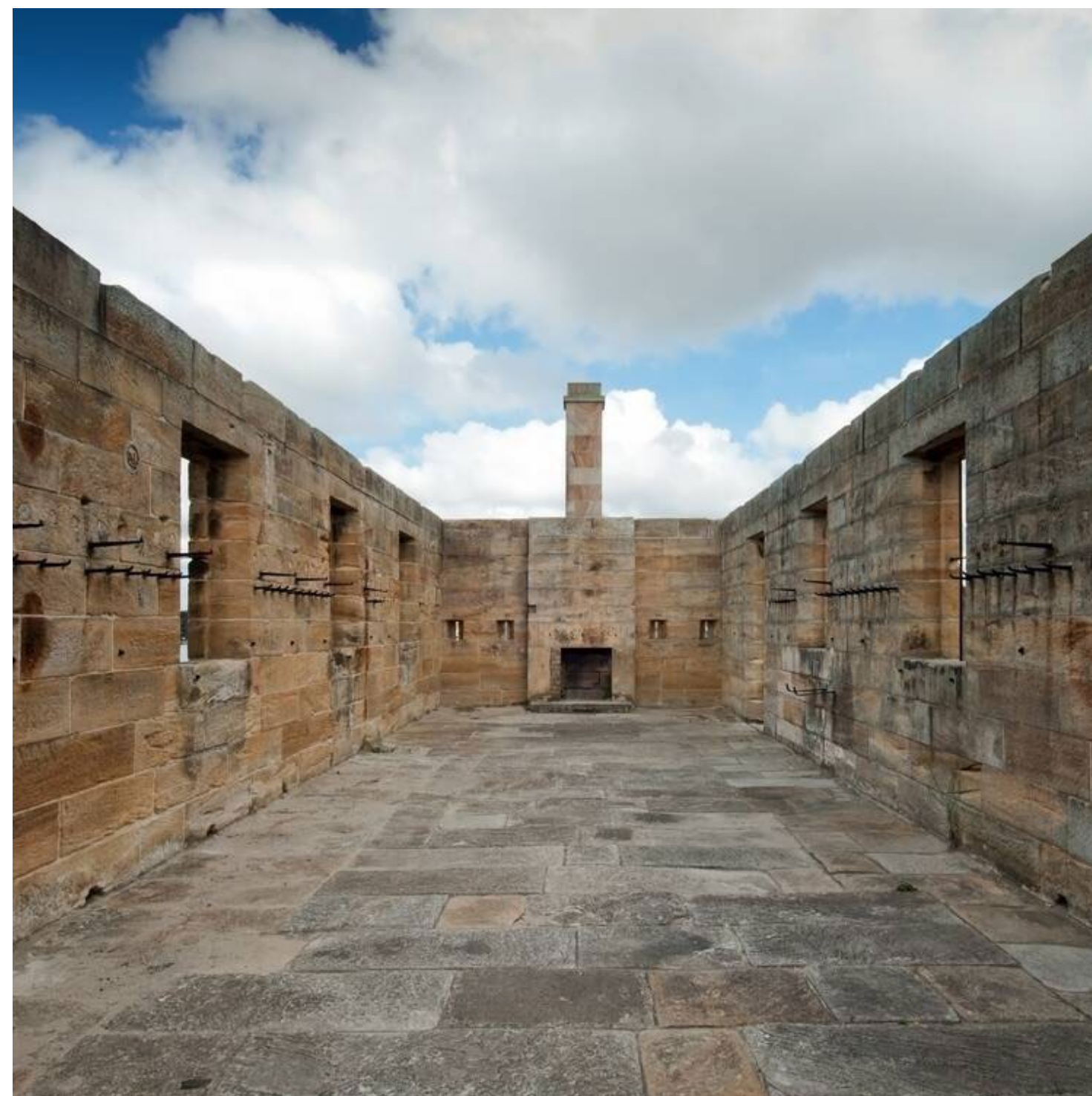
The following objectives have been established in the Heritage Design Guidelines and reflect the recommendations of the World Heritage Convention and the assessed heritage values of the island:

- Recognise and distinguish between the structural components of the periods of development and use
- Recognise rarity and representativeness
- Recognise authenticity and integrity
- Recognise the cultural landscape of Cockatoo Island / Wareamah and respect its visual integrity
- Recognise significant character and defining form within individual precincts
- Recognise that change is part of the significance of the place
- Recognise that adaptive reuse is preferred to new structures as one the best methods to ensure the ongoing preservation / conservation of heritage fabric.

Part of



**unesco**  
**Australian Convict Sites**  
**World Heritage since 2010**



Interior of the Military Guardhouse on Cockatoo Island (Source: Sydney Harbour Federation Trust)



## 2.4 Heritage Context

"Heritage is all the things that make up Australia's identity - our spirit and ingenuity, our historic buildings, and our unique, living landscapes. Our heritage is a legacy from our past, a living, integral part of life today, and the stories and places we pass on to future generations."  
(Department of Climate Change, Energy, the Environment and Water, Australian Convict Sites, August 2022).

Cockatoo Island / Wareamah's rich and varied history has resulted in a legacy of extant physical elements associated with its use as a convict gaol, government institution and dockyard, and other maritime and industrial purposes over its history. Together these form an exceptional cultural landscape.

Cockatoo Island / Wareamah stands with Port Arthur and Norfolk Island as a key part of Australia's convict history and demonstrates the life and work of convicts transported to Australia. This prison, unlike the others, continued to operate as a colonial gaol till the turn of the 20th century, with bushrangers, abandoned children, prostitutes and pickpockets. Both male and female prisoners were incarcerated for crimes that, with hindsight, illustrate the historical movements of the era, including the peasant diaspora from Scotland, Ireland and rural England and the influx of gold seekers from many parts of the world. Relationships to First Nations peoples are also traced in the history of these institutions, while the Island also has a First Nations history stretching back over thousands of years.

Cockatoo Dockyard was a major player in the growth of NSW in the 19th century, as the workshops of the Public Works Department, and in the twentieth century, evolved hand in hand with the nation of Australia in its role as the national Naval Dockyard. In the first part of the 20th Century, Australia was an outpost of the British Empire, and the Naval Dockyard was crucial in this role, when the British Navy was seen as ruling the oceans. The Great Depression left its mark at Cockatoo Dockyard and, in the Second World War, Australia played an important role in the war with Japan and Germany, supporting not only the Australian Navy but the navies of many of our Allies in that conflict. Locally, it was an engineering powerhouse and a centre of excellence in industrial manufacturing.

Cockatoo Island / Wareamah is remarkable and unique in its position within so many threads of Australia's history over the last 240 years, and the evidence of these threads remaining in its landscape.

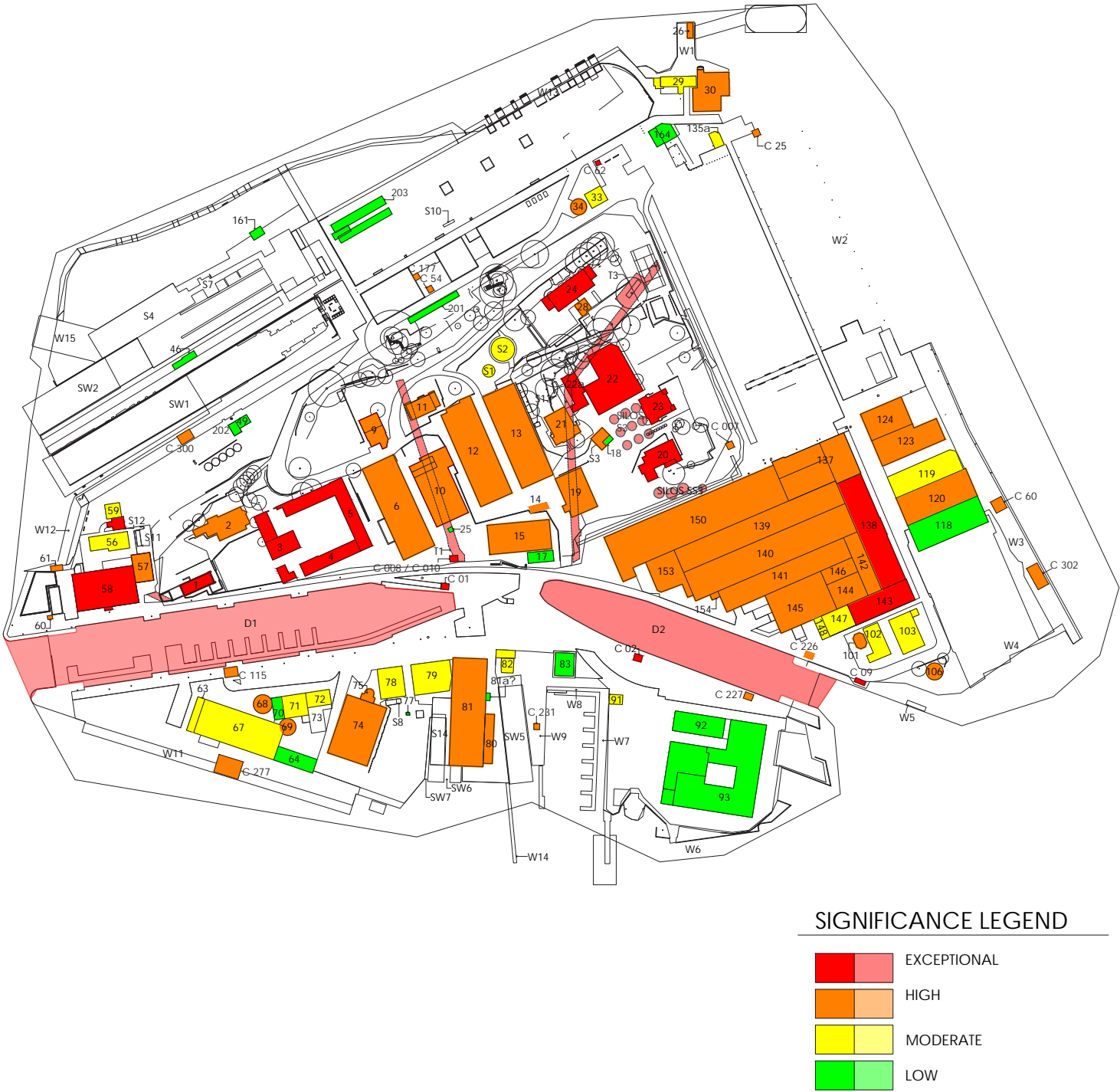
The uniqueness of this landscape is enhanced by the modified landform that demonstrates its earliest colonial associations with quarrying of the sandstone upper plateau, in addition to land reclamation to support use as a dockyard along the shorelines.

The diversity of buildings, their settings and range of auxiliary physical elements that remain, all contribute to an understanding of the evolution of the site. When integrated with non-tangible characteristics - including historical associations, cultural values, views, and vistas - defines a landscape that has existed for millennia, connecting Australia's history from our First Nations foundations through to today.

To inform the Draft Master Plan process, key findings from previously completed heritage assessments and studies were summarised to understand all heritage values in relation to heritage listings and significance of major assets and their sensitivity to change. The Heritage Design Guidelines further provided direction on the ability to introduce change within the island's cultural landscape based on robust investigations provided within previous studies.

A summary of all significance gradings from previous studies, is shown on the plan to the right.

It is recognised that change to Cockatoo Island / Wareamah is inevitable, and change is also part of its character and its significance.





2.5 2021 Draft Concept Vision & Community Feedback

Draft Concept Vision And Responses

In early 2021 the Harbour Trust developed a Draft Concept Vision for the island which was a high level conceptual approach. This was then exhibited for public consultation.

From early May to June 2021 the Harbour Trust sought feedback on the Cockatoo Island / Wareamah Draft Concept Vision. At the heart of the feedback, was the desire to respect and honour history and our heritage – both of First Nation’s people, and Australia’s history post colonisation. To see every facet of the Island’s history respected and celebrated which can be learnt through experience and sharing of stories that is living, vibrant, honouring and truthful. The community did not want a static museum, they requested a living, tangible experience. The following are the desired outcomes from the consultation and community:

- The island enhanced in a way that authentically allows people to learn about First Nation’s culture and a place that is welcoming to First Nations people, through economic opportunities, use of language, ceremonial spaces and cultural programs.
- The native environment brought back in a way that respects the industrialised, rawness of the island.
- Revival of maritime industry on the island and restoration of Fitzroy Dock for operational use.
- Experiences for visitors of all ages and backgrounds that allow people to be immersed in the Island’s rich history.
- Space to explore nature, the industrial network of buildings and the remnant convict structures and landmarks.
- Visitors be they local or international, attracted to the island and the experiences and events it has to offer.
- Respected as one of 11 significant Australian convict sites inscribed on the UNESCO World Heritage List.

Themes & Categories

Feedback on the Draft Concept Vision can be summarised into the following categories:

Country

- Greening and representing Country
- An authentic and welcoming space for community

Character

- Maintain rawness and brutality
- Tranquil, quiet and places for reflection
- More nuanced, less imposed
- Balance between activation, restoration and preservation

Heritage

- Preservation and Interpretation of colonial history and UNESCO World Heritage Listing
- Represent maritime heritage and industries

Experience

- Improved food and beverage options to encourage length of stay
- Festivals, events, hospitality and educational opportunities
- Improved transport for daily users, workers and events





## 2.6 Visitation and a Self-Sustaining Future

Current visitation to Cockatoo Island / Wareamah is relatively low compared to other comparable tourism and heritage sites across Australia at 232,000 visits in 2022-23. Prior to recent uplifts, previous trends showed a decline in weekend annual visitor numbers since peaking in 2016, and weekday visitation static and low over the past 10 years. Additionally the winter and early Spring months of July, August & September have the lowest visitation across the year. Ensuring consistency in visitation across the year will be important for future sustainability.

Current visitation on an hour-of-day basis (excluding major events) shows a peak around 10am on weekdays and reducing throughout the rest of the day. The weekend and public holiday peaks occur around 2:30pm with most arrivals between noon and 3pm. This data highlights significant opportunities to offer new attractions to increase visitation from midday through to late afternoon/early evening on weekdays. On weekends there is significant opportunity to draw visitation before noon and into evenings.

High level market, visitation and self-sustainment assessments were completed by the Project Team to test opportunities with the market, ensure the Draft Master Plan is feasible and viable, and to explore opportunities for visitation uplift.

The studies collectively demonstrated:

- A wide range of viable and sympathetic uses and visitor experiences to attract significant and repeat visitation to Cockatoo Island / Wareamah, both every day and for key events.
- Viable uses ranging from new and expanded creative and cultural presentations, maritime activities, reconfigured accommodation, events, conferences, enlivened food and beverage (F&B) offerings, educational uses, active and passive recreation. This included First Nations creative and commercial opportunities.
- A range of new and innovative visitor, heritage and interpretive experience opportunities.
- Strategies to expand the range of visitor experiences and activations to attract significantly more visitors, extend quality and duration of visitor stays, including overnight stays, and support additional funding streams.
- Various technical constraints (such as limited access and aging utilities) and strategies to address them.

The studies also demonstrated that in addition to individual opportunities, there is significant collective value in bundling opportunities across Cockatoo Island / Wareamah, Sydney Harbour and wider tourism and visitor destinations.

Collective success, synergetic outcomes and a cohesive, distinctive whole of island experience will be dependent on:

- Fostering a culture of experimentation and change
- A whole-of-island approach to management and integrating outcomes
- Cultivating complementary commercial, cultural, tourism and First Nations partnerships.



2023 performance of Carmen at Cockatoo Island / Wareamah (Source: Sydney Harbour Federation Trust)



# 3.0

## Context & Character

### 3.1 Connecting With Country

### 3.2 Geological Formation of Sydney Harbour

### 3.3 Sydney Harbour Context

### 3.4 The Island's Position In The Harbour

### 3.5 Microclimate and Environmental Conditions

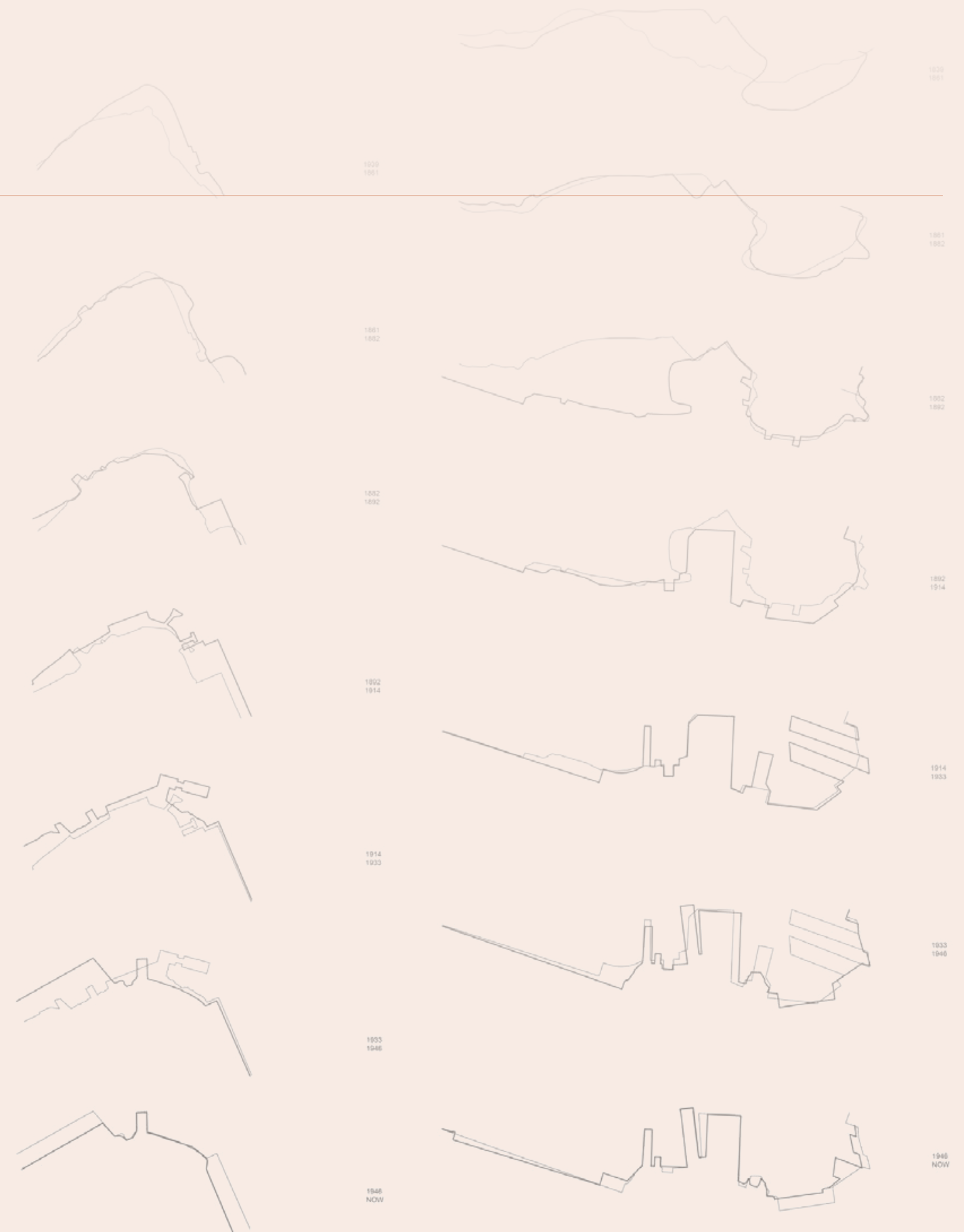
### 3.6 History of Cockatoo Island / Wareamah

### 3.7 Modification over time

### 3.8 The Changing Form of the Island

### 3.9 An Island of Continuing Collage

### 3.10 Spatial Structure





### 3.1 Connecting With Country

“The first maps of the place we now know as Sydney were created long before European imperial expansion. Local Aboriginal mappings were not recognised by British colonists who expected spatial knowledge on papers or parchment in the form of a two- dimensional “graphic, planar depiction of the earth’s surface ... drawn to scale” (Harris, 2006, 616).

Despite the absence of Western charts, spatial records exist in a number of forms that are more culturally relevant, containing multiple dimensions of space, time and relatedness that would be lost in reduction to a two-dimensional map. Recorded in one D’harawal example are the inundation of the freshwater stream (now Port Jackson and the Parramatta River) at the end of the last ice age; the low water of that rivulet throughout that ice age; and the deeper waters that have not been seen for over 100,000 years. Charted in story are sacred locations and histories of once accessible lands that have long been marine environments (for at least six thousand years before the British invasion occurred). The oral histories, drawings and culture of the D’harawal people demonstrate intimate spatial knowledge of the area that is specific and accurate, but they were overlooked by colonists as cartography. Aspects that would verify them have long been missing from bathymetry charts, but they have been attested to by more detailed naval hydrographic testing in recent years (Port Authority of New South Wales, 2019). This is Ancestral D’harawal Country.”

(Paterson Kinniburgh, 2021, p12)

Wareama / Wareamah / Warrayama was initially referred to as Banks Island by colonists, as recorded by cartographer Septimus Roe. Later its name was changed to Cockatoo Island for the prolific flocks of cockatoos that made their home there. The island was also known for a period of time as Biloela which is an Aboriginal word from central west Queensland meaning cockatoo, a word which is also very close to the local word Beela for the black cockatoo.

The local Aboriginal name for the island was recorded in the very early days of the British colony by linguist William Dawes. Local Aboriginal peoples name Country by what it is known for and the word used to describe the island was warayama.

Understanding local language and breaking the word down “Warra” refers to ‘a lot, very, strong or many’ while “Yama” is a word for the wind. Warayama then refers to a place that is very windy which is consistent with what we know about the island. Another example of this exists in the naming of local City of Sydney development, Gunyama Park. gunyama guni - poo yama - wind smelly wind that blows from the south as the location of sand dunes and freshwater wetlands that can become stagnant and quite smelly.

#### Gibba (Rock) As A Spatial Condition

Gibba represents strength, resilience and the layers of time.

The communities and ecologies of Wareamah are strong, determined and resilient. Embracing the strength inherent in the concept of Gibba will ensure a sustainable and productive future for Wareamah.

#### GIBBA



#### Barrawal (Water) As A Spatial Condition

Barrawal represents interconnectedness, healing and travel.

Embracing the interconnectedness of water reveals strategies for bringing the diverse spaces of Wareamah together - Barrawal and its association with Country as an island, surrounded by water, shaped by water, tidal flows and interstitial zones, has the capacity to function as the unifying story across all spaces.

The location of the island on the ancient Songlines of Barrawal Country and at the confluence of two major waterways speaks to journeys, travel and trade for local Aboriginal peoples. Movement around the island can be guided by this spirit of Barrawal Country.

The waters of Barrawal Country have healed and protected here for millennia. Today, water has the capacity to continue to heal and rejuvenate.

#### BARRAWAL



#### Buruwi (Wind) As A Spatial Condition

Buruwi represents change, evolution and innovation.

Embracing chaos and uncertainty in spaces that need to perform in many different capacities.

The enduring spirit of Buruwi will be evident in flexible, versatile and modular design strategies that respond efficiently to changes in weather, events, crowd numbers and other conditions unique to Country on Wareamah/Wareama/Warrayama.”

Source: Bangawarra

#### BURUWI



(Source: Bangawarra)

#### Naming of the island:

Different Aboriginal names for the island have been recorded over time. These include:

1. 'Wareamah'
2. 'Biloela' (Sydney Morning Herald, 1919)
3. 'Warrieubali' (Illustrated Sydney News, 1889)

Noting Biloela is not a local name but of Queensland origin.

**A more detailed Aboriginal heritage assessment would be needed in the next stages of development.**



## 3.2 Geological Formation of Sydney Harbour

### Sydney Harbour Estuary

The ancient river, which is now Port Jackson, meandered across a flat plain 80 million years ago. During periods of uplift, the river eroded the elevated coastal plain, forming steep-sided banks and at times cutting through some of the meanders. During interglacial periods, sea levels rose and the 'river' is flooded, leaving the breached meanders as islands, of which there are 14 under present sea level conditions.

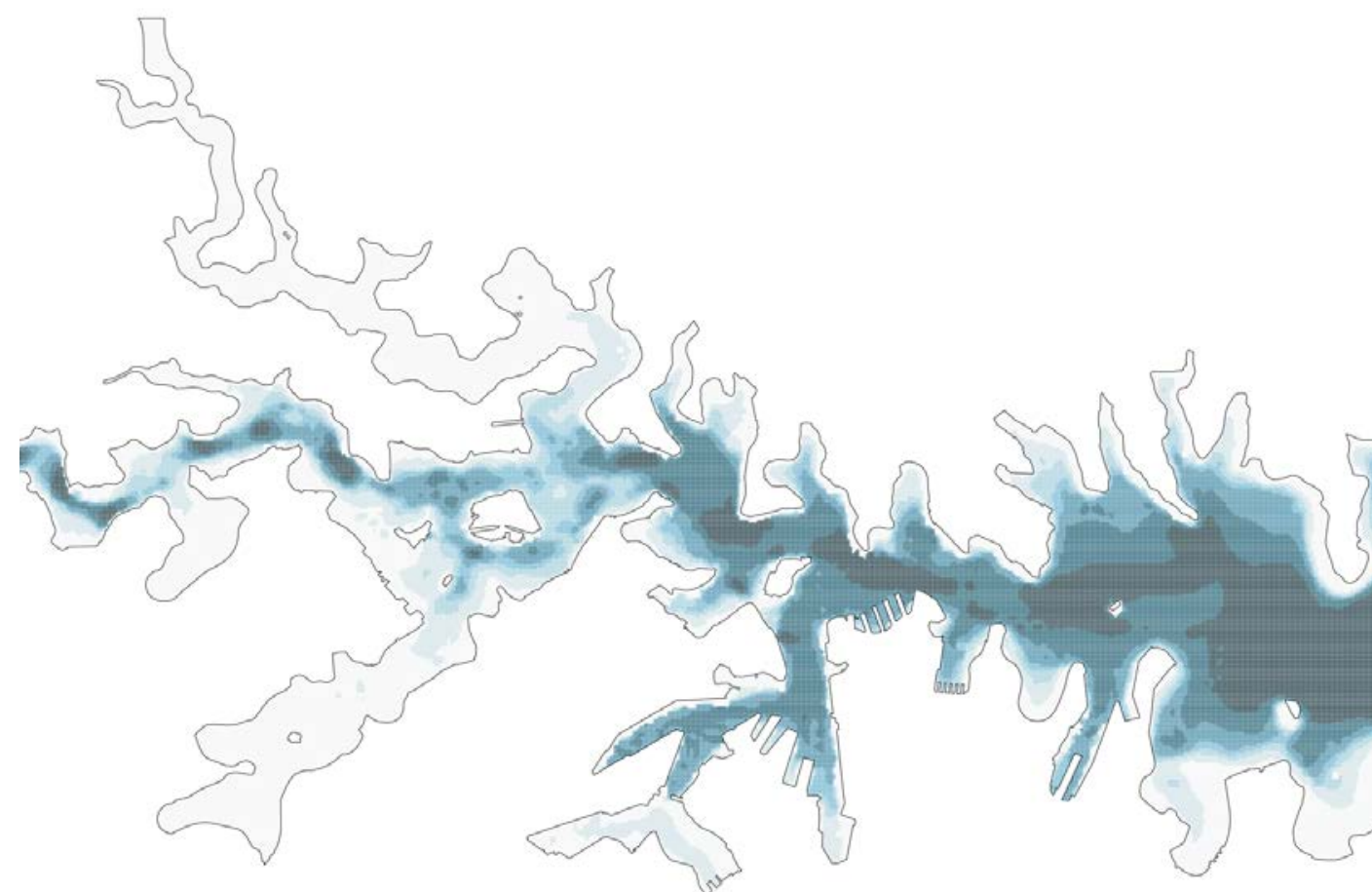
Flooded river valleys can contain many islands, due to the deposition and erosion of sediment throughout the preceding geological periods. This process of formation can help us understand the hydrography, including where deep areas lie, the nature of the estuary floor, water currents and tidal velocity. This can show us which edges could engage with particular ecologies, where to retrofit eco-habitat such as seawalls, and most suitable areas for swimming.

Sydney Harbour has always been a gathering place, teeming with activity above and below the surface, sustaining life of all kinds. It is a physical record of changing attitudes to water over time: a bountiful resource, dumping ground, playground, battle ground. Our evolving society, politics and attitudes to nature continue to influence our relationship with the harbour, revealing new aspects and determining new uses.

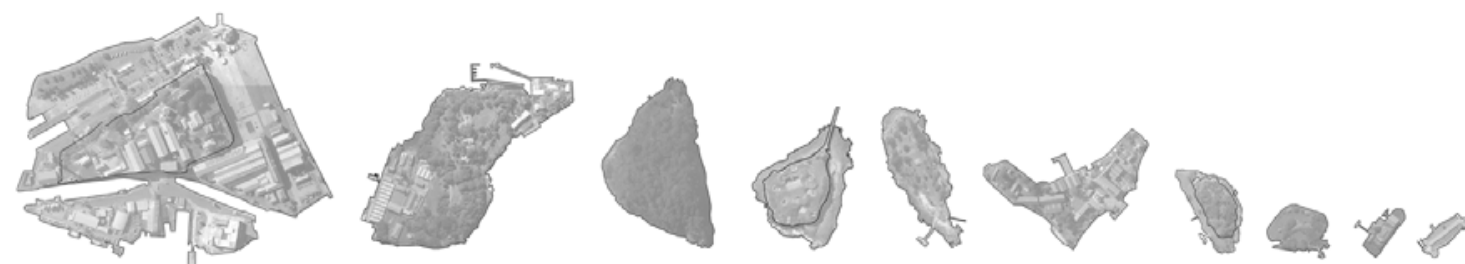
**GIBBA**



Each island relates to its nearby harbour headlands (Source: Tyrrell Studio)



Tides and currents have eroded the harbour over thousands of years, creating deep channels on the north and east edges of the island. More protected shallow edges have evolved on the south and west. (Source: Tyrrell Studio)



Cockatoo Island / Wareamah is the largest island of Sydney Harbour (Source: Tyrrell Studio)



### 3.3 Sydney Harbour Context

Cockatoo Island / Wareamah sits at a critical moment of transition between the Parramatta Rivers estuarine character and the more open waters of Sydney Harbour. The mixed waters of saltwater and freshwater have the potential to support diverse marine life. Throughout time, this prime position in the harbour has informed the islands' uses and marine character.

The southern bays west of the Harbour Bridge to Homebush Bay are typified by large, complex bays composed of many subsidiary bays and islands (or former islands). These bays have a number of creek lines that drain into them from the south. The topography around the foreshore of these bays is typically low lying, flat or undulating, often being reclaimed marshlands or mangrove swamps. Significant alteration to the harbour edges have occurred in many of these bays, due to reclamation, industrial uses and transport infrastructure. The current character of these bays are very distinct and different from each other with a variety of uses and water edge conditions.

- Text from GANSW SHFA Harbour Analysis



Cockatoo Island / Wareamah sits at the transition from the Parramatta River and Lane Cove River, to the main water body of Sydney Harbour (Source: GANSW SHFA Harbour Analysis)



### 3.4 The Island's Position In The Harbour

The act of crossing water is integral to the experience of the island. It involves departing the mainland, navigating tides, wind and currents on the journey, followed by the process of arrival and berthing. Stepping onto the island brings a sense of distance from the mainland, with new perspectives across the water, windward and leeward breezes, marine sounds and smells, along with opportunities for interaction with the water's edge.

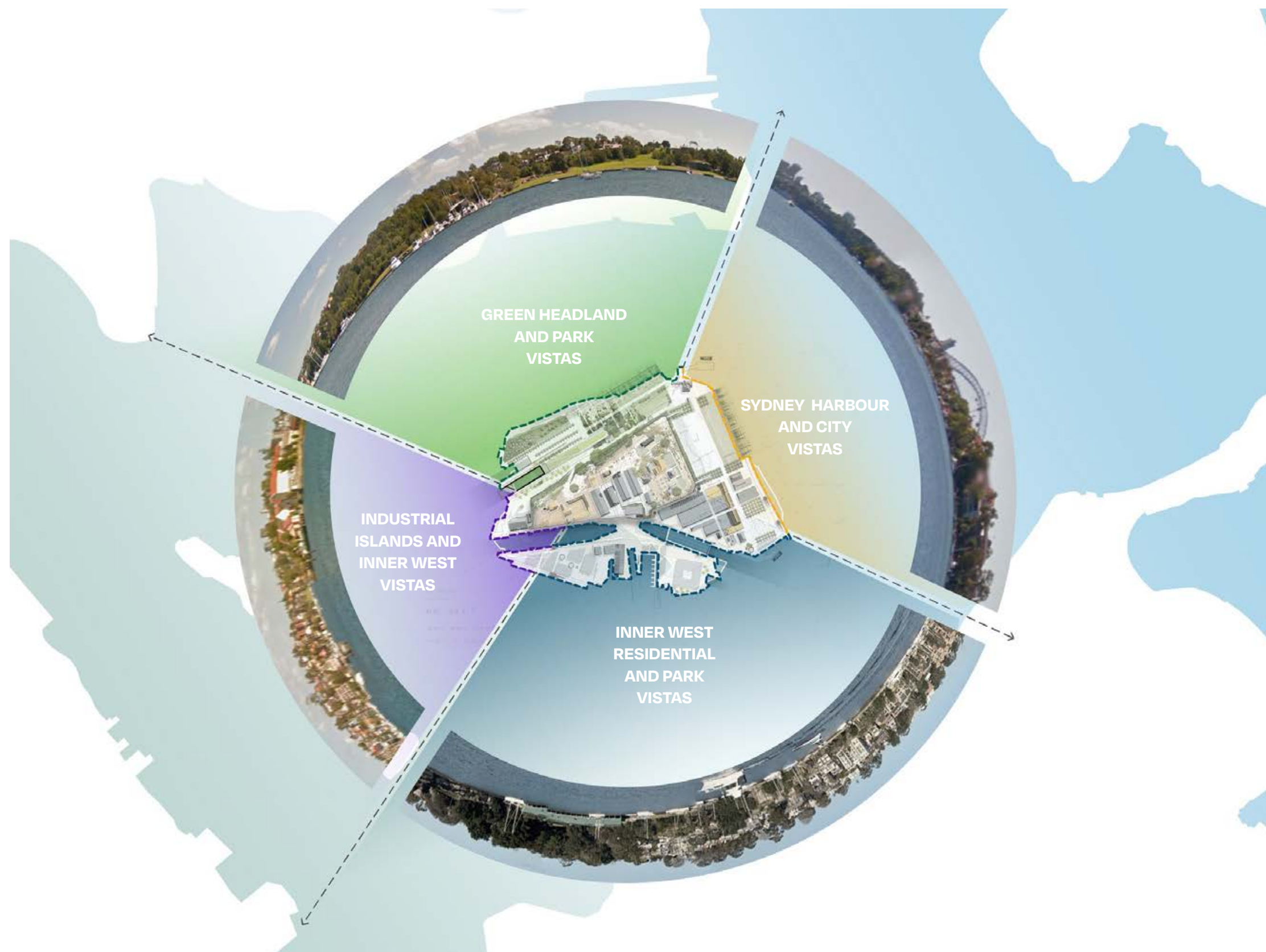
The views from the island back across the harbour are distinct in each of the four areas or 'rooms' identified in the diagram, right.

The Eastern Apron opens to a vast harbour water body with the backdrop of the city centre and Harbour Bridge.

The Northern Apron opens to a narrower river character water body, with a green treed backdrop of harbour parklands in Woolwich.

The Southern Aprons open to a smaller water body that feeds into Iron Cove with views across the intensely developed residential waterfront edge of the Birchgrove, Balmain and Rozelle peninsula.

The Western views are mixed with industrial character of Snapper and Spectacle Islands, with Birkenhead Point, Drummoyne development, and Gladesville Bridge.



**BARRAWAL**



The four harbour rooms of Cockatoo Island / Wareamah have different characteristics (Source: Tyrrell Studio)



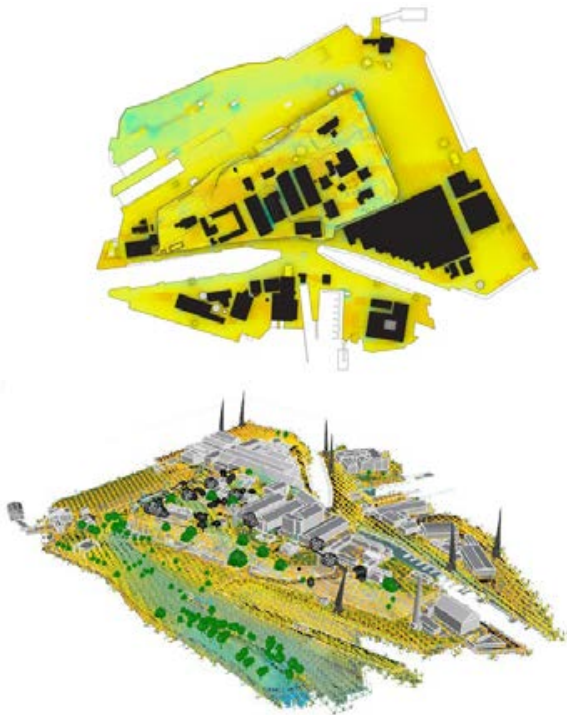
3.5 Microclimate and Environmental Conditions

Microclimate And Environmental Conditions Create Areas Of Exposure And Protection

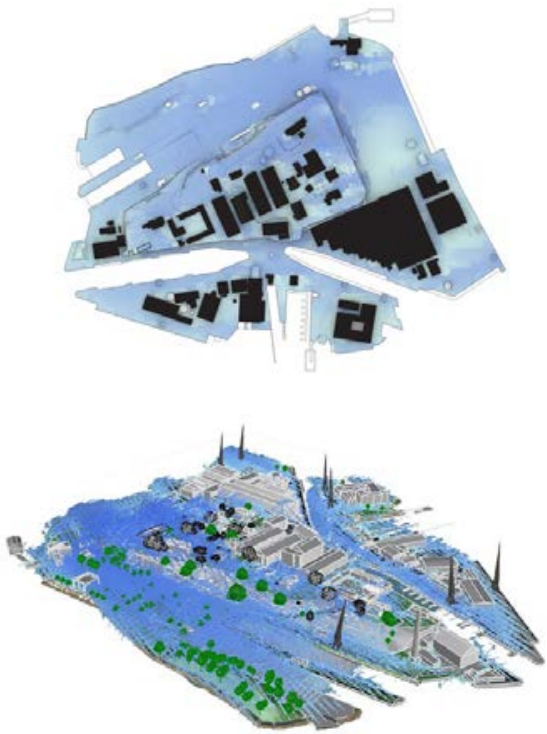
Weather and seasons fundamentally influence our experience of a place. Cockatoo Island / Wareamah is an exposed island in Sydney Harbour, making climate an even more dominant element of our experience. The island has areas exposed to summer heat, winter cold and strong winds, all impacting how people use the island and how long they stay. The micro-climatic conditions are enhanced compared to the mainland, often hotter in summer, and colder in winter.

The scale of the sandstone cliff landforms and buildings accelerate wind patterns, as wind is cut and funnelled into smaller streams and channels following these edges. Changing microclimates around the island create areas of high exposure and more sheltered areas become key to user comfort.

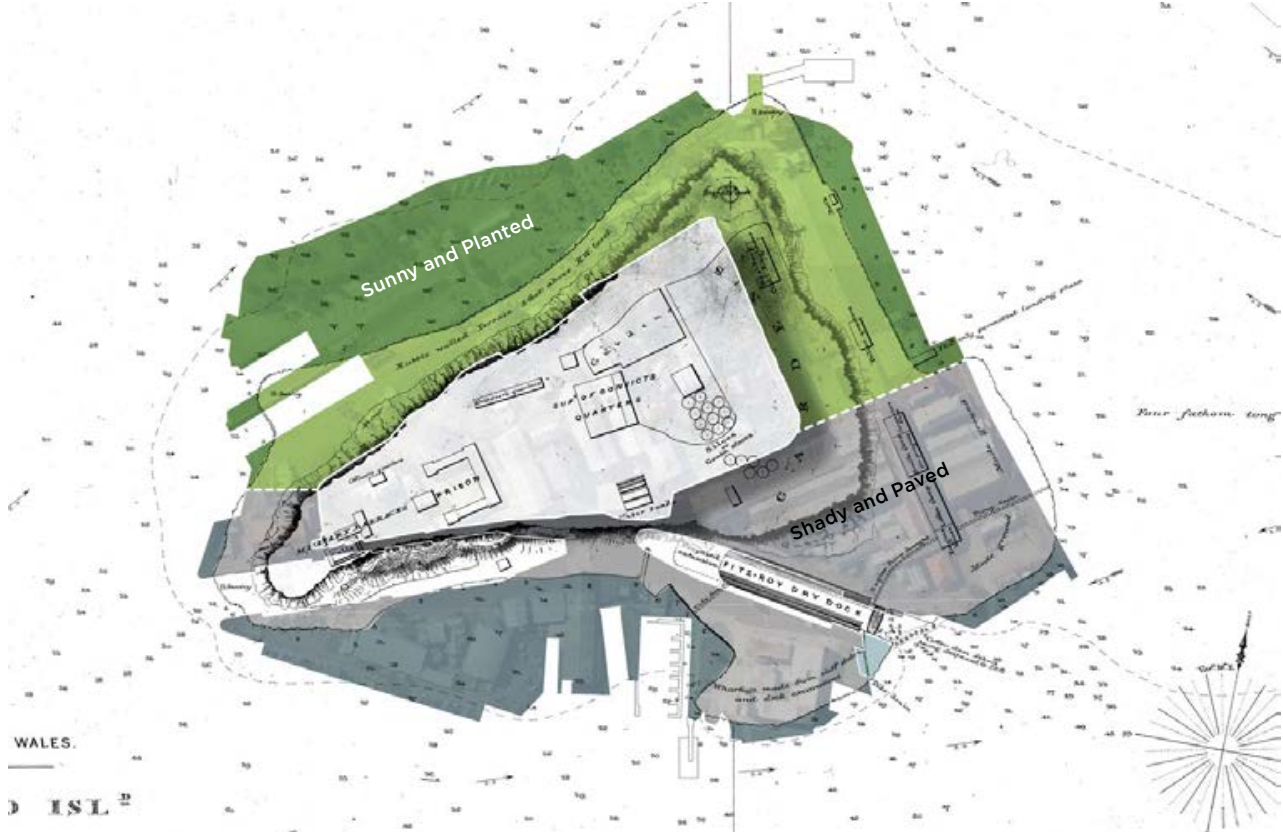
The island has been modelled and its exposure to weather systems through the year have been tested. The Draft Master Plan responds to these environmental conditions.



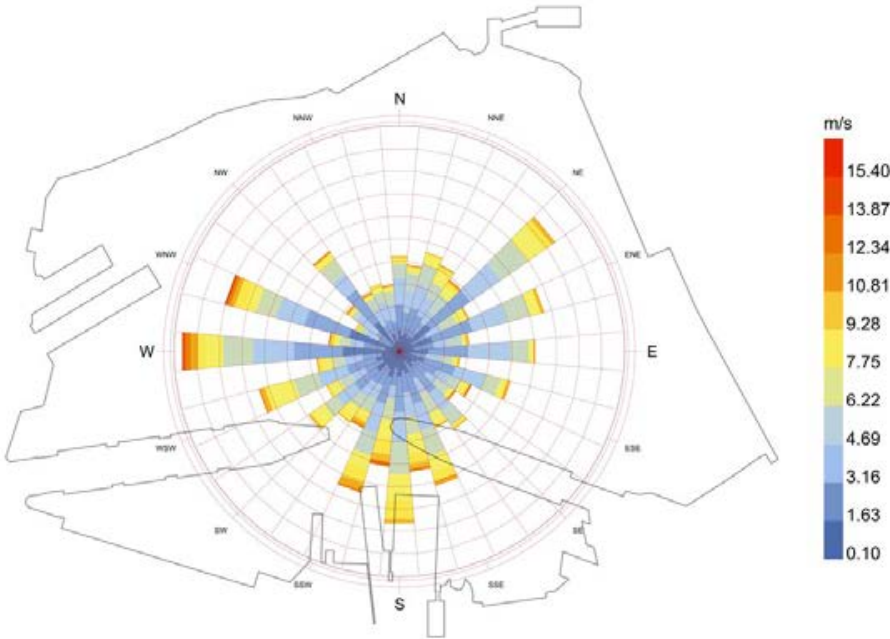
BURUWI



Winds and temperature define comfort factors at different times of the year on the island. (Source: Tyrrell Studio)



The sunny and green northern side of the island vs the shady hardscape of the southern island. (Source: Tyrrell Studio)



There are three dominant wind directions: Strong, cold westerly winds, cool north easterly breezes and some southerlies. (Source: Tyrrell Studio)



### 3.6 History of Cockatoo Island / Wareamah

The island was a point of high ground in a river valley during the last ‘ice age’ from around 100,000 to 10,000 years ago. Over the following 4,000 years sea levels rose and the valley was drowned to become what is now known as Sydney Harbour and its estuarine extension, the Parramatta River. The high ground became an island. The warming climate and rising salt water created conditions for dry sclerophyll coastal forest dominated by Angophoras, certain species of Eucalypts, smaller trees such as coastal Banksias, and understorey plants such as Xanthorrhoea and Lomandra.

People almost certainly lived around the outcrop as it was slowly transformed into an island. However we know little if anything of the island’s cultural/social significance at this time. With no running water it is unlikely to have been permanently occupied. Because the island sat off Wongal, Wallemudegal, Gameraigal and Gadigal territory some have suggested it was a meeting place but there is no documentary evidence to that effect. No archaeological evidence has survived the waves of redevelopment since 1839.

The lack of fresh water may have deterred use by the British, for the island was barely mentioned before the 1830s. The two colonial names for the place, Bird Island and Cockatoo Island, give a clue as to the forest cover and the animal life within. Possibly birds flourished in the absence of terrestrial predators making it an avian sanctuary.

The island was declared a UNESCO World Heritage Site in 2010, along with 10 other places associated with convict transportation in Australia; the Australian Convict Sites. The island was part of a colonial convict archipelago. It has been suggested that the island’s convict history begins in 1839 and ends in 1869. However, there are two distinct periods within that span. That to 1848 most directly relates to colonial convictism as it is generally understood. It was then that grain silos were cut into the sandstone and the first barracks built. Most of the Island’s convicts had been transported from Britain. The important exception was the incarceration of at least 13 Aboriginal men. Five (probably Kamalaroi men) were imprisoned as a result of frontier warfare near the Namoi River. Eight more were gaoled for attacks in the Brisbane Water area in 1835 having had their death sentences commuted. That their incarceration was characterised as ‘transportation’ is significant and requires further research.

From 1848 the island was the responsibility of NSW rather than Britain’s colonial office. There were residual transported

convicts but increasingly the population was made up of local criminals. The island became a ‘colonial gaol’ rather than a ‘convict establishment’ associated with transportation from Britain to Australia, although that term was used in official documents for another decade. The population ballooned accordingly.

Transportation from Britain to NSW ended in 1840, leaving the colonial administration to deal with a penal system in flux. The island was one of the last options open to Governors. The end of transportation was prompted by changing attitudes to crime and punishment based upon reform and deterrence. The lash was used occasionally until 1843, but hard labour and solitary confinement were more characteristic of the regime. These were manifestations of a new penology that eschewed the lash, however inhumane they may seem in retrospect.

The island’s convict history was shaped by colonial endings and beginnings in other ways. The assignment of convicts to work for free settlers – a form of ‘prison without bars’ – ended in 1838. The experience of convicts on the island was, therefore, different to those who had worked as servants, shepherds and ‘mechanics’ in households or on farms from the 1790s. The year 1838 also saw the last deployment of British army units on the colonial frontier in NSW. Violence between armed, undisciplined colonists and Aboriginal people ensued. The Kamalaroi men were gaoled because of this frontier warfare. At this time also colonial society was being changed by free immigrants, among them Henry Parkes who would have a significant impact on the island’s development and the consolidation of colonial liberalism and democracy.

The end of the second phase of ‘convictism’ in 1869 was followed by the often brutal incarceration of orphaned and ‘wayward’ girls in a reform school on the newly re-named Biloela. The experience of boys in the corresponding institution aboard docked reform ships was less traumatic. Both were a direct result of child welfare reforms introduced by Henry Parkes.

Convict involvement in the construction of the Fitzroy graving dock and the ruination of the natural island notwithstanding the story that follows is more easily celebrated. It begins with the engineering achievement of the Fitzroy and Sutherland graving docks, and moves through the island’s role in the creation of the Royal Australian Navy in 1913. Following the leasing of the dockyard in 1933 to the Cockatoo Island Docks and Engineering Company there was considerable shipbuilding output between

the wars including for the Commonwealth Shipping Lines, astonishing work conducted in preparation and execution of World War Two, particularly in the Pacific theatre, and in the postwar years.

The British firm Vickers Ltd assumed operation of the Island in 1947 and remained there until 1986. Before and during ‘the Vickers era’ the island was one of the largest employers in Australia. Naval work was integral. HMAS Success, slipped in 1986, was the largest ever Australian-built naval vessel. The maintenance of Australia’s submarine fleet from the 1960s was part of this naval capability. The Island’s organised labour force pioneered many workplace reforms, provided beginnings for thousands of apprentices, and the nearby working-class communities at Balmain, Glebe and Birchgrove had families with a long association with maritime work.

– Ian Hoskins



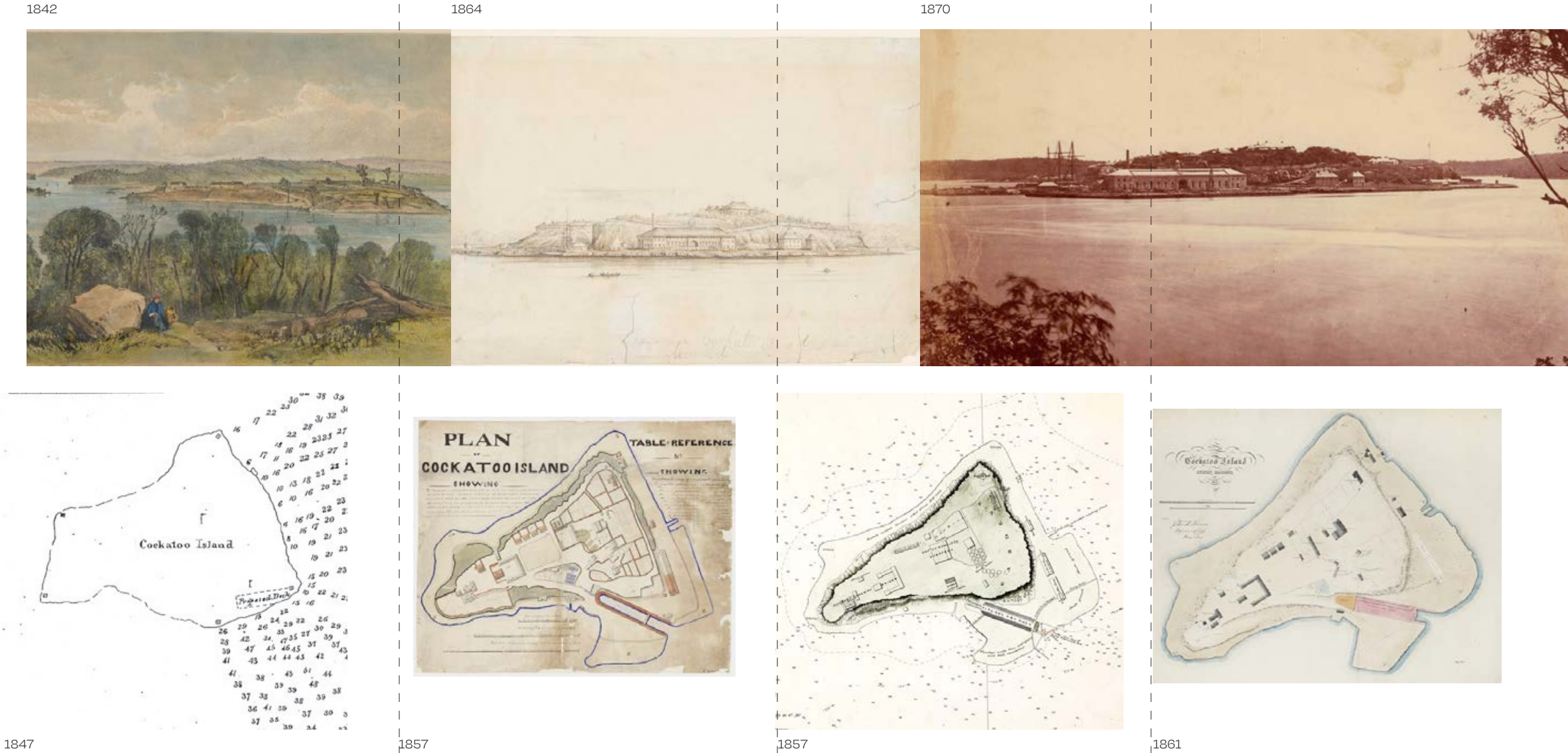
Cockatoo Island Wareamah in 1869  
(Source: State Library of NSW)



3.7 Modification over time

Cockatoo Island / Wareamah has been in a state of constant change and adaptation across its geological and human history. Since colonisation, this speed of change has increased dramatically. The constant heavy use has reshaped the island extensively.

Beyond the fundamental evidence of geological formation, it now bears the traces of the convict period, the later nineteenth century economic boom and expansion of the colony, post-federation nationhood and development of Australia as an outpost of the British Empire (the early naval dockyard and supporting the Australian Navy), two World Wars and intensive maritime use throughout the twentieth century. It reflects the advancement of technology and industry, as well as the changing nature and self-perceptions, of the nation.



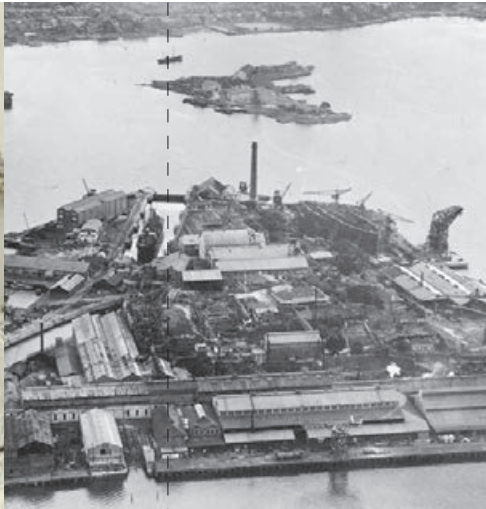
Historic Phases Timeline



1910



1927



1944



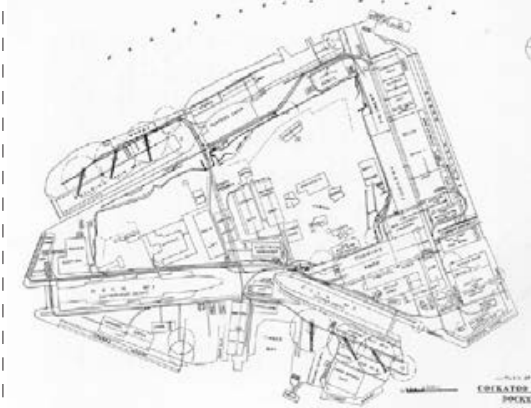
2005



1892



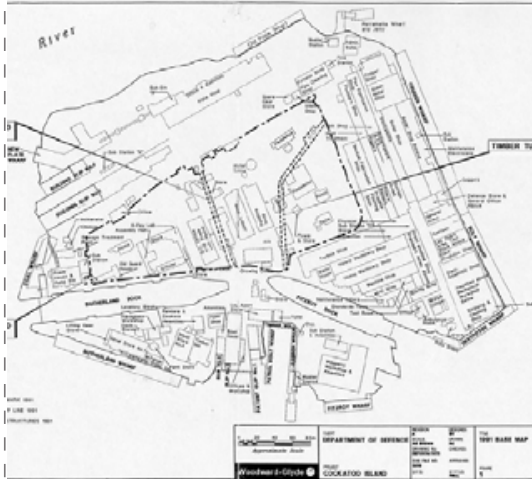
1933



1974



1991





### 3.7 Modification Over Time

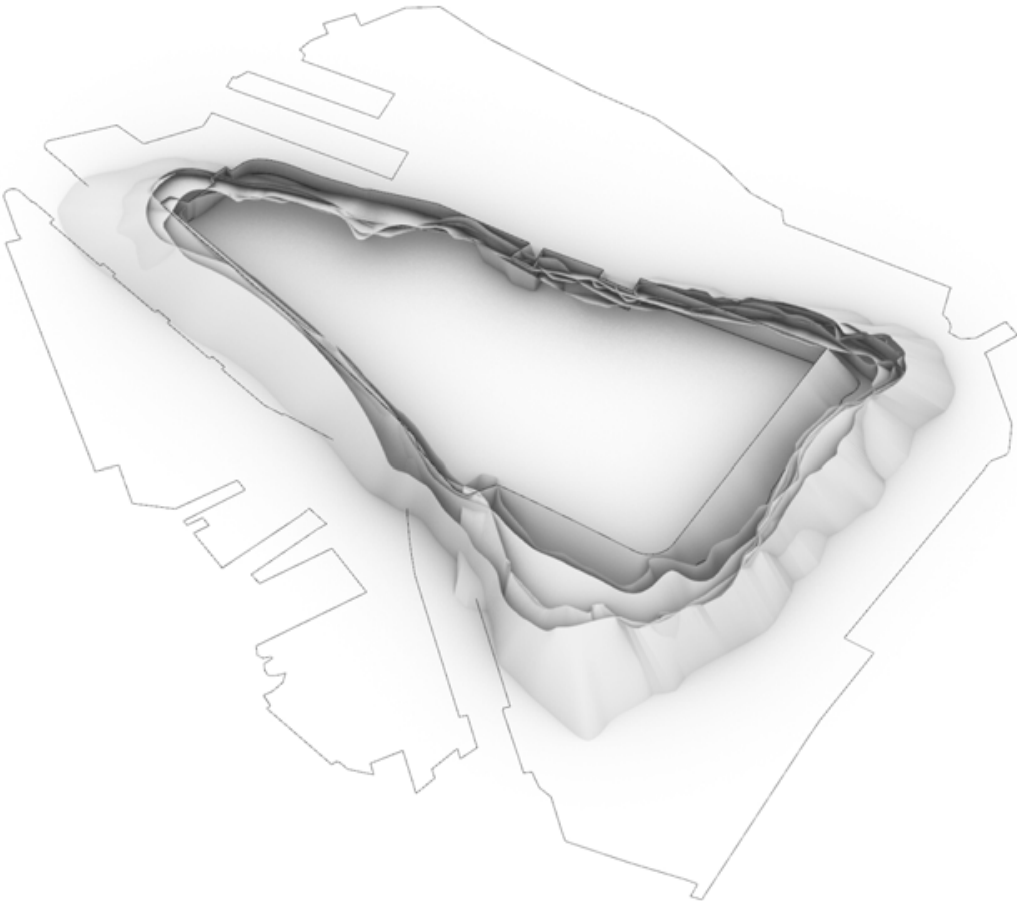
#### Sandstone Extraction

The current day landscape character of Cockatoo Island / Wareamah is framed by the two main topographic features.

The upper plateau character is defined by the sandstone escarpments, and remaining sandstone outcrops. Built form on the upper plateau is set atop the escarpment, or set on terraced sandstone ledges.

The lower plateau, though highly modified, is characterised by its relationship to the waters edge. The large flat aprons of land extend the flatness of the surrounding water, incised by docks and slipways it has a constant relationship with the harbour.

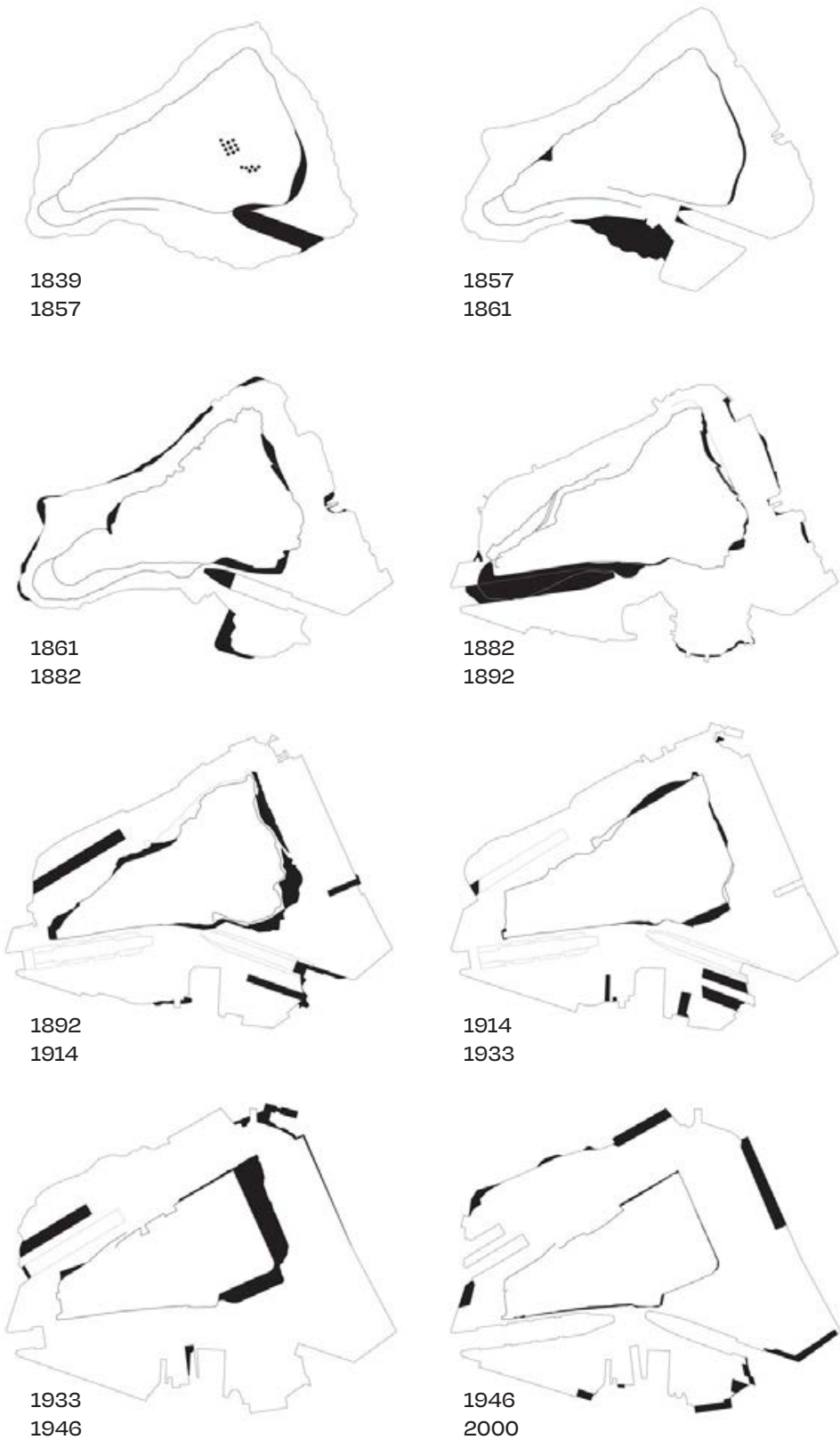
This stark contrast between the flat character of the lower plateau and the rugged character upper plateau creates a fascinating range of experiences for the visitor as well as some navigational and accessibility challenges which the Draft Master Plan addresses.



Drawing illustrating the extent of quarrying and cutting back of sandstone on the eastern and southern escarpments (Source: Tyrrell Studio)



Cockatoo Island, ca.1864 / unknown artist (Source: State Library of NSW)

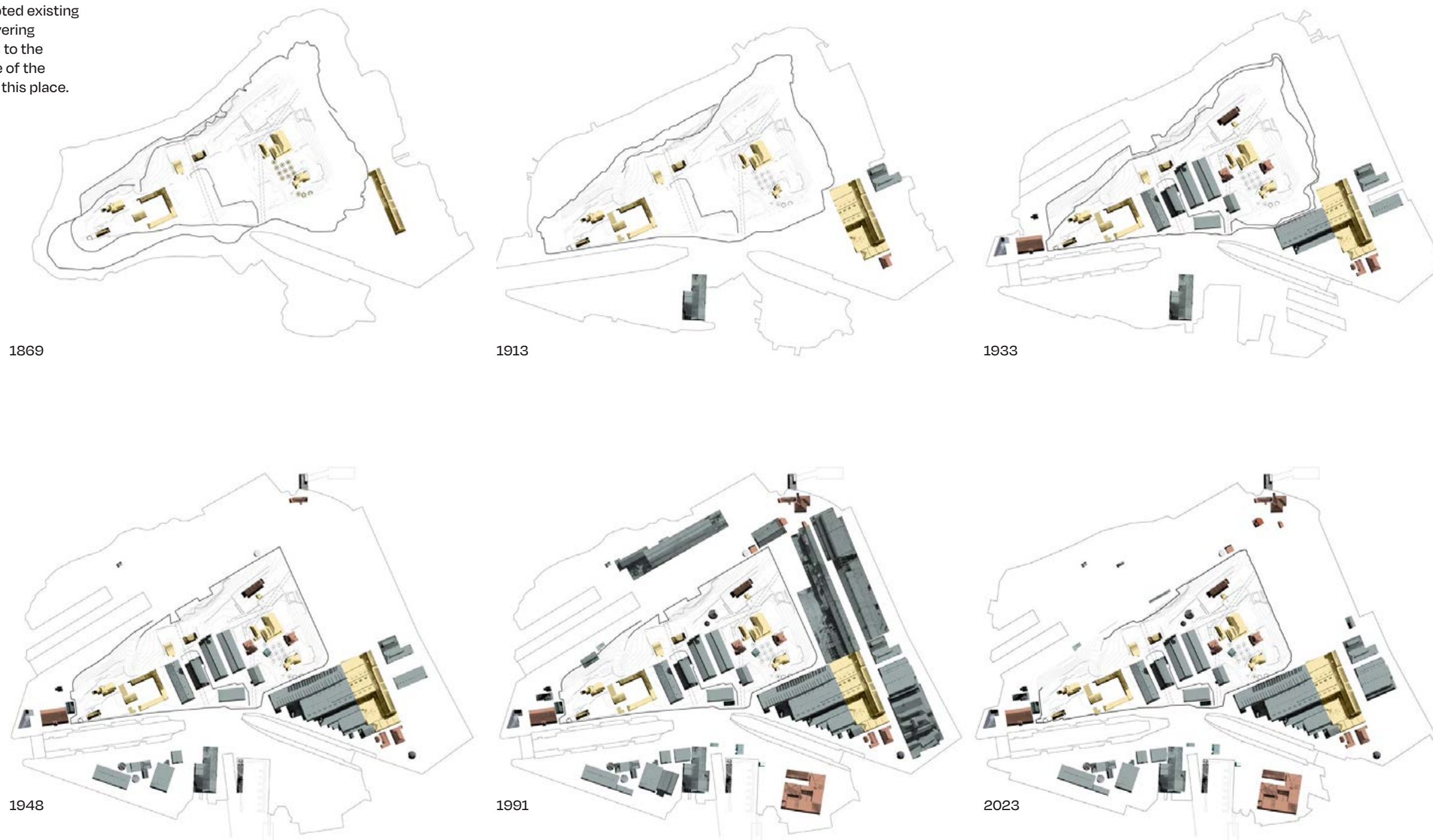


The cutting and shaping of the island over time (Source: Tyrrell Studio)



### 3.7 Modification Over Time Progressive Development

Whilst not immediately obvious, there is clear evidence of distinct architectural styles through a series of time periods allowing key historic themes to be understood through materiality and texture. These threads of history rarely stand alone and new buildings often incorporated and adapted existing buildings, creating an overall effect of collage. The layering of history, from the sedimentary layers of sandstone, to the progressive layers of built form are a special attribute of the island and help to tell the often interwoven stories of this place.



Mapping of the progressive evolution of built form (Source: Tyrrell Studio)



### 3.8 The Changing Form of the Island

Initially, the island was manipulated by tides and the environment for millions of years, managed by First Nations peoples for tens of thousands of years, and manipulated for colonial and industrial use for hundreds of years. As the periods of use became shorter, the intensity of the adaptation of the island increased. One of the more fascinating outcomes of this layered history of use, is the imprint and overlay of multiple stages of use, creating a trace backward in time, legible in the fabric of the island. All headlands and bays for example, although heavily modified, can still be identified across the morphology of the island, despite the high level of manipulation of the landform over the centuries.



A map overlaying the progressive evolution of the islands shape (Source: Tyrrell Studio)



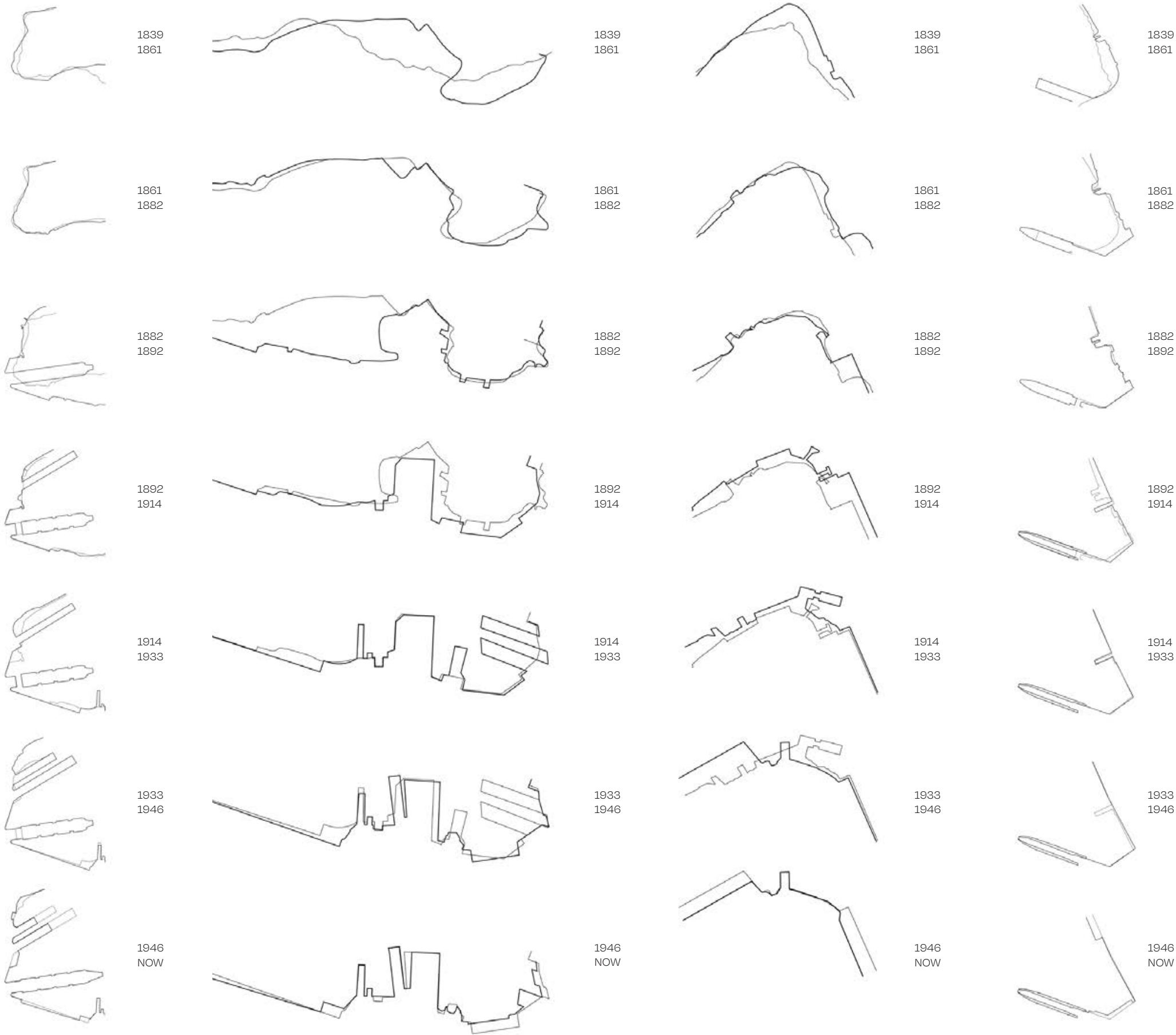
3.8 The Changing Form of the Island

Making History Legible

The changing forms show a clear progression throughout history: headlands become expanded and become more prominent, bays have been straightened and compressed, transitional edges between land and water have become elongated into large flat aprons and clifftops have been cut and become more vertical and sheer.

Mapping, reading and working with these conditions will ensure that as the island continues to change, this linear thread of time remains traceable.

These mappings show that despite the significant change in form over time, the bays and headlands of the island, of Country, still exist and can still be understood. Such is the resilience of this remarkable sandstone island.



Mapping of the progressive evolution from natural bays to constructed bays (Source: Tyrrell Studio)



### 3.9 An Island of Collage

**A Collaged Character Of Different Scale And Materials**

Aside from the importance of the island's history in a national and international context, the unique and beautiful collage of materiality alone provides a unique visual experience. Many buildings have been adapted, built on top of, or totally transformed into new structures with major additions. This results in unique architectural styles on the island that fuse multiple layers of history into “collaged buildings”

The distinct materials used in each of the major eras of the island allow for a clear reading of these changes over time. This approach to the island is an important aspect of the heritage significance of the island, and is referred to in the Universal Outstanding Values (UOV's) of the UNESCO World Heritage Listing.

- Key materials and characteristics include:
- Sydney sandstone and Australian timbers
  - Dry-pressed bricks
  - Wrought iron, cast iron and steel
  - Corrugated cladding and roofs
  - Concrete and asphalt
  - Trees and gardens.



1839 Prison Barracks Precinct



1839 Prisoner's Barracks



1845 Military Officer Quarters



1915 Electrical Shop



1917 Timber Drying Store



1951 Electroplating Shop



1856 Iron and Steel Foundry



1896 Heavy Machine Shop



1918 Power House



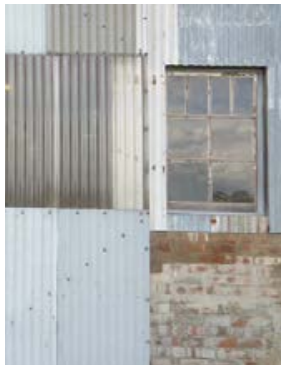
1918 Power House Chimney



1942 Turbine Shop



1968 Weapons Workshop for O Class Submarines





## 3.9 An Island of Collage

### A Collaged Character Of Different Scale And Materials

Examples of layering and overlay offer interesting ways into the layered history of this place. Materiality and the remnant threads of former use will become the key to unpacking the key historic themes of the island.



Layers upon layers over time create fantastic elevations recording changing use



One of the most important elevations of the Convict Workshop, with subsequent layers of maritime use in starkly different materiality and form



The sedimentary layering of place. First layers of sand, then layers of building create legible cross sections of time and history



## 3.10 Spatial Structure

### Working With The Structure Of The Island

As described, Cockatoo Island / Wareamah went through many stages of development, where built form intensity varied. Each phase of history had its own spatial logic and structure, but each has been eroded over time. The somewhat random collection of remnant elements from multiple additions and demolitions over many years is both interesting and confusing for the uninitiated visitor. The seemingly random sequences can lead to a sense of disorientation.

Some of the defining spatial patterns of the island as it exists today are:

#### Harbour Rooms

The island itself sits within the context of the drowned river valley. It is a fragment of sandstone, a beacon of resilience. It still has a strong relationship with the surrounding geographies of the harbour. Each side of the island relates to its own harbour room, with its own unique character.

#### Large Scale Spaces

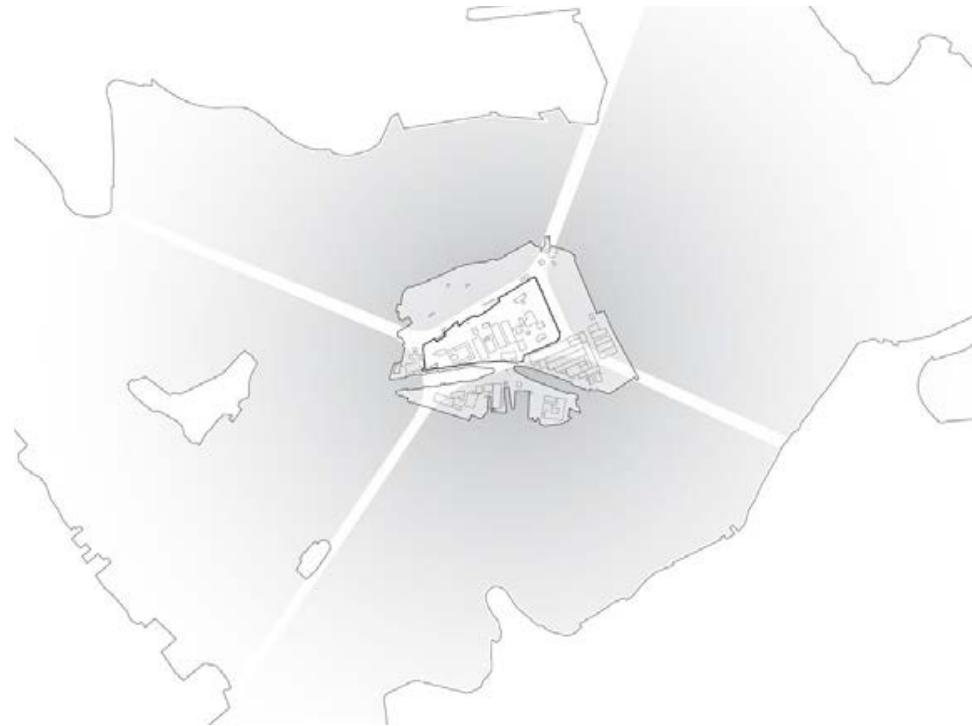
Large scale open spaces, whilst not historically a feature of the island given its intense activity, are now a key part of the experience of the northern and eastern aprons. These spaces have the best orientation for solar access and some of the most beautiful harbour outlooks.

#### Human Scaled Spaces

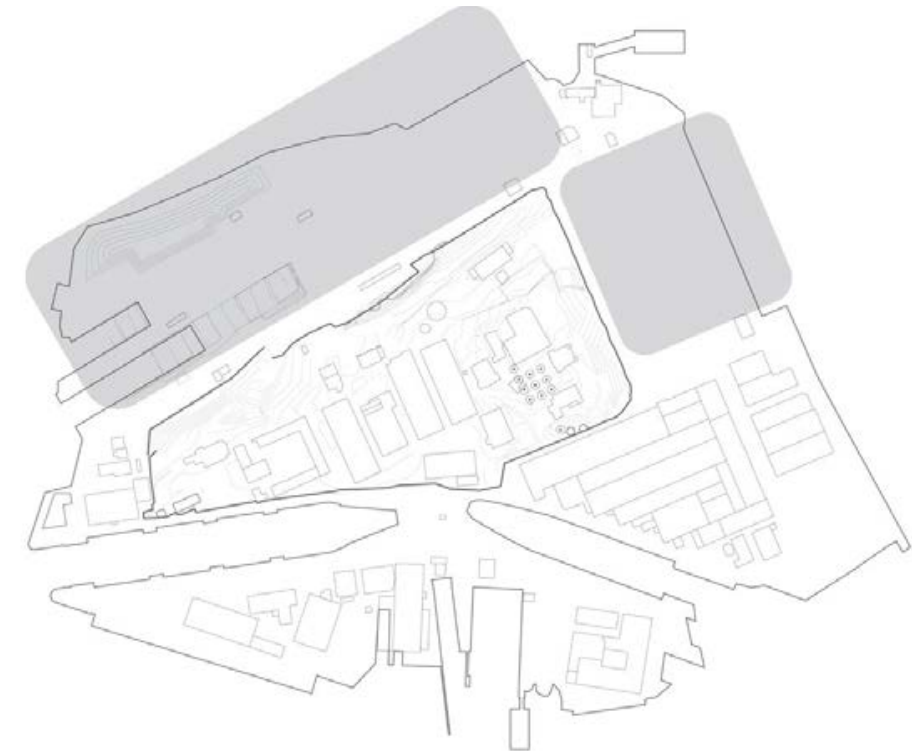
There is an east west band of human scaled buildings and spaces across the island. These are all remnants from different time periods, so they are a collage of historic themes. They are, however, united by their scale, grain and their experience as sequences of courts and walkways.

#### Islands within the island

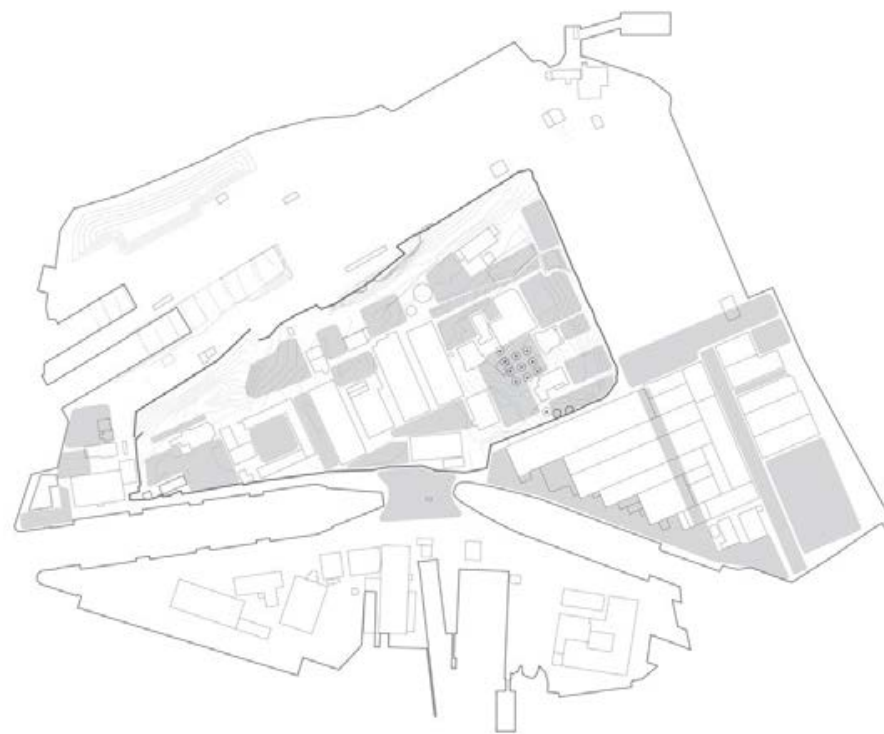
The southern apron is unique in that the two dry docks essentially cut these aprons off from the sandstone island creating two smaller islands with the evolved bay between.



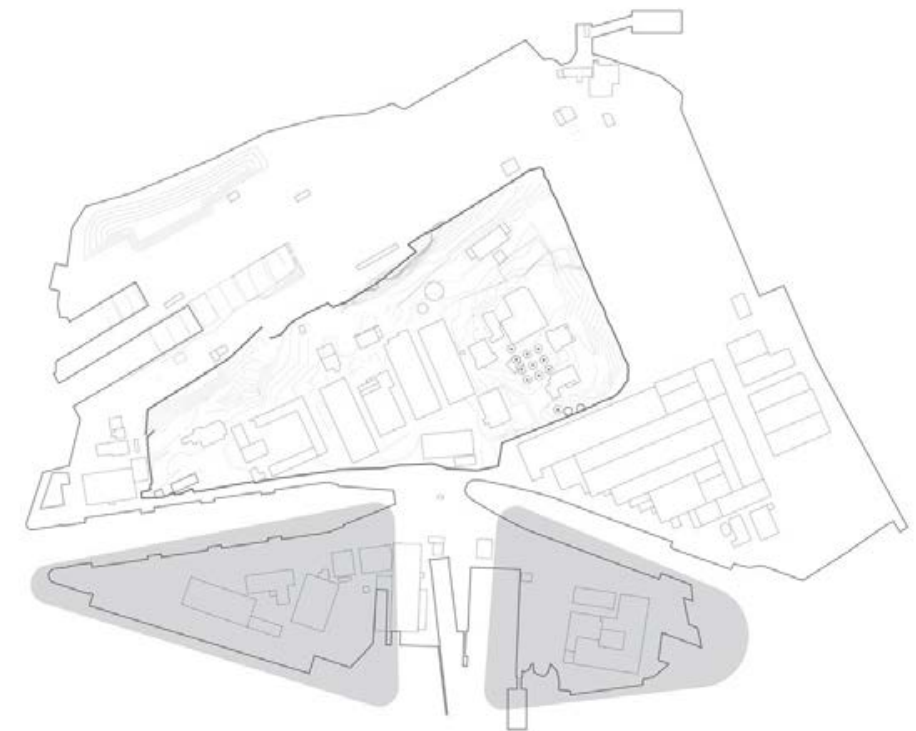
Four distinct harbour rooms with unique characters that add to the character of the island.



Two large spaces remain following the removal of large industrial buildings. The scale of the concrete aprons and traces of the buildings foundations remain as the memory of former large scale use



Central Band of small intricate spaces in and around buildings of the Powerhouse, Upper Plateau and Turbine Shop



The southern aprons are separated from the rest of the island by Sutherland and Fitzroy Docks. They are almost islands within the island.



### 3.10 Spatial Structure

The spatial character of the existing island structure suggests particular uses:

The band of large sunny green open spaces north and north east are sheltered from cold southerly winds and are suitable as passive, green park like areas with the eastern apron as the largest event space.

The band of human-scaled buildings and spaces east west across the centre have the highest built heritage value and the most potential for activation through adaptive reuse, interpretation and events. In particular, the south east collection of built form on the aprons have the highest potential for visitor orientation and programmatic activation.

The southern most aprons are almost islands of land cut off by the two docks. They are nearly exclusively paved and with clusters of buildings of lower heritage value than other parts of the island. The south western island has a southerly orientation and is often overshadowed by the sandstone escarpment. It is also exposed to cold southerly winds making it less useful as open space for visitors to spend time outdoors.



The structure of the present day island. Fragments of many different eras of history (Source: Tyrrell Studio).



# 4.0

## Master Plan Overview

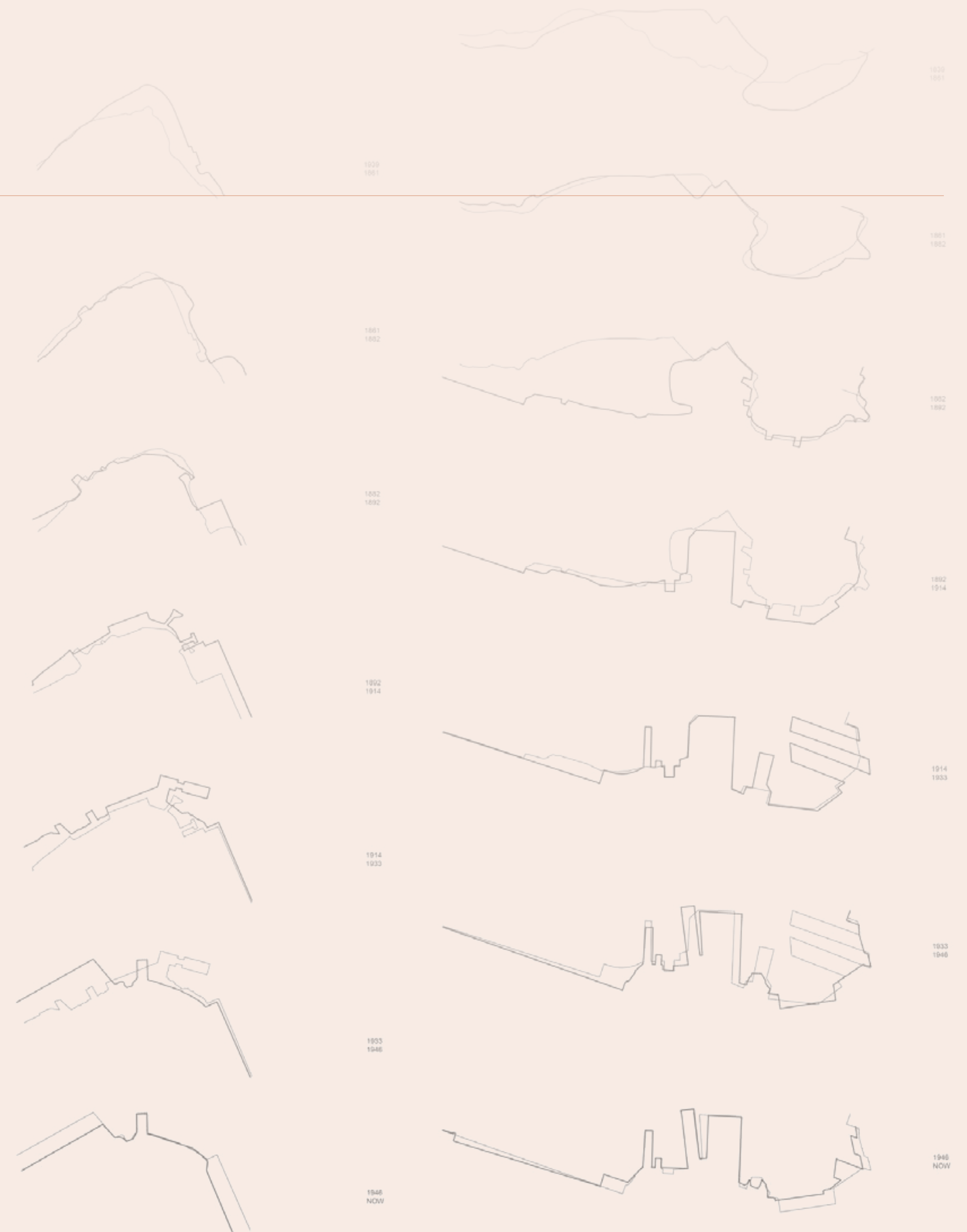
**4.1 A plan of many layers**

**4.2 Four journeys guide the Draft Master Plan design response**

**4.3 Future use guided by land form, heritage and appropriate activation**

**4.4 Arrival, Access and Circulation**

**4.5 Draft Master Plan**





## 4.1 A plan of many layers

The Draft Master Plan works with the fundamental spatial and material characteristics of the island outlined in section 3. It weaves together many individual considerations as a whole, creating a diverse, engaging and highly unique Cockatoo Island / Wareamah experience.

The Draft Master Plan values and promotes its UNESCO World Heritage status whilst making more legible the full spectrum of history.

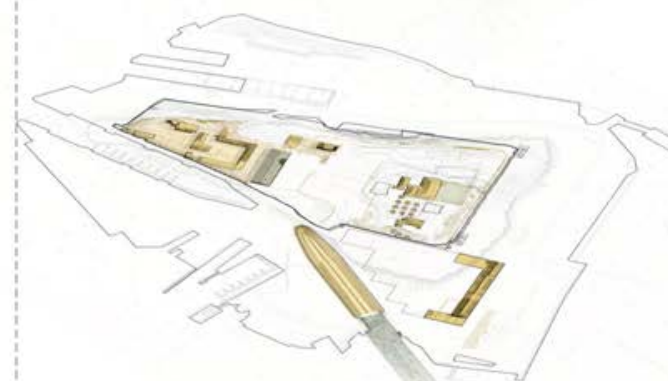
It respects the layers of history and fuses them with a circulation and land use structure that emerges from the unique qualities of place.



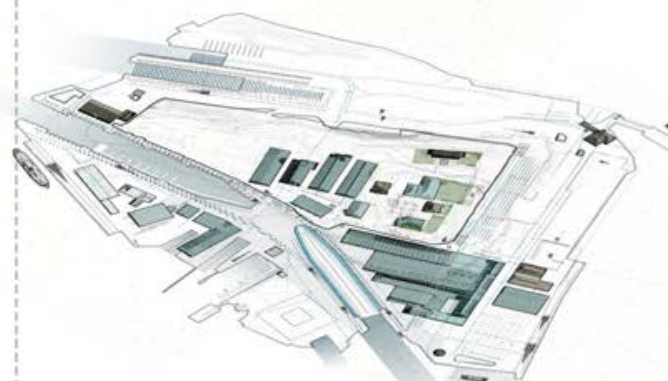
Engaging visitors with natural history



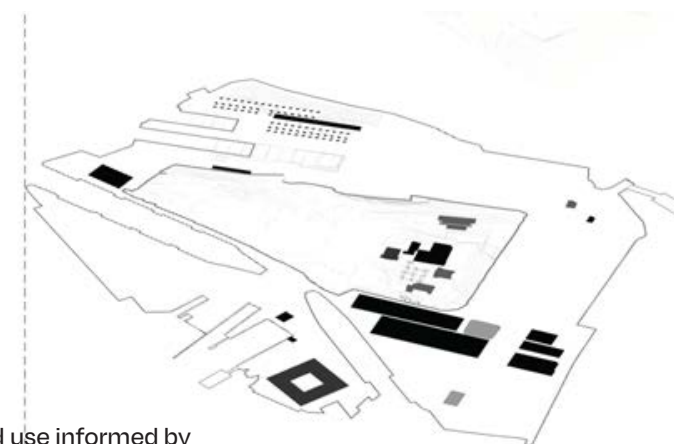
Connecting visitors with Country



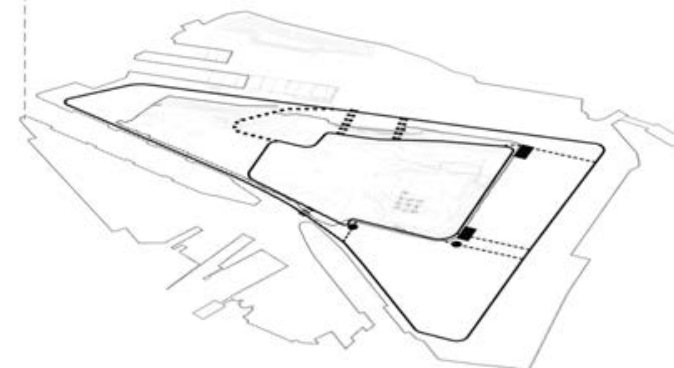
Telling the stories of convicts, prisoners and schoolchildren



Understanding the history of dock working, ship building and the island's role in defending Australia



Land use informed by landscape, heritage and existing spatial structure



Access and circulation considered as a curated experience of place



Many layers combine to create the Draft Master Plan (Source: Tyrrell Studio)



## 4.2 Four journeys guide the Draft Master Plan design response

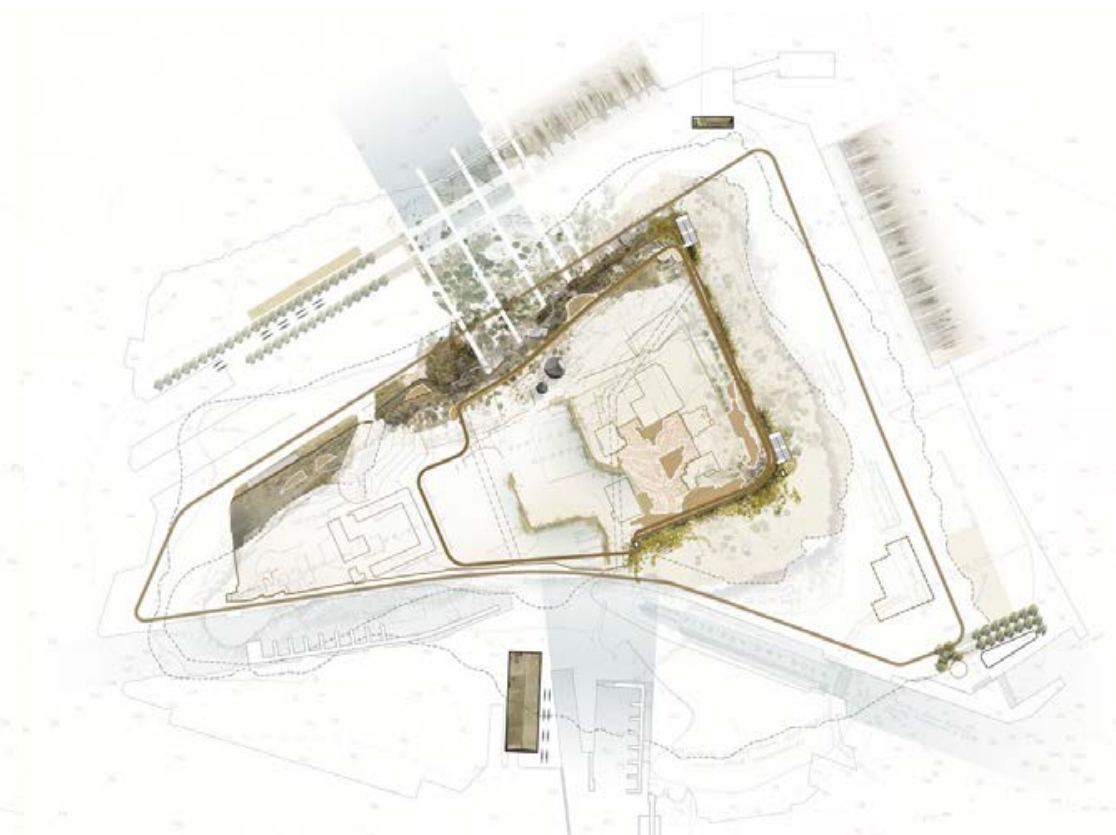
The Draft Master Plan is not a new overlay, rather it emerges from and creates space for the interpretation of island history and heritage. Four historic themes have been identified and their opportunities for visitor experience are explored in the next chapter.

As a critical part of intuitive wayfinding strategy, the themes are developed as a language of materials, textures and geometries that are clearly associated with each theme. This provides an opportunity for beautiful detailed design of unique places that interweave with the fragments of history. It reduces the reliance on interpretive signage.

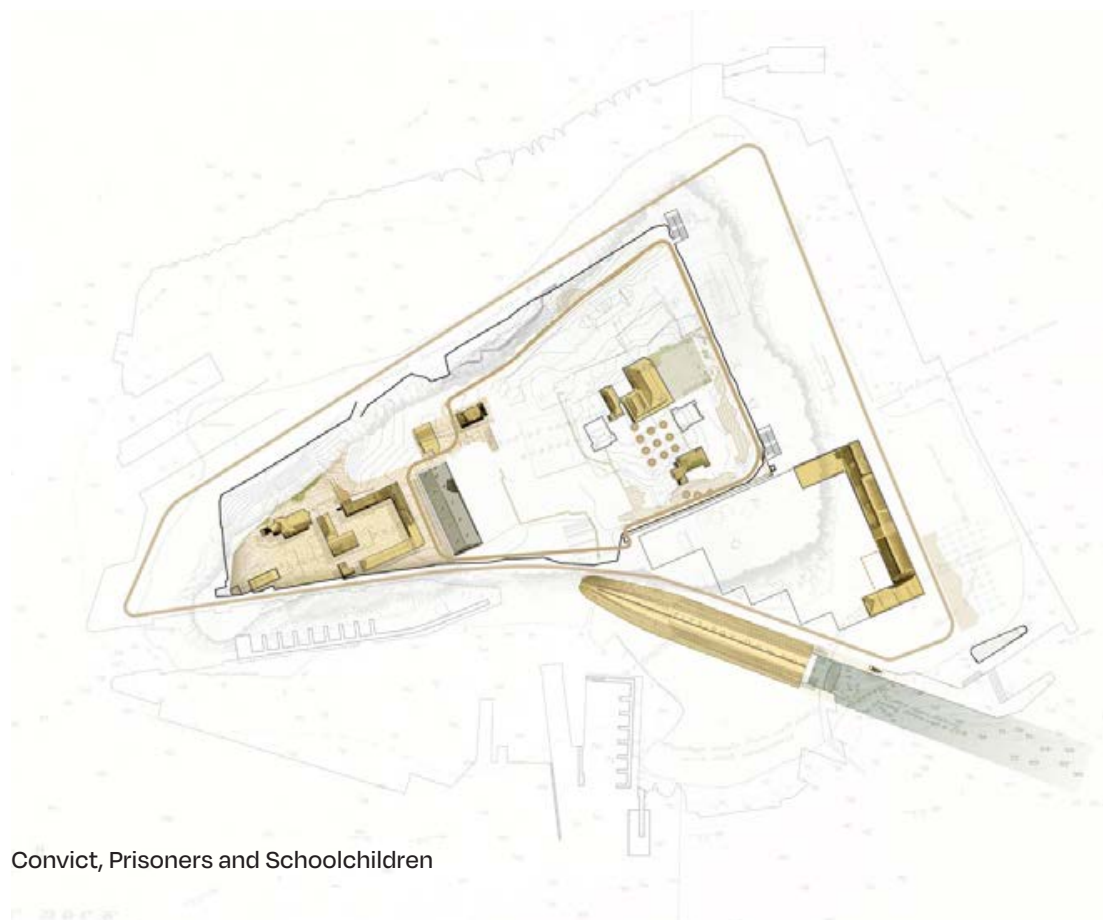
The four themes are explored in more detail in the following chapter include:



Natural History of the Island



Connecting with Country



Convict, Prisoners and Schoolchildren



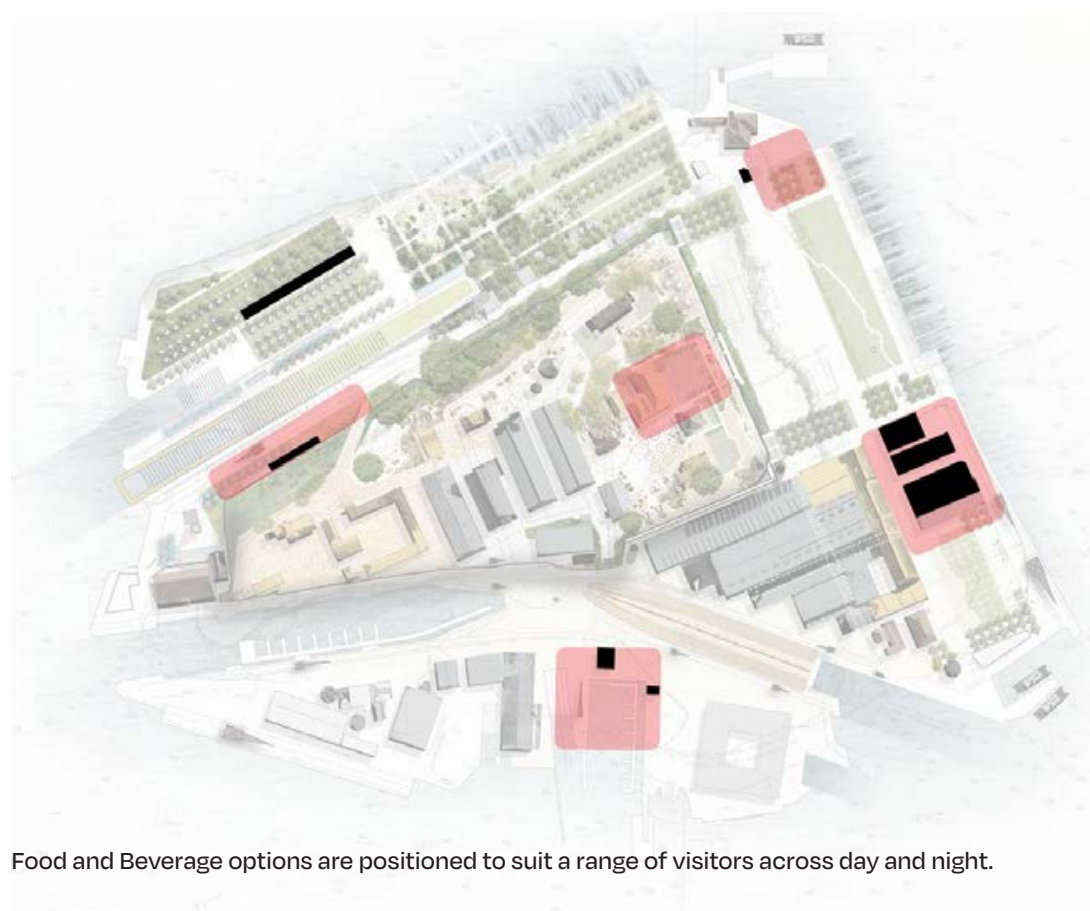
Dock Working, Ship Building and Defending Australia



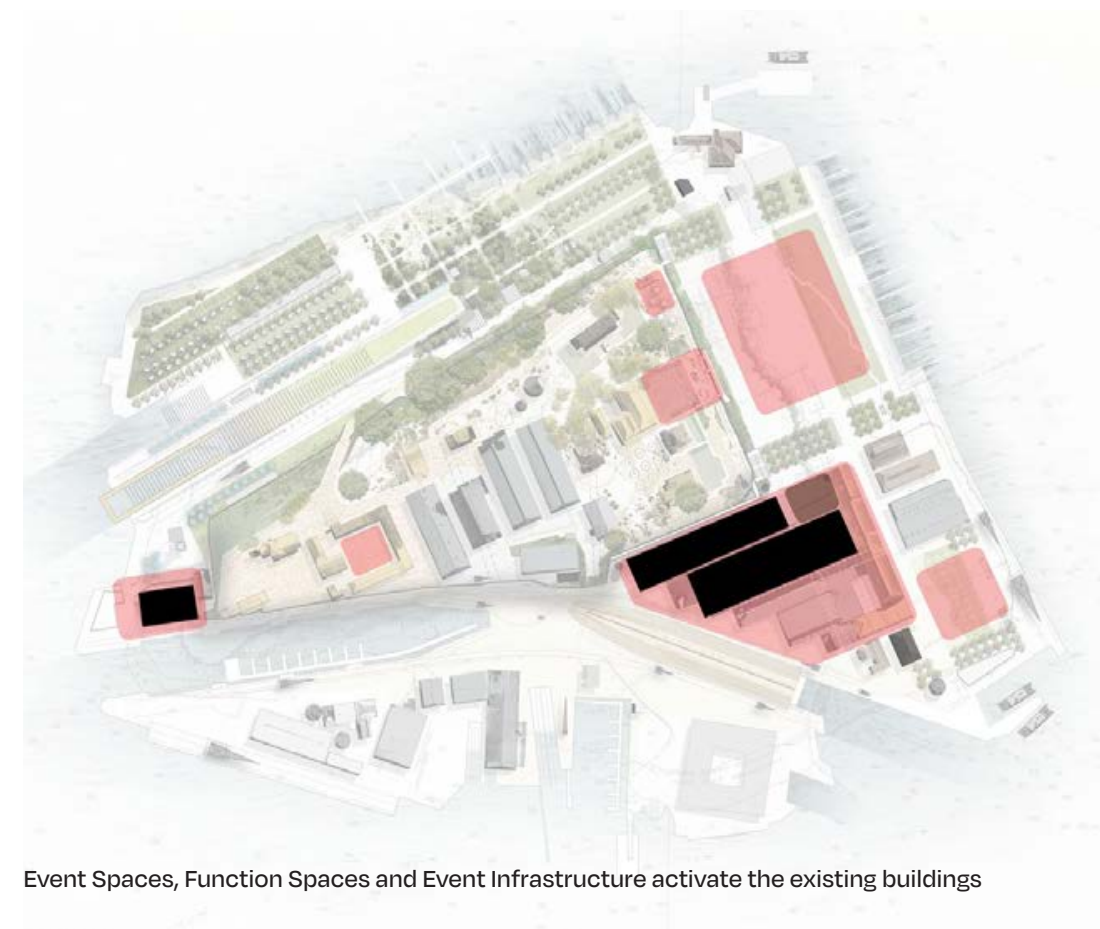
### 4.3 Future use guided by land form, heritage and appropriate activation

Cockatoo Island is envisioned as a place with greater visitation. The island will attract visitors because of its world class heritage experience, its natural beauty and its diversity of activities for a wide range of people.

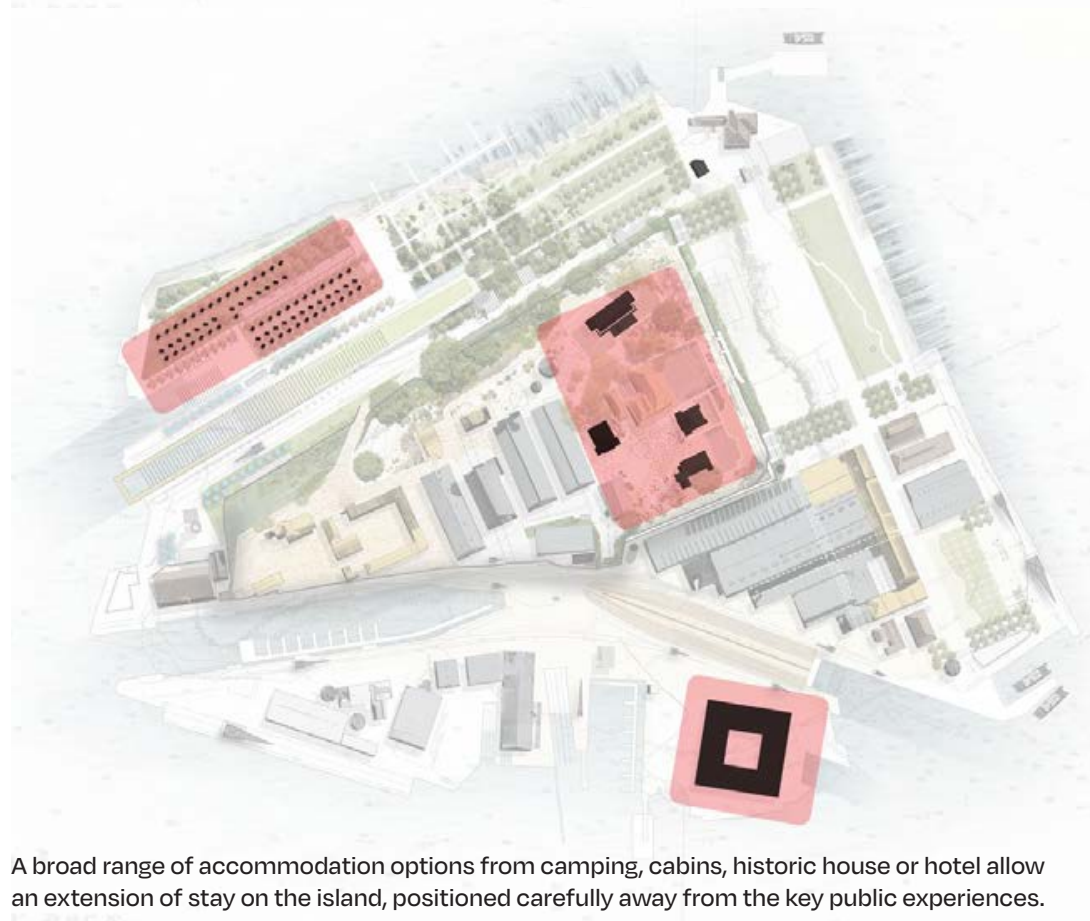
The position of proposed land uses and activities have emerged from a deep understanding of the historic and contemporary landscape of the island and are sited in a way sympathetic to the four key journeys as well as the arrival and circulation logic.



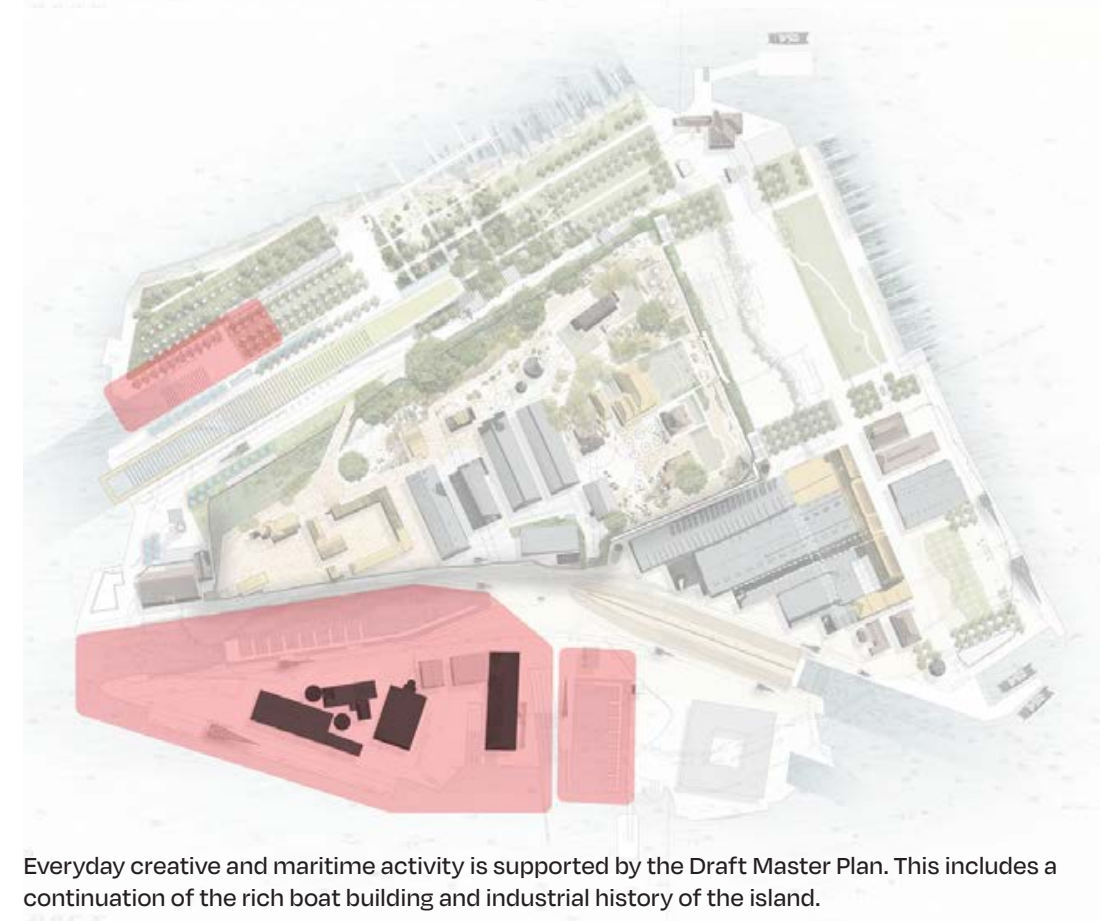
Food and Beverage options are positioned to suit a range of visitors across day and night.



Event Spaces, Function Spaces and Event Infrastructure activate the existing buildings



A broad range of accommodation options from camping, cabins, historic house or hotel allow an extension of stay on the island, positioned carefully away from the key public experiences.



Everyday creative and maritime activity is supported by the Draft Master Plan. This includes a continuation of the rich boat building and industrial history of the island.

#### KEY:

 Buildings/ Structures

 Areas/zones



## 4.4 Arrival, Access and Circulation

Cockatoo Island / Wareamah can be difficult to navigate, both due to its difficult terrain as well as its confusing fragmentation of spaces.

Clear, compliant and equitable access and circulation across the island is considered critical to the overall long-term plan, equally, in the process of making access compliant, the raw nature of place should not be sanitised. The key elements of access and circulation are proposed to comprise:

- Pedestrian movement and way finding providing clarity of circulation that is directly related to interpretation and understanding of the islands core heritage values;
- New ferry wharf located in direct proximity to a new public arrival square which activates heritage buildings through uses such as a visitor orientation hub, food and beverage outlets and educational uses.
- Two wharves operating concurrently in major event mode to provide expanded peak capacity during events
- Two new lifts and stairs providing direct and equitable access to the upper plateau precinct;

### Lower Loop

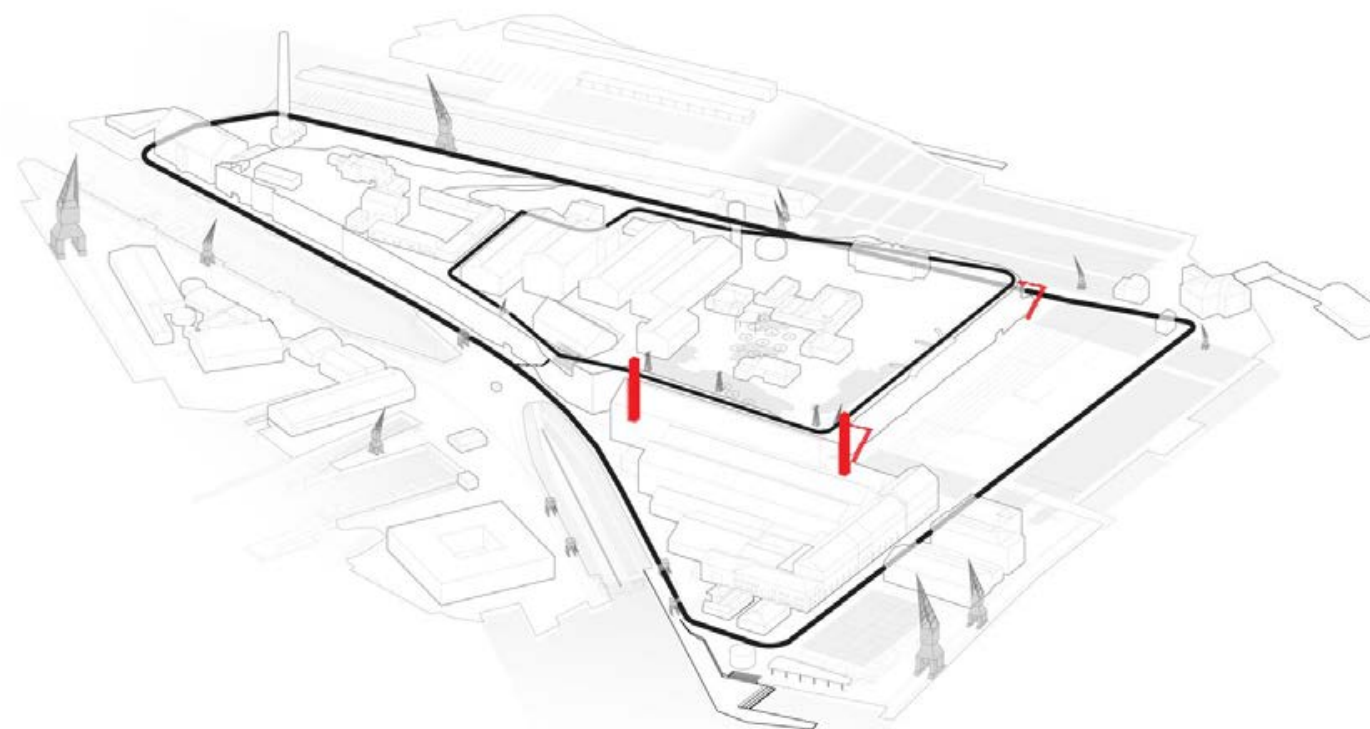
The lower loop is flat, offering clear and unimpeded access around the island. It gives an understanding of the island as a whole. In particular, the detail of the sandstone and the scale of the cliffs. This loop will, where possible, follow the original edge of the island before quarrying. This key historic thread will be texturally indicated in the ground plane.

### Upper Loop

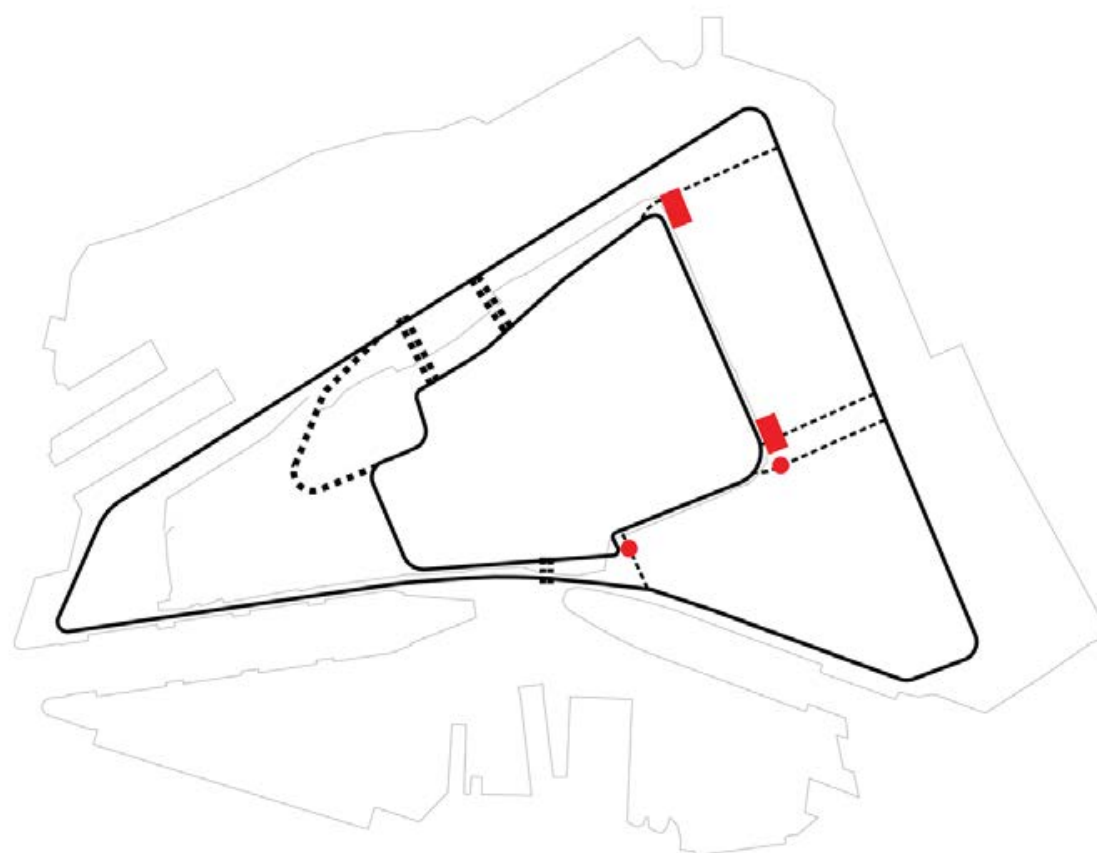
The upper loop circulates visitors around the island taking in the most significant convict heritage and the most beautiful views. The loop is atop the sandstone and therefore covers some ground of uneven surface and will need to be designed to ensure equality of access.

### Points Of Vertical Circulation

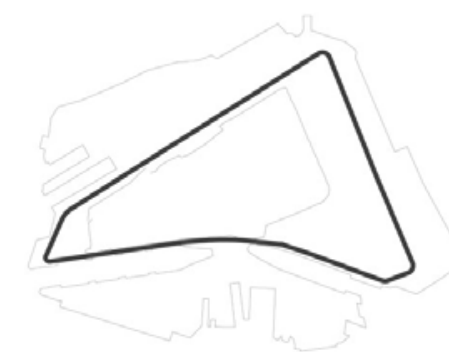
In the past, transition between water level and top of island occurred in many different places. These points of intuitive connection have been lost as the island has been modified. It has left lower aprons and the upper plateau disconnected for much of the eastern half of the island. Two new lifts and two new stairs are proposed to enable excellent connectivity between these two key levels (shown red).



A clear network of circulation is proposed to overcome the difficulties presented by level changes.



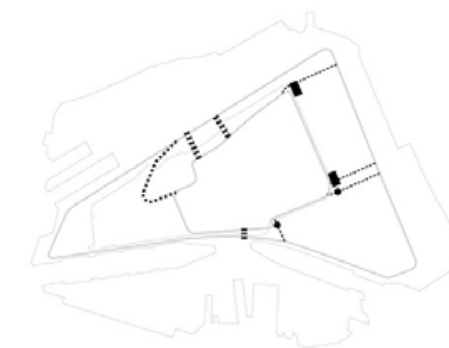
Loops, lines and nodes create a clear circulation network



LOWER LOOP



UPPER LOOP



VERTICAL CIRCULATION



## 4.5 Draft Master Plan

This site plan illustrates the key long term proposals of the Draft Master Plan. Further detail of each of the proposals is contained in subsequent sections of the master plan document.

**1. Arrival square** – a new, additional ferry wharf at the 'Ruby Steps' welcomes visitors into the island's new arrival and orientation square. Heritage features are highlighted, and the square is activated with events, educational, creative, Country and cultural activities, signature food and beverage.

**2. The Convict Workshop** – a significant convict-era building is restored to be the main visitor hub of the island, with visitor services, tours, island information and general assistance. Its beautiful sandstone façade forms a dramatic backdrop to the new arrival square.

**3. Fitzroy Dock** – completed in 1857, Fitzroy Dock was the largest engineering project in Australia, carved from sandstone by convict labour. Currently submerged, the Draft Master Plan considers draining this extraordinary structure, adding unique interpretive and light shows to become a premium island experience.

**4. The Industrial and Turbine Halls** – these cathedral-scale spaces are restored to support culture, creative arts, exhibition, First Nations and events programming directly linked to lifts to the upper plateau, new food and beverage, and new supporting infrastructure will enable more frequent, diverse use. Rooftop solar power will support clean energy for the island.

**5. Eastern Apron** – the island's major event space is retained and further enhanced with permanent enabling infrastructure, new access stairs to the upper plateau, shade trees and ground plane interpretation of the original waterline.

**6. Potential cafe / restaurant** – Signature venues within restored heritage buildings. These form part of a wider food and beverage strategy implemented over time and in partnership to support growing visitor numbers and experiences across the island.

**7. Northern Parkland** – the campground is relocated enabling creation of a significant new island park, reconnecting ancient remnant cliffs to the harbour, restoring native landscapes, trees and wildlife, and teaching collective care for Country (both land and water) within a place of recreation, play and rest.

**8. Marine ecology reefs** – constructed on the eastern and northern island waters to support Sydney Harbour biodiversity and enhance rehabilitation of the waters around the island. Offers new marine, interpretive and educational opportunities.

**9. Recreation and camping** – refreshed island-stay experience with new camping, cabins and camp facilities, plus new recreational opportunities including new harbour public pool and nonpowered recreational boating and kayaking in the slipways.

**10. Superintendents Precinct** – reconnected to the lower plateau with lifts and stairs, this precinct is enhanced with new interpretive and heritage activations, upgraded gardens, small events, conferencing and refreshed accommodation.

**11. Silos and Tent Embassy** – a First Nations contemporary meeting place for past, ongoing and new traditions and ceremonies. Interpreting the layers of natural and cultural heritage including remnant sandstone, Country, the convict silos and the Aboriginal Tent Embassy.

**12. Plateau Industrial Precinct** – adaptive reuse enabling enhanced interpretive, conferencing and educational opportunities, such as a maritime design learning centre.

**13. The Convict Precinct** – best practice visitor and interpretive experiences will bring alive the complex histories and stories of the island's convict past, supported with adaptive reuse and decluttered public domain.

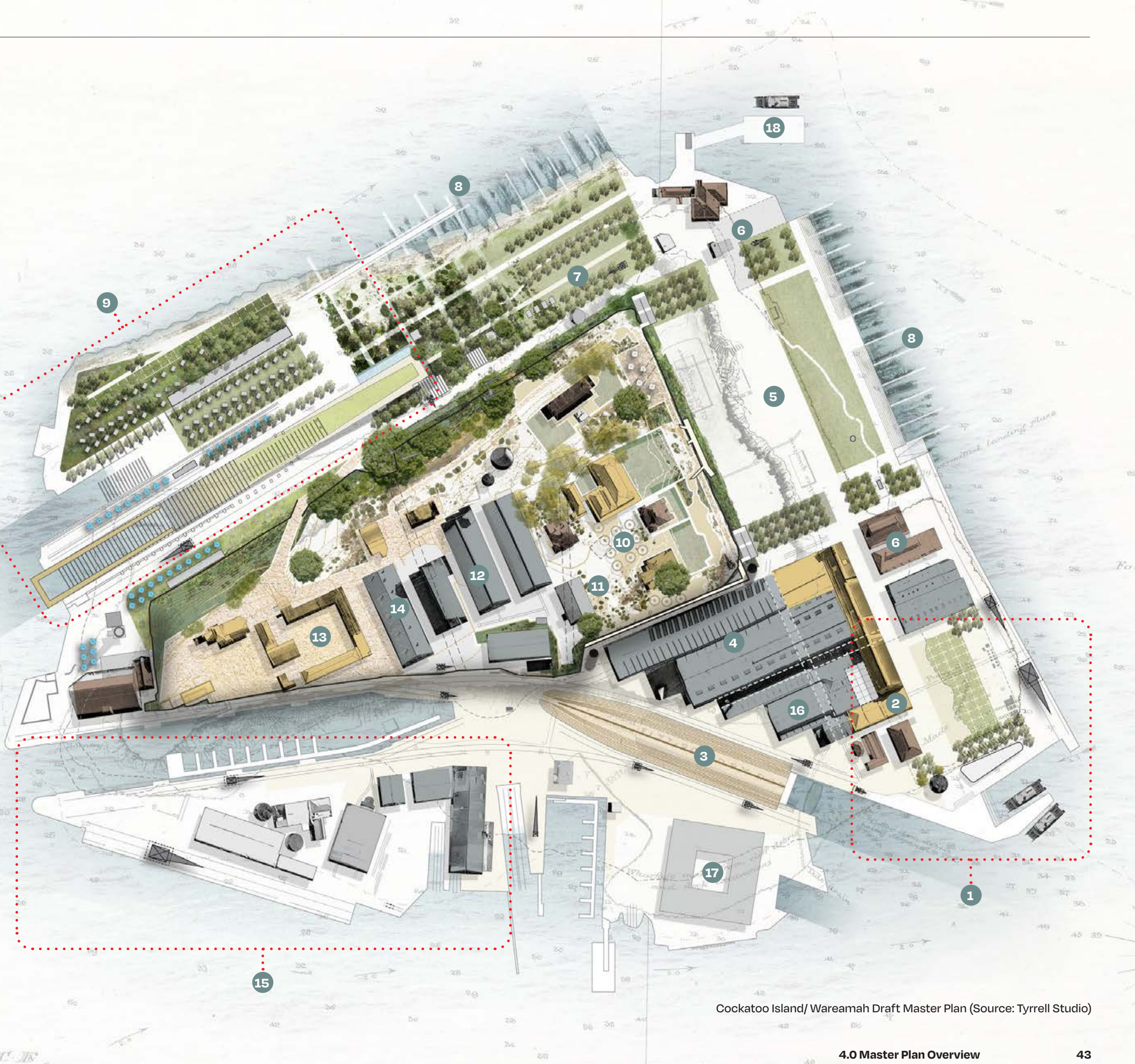
**14. The Mould Loft** – ongoing use for public programs, enhanced with displays on the convict system, industrial and reform schools, including people's stories of resilience, escape and rebellion.

**15. The Southern Apron** – maritime facilities are enhanced for boat repairs and storage, heritage boat building, possible future ship's chandler, and First Nations small businesses. Supported with infrastructure upgrades.

**16. Restoration Workshop** – enhanced workshop facility supporting ongoing restoration and maintenance of the island's heritage assets, with community and volunteer activities.

**17. Accommodation** – long term proposal, consistent with statutory Management Plan and international precedent for a World Heritage place.

**18. Parramatta Wharf** – retained – it will support more frequent services to the island.



Cockatoo Island/ Wareamah Draft Master Plan (Source: Tyrrell Studio)



# 5.0

## Public Programs and Visitor Experience

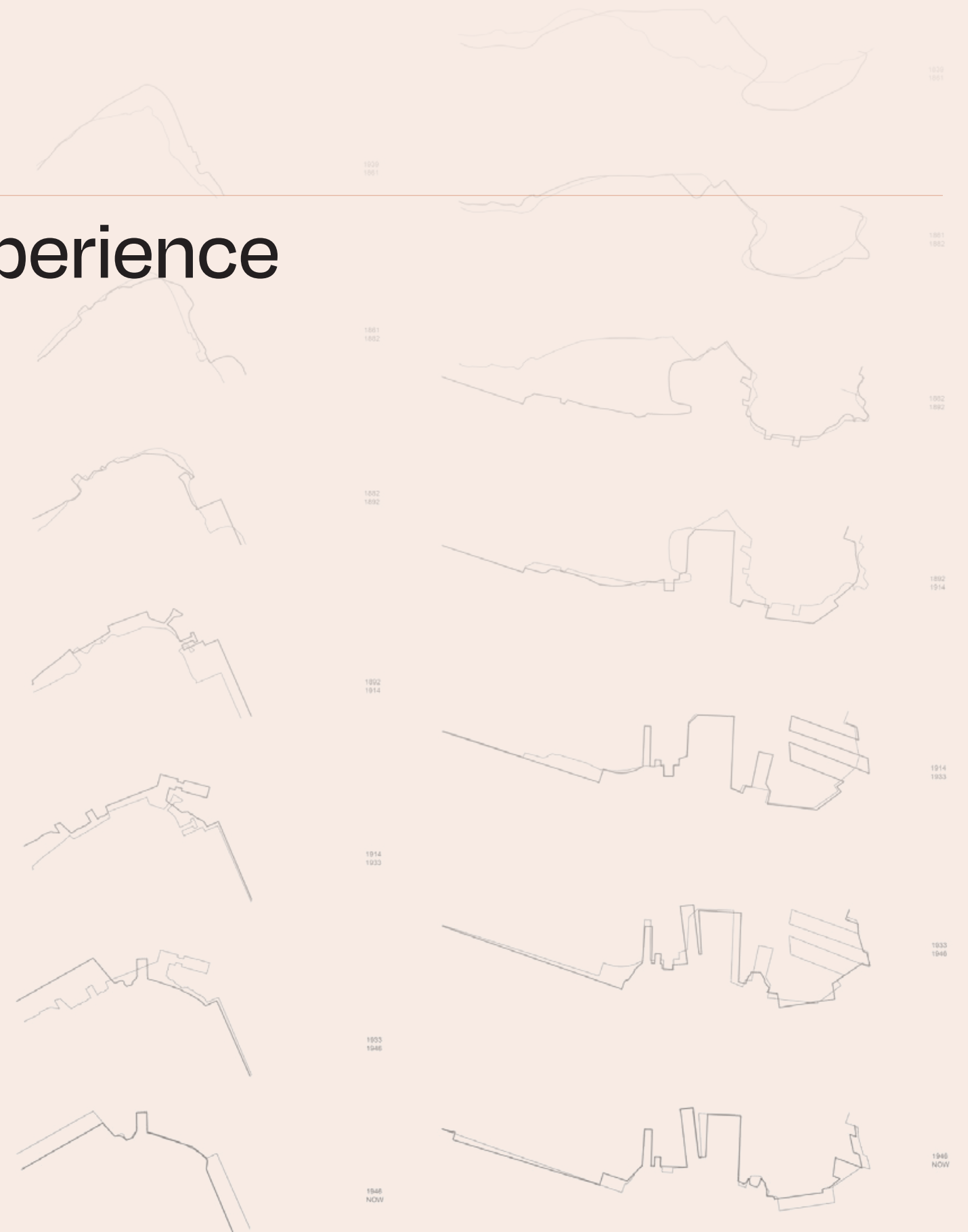
### 5.1 Public Program and Visitor Experience

### 5.2 Natural History of the Island

### 5.3 Connecting with Country

### 5.4 Convicts, Prisoners and Schoolchildren

### 5.5 Dock Working, Ship Building & Defending Australia





## 5.1 Public Program and Visitor Experience

### Interpretation Strategy Centred around Four Journeys

#### Interpretive Overview

The island can be overwhelming, particularly for first-time visitors, so an overall interpretive strategy will be adopted as part of the master plan that introduces the layers of natural and cultural heritage, supports orientation soon after arrival, and encourages active engagement with Cockatoo Island / Wareamah as a place, so that visitors can choose how they would prefer to move around and explore. Around the island, physical wayfinding and interpretation signage will be integrated with a digital guide, and support the four key themes. The four themes are:

1. Natural history
2. Country
3. Convict
4. Ship Building

Interpretation will cater for different audiences’ needs including experiences for locals, tourists and younger visitors, as well as those with a connection to the island through a relative or ancestor, or with an interest in maritime, military, convict or First Nation cultural heritage. Using the interpretive approach of catering for different people, sometimes called ‘paddlers, swimmers and divers’. Paddlers are recreational visitors who may carry a discretionary interest in heritage, Swimmers are visitors who have casual interest in understanding and engaging with the interpretation of themes and Divers are dedicated, informed and interested visitors who are highly engaged in heritage interpretation.

The layered approach will provide a richness and variety that will encourage visitors to extend their stay, and return.

#### Orientation

The orientation experience will introduce the island and its layered history, through models that show its transformation over time, and introduce the different themes and journeys visitors could take. Recognising that some visitors will prefer to skim the highlights and others follow a specific theme, or dive deep into the detail, visitors will be able to ‘choose their own adventure’ and whether they wish to explore on their own, with a digital guide, or take a guided tour.

#### Boat Trips

While all will arrive at Cockatoo Island / Wareamah by boat, there will be options for additional boat trips such as a circumnavigation, or deep dive into the maritime history including a visit to the Woolwich dry dock nearby.

#### Site-Specific Art Commissions

Art and creativity are integral to Cockatoo Island /Wareamah and as the Draft Master Plan is implemented, the different themes would be explored by artists through a residency including a stay on the island, and then the creation and installation of a site-specific work. Potential locations include: the underwater reef, harbour park, convict precinct, slipways and industrial precinct.

#### Immersive Evening Program

Cockatoo Island /Wareamah will come alive at night when light, sound and technology will be used to create an immersive program that tells the story of its transformation and uses over time as visitors take a looped walk around the island. Key experiences would include: the resilient sandstone of the cliff faces; connecting to Country at the Harbour Park ; the activity and voices of the convict precinct; projected ships in the docks; and culminating in the sights and sounds of the mighty turbine shop. Visitors could combine the evening program with a meal and boat trip, or stay overnight and then explore more the next day.

#### A major destination for schools and education

Building on the current schools program, with the transformation of the Draft Master Plan, Cockatoo Island / Wareamah will become a premier destination for school students and will also cater for tertiary educational opportunities. Students will be able to access programs from Aboriginal cultural practice and Caring for Country through to history, and STEM subjects, with the option of an overnight stay as part of the experience.



Artist's impression of an immersive evening program underway (Source: Tyrrell Studio + Doug & Wolf)



## 5.2 Natural History of the Island

Cockatoo Island / Wareamah will present visitors with an unmatched opportunity to understand the natural heritage of the most beautiful harbour in the world. Sydney's renowned natural beauty is on display both from the island as a viewing point, and within the island. This is an opportunity for audiences to connect with Australia's deep history as a continent, the resilience of our landscapes and contemporary discussions of environmental conservation.

While its surface has been transformed by human activity, Cockatoo Island / Wareamah resiliently stands as a rocky island surrounded by salt water. Visitors will be able to explore the natural values and how – with assistance – they are reasserting themselves.

Exploring the island's natural values focuses on listening, touching, seeing and smelling. The Draft Master Plan considers the following elements as key to visitor understanding and engagement with this theme:

### Orientation Space

1. Introducing the natural values of the island and putting them in context

### Experiencing Geology

2. Exploring the deep history of the harbour via the visible sandstone geology at sites of cutting or tunnelling
3. Walking the shape of the island before 1788

### Experiencing Terrestrial Ecosystems

4. Seeing the intact areas of escarpment with their established plants and returning biodiversity
5. Engaging with plant and animal communities including *Angophora costata* canopy which is a known Cockatoo habitat
6. Investigating the micro forests of the island up close on the cliff faces
7. Relaxing in the Harbour Park with its transect of planting from cliff to coast that interprets how the island once was
8. Learning about the power of plants to remediate contaminated land (phytoremediation)

### Experiencing Marine Ecosystems

9. Seeing plant and animal life growing on the artificial reef

### Experiencing the Dynamic Island Environment

10. Watching the changing tides
11. Exploring the interactive Indicators of wind, weather and seasons at the water tower



The Natural History of the Island Elements (Source: Tyrrell Studio)



## 5.2 Natural History of the Island Material Expression

This theme is about revealing the island's and Sydney Harbour's natural heritage. Moments of delight in the environment will encourage visitors to lean in and look more closely at the natural materials that are the foundation of the island. This theme will look back at the lost natural systems of the past and engage visitors with a future focussed on regeneration of the health of these systems as constructed landscapes.



The natural history of the island can be understood through the threads of materiality that exist. These can be strengthened to draw visitors into a journey of discovery along this theme of natural history. (Source: Tyrrell Studio)



## 5.2 Natural History of the Island

### Experiencing Geology

#### Exploring the deep history of the harbour via the visible sandstone geology at sites of cutting or tunnelling

Once a 40-metre-high outcrop of sandstone which had survived erosion in the river valley, Wareamah became an island after sea level rise created Sydney Harbour between 10,000 and 6,000 years ago. Visitors can explore the sandstone at the Eastern cliff face, which reveals the layers of sediment initially laid down over 200 million years ago, and the recent cuts that have exposed them. By entering the Dog Leg tunnel that is cut from the rock, visitors can explore the subterranean geology deep inside the island.

#### Walking the shape of the island before 1788

The shape of the island has changed and will continue to change due changes in sea level. The most significant and rapid changes to the shape have been through quarrying and cutting back the sandstone since the convict era. There are many opportunities to trace the former shape of the island on the concrete aprons which now surround the remnant sandstone. These threads of natural history will allow visitors to read the other layers of the island in relation to the changes made to the geology of the island.



Sandstone cliffs of the Island.



The Dogleg Tunnel (Source: Sydney Harbour Federation Trust)

#### Seeing and caring for the intact areas of northern escarpment with its established plants. Regenerating plant and animal communities including Angophora costata canopy, a known Cockatoo habitat

Before Europeans reshaped it, the island probably shared the coastal sandstone forest flora that is visible on nearby Berry Island: a magnificently tall canopy of Angophora and Eucalypts, and an understorey of Acacia, Lomandra and Blue Flax Lilies. Its European names – Bird Island and Cockatoo Island – suggest that the outcrop was a haven for the local bird species including the Sulphur-crested Cockatoo, Yellow-tailed Black Cockatoo, and wattle birds. The Draft Master Plan proposes that visitors can explore the areas of the northern escarpment that are thought to be largely unchanged through the colonial history of the island.

Areas of the plateau and north apron parkland will be replanted with Angophora costata canopy, a long term investment in rebuilding the biodiversity, to encourage the return of Cockatoos, and visitors will be able to track this initiative and explore what is needed to encourage the regeneration of plant and animal life in an urban setting.

#### LEGEND

- Eucalyptus Trees
- Fig Trees
- Cottage Tree Planting
- Sandstone Cliff Planting
- Native Shrub and Grass Planting
- Cottage Planting



Map of existing ecological communities of Cockatoo Island (Source: Tyrrell Studio)

#### Investigating the micro forests of the island up close on the cliff faces

On the moist and shady southern cliff faces, best viewed up close from the elevated walkway, visitors will be encouraged to explore the tiny ecosystems in clefts and gullies of the cliff. Of special note is the relatively high number of ferns and fern allies growing in areas where water regularly seeps through the cliff face. These outcrops include rarer species such as Skeleton Fork Fern and Slender Club Moss.



Creating an Angophora forest that returns biodiversity to the island and helps to return Cockatoos and other birds to the island. (Source: Bangawarra)



Layers of sandstone on display in the massive cutting of the eastern apron

#### Relaxing in the Harbour Park with its transect of planting from cliff to coast that communicates how the island once was

The remnant plants of the north cliff show the characterful former ecologies of the cliffs around the harbour. This planting will be extended and enhanced along the cliff edges and out into the parklands on the northern apron.

The new park will retain the industrial remnants of the past, but will enhance the current green aspect of this part of the island, in the best microclimate for public use, that connects with the green outlook of Woolwich to the north. It will provide public recreation, including native gardens, shady play and passive spaces.



The Draft Master Plan of the northern harbour park (Source: Tyrrell Studio)



Southern cliff fern gardens



Remnant figs and ferns on the northern cliff



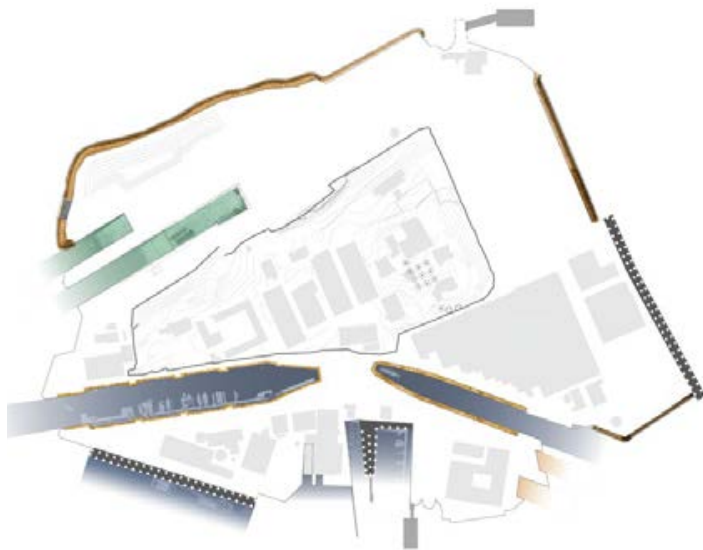
## 5.2 Natural History of the Island Interpreting Marine Ecosystems

### Seeing plant and animal life growing on the artificial reef

Supporting and repairing biodiversity is as important below the waterline as it is on land. The Draft Master Plan proposes constructing artificial reef areas to create an example of the island's role in supporting healthy marine habitat. This is particularly viable along the northern and eastern edges of the island. Here, artificial reefs would reinstate and support diverse marine ecosystems. They will allow visitors to access the waters edge and to experience real marine ecologies up close.

Designed and pioneered by research scientists at the Sydney Institute for Marine Sciences (SIMS), living seawalls are starting to improve the environment in the Harbour. There is an opportunity to collaborate with SIMS on a pilot project to test the viability of artificial reefs at Cockatoo Island / Wareamah and their potential to reinvigorate the western harbour. Visitor experience would include educational programs to learn about the life of the harbour.

The waters of Sydney Harbour are an invaluable asset to Cockatoo Island, The Harbour Trust and many others. It is imperative we continue to care for and heal Water Country. Coastal wetlands can store carbon up to 40 times faster than rainforests and can remain there for thousands of years (The Nature Conservancy, Australia). The restoration of coastal wetlands hold the potential to improve the quality of both water and air. They can also demonstrate extraordinary efficiency as carbon sinks.



Map of opportunity sites for supporting marine ecological Cockatoo Island  
(Source: Tyrrell Studio)

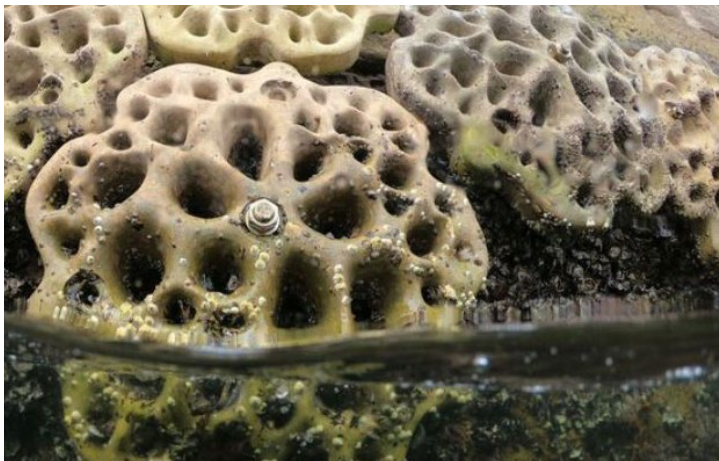
### Example Project: Sydney Rock Oysters Indigenous Arc Project, First Nations Marine Knowledge

Dr Laura Parker, Indigenous Scientia Fellow at the UNSW School of Biological, Earth and Environmental Sciences, studies the impact of global environmental change on the survival of Australia's oyster industry. Dr Parker is combining the sciences of genetics, physiology and ecology to identify the traits of resilient oysters. Her research is now a key part of the Sydney rock oyster breeding program to help climate-proof" the largest aquaculture industry in NSW, worth \$40 million annually.

<https://www.unsw.edu.au/news/2021/11/indigenous-arc-project-hopes-to-reverse-decline-of-sydney-rock-o>  
<https://100climateconversations.com/laura-parker/>  
<https://vimeo.com/467678334>



Artificial reefs can be formed from various materials including marine-grade steel or concrete. (Source: Reef Design Lab and SIMS)



Precast concrete tiles provide natural habitat against typically flat seawalls.  
(Source: Reef Design Lab and SIMS)

## Experience the Dynamic Island Environment

### Watching the changing tides

The island's interface with the surrounding water is its most fascinating condition. The Draft Master Plan creates comfortable pause points to allow time to observe the changing tides and many moods of the water. In particular, the slow transition between land and water offered by the slipways in the northern park allows safe and direct engagement with the waters edge, allowing for the launching of kayaks as well as paddling and swimming.

Tidal terrace steps will increase access to the waters edge and into the harbour, and can be set within the existing rocky edges that currently create a barrier between people and the water. Tidal terrace steps provide moments of understanding of the flux of the harbour environment, set within the industrial character of the area.

### Exploring the interactive indicators of wind, weather and seasons at the old water tower

The island has dynamic and sometimes extreme weather conditions. Often one part of the island is significantly colder than another part of the island. An island weather report could be part of an online visitor experience, using available weather forecasts to identify the best times to visit different parts of the island. This could help to create better visitor experience and encourage return visits.

### Citizen Science: Creating opportunities for visitor involvement to improve the health of the islands' natural systems

The island can engage visitors with its natural processes. This may include initiatives around recording or monitoring bird or marine species. There is also potential to observe the process of phytoremediation, as plants clean the soil in cycles of flowering and reseedling.



Phytoremediation Project, BHP Newcastle  
(Source: Megan Murray)



Mesmerising tidal shifts in the western slipway



## 5.3 Connecting with Country

Connecting with Country requires more than acknowledgment, it requires deep understanding, a process that includes connecting with all of the local Aboriginal peoples, stories and knowledges, walking Country, listening, and challenging the norms of practice.

The places, spaces and experiences proposed for the next chapter of Wareamah will be informed by the cultural values explored earlier in this document – Gibba, Barrawal and Buruwi – to bring audiences closer to contemporary understandings of Country.

The following interpretive elements also follow these principles, with specific interventions and activities that will reinstate and communicate the significance of High Country and continue cultural knowledge, practices and exchange through ceremony, craft and enterprise. Exploring the island's First Nations values focuses on creating awareness and understanding of Caring for Country principles.

### Welcome to Country

1. Welcome to Country at key arrival points
2. Orientation space – introducing the concept of Connection with and Caring for Country

### Yiningma and Ceremonial Spaces

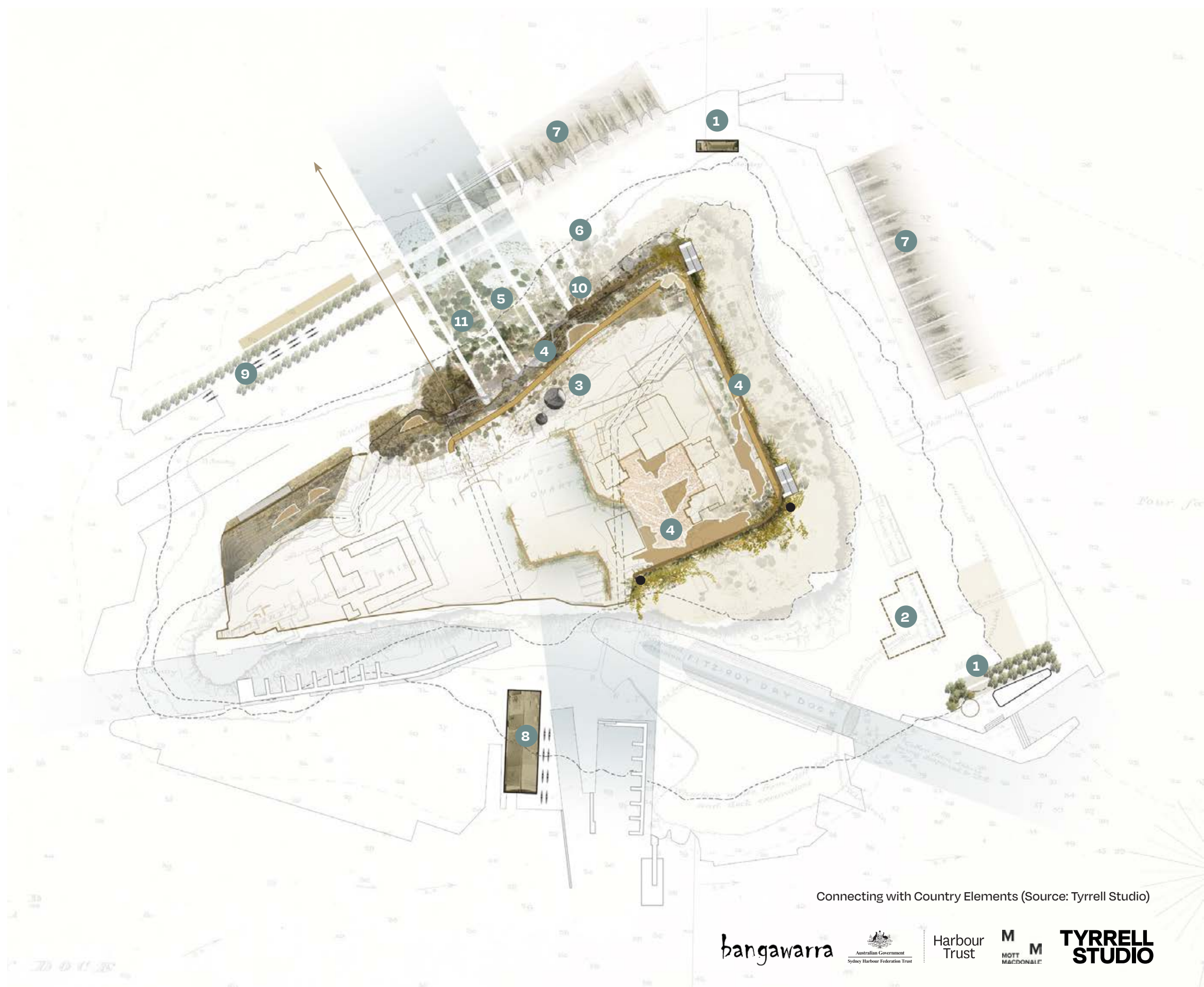
3. Yiningma, high country ceremonial and gathering places overlooking the Northern Harbour Park
4. Revealing the remnant sandstone of The Silos and telling the ancient story of Country

### Caring for Country

5. Understanding Caring for Country through the reconnecting of the cliffs to the water
6. Exploring Caring for Country through the replanting of *Angophora costata* canopy to create Cockatoo habitat
7. Constructed reef ecologies reconnecting Water Country (see Natural History of the Island)

### Indigenous Businesses

8. Aboriginal and Torres Strait Islander practice and business in canoe-making
9. Aboriginal and Torres Strait Islander practice and business in water tours, traditional boating and canoe hire
10. Exploring Aboriginal ranger tours & Aboriginal Nurseries
11. Enabling Aboriginal education experiences



Connecting with Country Elements (Source: Tyrrell Studio)



### 5.3 Connecting with Country

An experience of landscape is possible across the island from the sandstone to the living systems, the systems of weather and views beyond the island. First Nations culture can be connected with this landscape and become a key part of the visitor experience to the island.



The deep time of Country and of Aboriginal culture can be drawn out of the island over many years. Culture can be appropriately shared with visitors to Wareamah. (Source: Tyrrell Studio)



5.3 Connecting with Country

Welcome to Country at key arrival points

It is essential to ensure that all people feel safe, welcomed and connected to Country on Wareamah through design responses specific to the knowledges of Country here. The welcome experience will create opportunities for everyone to connect with Country on the island, within the built fabric and disturbed landscape(s).

Cultural practices of welcoming have defined how people move through Country for millennia. Smoking ceremonies, language, song, dance and storytelling (amongst others) have welcomed newcomers to Country. These cultural practices are essential to ensuring that people visiting neighbouring (and afar) Nations and Country/s are safe and aware of the local lore/laws.

This Welcome will draw on ancient practices together with contemporary ceremonial and culturally appropriate knowledges. This Welcome will be different and distinct from a typical arrival experience, encouraging visitors to stop and reconsider and engage with the island as Country.

Welcome to Country will be part of the online experience, part of the boat trip to the island and part of the process of landing and setting foot on the island.



Truth Telling Exhibit, Anisipi, Quebec (Source: Moment Factory)



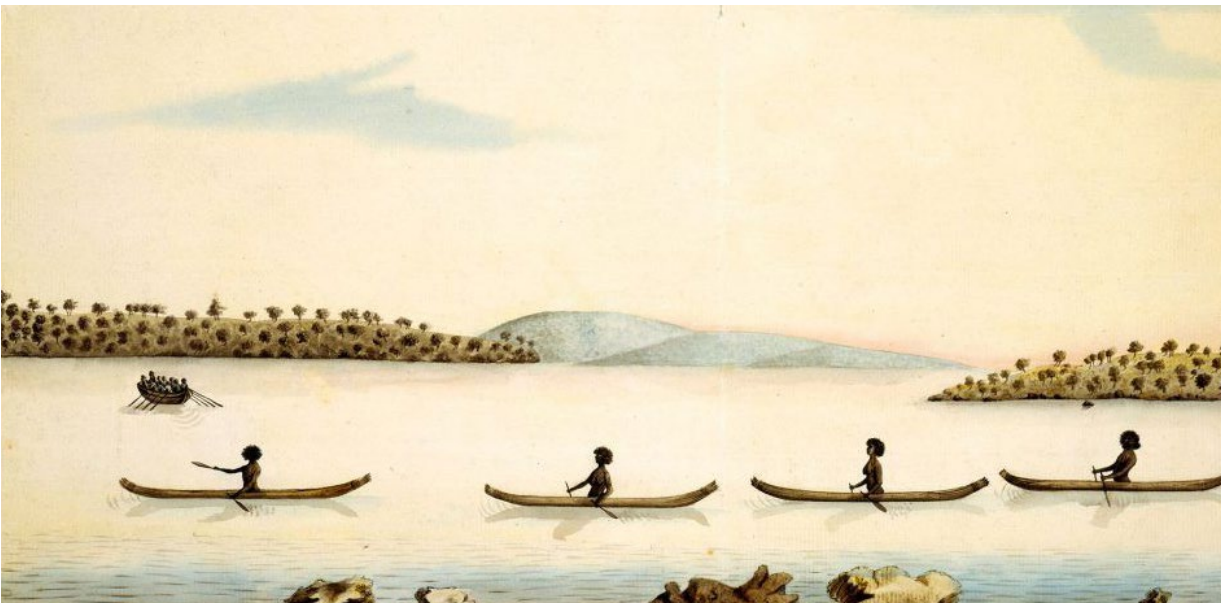
MacDonnell Ranges Light Show, Parrtjima 2023 (Source: Northern Territory Major Events)



Opportunities for traditional watercraft construction (Source: Bangawarra)



A celebration of Saltwater Country (Source: Bangawarra)



October 1790 – Bennelong reopening dialogue with Governor Phillip and his voluntary return to Sydney Cove. Ban nel lang meeting the Governor by appointment after he was wounded by Willemaring in September 1790, c1790, Port Jackson Painter, Watling Drawing 40, (Source: London Natural History Museum)



### 5.3 Connecting with Country

#### Yiningma, high country ceremonial and gathering places overlooking the Harbour Park

While many oral traditions and practices have been disrupted, Yiningma, high, cliff Country, tells us of the many Peoples and Nations that are connected to this place. It is here we see that this Saltwater Country is understood in the round, never by any one direction. It is connected to other Ceremonial Places of this Country: North, Middle and South Heads, Ryde and Sydney Olympic Park. High Country, connected by beacons of fire, have always been a place of Ceremony where Elders, Healers and initiated people from across the Sydney region (and afar) have come together for ceremony.

The original form of Wareamah was a sweeping sandstone plateau. The original height of the island has been gradually reduced by excavation since quarrying began and work commenced in preparation for the Fitzroy Dock. The surrounding flat apron area is partly created by spoil from the excavation of the plateau.

The Draft Master Plan can provide opportunities for the built form to reflect the earlier nature of the island, commemorating the original height as well as celebrating Sky Country. This could be achieved through a range of different mechanisms including lighting, a sky walk or lookout, public art and built forms.

#### Revealing the remnant sandstone at The Silos and telling the ancient story of Country

Although overlaid by the story of the Silo's, this area also allows visitors to experience the sandstone in all dimensions.



The Silos

#### Exploring Caring for Country through the replanting of Angophora costata canopy to create Cockatoo habitat, reconnecting of the cliffs to the water and constructed reef ecologies reconnecting Water Country (see Natural History of the Island)

The northern park can begin to redefine how people have come to know (and misunderstand) the Australian 'bush' landscape as wild and untamed. It is a chance to challenge the skewed views and misconceptions and re-establish the knowledges of management and care, systematic and scientific practices, from thousands of years of connection and care with Country here. The Northern Park precinct will reflect local, endemic flora that celebrates the ancient essence of Country as a carefully managed landscape.

The northern park should embrace and embed the beauty of native landscapes while honouring the cultural practices and resources that define this Country.

The northern park will allow accessibility to the water's edge and include the return of the gulgadi, grass tree, to its native habitat(s). Appropriate trees can also be reintroduced to support the practices of canoe making and tree scarring as a meaningful way to reconnect Aboriginal peoples with the island through cultural knowledge reclamation.

(Source: Bangawarra)



Replanting Country (Source: Bangawarra)

#### Supporting Aboriginal and Torres Strait Islander practice and business in canoe-making, water tours, traditional boating and canoe hire, Aboriginal ranger tours, plant nursery and Aboriginal education experiences

At the slipways of the northern park and within the boat building facilities of the southern aprons, a dedicated space will be allocated for ongoing cultural practices associated with the harbour. The southern dock offers appropriate space to design a custom workshopping space for cultural practices connected with the water and shore.

Crafting of the nawli (canoe), wulban (canoe with fire) requires specific spaces and resources. The canoes have always been designed in direct relation to the water and require specific barks and strings which could be accessed across the island and surrounding areas. This practice is personal and custom designed to fit bodies, babies, children, tools and fire.

As a Dharawal seasonal activity, during Burrugin, the workshop can be curated in a way to facilitate other cultural activities such as shell hooks at other times of the year. These hooks are made through a multi step process, grinding shells on sandstone to create small, pearlescent hooks.

Operating kayak and canoeing tours from the northern slipways present opportunities for ongoing indigenous practice and support of indigenous businesses on the island.

There are opportunities for collaborations with a number of organisations including the Australian National Maritime Museum, Museums of History NSW and Tribal Warrior to explore opportunities for educational, boat building and ranger programs.



Supporting cultural practice - fishing and watercraft construction (Source: Alison Page)



## 5.4 Convicts, Prisoners and Schoolchildren

Cockatoo Island / Wareamah is best known as a place of incarceration, and was listed as a World Heritage Site by UNESCO in 2010 as one of 11 Australian Convict Sites. It was used in two distinct modes during the Convict era, then as a location for a Girls' Industrial School and a Boys Reformatory, and later as a prison once more. As an important place within the Colonial system, Cockatoo Island / Wareamah was part of a complex network that saw convicts moved around the Colonies, Aboriginal people removed from their traditional lands and incarcerated, and children confined and trained for colonial life. Some of the tangible fabric of this theme is still highly legible across the island, which presents opportunities for audiences to be immersed in the changing conditions of its inhabitants through these periods, as well as viewing the distinct languages of the Island's architectural development from afar as they approach on the water.

Exploring the convict and colonial cultural heritage of the island includes a journey through the tangible sandstone remnants of the prisons, houses and workshops, together with learning more about the hard labour of quarrying and the excavation of the Fitzroy Dock. Importantly, it also uses interpretive technology to encourage visitors to explore Cockatoo Island / Wareamah as a node in the convict system of the Colony, and connect with the stories of the people – the convicts, prisoners, children and their overseers, many of whom were ancestors of today's Australians.

### Orientation

1 Orientation space – introducing the convict system, Colonial uses of the island and stories of the people, including Aboriginal people, who were incarcerated or lived on it, in the convict-built former steam workshop

### The Silos and Plateau

2 Exploring the Grain Silos and imagining the hard labour involved in digging them by hand  
3 Seeing the harbour views and considering the isolation of the island from the city

### Superintendents Cottages

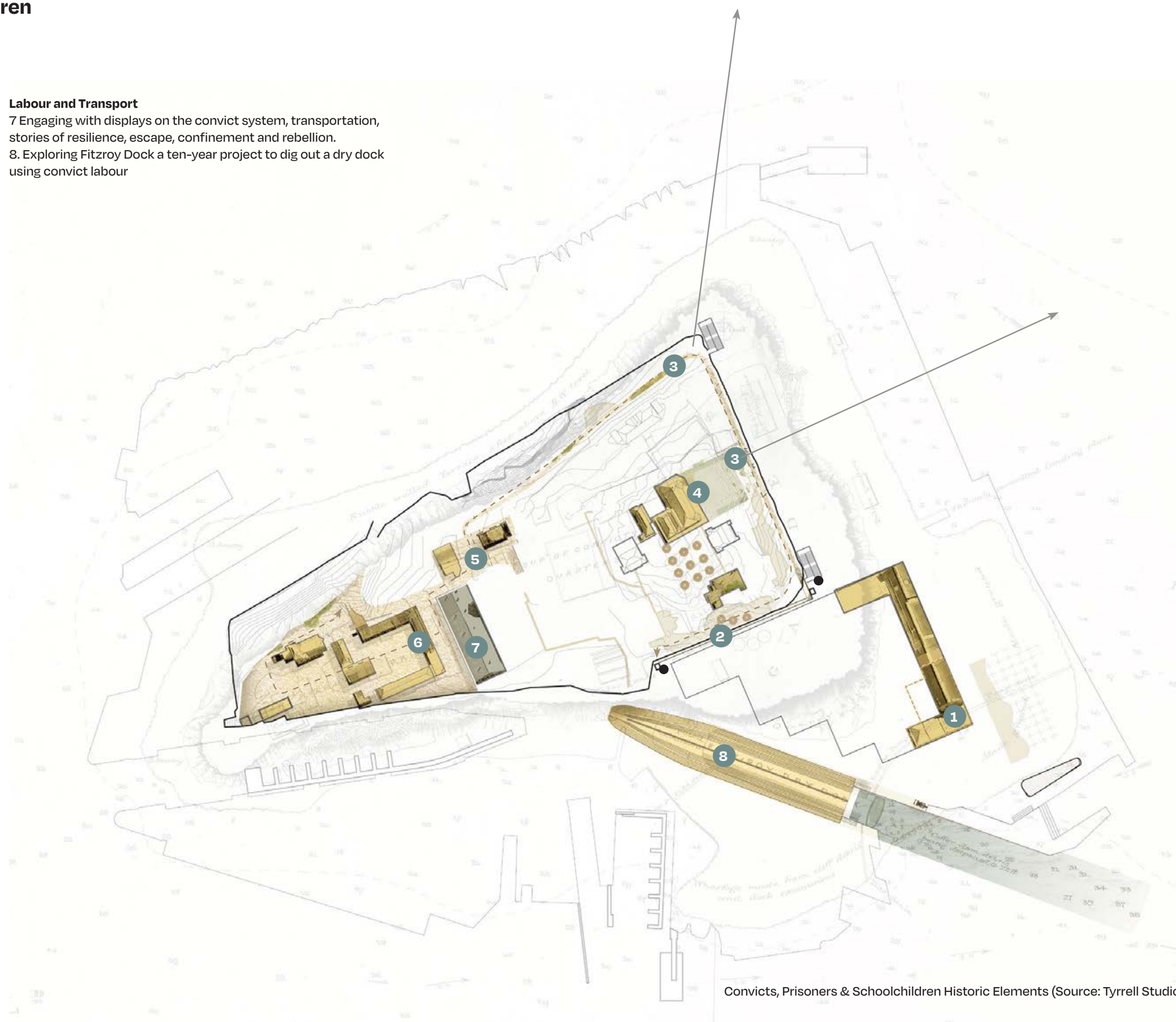
4 Exploring the Superintendents' precinct and the different approaches of Ormsly and Mann to the convicts  
5 Exploring the layout of the island during the Colonial era at the Overseers cottages

### The Barracks

6 Exploring the Barracks Precinct, and the hospital, kitchen, mess and sleeping quarters for convicts, soldiers and officers, with selected fitout to evoke how it was used.

### Labour and Transport

7 Engaging with displays on the convict system, transportation, stories of resilience, escape, confinement and rebellion.  
8. Exploring Fitzroy Dock a ten-year project to dig out a dry dock using convict labour



Convicts, Prisoners & Schoolchildren Historic Elements (Source: Tyrrell Studio)



## 5.4 Convicts, Prisoners and Schoolchildren Material Expression

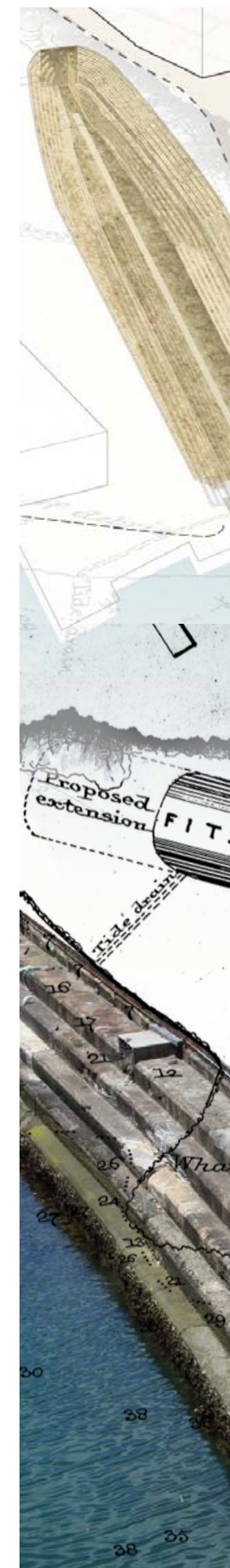
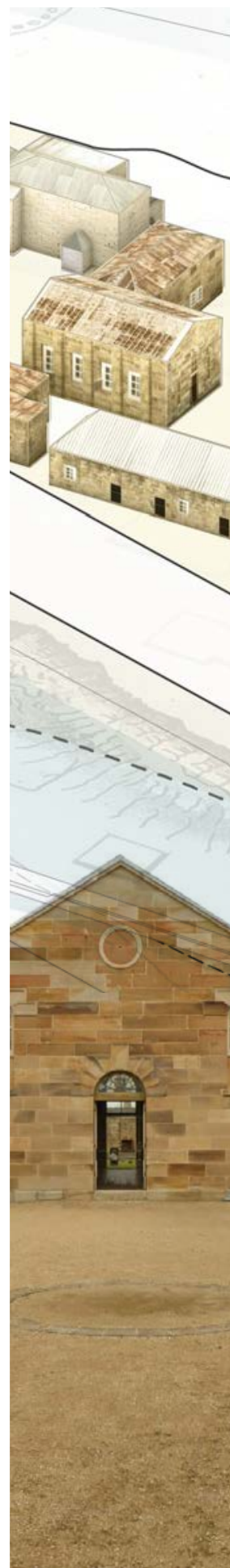
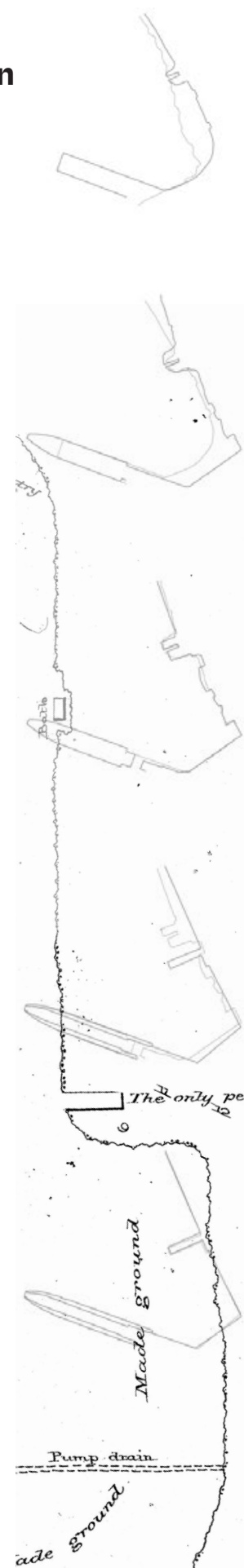
Cockatoo Island / Wareamah was part of an archipelago of colonial incarceration that includes Norfolk Island, Tasmania, Hyde Park Barracks and the Parramatta Female Factory and Industrial School. It was originally a place for housing secondary offenders, 're-transported' between colonies, and saw many stages of review and reform as expectations of and approaches to incarceration and 'care' changed.

Across its time as a convict prison, free society prison and industrial school, living conditions and labour expectations were cruel and dangerous. Whilst there were political leaders that brought reform, even the 'humane' options were harrowing by modern standards. The island's time as a gaol is also linked to Australia's frontier violence by the imprisonment of Kamalaroi men Sandy, Billy, Jemmy, Cooper and King Jackey following the massacre of 28 Kamalaroi people at Myall Creek in 1838.

Later, children and teenagers were brought to the Island to be educated at the Industrial Girls and Reformatory Schools. Their experiences were little better, experiencing violence and abuse at the hands of their caretakers. This dark period in the island's history is a lens through which we can consider the resilience of those who fought for change, and our contemporary approach to reform and justice.

As visitor experiences, the 'treacherous terrain' of the island's dark history should be treated with historical integrity and sensitivity so as not to succumb to what landscape architect Jacky Bowring has termed, 'voyeurism and commodification.' 'While some aspects of the island's built heritage speak for themselves, visitors will have the opportunity to put the barren cells and buildings into context with the introduction of the stories and experiences of those forced to live there – including the reformatory girls.'

There are opportunities for collaborations with a number of organisations including, Museums of History NSW and the National Museum of Australia to research and develop this theme.



Convicts, Prisoners & Schoolchildren Historic Elements (Source: Tyrrell Studio)



5.4 Convicts, Prisoners and Schoolchildren

Exploring the Grain Silos and imagining the hard labour involved in digging them by hand

The Draft Master Plan proposes lifts that connect the apron and plateau. The lifts will bring visitors close to the steep sandstone escarpment from which stone was quarried to build the semi-circular quay and all the island's convict era buildings and infrastructure. This journey offers insight into the density and monumentality of the sandstone as an introduction to the harrowing story of the Grain Silos.

The lifts will arrive at the Grain Silos, offering the opportunity to see the openings of the silos from above, and then to traverse along the elevated walkway to explore several silos in cross section. Seventeen were carved from solid rock using hand tools by candlelight, only to have colonial administrators in London put an end to the project, and three men die trying to empty them of grain. They show a careless disregard for convict labour. The silos surviving in cross section make the story understandable and technology could recreate a convict in one of the silos, creating a compelling vision to help visitors imagine what it would have been like to carve a silo out of solid rock.

Seeing the harbour views and considering the isolation of the island from the city

The Draft Master Plan proposes an upgraded circulation path on the upper plateau, from the lifts around the east towards the city north with views to the Parramatta River and then west to the Barracks. While surrounded by the modern city, during the Convict era the island was isolated, whilst within easy reach of the colonial settlements. Visitors will be invited to consider this isolation for those who were stationed here, and those incarcerated who tried to escape across the deep waters.

Exploring the layout of the island during the Colonial era at the Overseers cottages

Today the two Overseers cottages look radically different, drawing attention to the use and reuse of buildings by their successive occupants, but during the convict era they would have looked very similar and formed part of the link between the barracks and superintendent's residences at opposite ends of the plateau, and been the threshold to the prison area. There are opportunities to use technology for visitors to explore the convict layout of buildings, and the nearby quarry.

Exploring the Superintendents precinct and the different approaches of Ormsby and Mann to the convicts

The Supervisor's precinct was once a clearly demarcated area – elevated with a garden and views to the east. It was chosen according to convict custom because it was the highest point on the island. The choice was at once symbolic, as an indication of status, and practical, as it enabled the Superintendent to have the best view of what was going on.

Inside the house visitors will be able to discover the different approaches of its superintendents to managing the convicts, with a focus on Ormsby – who was subject to five enquiries into his treatment of the men, and ran a series of private enterprises, and Gother Kerr Mann – who extended the residence to accommodate his wife and ten children, and designed the Fitzroy Dock.



Photograph showing the extensive quarrying of the island to construct sandstone buildings.(Source: State Library of Australia)



The interior of the Convict Workshop building (Source: Sydney Harbour Federation Trust)



1898 Main walk from the Governors Quarters (Source: Department of Corrective Services Album HM Jail Biloela)



## 5.4 Convicts, Prisoners and Schoolchildren

**Exploring the Barracks Precinct, and the hospital, kitchen, mess and sleeping quarters for convicts, soldiers and officers , with selected reconstructions and fitout to evoke how it was used.**

Visiting the Barracks precinct is one of the major experiences of Cockatoo Island / Wareamah. To assist visitors in experiencing the area as a precinct, the Barracks will be unified in a singular crushed sandstone ground plane, to create a stronger sense of the harsh, cleared landscape of incarceration. The kitchen, hospital, mess and sleeping quarters will include cues to encourage visitors to explore and evoke their different uses.

Nearby the soldier's quarters with their splayed loopholes will also be reinterpreted so that visitors can imagine them with soldiers sleeping next to their charges.

**DISPLAYS**  
In the former mould loft building, displays on the convict system, and how Cockatoo Island / Wareamah as a secondary prison was a key point for convicts that were moved from other points within the colony, or a destination for those involved in frontier violence. Similarly the soldiers and oversees moved throughout the system, sometimes serving at multiple sites.

Stories would include how after 1848 the responsibility of running the Island was transferred to NSW, and during this later period some inmates were convicts from the period of transportation but increasingly the unfree workforce was made up of men convicted of colonial crimes.

Recent research on the significance of Cockatoo Island / Wareamah and the other convict sites in defining Australian democratic traditions would also feature, together with the results of 'big data' projects that have enabled historians to create detailed biographies for individual prisoners from their convict records, and help understand their individual journeys through sentencing, incarceration and after their release.

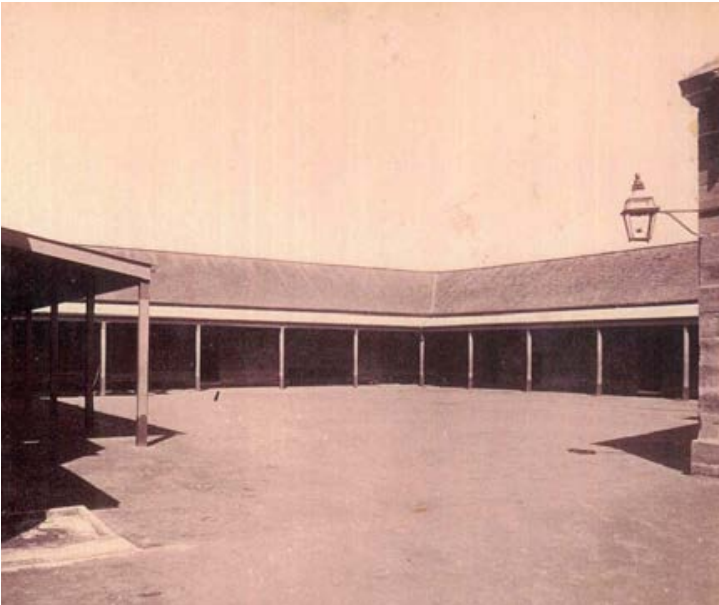
Cockatoo Island / Wareamah has also been an educational institution for wayward children and importantly the stories of the Biloela Industrial School for Girls and the Biloela Reformatory will also be told here, giving a voice and a visibility to some of the less well-known of the island's inhabitants. While no images of the girls have been found, careful research has enabled some to be identified, and visitors will be able to learn about their time on the island, the harsh living conditions, the domestic training at the industrial school, and the lives they went on to lead. For boys, the Vernon and later the Sobraon were moored off Cockatoo Island / Wareamah from the 1870s and became a nautical school ship, and visitors will be able to learn more about the many boys who were housed there, and their comparatively better conditions than the girls, with access to a piano, and a pet emu.

**Fitzroy Dock**  
The completion of the Fitzroy Dock in 1857 with a mix of paid and coerced labour greatly expanded the Harbour's maritime capability, although the penal imperative to use prisoners for this public work added greatly to the time taken to complete the job.

As an engineering marvel, the Draft Master Plan proposes that the Harbour Trust investigates whether the Fitzroy Dock could be displayed empty of water, to show the vast work of the convict labourers which is currently hidden beneath the water. The ability for the visitor to go into the Dock to experience the vast scale would add an appreciation of the scale of hard labour required of the convicts.



Exploring the Convict Precinct (Source: Sydney Harbour Federation Trust)



1898 Image of The Barracks ( Source: Department of Corrective Services Album HM Jail Biloela)



1898 Image of The Barracks (Sydney Harbour Federation Trust)



Drained Fitzroy Dock (Source: John Jeremy)



## 5.5 Dock Working, Ship Building and Defending Australia

In the Twentieth Century, Cockatoo Island / Wareamah became a military dockyard that in the 1950s was one of Australia's largest employers.

As the colony became more aware of its strategic position and vulnerability to Pacific threats, the Royal Navy sought to establish a stronger presence and capability to construct and maintain its fleet locally. The island and nearby Woolwich Dock became a giant factory for making and repairing ships, and thousands of workers, apprentices, designers and managers worked in its offices and workshops, often adapted from earlier convict uses. In the 1930s the Navy leased Cockatoo Island / Wareamah as a dockyard, and over the next 60 years worked with the companies that ran the island, building and repairing ships, designing aeroplanes and maintaining Australia's Oberon class submarine fleet during the Cold War, in conjunction with what is now the Harbour Trust's Sub Base Platypus.

The tangible remnants of this transformation of the island are throughout the island and the journey will be supported by building awareness of the shipbuilding process from design through to manufacture and assembly; and the large-scale buildings and machinery involved including the workshops, dry docks, slipways and cranes. Importantly, interpretation of this theme across the Island will also bring visitors closer to Sydney's evolution as an industrial city as a result of the hands, hearts and heads of the people who worked here, highlighting the skill, tenacity and ingenuity of the engineers and labourers.

### Boat Journey and Orientation

1. Boat journey opportunity for circumnavigation tour, together with visit to Woolwich Dock
2. Orientation space – introducing the maritime history, the system of shipbuilding embedded in the island, and scale of process undertaken to move materials around the island

### Fitzroy Dock and The Turbine Shop

3. Exploring Fitzroy Dock's role in shipbuilding, repairs and submarine maintenance -potentially drained
4. Exploring the turbine and other workshops, and their role in the shipbuilding process, including interpretation of the large machinery, together with stories of the Island's workers, where they lived, the skills they gained here, and where they are now

### The Slipways

- 5 Understanding the story of the slipways, and the ships launched from here

### Sutherland Dock and Maritime Activities

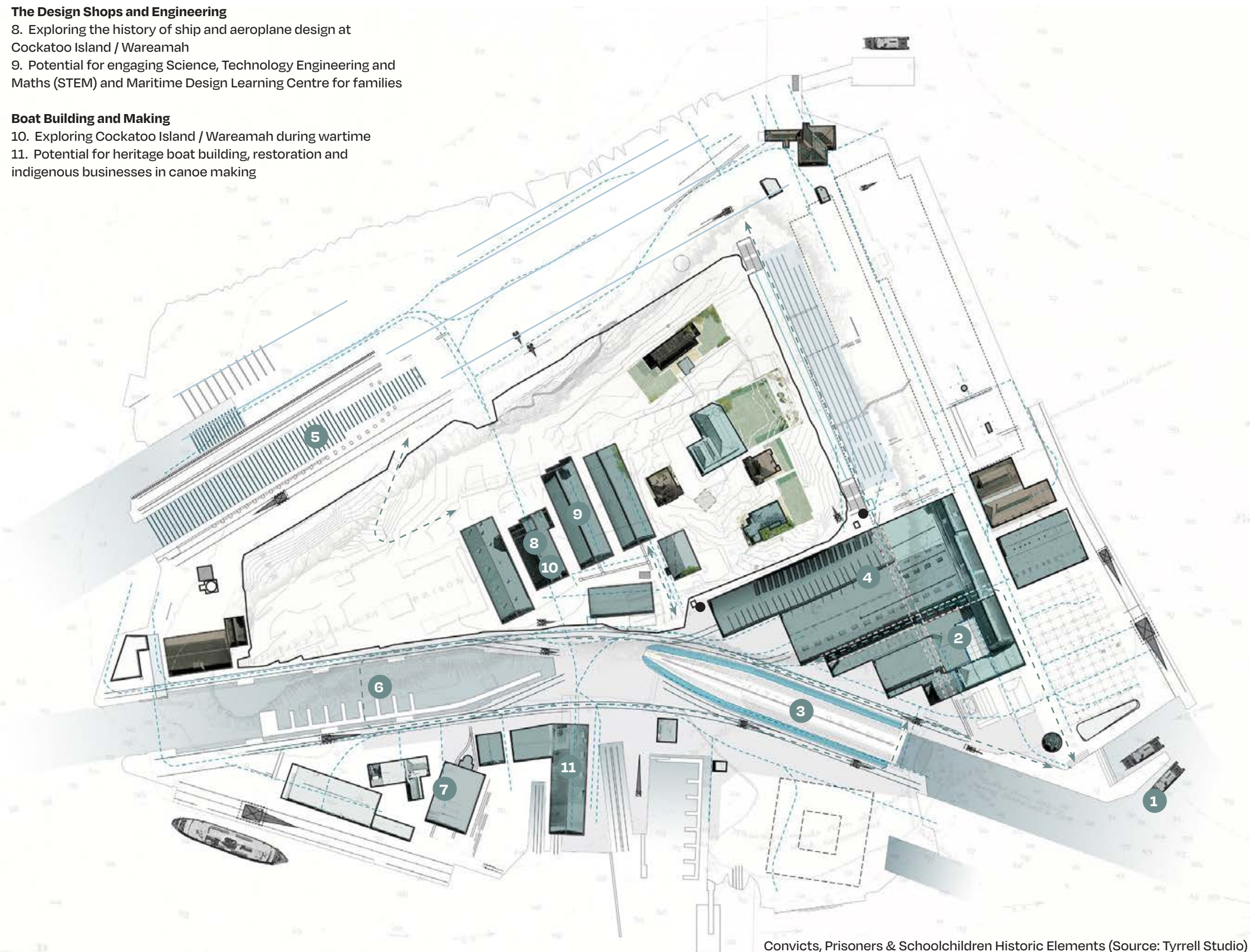
6. Sutherland Dock maintained so that there could be future opportunities for ships to visit the island.
7. Opportunities to view maritime activities

### The Design Shops and Engineering

8. Exploring the history of ship and aeroplane design at Cockatoo Island / Wareamah
9. Potential for engaging Science, Technology Engineering and Maths (STEM) and Maritime Design Learning Centre for families

### Boat Building and Making

10. Exploring Cockatoo Island / Wareamah during wartime
11. Potential for heritage boat building, restoration and indigenous businesses in canoe making



Convicts, Prisoners & Schoolchildren Historic Elements (Source: Tyrrell Studio)



## 5.5 Dock Working, Ship Building & Defending Australia

Cockatoo Island / Wareamah is at the heart of the Sydney's old industrial harbour, and the construction of the island docks heralded this time of productivity, growth, strategy and defence.

With the Fitzroy Dock constructed with convict and paid labour by 1857 and the Sutherland Dock added in 1890, the operations of Sydney's working harbour were enabled by the island's repair, maintenance and construction of vessels in the decades leading up to the Great War. By the time the docks were required for wartime defence, Cockatoo Island / Wareamah was given over to servicing the new Royal Australian Navy, for whom it played a pivotal role in both world wars.

An island-wide system of making and developing ships began with design and pattern-making on the plateau and manufacture and assembly on the aprons, with the island including everything from foundries to its own powerhouse, together with facilities for the thousands of workers.

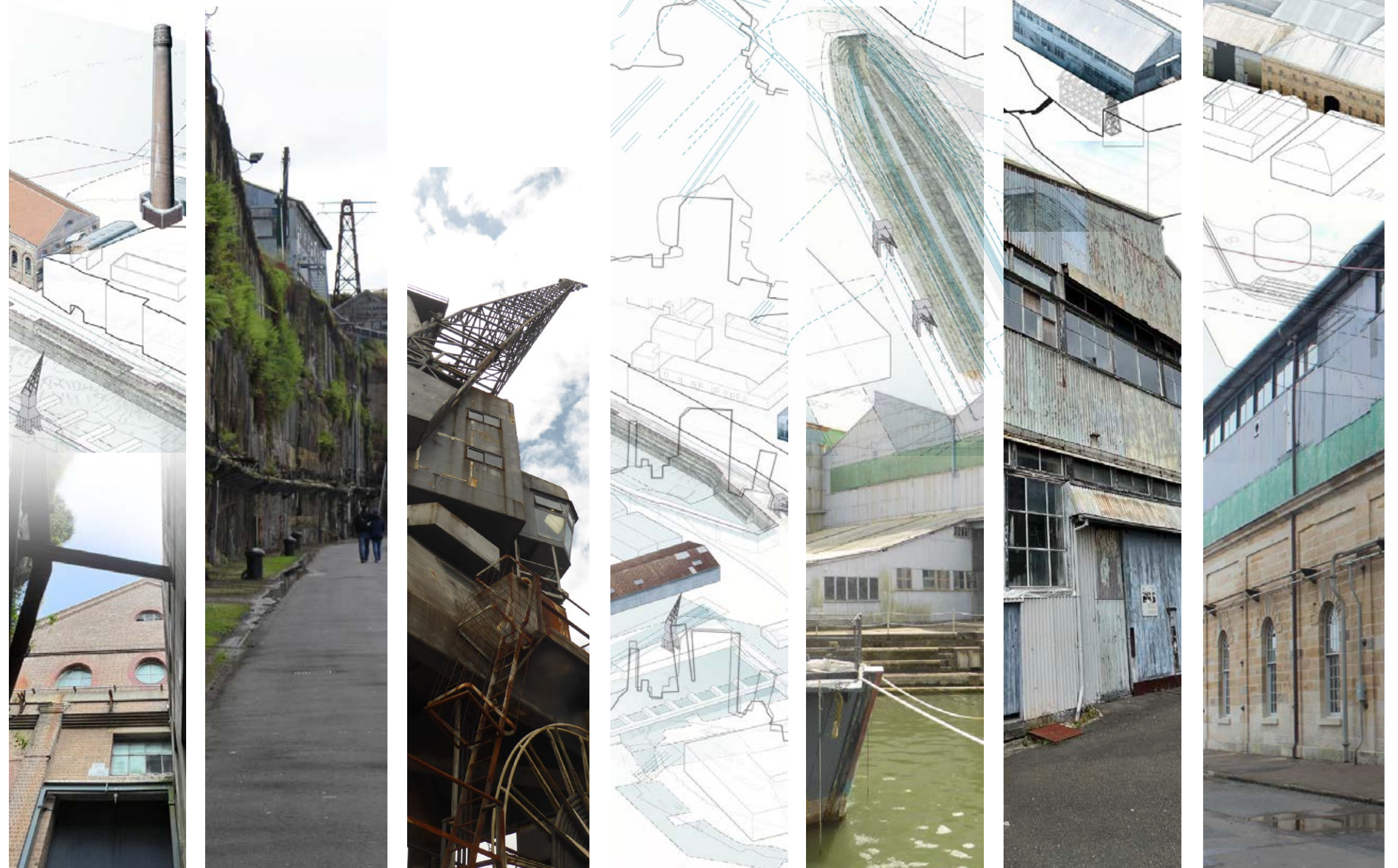
The docks were leased in the 1930s, but continued to service the Navy through the 20th century, sustaining the nearby working-class communities at Balmain, Glebe and Birchgrove where families often had a long association with maritime work. These communities fought for improved working conditions across varied disciplines at a time when organised labour and industrial action led to the questioning of their loyalty. But their struggle was not in vain: awards won on the Island have flowed on to improvements in other sectors. The Island's working-class legacy has produced ripple effects far and wide.

The island played a pivotal role in World War Two. The luxury liners Queen Mary, Queen Elizabeth and the Mauritania and Aquitania were converted to troop ships. They would take Australian men to fight in Crete and North Africa. With the outbreak of the war in the Pacific from December 1941, the island was much closer to the fighting, borne out by the repairs carried out on Australian, British and American ships damaged by action against the Japanese.

The post-war years from 1947 were characterised by continuity and relative stability under the management of Vickers Ltd – called Vickers Australia Ltd from 1956. In the years to 1980, seven combat vessels were built on the Island along with dozens of service craft for the navy and airforce. In 1964 and 1967 repairs were carried out on RAN flagship, the aircraft carrier HMAS Melbourne. By that time Australia had reactivated its submarine service. The Island was refitted as the refitting and maintenance facility for six Oberon class submarines bought from Britain. Their base was at nearby HMAS Platypus.

The last major naval build was also the largest – HMAS Success. It was slipped in 1986 – the year that Vickers relinquished control of the facility to Australian National Industries.

Collaborations with the Australian National Maritime Museum and National Museum of Australia will enable this theme to be contextualised to tell Cockatoo Island / Wareamah's contribution to the history of Australia.



The textures, traces and materiality of dock working and ship building can be elevated to help visitors explore this theme (Source: Tyrrell Studio)

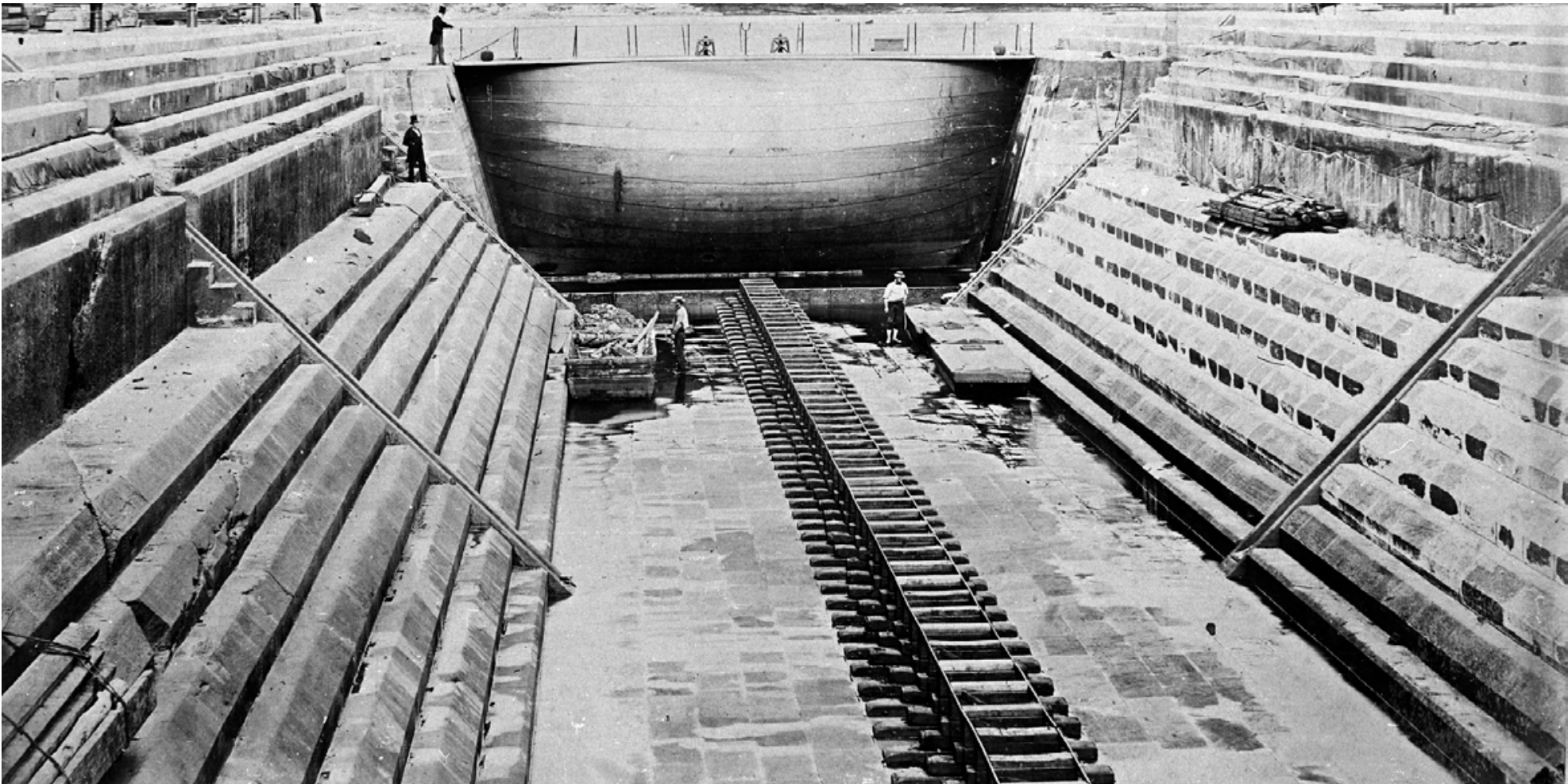


## 5.5 Dock Working, Ship Building & Defending Australia

### Fitzroy Dock

Following its construction with convicts, the Dock remained in service for over 130 years, with thousands of ships and submarines repaired and refitted. With technology, visitors can explore its central role in the industrial era, its engineering and design, and the many ships that docked there, and their role in empire, war and defence.

The Draft Master Plan proposes that the Harbour Trust investigates whether the Fitzroy Dock could be displayed empty of water. As well as increasing awareness of the convict era carving out of the dock, the interpretation would also enable visitors to understand its functioning and engineering including how the caisson worked, and how ships were located in the dock prior to draining; and the role of the cranes around the dock – including regular operation of the restored cranes by volunteers.



Fitzroy Dock (Source: State Library of NSW)



Fitzroy Dock being refilled is a dramatic show of the engineering marvel of the docks. (Source John Jeremy)



Visitors are drawn to the dock architecture, evidence of the scale of construction undertaken on Cockatoo Island / Wareamah.



## 5.5 Dock Working, Ship Building & Defending Australia

### The Turbine Shop

Interpretation of the larger elements in situ, using technology so visitors can explore their use through archival images and first person narratives will be supported by more detailed displays and opportunities to dive into the island-wide system of shipbuilding and the skills involved, and the inner harbour as a place to work, to apprentice, and to organise in times of industrial strife.

The Volunteer Restoration Hub will enable visitors to learn more about the important work to bring key machinery such as the cranes back into working order, and the connections to the dockyard workers who have handed down their experience and knowledge.



The landmark scale of cranes (Source: Sydney Harbour Federation Trust)



Entering the Turbine Shop through the vast doors gives a sense of the scale of ship building (Source: Sydney Harbour Federation Trust)



The awe inspiring scale of the Turbine Shop (Source: Sydney Harbour Federation Trust)

### Sutherland Dock

Constructed in 1890, the larger of the two dry docks shifted the focus of the island firmly towards a dockyard. Continuing to be used for maritime activity, opportunities to berth larger vessels on special occasions will be investigated, including the repairs and engineering required to dock larger vessels safely. See section 6.6 for more details.

### Maritime Activities

Sydney Harbour is now used for recreation, access and transport for the city's commuters and the southern apron continues to be used to service and support the harbour.

### Ship, Aeroplane Design And Stem Learning Centre

The plateau area was the 'brain' of the dockyard, where designs for ships and even aeroplanes were created and used to make the drawings and patterns for manufacture on the apron below. The master plan proposes that Building 10 gives visitors the opportunity to explore the history of design on the island, and next door to create an interactive centre focused on science, technology, engineering and maths (STEM) for families, school students, and all with an interest to explore principles and how they have been used in the past, and now in making and manufacturing.

### Aboriginal and Torres Strait Islander Canoe-Making And Heritage Boat Building

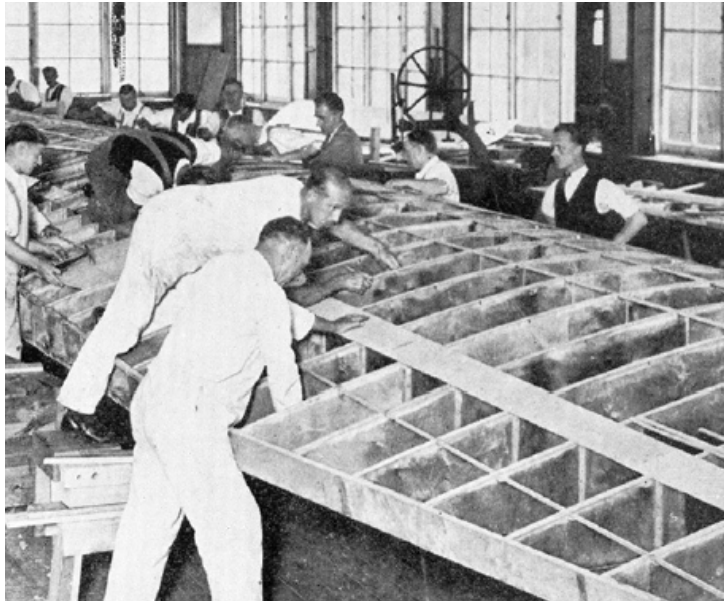
See sections 5.3 and 6.6



Sutherland Dock (Source: Sydney Harbour Federation Trust)



Engine Drawing Office  
Source, TBGC John Jeremy Paper



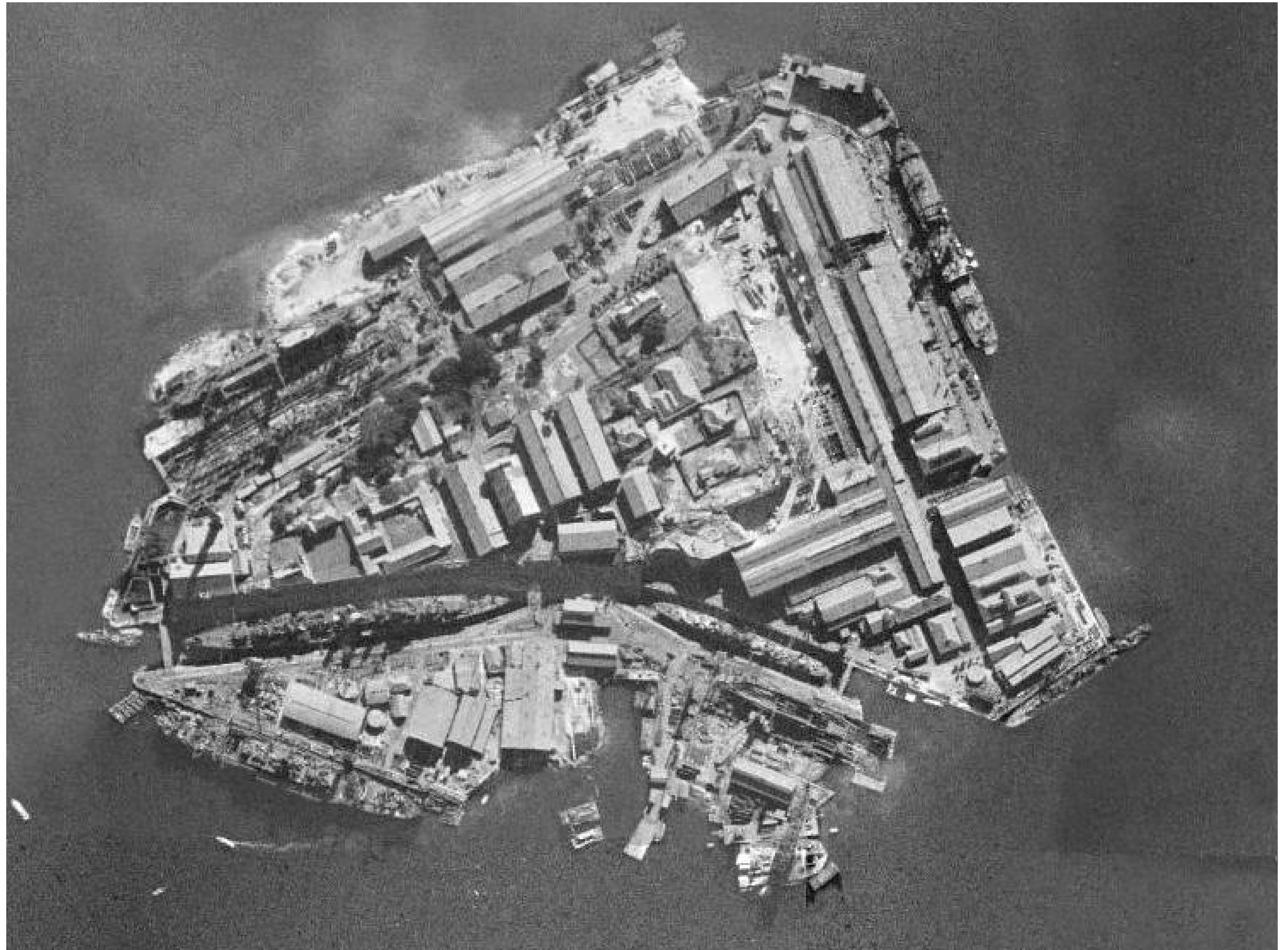
Building Southern Cross..  
Source, TBGC John Jeremy Paper



## 5.5 Dock Working, Ship Building & Defending Australia Cockatoo Island during Wartime

During two World Wars and the Cold War, Cockatoo Island was a vital part of the war effort, the defence of Australia, and also an enemy target. There will be opportunities for visitors to learn how wartime once again transformed the island, adding buildings, reinforcing structures and installing searchlight and gun positions. The peak of the island's activity came during World War Two when ships including the Queen Mary and Queen Elizabeth were refitted as troop ships, and the island played a key role in supporting the Australian, British and US Navy in the Pacific theatre.

There are opportunities for collaborations with a number of organisations including the Australian National Maritime Museum, and Sea Power Centre to research and develop this area.



Cockatoo Island / Wareamah from the air in 1943 (Source: Six Maps)



# 6.0

## Key Supporting Initiatives

**6.1 Transport and Island Access Strategy**

**6.2 Accessibility and Circulation**

**6.3 Food and Beverage and Event Catering**

**6.4 Activation, Events and Conferencing**

**6.5 Accommodation for All**

**6.6 Maritime Uses and Industry**

**6.7 Service and Back of House Functions**





## 6.1 Transport and Island Access Strategy

Sydney's CBD is well connected to the transport system and can be conveniently accessed by most residents and visitors. Cockatoo Island / Wareamah is located just a few kilometres west of Sydney's CBD. Despite this proximity, there are currently relatively low levels of access to Cockatoo Island / Wareamah. This is partly due to infrequent transport services.

There are currently two Public ferry routes that provide service to Cockatoo Island / Wareamah:

- F3 Parramatta River Route – headways of approximately 30 minutes during both the weekday and weekends, and
- F8 Cockatoo Island Route – headways of approximately 30 minutes through the weekday peak and 60 minutes for weekends and weekday off-peak.

Cockatoo Island / Wareamah currently provides three different passenger vessel wharf and marina facilities:

- Parramatta Wharf is the main passenger wharf facilitating passenger vessel loading and unloading over two berths,
- Camber Wharf as an alternative passenger wharf facilitating passenger vessel loading for water taxis and/or commercial charter vessels, and
- Marina Wharf facilitating private short-term/overnight vessel berthing.

A typical visitor to the island currently experiences a travel time of over an hour to arrive at Cockatoo Island / Wareamah if they depart without consulting a public transport timetable. Whilst the ferry ride to Cockatoo Island / Wareamah is relatively short, connections to the broader Sydney public transport system or car parking mean overall journey and waiting time typically exceeds one hour. Access is also predominantly from the eastern parts of the city.

Ease of access will be a critical component to a viable, restored and reactivated Cockatoo Island / Wareamah. Visitation demand and the supply of transport service work in lockstep with one another to sustain or constrain growth and reactivation. The growth of visitation anticipated in the Draft Master Plan will require ongoing planning and flexibility.

Cockatoo Island / Wareamah also faces unique goods movement and servicing conditions. The current goods and servicing transport arrangements and schedule will be improved to support expanded future uses and businesses.

### 1. Community Connections

Population growth continues to occur in Western Sydney, Parramatta, and other centres north and south of the harbour. As well, the broader public transport network continues to evolve with the implementation of Sydney Metro. These factors provide momentum to support further evolution of the network currently serving Cockatoo Island / Wareamah. The Draft Master Plan advocates for new multi-modal connections to Sydney Metro West to better serve populations west of Cockatoo Island / Wareamah or otherwise not living in the inner suburbs. These opportunities will increase frequencies to/from Cockatoo Island / Wareamah while unlocking connectivity to these communities.

The Draft Master Plan also considers learnings from benchmark sites such as The Presidio (San Francisco), which provides bus/access to/from lower socio-economic areas. This will be considered in the future, with bus and ferry services supplemented by the Harbour Trust, from Western Sydney or key agreed locations.

### 2. Supplementary Services

Island-specific services will add another prospective experience for visitors, making the boat ride journey to the island part of the excitement and experience – similar to the ferry ride to MONA in Hobart. The island experience will commence at the point of departure rather than just on arrival to the island. This not only reduces the friction of travelling to the island but better connects the island to broader Sydney landmarks and other tourism opportunities. Consideration should be given to a dedicated island ferry service (either Trust run or in private partnership) that directly connects this tourist market to the island.

In terms of goods movement and servicing, increased service frequency will be required to provide more flexibility for existing/new uses and businesses, to better support future retail, hospitality, accommodation, arts, and events uses. Further opportunities to be explored at design stage include:

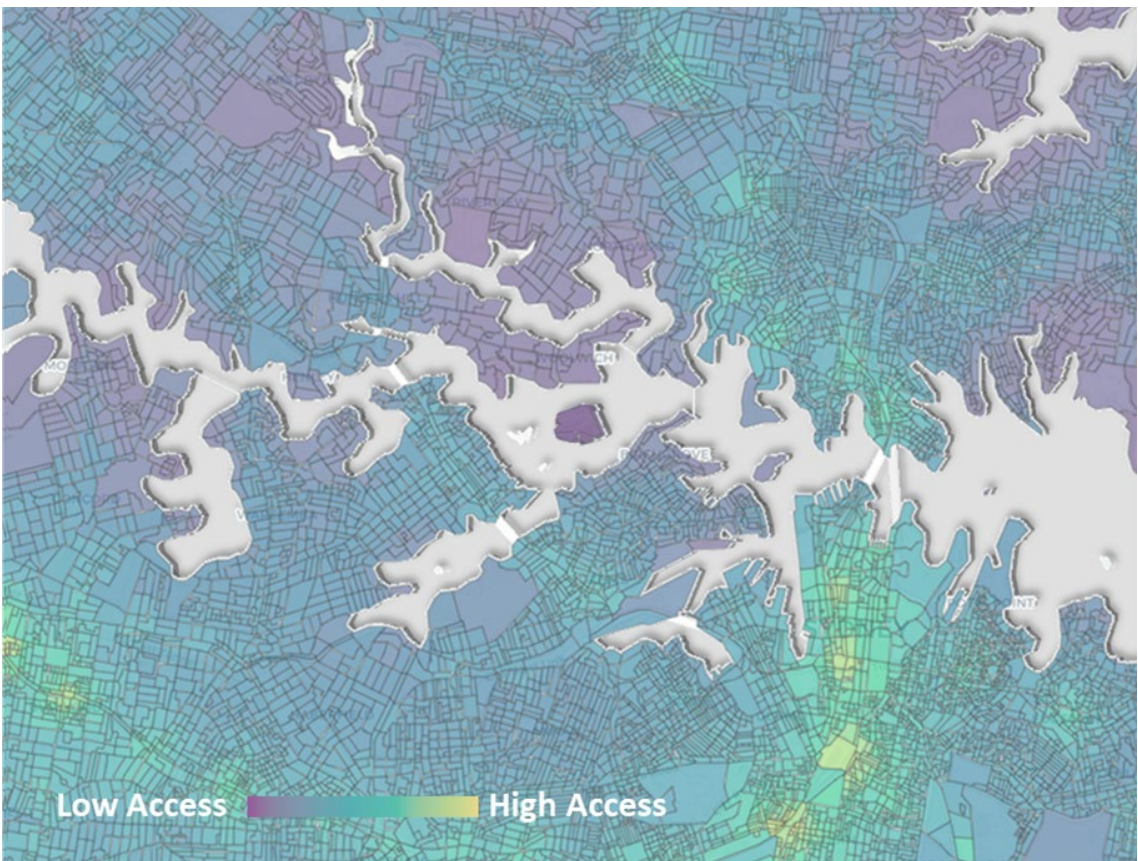
- Working with the current barge operator to promote 'right-sized' delivery vehicles, including (electric) cargo-bikes.
- Working with public ferries (and other operators) to support light-goods transport particularly on the F8, which has ample spare capacity.
- Exploring Harbour Trust or third party (in partnership) operated services that can accommodate both goods and passenger movement.

### 3. New Wharf

A key design response to support more frequent services to the island is the new Ruby Steps Wharf to complement the Parramatta Wharf with new and/or additional public, private, event, and/or dedicated Harbour Trust ferries with increased frequency. Additional mooring sites in other locations around the island may allow increased access for private vessels but will require further investigation at design stage noting curtilage constraints. Opportunities to add new Harbour Trust (or other private) operated island services will be increasingly possible once visitation and on-island draw cards are seen as effective and valued by prospective visitors.

### 4. Purposeful Partnerships

Over time, the most meaningful way to address the key access challenge is to provide more frequent ferry services, (every 10 minutes). Many of the critical transport and access considerations contemplated in the Draft Master Plan will require collaboration with Transport for NSW, transport operators, and other partners around Sydney Harbour. Partnership with the NSW Government is key for advancing shared services between other tourism and visitor destinations around Sydney Harbour.



Ease of Access to Cockatoo Island / Wareamah: This image illustrates ease of access across different areas of Sydney. Cockatoo Island / Wareamah is much more difficult to access than other locations close to the CBD.



## 6.2 Accessibility and Circulation

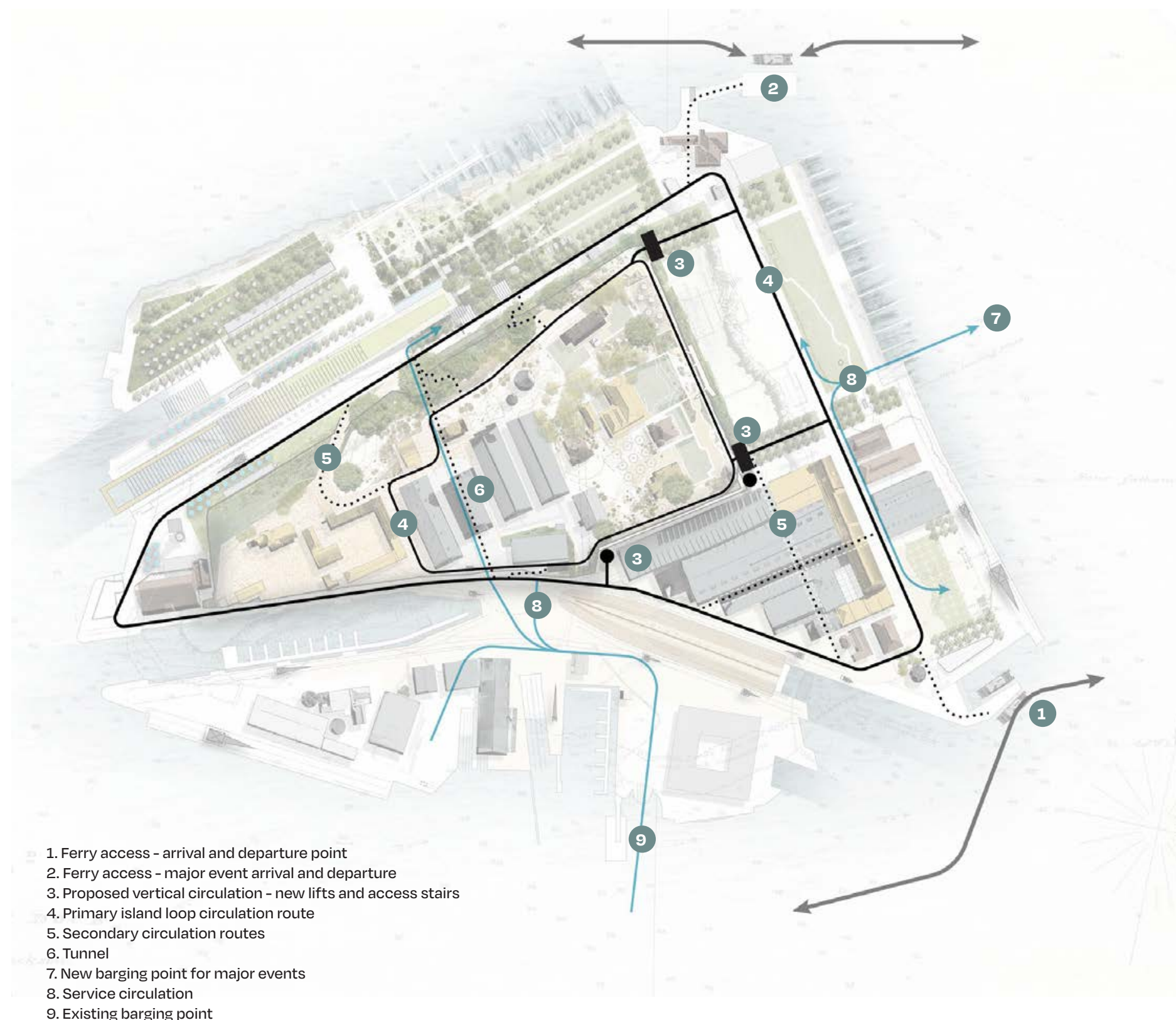
In 1904, Cockatoo Island / Wareamah established an elaborate hand pushed or horse drawn light rail system. The system and vertical lifts and cranes were so effective that the a road to the top of the island wasn't constructed until the 1940's. It is notable that the experimental use of electric propulsion occurred in 1907.

The system was largely abandoned and obsolete after World War Two. Today, limited remnant evidence remains of the system. Study of the system undertaken in development of the draft master plan informs the proposed access and circulation strategy.

Walking from the existing Parramatta Wharf to the Fitzroy Dock takes 10-15 minutes, a loop of the island about 50 minutes. Whilst the waterside areas are generally flat, access to the plateau is either by non compliant stair or via the original 1940's built steep road. For the visitor, circulation around the island is wandering a remnant, raw industrial landscape.

Clear, compliant and equitable access and circulation across the island is considered critical to the overall long-term plan, equally the raw nature of place should not be sanitised. The key elements of access and circulation will comprise:

- Improvement of surfaces and creation of walking tracks for all abilities
- Pedestrian movement and wayfinding providing clarity of circulation that is directly related to interpretation and understanding of the islands core heritage values. Detail of the proposed structure and interpretive framework relating to circulation is outlined in Section 5;
- New ferry wharf located in direct proximity to activated public square, visitor orientation, Fitzroy Dock and F&B (refer next sheet);
- Two wharves operating concurrently in major event mode to provide expanded peak capacity during events
- Two new lifts and stairs providing direct and equitable access to the upper plateau precinct;
- Proposed new barging point providing direct major event logistics and support access



1. Ferry access - arrival and departure point
2. Ferry access - major event arrival and departure
3. Proposed vertical circulation - new lifts and access stairs
4. Primary island loop circulation route
5. Secondary circulation routes
6. Tunnel
7. New barging point for major events
8. Service circulation
9. Existing barging point

This diagram illustrates the overall access and circulation proposal. Detail of the proposed structure and interpretive framework relating to circulation is outlined in Section 5



## 6.2 Accessibility and Circulation

This section provides detail of the Draft Master Plan proposal to establish a new ferry wharf and its strategic relevance to activation of the island. In subsequent design phases, it is recommended that further detailed investigation and consultation with relevant authorities be undertaken.

### 1. Proposed Primary Ferry Access - arrival and departure point

A new ferry wharf is proposed at the location shown known as 'Ruby Steps'. This strategic position offers direct access and proximity to the proposed primary activated assets of the island. The location is considered the key point of orientation with clear view and site line to the significant convict workshop building, Fitzroy Dock and Barracks.

Additionally, the visitor arriving at Ruby Steps is delivered directly into a proposed activated public square framed by the large cranes that are high heritage value assets and considered iconic elements of the island. In repositioning the primary arrival and departure point to Cockatoo Island / Wareamah the Convict Workshop becomes the focus of activation supporting the visitor experience. And serving to activate the square Further, the proposed waterfront food and beverage offering is directly proximate to public transport. This is considered critical to an island visit simply to enjoy a meal, on the waterfront. A discretionary trip that bolsters the objectives of Cockatoo Island / Wareamah becoming part of the social fabric of the city.

### 2. 'Arrival Square' - Public domain urban plaza

The Draft Master Plan proposes this industrial hardstand known as Bolt Wharf is transformed to an urban public domain square. Activated on three sides - waterfront on the fourth. The historic crane is to be restored and kept in situ. At night it could be sensitively lit as an iconic industrial artefact providing a dramatic centrepiece to the square and destination marker from the harbour.

### 3. Convict Workshop - Adaptive reuse for orientation

The Convict Workshop building with its handsome sandstone facade forms a dramatic and historic backdrop to the square.

The Draft Master Plan proposes this building plays a key role in visitor orientation, visitor services, interpretation and front of house site management.

### 4. Fitzroy Dock

Due to its significance, the Draft Master Plan considers revealing the dock as a key objective. The revealed docks' significance, sheer size and proximity to arrival square play a key role in activation of this precinct.

### 5. Access and Circulation to the upper plateau

The Draft Master Plan proposes two new lifts and access stairs connecting the upper plateau to the primary circulation pattern route, close to the proposed arrival point.

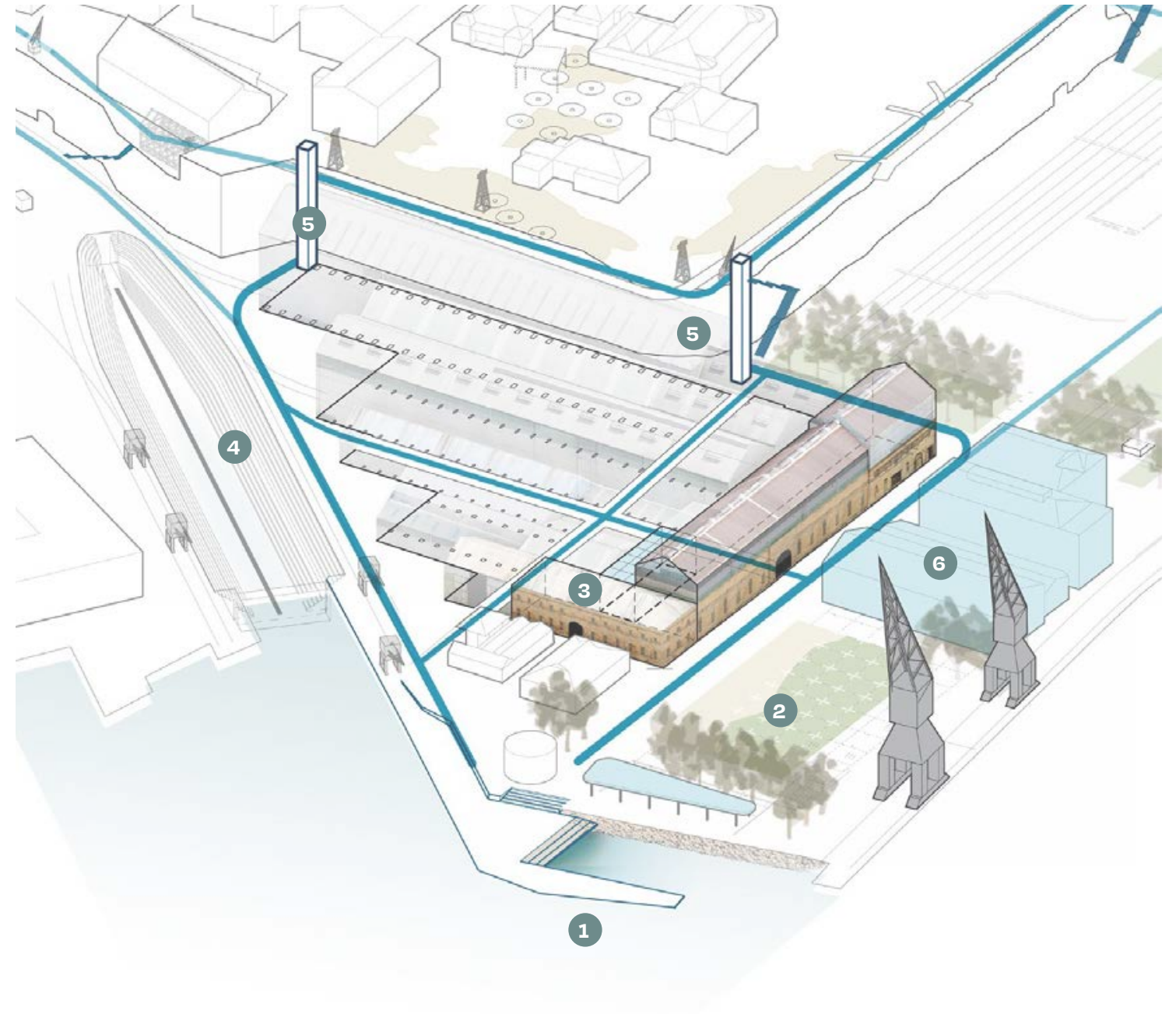
### 6. Proposed Food and Beverage

These waterfront buildings are earmarked as Food and Beverage, with proximity to both the arrival square and the major events space to the north.

Serving to activate the square further, a waterfront food and beverage offering is allocated within close proximity to public transport will encourage discretionary and new social trips.

### 7. Improved accessibility

In design phase it is the intention to review all circulation paths with the intention that they are inclusive and barrier free for people with disabilities.



New arrival area diagram



### 6.3 Food and Beverage and Event Catering

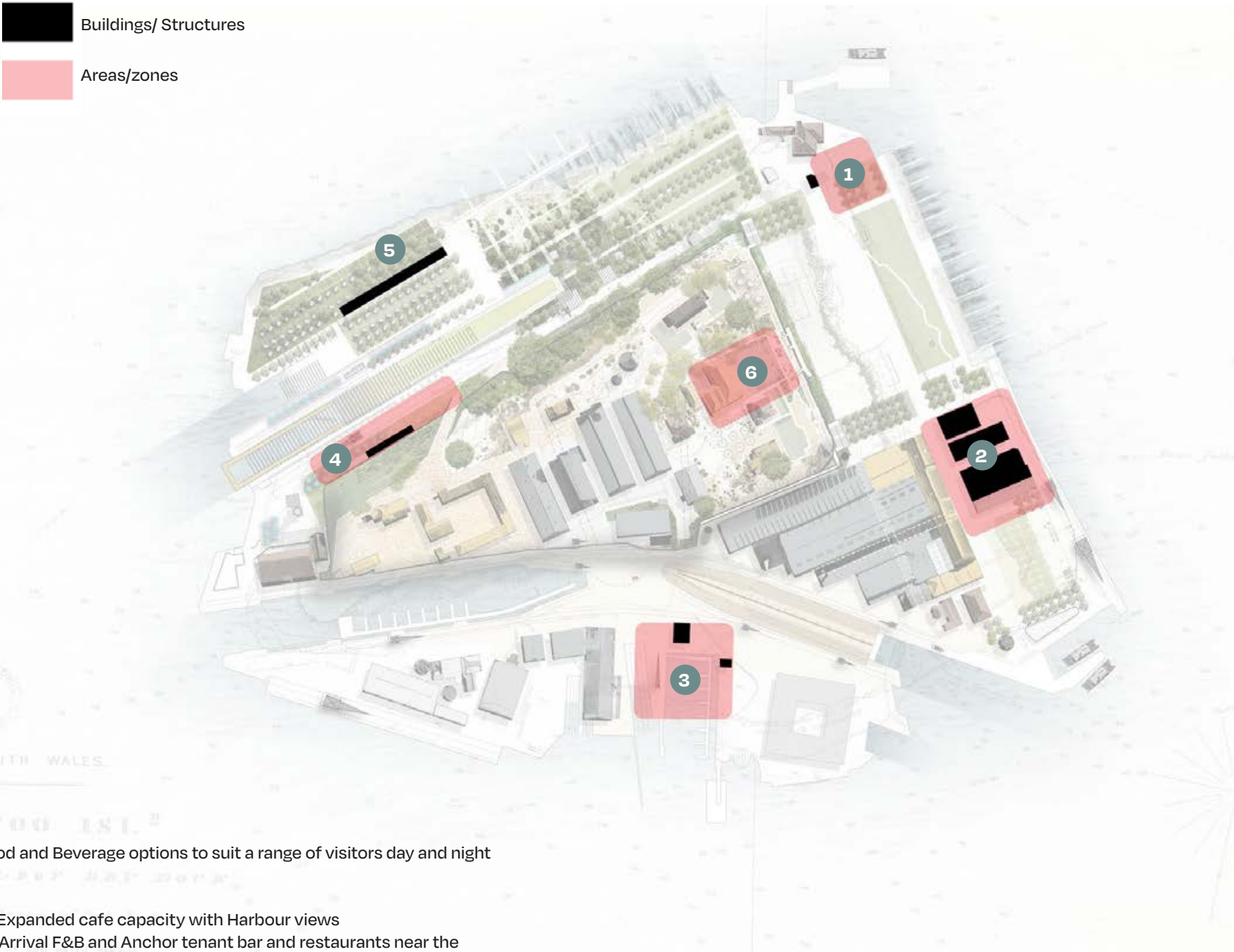
With increased visitation, significantly enhanced and new food and beverage (F&B) outlets are required to support the new and upgraded experiences on the island. The outlets would also serve regular visitors, campers and island staff, offering a range of staples to meet the needs of a diverse range of regulars and guests.

A signature F&B offering in the Ruby Steps Wharf new arrival area is recommended as a drawcard such as a distillery style bar and quality restaurant offering a unique viewpoint over the harbour and the Harbour Bridge.

During the early stages of master plan implementation outlets may compliment established F&B offerings and support high visitation. Given the low infrastructure needs for such facilities, they can be flexible seasonally and in support of events and programming.

A complementary signature facility could also be programmed for either/both the Powerhouse and/or Coal Store in the later stages of re-activation once successful outlets have traded well in the initial years of trade.

To encourage early uptake by F&B operators there will be an ‘establishment period’ where operators may require support in the form of financial and other operating incentives. These short term support mechanisms will be considered during subsequent business case and design phases.



Food and Beverage options to suit a range of visitors day and night

1. Expanded cafe capacity with Harbour views
2. Arrival F&B and Anchor tenant bar and restaurants near the arrival and Harbour views, including Dark Kitchen for conference catering
3. New F&B around Camber Wharf supporting nearby accommodation and Fitzroy Dock display
4. Cafe Kiosks supporting the park and swimming spot
5. Camping Kitchen and BBQs Camping Supplies from nearby cafes
6. Function Space at Superintendents House supported by catering



6.4 Activation, Events and Conferencing

Activation and Events

Activations and events have been an important part of Cockatoo Island / Wareamah since it first opened for public access over 15 years ago. Already established as a place for connection and celebration on Sydney Harbour, Cockatoo Island / Wareamah will continue to be The Harbour Trust's primary site for events attracting both domestic and international visitors.

Priorities for Cockatoo Island / Wareamah are for the development of partnerships and experiences focusing on flagship Sydney events that aim to connect people, place and story and provide a contemporary lens on the islands' key themes. These themes will ensure that our public facing activities enhance and build upon the existing community, cultural and commercial activities around the Harbour.

Key Themes:

Connecting to Country  
Support and grow connection to Country through creating experiences focused on place, culture, connections and people.

Environment and well-being  
Experiences will respect connections to nature and support recreation and well-being onshore, offshore and on and in the harbour.

Contemporary heritage  
Diverse, sometimes conflicting stories, including incarceration and shipbuilding will require a contemporary lens to the histories of the site, sharing perspectives.

Sydney Harbour, its people and places  
Partner, collaborate, and invest in activities that connect people with the harbour.

Culture and creativity  
Leverage culture and creativity to create compelling experiences for our visitors.

Activation and Event Thresholds

To inform the Draft Master Plan the Harbour Trust has set thresholds for activation and events on Cockatoo Island / Wareamah with the expectation that the number of activation and events will increase over time with investment in infrastructure.

Small Activations	Medium Events	Large Events
Historical, Environmental & Ghost Tours, School groups, ceremonies, exhibitions, displays & performances	Conferences, Community Festivals, sporting events, concerts, exhibitions & markets	Seasonal Performance series, large music/arts festivals, conference
Low Impact to the site-	Visitation 500 – 2000 people per event day	Visitation 2,000 – 10,000 people per event day
Visitation up to 500 people/day	Duration 3 days or less	Duration 3 days or less
No cap on activity	Up to 22 events per annum	Up to 10 events per annum

Conferencing and Multi-Functional Spaces

The conservation and reactivation of Cockatoo Island's / Wareamah's heritage buildings and assets, provide the opportunity for multi-functional events and conferencing spaces. Paired with a dark kitchen constructed near the Turbine Shop to allow for high volume events and conferences to be fully catered, Cockatoo Island / Wareamah provides a new offering to the Sydney events and conference market.

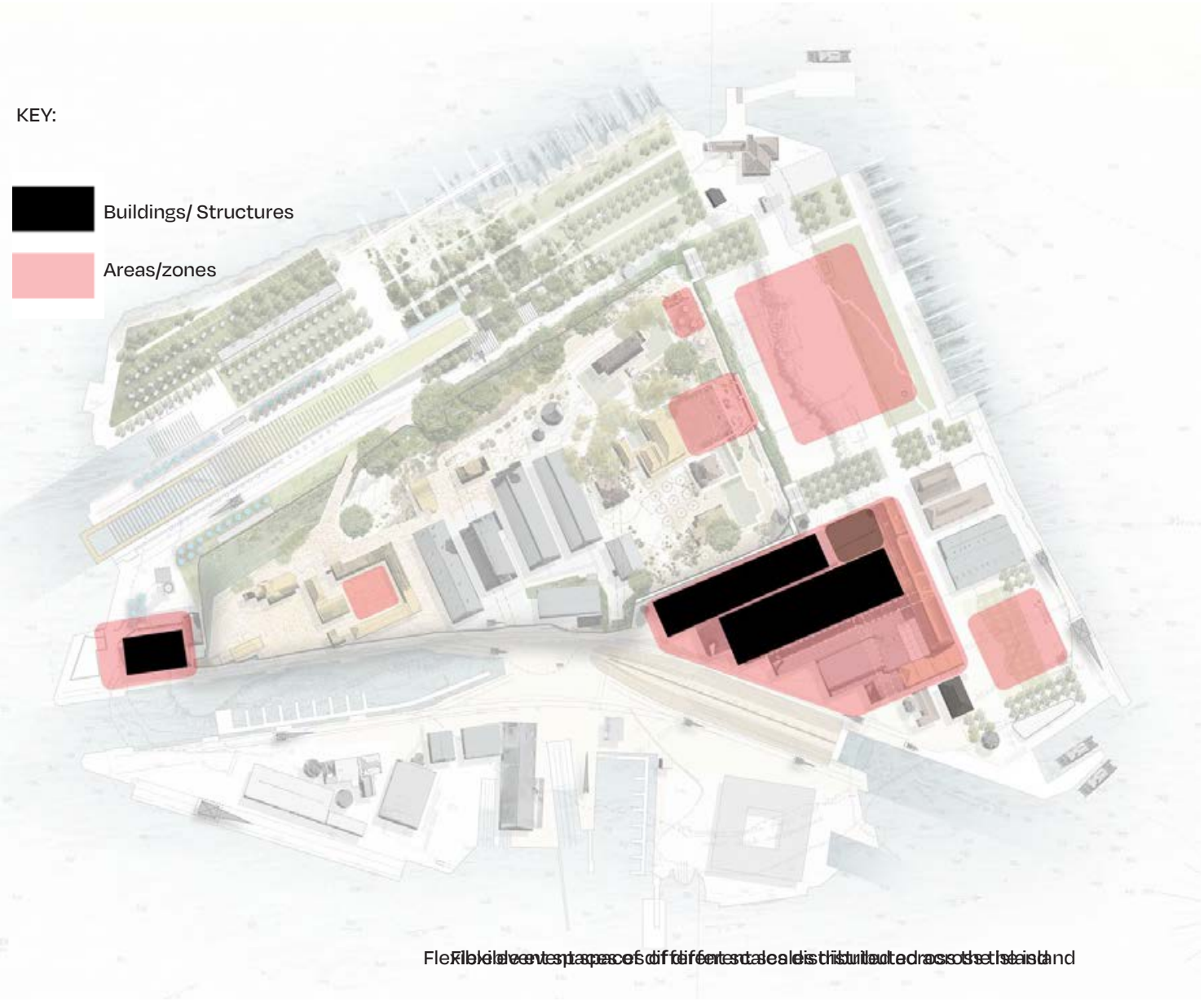
As the success of these multi-function and conferencing spaces produces demand greater than supply on the island, additional facilities including the Pattern Shop and Timber Drying Shed on the upper plateau could supplement this purpose in later stages.



Flexible event spaces. Source: Sydney Harbour Federation Trust

KEY:

- Buildings/ Structures
- Areas/zones





## 6.5 Accommodation for All

The Draft Master Plan accommodation strategy has been developed to support the heritage, visitation and self sustainment objectives. Analysis presented in development of the Draft Master Plan found market gap and opportunity in diversity of offering and potential. The Draft Master Plan considers accommodation developed on an evolutionary demand basis noting that short term accommodation beyond the current offering is important to the overall long-term plan and to comprise:

- An expanded offering for a broader budget range developed in stages over a long term (10 years +) as visitation to the island grows;
- An enhanced offering to a wider market ranging families with children to boutique destination experiences;
- Enhanced overnight visitation to the island for events, conferencing food and beverage supporting Sydney's night economy;
- School student accommodation in support of education objectives;

The accommodation types on the island are:

### 1. Camping in the heart of the city

The Harbour Trust currently operates a camp ground on Cockatoo Island / Wareamah. It operates successfully and provides a unique accommodation offering on the harbour. The current campground is located adjacent Parramatta Wharf on the northern apron. The Draft Master Plan continues this unique offering, enhanced and in a more private location to the west of the current site. In design phase, the Draft Master Plan recommends examination of the western site to support camping and associated activities. The primary reasons for relocation are to;

- release the northern apron to new public parkland; and
- to re-locate the camp ground to a more private location.

### Cabin Accommodation

The Draft Master Plan also recommends consideration of cabin style accommodation to be colocated with the tent camp ground. This initiative intends to broaden the user market, providing modest and unique harbour front short term cabin style accommodation.

### 2. Boutique restored heritage houses

The Harbour Trust currently operates boutique accommodation within restored houses on Cockatoo Island / Wareamah. These

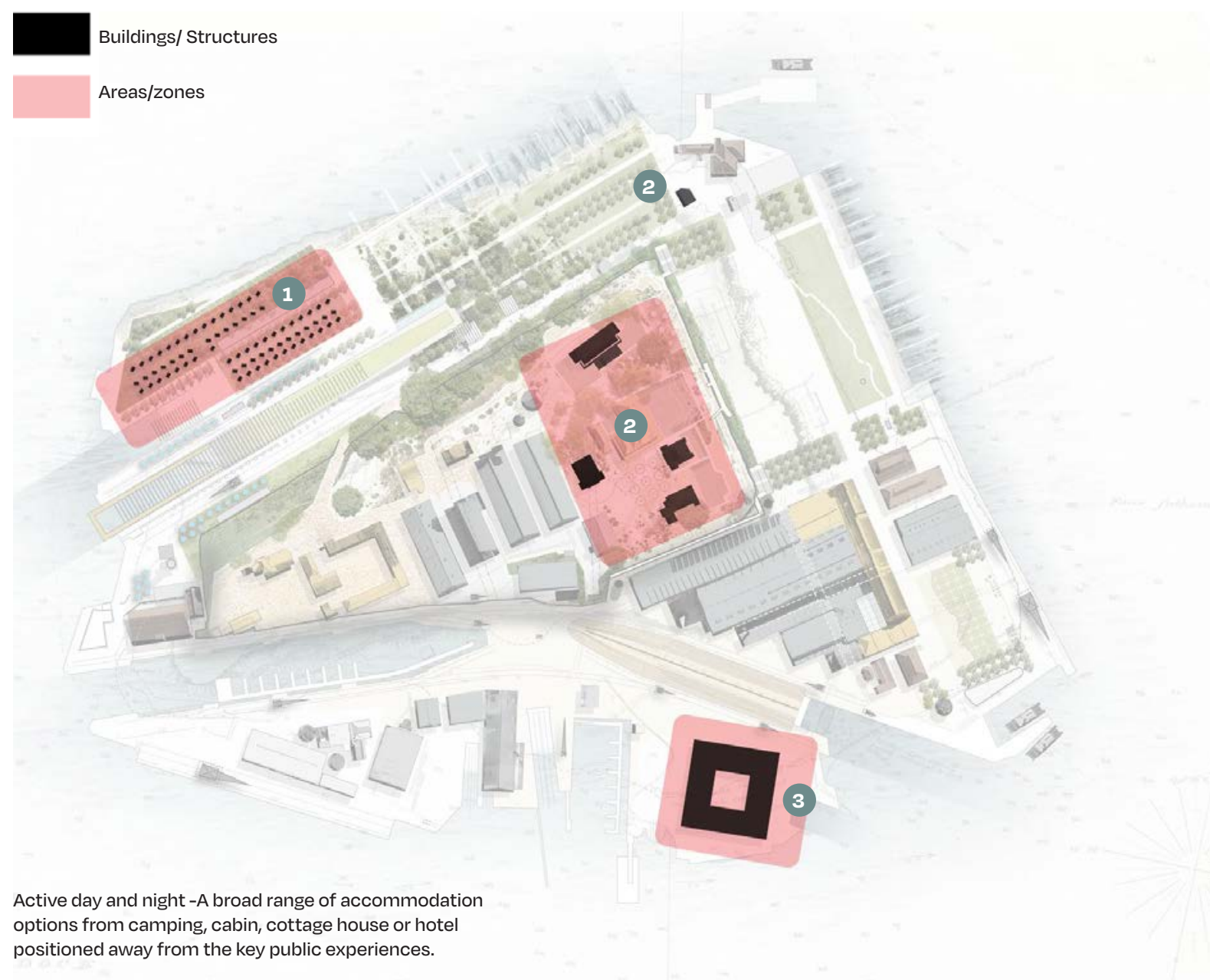
operate successfully and provide a unique accommodation offering on the harbour. The Draft Master Plan continues this unique offering, enhanced with additional houses being restored with complementary food and beverage functions servicing the overnight offering.

### 3. Hotel Accommodation.

Consistent with Harbour Trust Management Plan, hotel accommodation remains a long term aspiration. The long term intent is consistent with international precedent and is considered to support unique accommodation in a World Heritage place in the heart of Sydney Harbour. The design phase will examine the land parcel and zone south of Fitzroy Dock for accommodation use. It is noted that this initiative is long term, requires further industry consultation, and partnership in implementation.



Lane Cove National Park Camping  
Source: NPWS



Active day and night -A broad range of accommodation options from camping, cabin, cottage house or hotel positioned away from the key public experiences.



Lane Cove National Park Glamping  
Source: NPWS



## 6.6 Maritime Uses and Industry

As a harbour island with rich boat making industrial history the Draft Master Plan considers maritime use as a key continued objective. Maritime uses span recreational to industrial opportunities comprising:

- Maintaining Sutherland Dock and southern apron for maritime industry uses
- Maintaining the existing Camber Wharf facilities for small boat access and day berthing (refer section 7.4)
- Enhanced capacity for small non powered recreational vessels to safely land including visiting kayakers to the northern apron
- Enhanced capacity to use or rent kayaking or sailing vessels for recreational use by visitors to the island
- Support of recreational non powered boat and kayak use as a hub within Sydney's inner harbour
- Enhanced capacity for the Island to host regattas or boat festival events.

The following provides an overview where guidelines are provided for further consideration in future design phases:

### 1. Sutherland Dock and southern apron retained for Maritime Use and industry.

The current maritime use is supported into the mid term. In the long term the Draft Master Plan considers an enhanced maritime industry approach and offering. This is likely to be an evolutionary process requiring industry consultation and partnership. In design phase, master planning recommends further review of market potential and response. In design phase, consideration must be given to adaption or alteration of the existing built form to better serve maritime functions.

### 2. Sutherland Dock.

The dock itself is a significant heritage asset. Future uses must not present any potential for erosion of these values. The dock itself is capable of berthing larger vessels and this potential will be preserved.

### 3. First Nations and Heritage Boat Making.

This designated maritime use aims to set aside space for specific traditional boat making uses and craft. This will be a makers workshop with public facing cultural and educational capabilities.

### 4. Enhancing existing Camber Wharf small boat access facilities

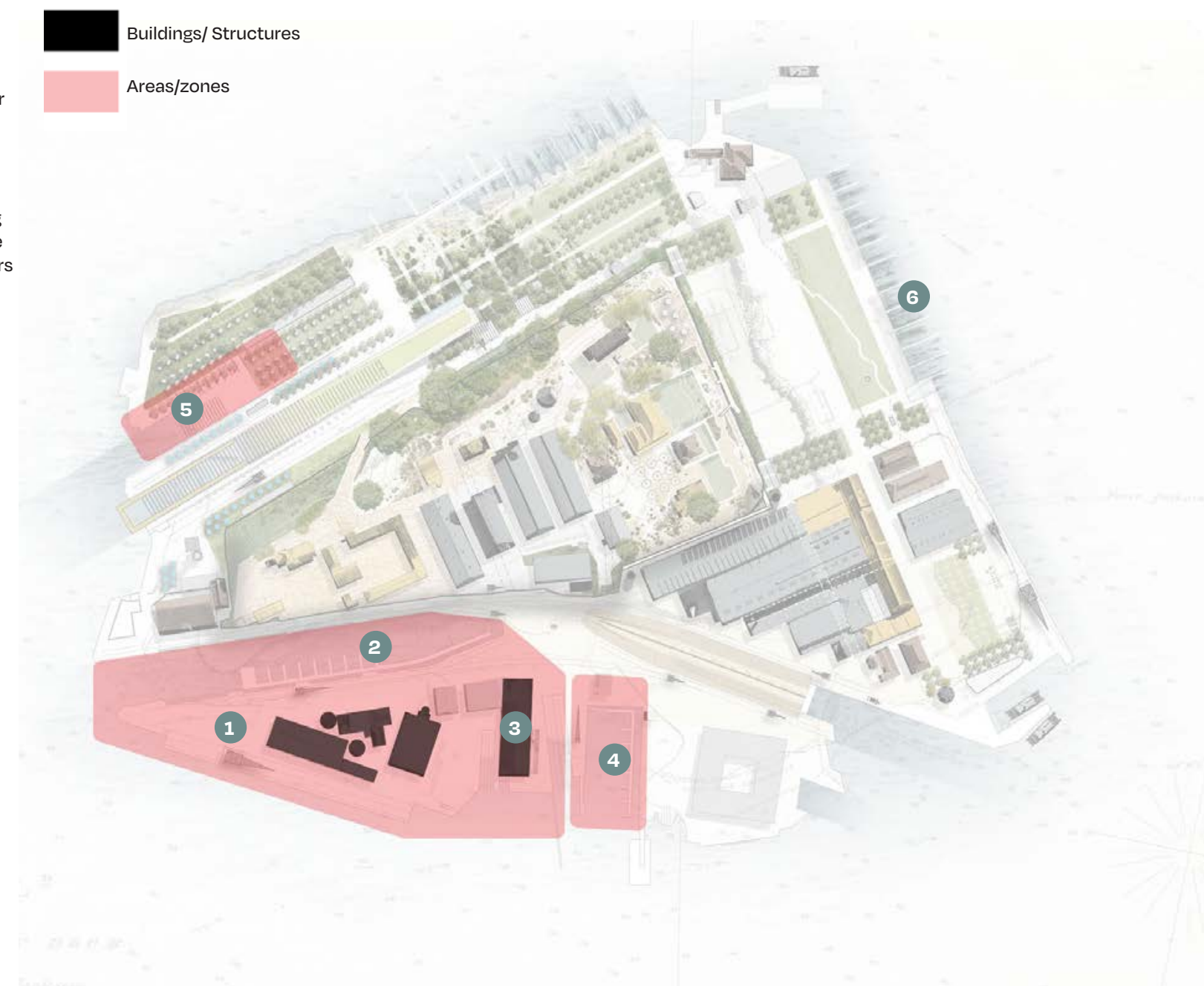
In design phase examine the scope of day berthing function for small to medium vessels visiting the island.

### 5. Enhanced capacity for small non powered vessels

Enhanced capacity for small non powered vessels to safely launch and land in the northern apron slipway including visiting harbour kayakers and canoeists. In design phase back of house functions will be examined to service capacity for island visitors to rent and use small personal non powered vessels (primarily kayaks, canoes or rowing vessels). This could potentially be for an Aboriginal and Torres Strait Islander managed business.

### 6. Enhanced capacity for the Island to host maritime related regattas, small boat related festivals.

Cockatoo Island / Wareamah has successfully delivered and hosted boat related regattas and events in the past. The proposed event and food and beverage infrastructure outlined within the Draft Master Plan will enhance this capability. In design phase this capability will be considered to ensure event infrastructure enhances capacity for maritime event use. Additionally, in design phase consider the proposed barging point has potential for walk in regatta launch and landing use (skiff or small boat sail racing).





## 6.7 Service and Back of House Functions

Operating the island successfully with larger visitation will require storage and back of house functions including::

- proposed supply / barging points
- off island supply chain,
- emergency management / medical
- back of house functional areas,
- waste management and safe storage

The following provides an overview for further consideration in design phase:

### 1. Existing barging facilities to be retained

### 2. Proposed new barging facility to service large events.

Examine requirement to achieve truck barging directly into event zone with capability of truck standing area. New structures that may obscure the site lines and vista both on and off island would not be considered.

### 3. Emergency and Medical Management.

In design phase examine emergency management requirement of island in both day to day and large event mode. The location of this facility should consider the functional requirement and proximity to event population. An emergency and medical response strategy will form part of initial technical design in relation circulation and servicing.

### 4. Back of House Function.

In design phase examine back of house functions to service day to day operation and event mode (location not determined). This is likely to comprise storage and waste management capability for both tenants and Harbour Trust..

### 5. Operational Service Function.

In design phase examine operational requirement and service functions to the plateau area. This is likely to comprise storage and staffing function.

### 6. Primary Operational and Service facilities.

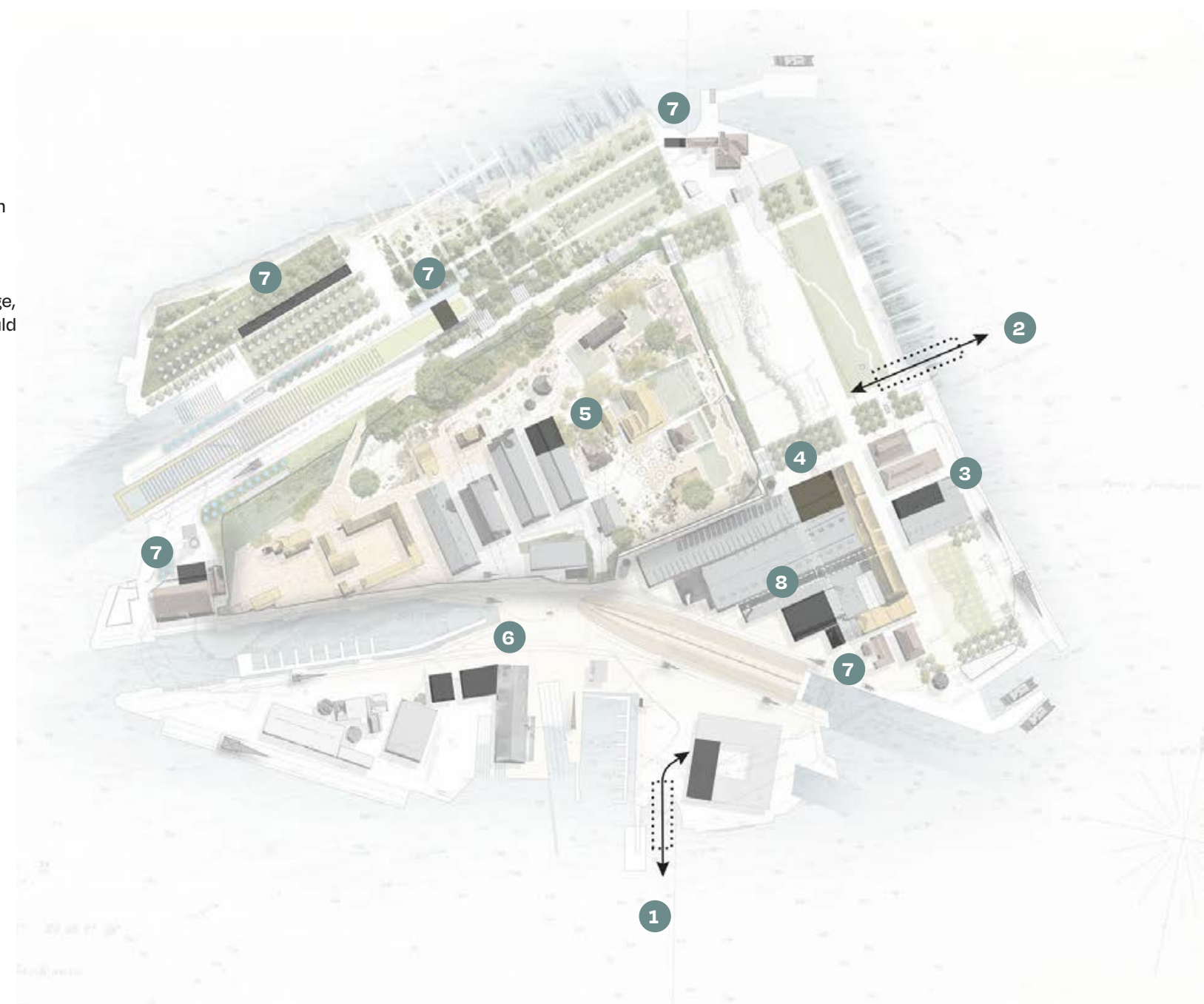
In design phase examine this zone within the Maritime area as the primary storage, service and Island maintenance depot. As a significant activated heritage site the island will require considerable restoration and maintenance support resources. This capability and its technical requirements for appropriate workshops, staffing facilities, relevant machinery and plant is considerable. Functional programming of this critical operational and service requirement must be considered a high order of priority in early design.

### 7. Secondary Operational and Services Modules.

In design phase examine satellite modules as secondary storage, service, and waste management facilities. These facilities should be modest and concealed either within existing structures or new purpose design / built modular structures.

### 8. Restoration Workshop

See item 16 of the overall Draft Master Plan





# 7.0

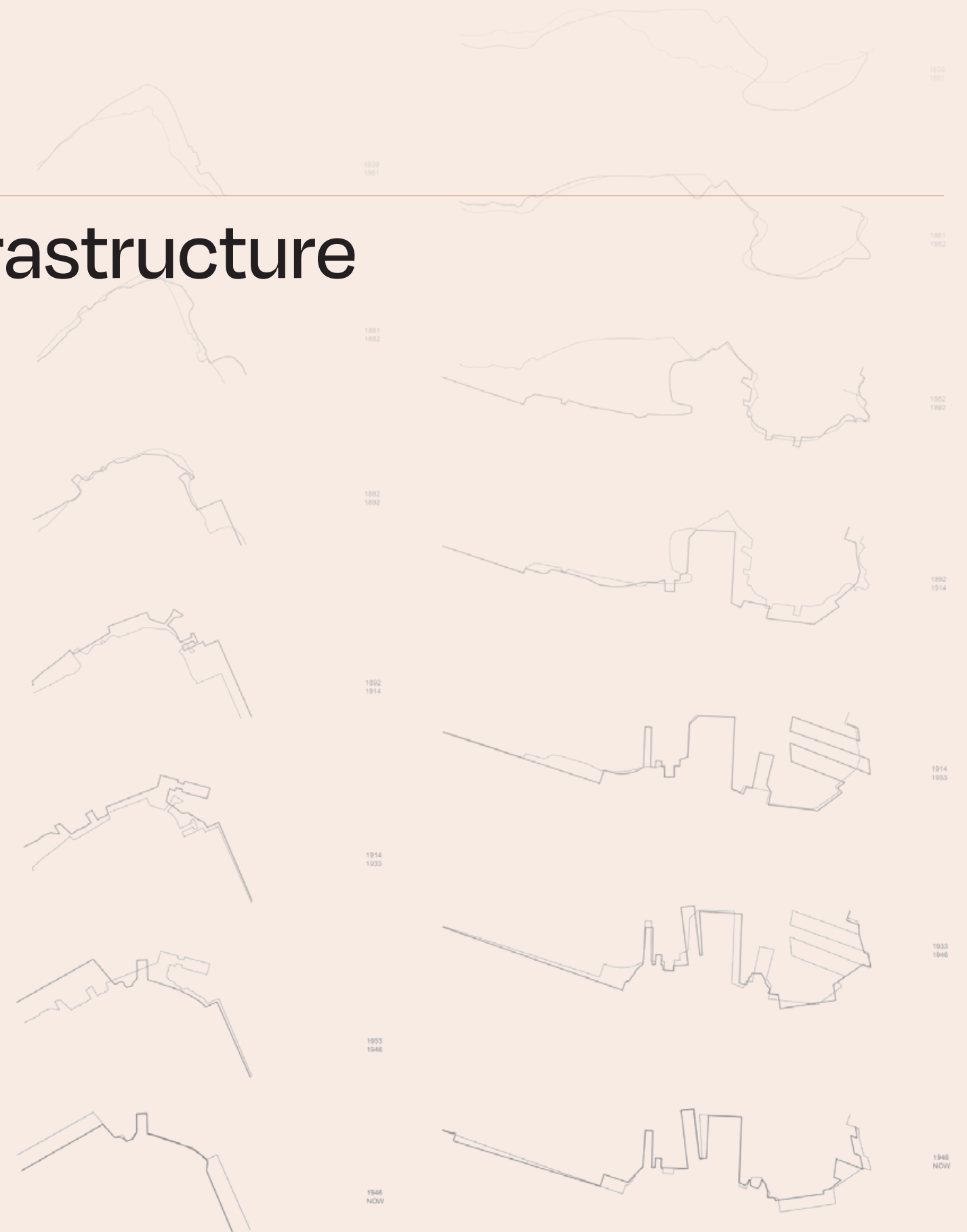
## Supporting Works and Infrastructure

### 7.1 Climate Change Resilience

### 7.2 Asset Management Plan

### 7.3 Building and Asset Restoration

### 7.4 Utilities and Service Infrastructure





## 7.1 Climate Change Resilience

Global temperatures are already more than 1°C above the pre-industrial average, disrupting climatic patterns, damaging ecosystems, causing sea level rise and impacting communities, businesses and governments. Even with reductions in global emissions that align with the Paris Agreement goals, the global average temperature will continue to rise for decades, with worsening physical impacts.

As an island in the middle of Sydney Harbour, Cockatoo Island / Wareamah is especially vulnerable to the impacts of climate change. Some climate change risks that are associated with this site include:

- Sea-level rise and increased storm-surge which may impact the site as outlined in *Section 7.4 Utilities and Service Infrastructure*.
- Increased temperatures causing more heatwaves and Urban Heat Island Effect.
- Higher frequency and severity of storm events including rain inundation, hail, and high winds, resulting in flood and inundation of buildings and utilities, and asset damage
- Increased risk of fire on the island, resulting in fire damage and smoke impacts.

This is not an exhaustive list of risks, and it is recommended that a detailed climate change adaptation and resilience plan (climate plan) be developed early in the design phase including assessment of physical, transitional and supply chain risks (dependencies and interdependencies) associated with the island and its intended operations.

A climate plan should additionally address:

- Greenhouse gas emissions and energy use with consideration of net-zero targets
- Climate change resilience (physical, transitional and supply chain)
- Transport and mobility
- Biodiversity and protection of natural environments (in conjunction with carbon sequestration and natural capital resilience)
- Circular economy, materials and considerations for Modern Methods of Manufacture (MMoM) and Design for Deconstruction and reuse

- Water quality and re-use
- Connection to Country
- Community health and inclusivity
- Social impact and governance
- Outdoor comfort and Urban Heat Island Effect
- United Nations Sustainable Development Goals related to the site.

A climate plan should consider key national and state objectives outlined within the Australian and New South Wales Climate Change Adaptation Strategies and be updated at regular frequency (at least every 5 years) to ensure alignment with the current understanding of climate change science, legislation, and associated risks for the site and its uses.



7.2 Asset Management Plan

Cockatoo Island / Wareamah, has numerous physical assets inclusive of wharves, cranes, infrastructure and over 100 buildings which if not maintained will further decline, either becoming non functional or derelict and dangerous.

The Asset Management Plan for Cockatoo Island / Wareamah (AMP) supports and guides the asset management of the islands physical assets in accordance with the Strategic Asset Management Plan (SAMP) to achieve the Harbour Trust’s organisational objectives. It was completed in late 2022 along with AMP for the 8 other Harbour Trust sites, combining to form the SAMP. The AMP only considers current use of the assets in terms of maintenance requirements and does not consider adaptive re-use or upgrades. The AMP provides asset renewal and maintenance expenditure estimates for a period of 10 years from 2023-2032.

Cockatoo Island / Wareamah assets under the AMP consist of the following elements but does not take into account residential buildings, open spaces (e.g. bushland, signage, gardens and lawns, ovals, etc.), intangible assets, or software systems.

- Buildings and building services - commercial, public access and heritage buildings.
- Marine assets - seawalls, ramps, wharves, revetments, slipways, marinas, docks
  - General structures - retaining walls, fences, canopy structures, staircases, ramps, lookouts, elevated walkways, boardwalks, pits, stack, cranes
  - Tunnels & cliffs - tunnels, natural cliffs, slopes and cliff cuttings
  - Site services - electricity, gas, water and wastewater, communications and fire systems
  - Roads, paths and tracks - roads, hardstands, paths and walking tracks, both natural and paved

**Current State of the Cockatoo Island / Wareamah Assets**

Failure of a critical asset on the island will likely result in significant consequences to Cockatoo Island / Wareamah. A combination of condition and criticality was used to determine the strategy for how the assets are managed. The overall condition of assets, by replacement value and criticality, notes that almost half of the most critical assets are in a poor condition. While the number of the most critical assets on the island is low with respect to the total number of all assets, (24 out of 261 assets) they are significant structures such as wharves and docks, that represent a large portion of the total asset value of Cockatoo Island / Wareamah. A major portion of the islands marine structures are in poor condition and cannot be accessed by the public due to this poor condition.

- AMP Relationship to Draft Master Plan**
- The AMP was completed prior to the Draft Master Plan. The Draft Master Plan is a strategy document that reviews the AMP and incorporates its findings.
- The AMP proposes significant investment from 2023 required to maintain the assets in a condition that will support delivery of services on Cockatoo Island / Wareamah.
- The types of planned works to be undertaken would include:
- Critical backlog works
  - Other backlog works
  - Lifecycle renewal works and
  - Routine maintenance.



Cranes and Chimneys  
Source: Sydney Harbour Federation Trust



7.3 Building and Asset Restoration

Noting that a master plan is a strategic process, detailed building feasibilities were excluded from the scope of the Draft Master Plan. The current phase of work has been informed by the Heritage Design Guide which spatially mapped the heritage significance of buildings and assets (deeply informed by the range of conservation management plans completed to date) and identified a tolerance for change to enable adaptive reuse and activations.

The Strategic Asset Management Plan, 2022 provided detailed asset information, and includes the following:

There are 98 buildings, 134 general structures, 19 marine structures, roads, paths and tracks (including tunnels).

Annual maintenance expenditure accounts for 0.3% of asset replacement costs which is below the typical expenditure rate of 1-2%. As a result, there are several critical assets representing a large portion of total asset value (particularly structures such as wharves and docks) that are in poor condition.

Of the 98 buildings, 29 are not currently in regular use. Of the 59 buildings in use, 10 are used for storage only. Other building uses include cafes, events, historic exhibits, warehousing, storage, short stay accommodation, tenanted workshops, administration, information office, boat shed, and amenities.

The focus of this stage of work was considering how to optimise clustering of buildings within precincts and sub-precincts in response to heritage parameters and use potential. The market studies highlighted areas where buildings and assets would complement and enable new and expanded uses with a sympathetic response to heritage precincts and heritage fabric.

Included within the above asset totals, we additionally note the eighteen external cranes on Cockatoo Island, the majority of which are related to the shipyard and dockyard facilities. Each crane has individual historical and technological heritage values and collectively, they are important aesthetically in views of Cockatoo Island, presenting a skyline of large cranes with jibs pointing skywards that defines the island as a Dockyard and as a major industrial centre within Sydney Harbour. Ten cranes have been restored, to varying degrees, by volunteers, over the last two decades, including the most significant steam-powered cranes. Conservation works have been designed and will be implemented shortly for another seven external cranes, with the remaining crane to be moved into secure storage.



Views of Cockatoo Islands varied chactacter  
Source: Tyrrell Studio



## 7.3 Building and Asset Restoration

### Building Removal Plan

Consistent with the sensitivity relating to a World Heritage Site, the following section addresses the rationale for the removal of a small number of buildings from the island. The planned removals are consistent with the Comprehensive Plan and Management Plan (see section 2.2). All other buildings are retained and reused under the Draft Master Plan.

**Building 142** - this building, a roof structure was an internal workshop relating to shipbuilding functions and post war industry. It was constructed as an in fill temporary structure and is considered of lower heritage significance to the adjacent Convict Workshop. Removal creates the potential for naturally lit or atrium space, consistent with the 2017 Plan of Management.

**Building 145 South and 154** - these are lean-to structures identified for removal due to end-of life-structural condition. Removal also releases space directly adjacent the Fitzroy Dock.

**Building 118** - is a waterfront shed on the northern side of what is proposed to become the main arrival square. Originally an electrical assembly workshop, the shed is now occasionally used for storage. It has low heritage value. Removal would enhance the presentation of the Convict Workshop buildings and support the establishment of the new arrival square as a civic space.

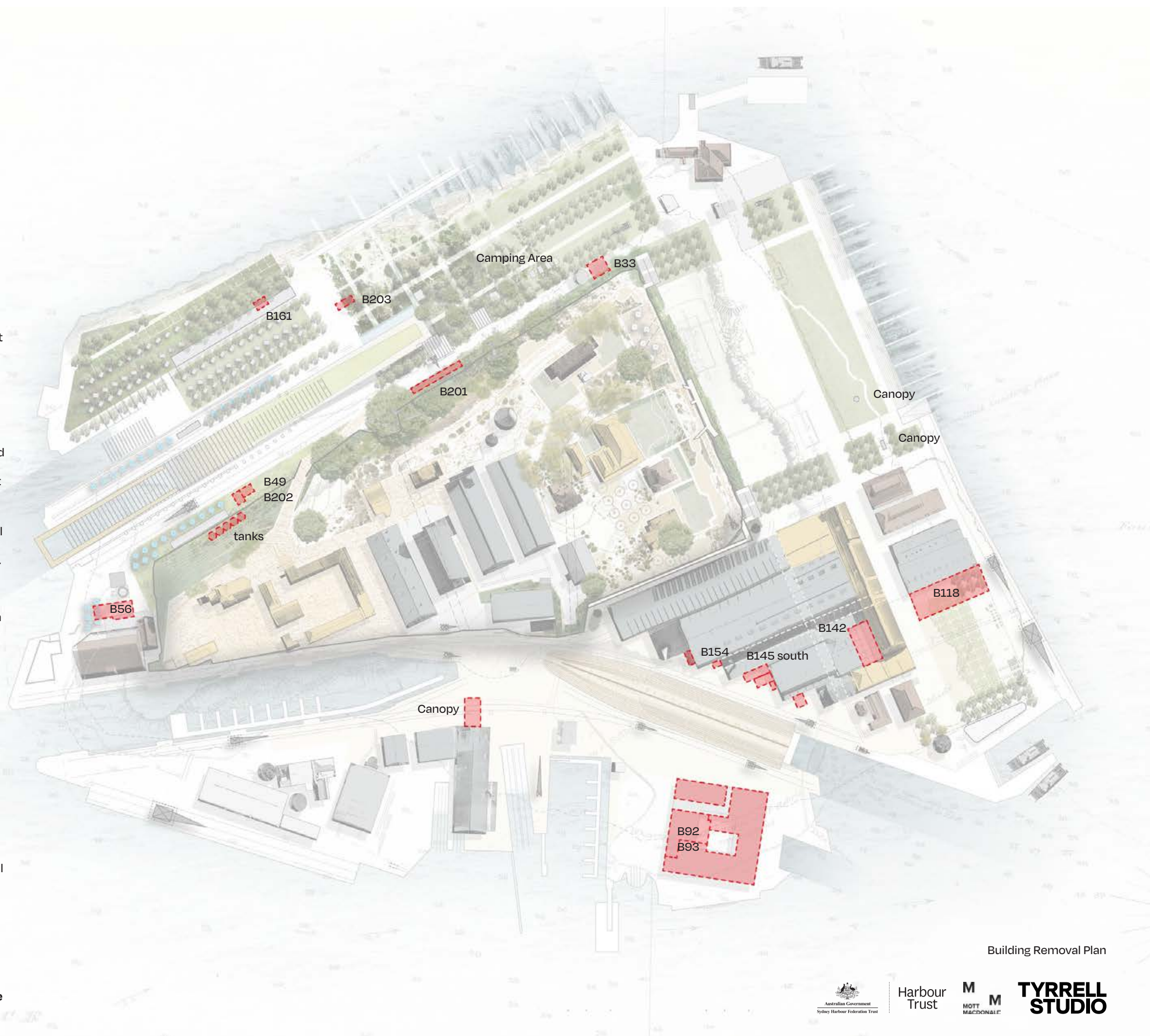
**Buildings 92, 93** - this is a large concrete and masonry building on the eastern portion of the southern apron. Initial geotechnical investigations indicate foundational subsidence, plus the building structure presents concrete cancer and contamination. The building is unused due to HAZMAT restrictions. The 2017 Plan of Management identifies the buildings for removal. The design phase will further investigate removal. Consistent with the Management Plan, the Draft Master Plan proposes long term future accommodation.

**Building 56** - is a former sewer treatment plant (circa 1970), redundant for many years. It has low heritage value and is in poor condition. The Comprehensive Plan allows for a new replacement building in its location. Its removal will enable the installation of infrastructure to support the reactivation of the Powerhouse precinct for public-facing activity.

**Service and Amenities Buildings - Buildings 33, 201, 49, 202, 203 & water tanks** - these are existing amenities, services, shower block and toilet buildings. They service the current camp ground and arrival of visitors off the Parramatta Wharf. The water tanks provide storage and grey water use. The Draft Master Plan identifies these buildings for possible future removal OR retention and upgrade to be explored in design phase.

**Buildings 161** - is a former substation (circa 1954). It has minimal heritage value and is in poor condition. The Conservation Management Plan notes it may be removed.

**Canopy Structure** - this structure was a movie prop and should be removed.



Building Removal Plan



7.4 Utilities and Service Infrastructure

The Draft Master Plan considers a vibrant future for Cockatoo Island / Wareamah supported by reliable and resilient utilities and service infrastructure.

The proposed infrastructure servicing solution supports the Draft Master Plan land-use change and increased visitor numbers, and comprises extensive replacement of existing aging services infrastructure, increased storage onsite, longer-term amplification of mainland connection points, and new and augmented island utility systems.

Further detailed investigations of the services connection from the mainland is required as part of the next stage detailed design. At this stage it appears that new island utility systems could potentially mitigate pressure on existing mainland connections, noting that new submarine feeder cables may be required.

Infrastructure upgrades are proposed to cater for planned events and activations, including:

- Repair of existing water towers and/or addition of new potable water storage
- Addition of an overflow wastewater surcharge tank adjacent to wastewater pump station
- Installation of a 1MW containerised generator adjacent to an existing substation
- Upgrade of the existing telecommunications mobile phone base station.

This event mode infrastructure will play a key role in reducing reliance on the current single point of connection to the mainland and could also be supplemented with island utility systems, such as water recycling, to provide back-up utility supply in the event of disruption.

During detailed design, integration and assessment of the fire protection strategy will be undertaken to assess any upgrades and to provide redundancy of the current fire protection network.

Portions of the site are vulnerable to changing climate and the coastal protection of critical assets will be explored in detailed design.

Potable water

The site is currently serviced from the mainland through a submarine connection to Balmain consisting of two 75mm HDPE pipes. These connect to a Sydney Water pumping station at Elkington Park.

Onsite there is a concrete water tank and water tower near the centre of the site, however these do not currently contain potable water and are suffering from concrete cancer making them unsuitable for use without extensive repairs.

Key potable water upgrades identified in the Draft Master Plan include:

- Maintaining the existing mainland connection while exploring onsite water re-use systems
- Introducing new potable water storage to account for peak demand and for events
- Replacing and upgrading the internal reticulation network that is nearing end-of-life
- Considering the introduction of additional booster systems for firefighting.

Electrical

The site is supplied via the Ausgrid network through an underwater connection to Balmain. This supplies three-phase high voltage power to four substations throughout the island.

From the four substations, two low voltage networks extend across the island to supply power to the buildings and public domain. There is also an installed 65 kW grid-connected photovoltaic array that is currently not functioning.

Key electrical upgrades identified in the Draft Master Plan include:

- Repair or replacement of current solar PV arrays
- Spatial provision for longer-term Harbour Heat Rejection
- Installation of container generators adjacent to an existing substation for redundancy and to cater for events
- Replacement and upgrade of the internal reticulation network that is nearing end-of-life





7.4 Utilities and Service Infrastructure

Sewer

The island sewer system includes a macerator that treats wastewater prior to connection to the Sydney Water wastewater system in Elkington Park, Balmain via a 63mm HPDE rising main. There are also existing wastewater pipes that drain via gravity to the pumping station that range in size and condition. Key sewer upgrades identified in the Draft Master Plan include:

- Upgrades to the existing pump station
- Increased storage for the sewer pump station
- Replacement and upgrade of the internal reticulation network that is nearing end-of-life

Telecommunications

There is a telecommunications connection to Balmain that generally follows the line of the bundled submarine cables. The original copper lines have been replaced with fibre-optic cabling (approximately 144 pairs) and there is a mobile telecommunications base station at the base of the water tower to improve service for mobile telephones which covers Optus, Telstra and Vodafone.

This includes an installed fibre ring-main to future-proof telecommunications connections across the island installed as part of a previous upgrade to the Fire Protection Equipment (FPE). There is also Public WiFi available, along with signage advertising this service.

Key telecommunications upgrades identified in the Draft Master Plan include:

- Upgrades to the existing base station by the telecommunications providers
- Connection of new works to the existing fibre ring main

Event Mode

There are four main event types considered within the Draft Master Plan:

- Large events (2,000 to 10,000 people)
- Medium events (500 to 2,000 people)
- Small activations (up to 500 people)
- Community and not-for-profit events

Some of the infrastructure required to support these events will also support day-to-day usage.

Key upgrades identified in the Draft Master Plan to cater for events include:

- Potable Water: Allowance for a water storage tank to manage peak flows on large events and provide some redundancy of supply for the potable water network
- Electrical: Provision of a containerised generator system to cater for large events, provide redundancy, and as a back-up to mainland power supply
- Sewer: Installation of a wastewater overflow / surcharge tank adjacent to the existing pump station to manage large events and provide extra capacity
- Telecommunications: As all three providers perform regular upgrades to this infrastructure it is probable that planning for 5G services is already underway. Any upgrade by the communications providers will be undertaken with increased visitor numbers in mind, and to provide a range of frequencies for a wide variety of phones.





7.4 Utilities and Service Infrastructure

Stormwater

Historically, stormwater from Cockatoo Island / Wareamah discharged directly into the harbour and floor drainage from many of the buildings drained into the stormwater system. Surface run-off from other potentially contaminated areas also entered the stormwater system.

In 2010, eight rainwater harvesting systems were installed across the island. Rainwater and stormwater are now collected from roofs and hard stand and are reticulated for use in toilets and urinals. While the rainwater harvesting system is not currently functional, works are progressing to resolve this.

There is a treatment plant adjacent to the stormwater storage tanks to re-use water for irrigation, however this is the only water sensitive urban design (WSUD) on the island, and some areas still discharge into the harbour.

Future detailed design will consider:

- Regrading localised low points that cause nuisance ponding and blocked pipes
- Preventing stormwater discharge into the sewer network leading to wastewater overflow
- Additional water sensitive urban design, particularly in new landscaping areas
- Coordinating new stormwater works with flood protection requirements identified within the climate change resilience work

Sea Level Rise

As an island in the middle of Sydney Harbour, the Draft Master Plan considered future sea level rise, consistent with the assessment of other sites and infrastructure around the harbour.

Analysis of likely coastal flooding conditions at the site indicates that a flood protection elevation of between 2.85m (AHD) and 3.35m (AHD) is reasonable and appropriate for the protection of critical assets during this Draft Master Plan phase using a 2100 climate scenario. During detailed design, it may be feasible to reduce these levels.

The plan to the right shows areas of the island that are below AHD 3m and are considered vulnerable to future sea level rise. This covers a significant portion of the site.

Within these areas, detailed design will:

- Ensure that all critical assets and potentially sensitive uses are appropriately protected to account for mainstream flooding, sea-level rise and storm surge with appropriate Finished Flood Levels (FFLs) in line with relevant floodplain management policies
- Include flood evacuation plans with appropriate access and egress to higher ground
- Investigate the condition of the existing seawall, its remaining design life and the risks of any island subsidence
- Consider protection of existing critical infrastructure such as the wastewater pumping station, existing substations and areas of potential contamination.





## 7.4 Utilities and Service Infrastructure

### Proposed Above-Ground Infrastructure

Whilst the majority of proposed island infrastructure works comprise replacement of existing reticulation services, the Draft Master Plan also identifies locations and spatial allowances for key utility upgrades. As shown on the plan to the right, these include:

- A new potable water storage tank
- Future upgrades to the mobile phone tower
- Addition of a wastewater surcharge tank
- Repaired and expanded solar PV
- Installation of a containerised generator
- Potential future harbour heat rejection.

These will be further developed in detailed design, along with enhanced island utility systems to reduce the reliance on mainland connections.

The Draft Master Plan has been developed to be flexible with future technologies. For example, the containerised generator could be replaced in the future with battery storage connected to an expanded Solar PV system.

Future detailed design of utilities and services infrastructure will include:

- Coordination with external utility suppliers
- Monitoring and condition assessments of key utility infrastructure such as the sewer pump station
- Coordination of utility connection points with proposed event locations
- Further demand assessments.

