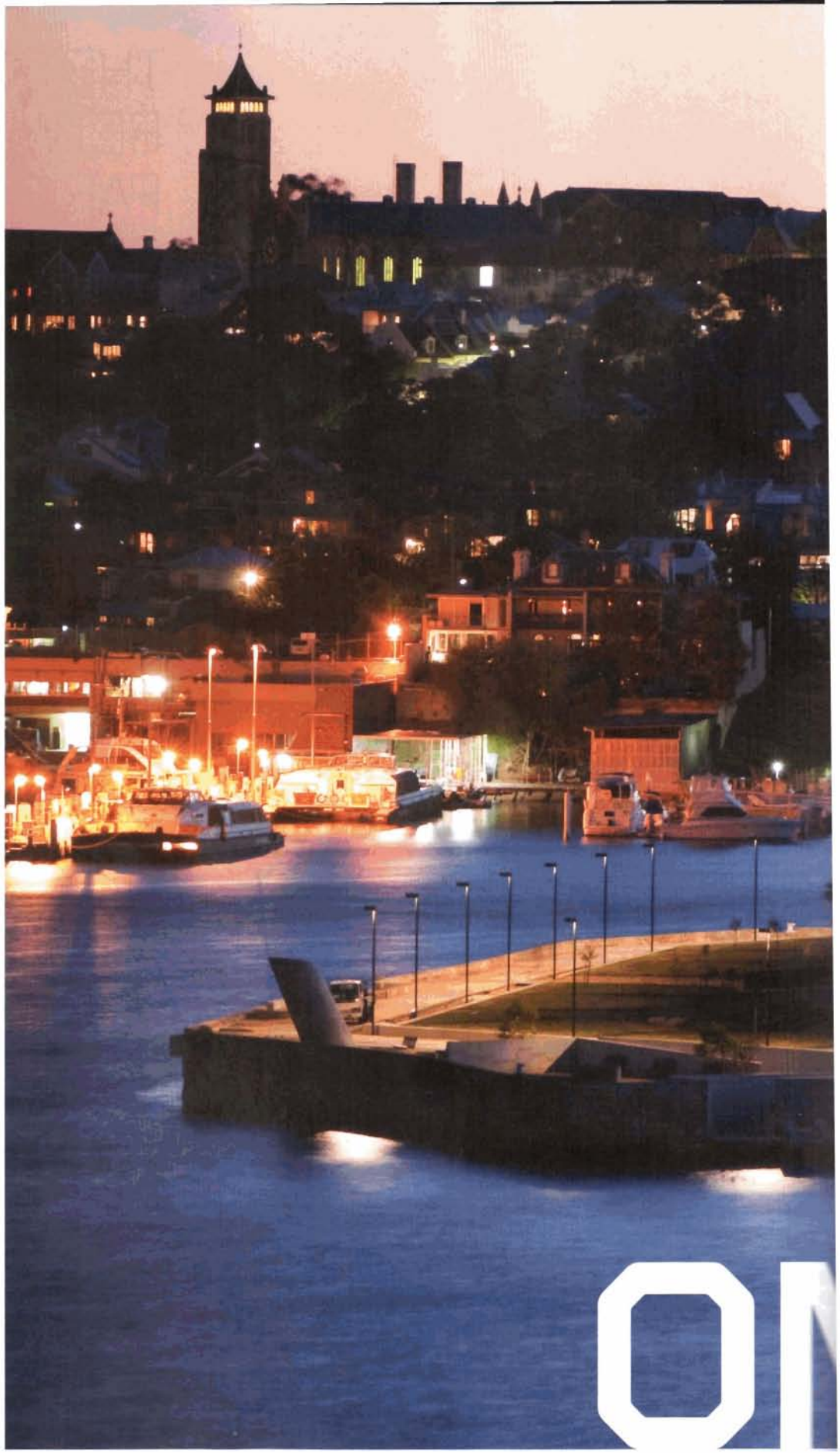
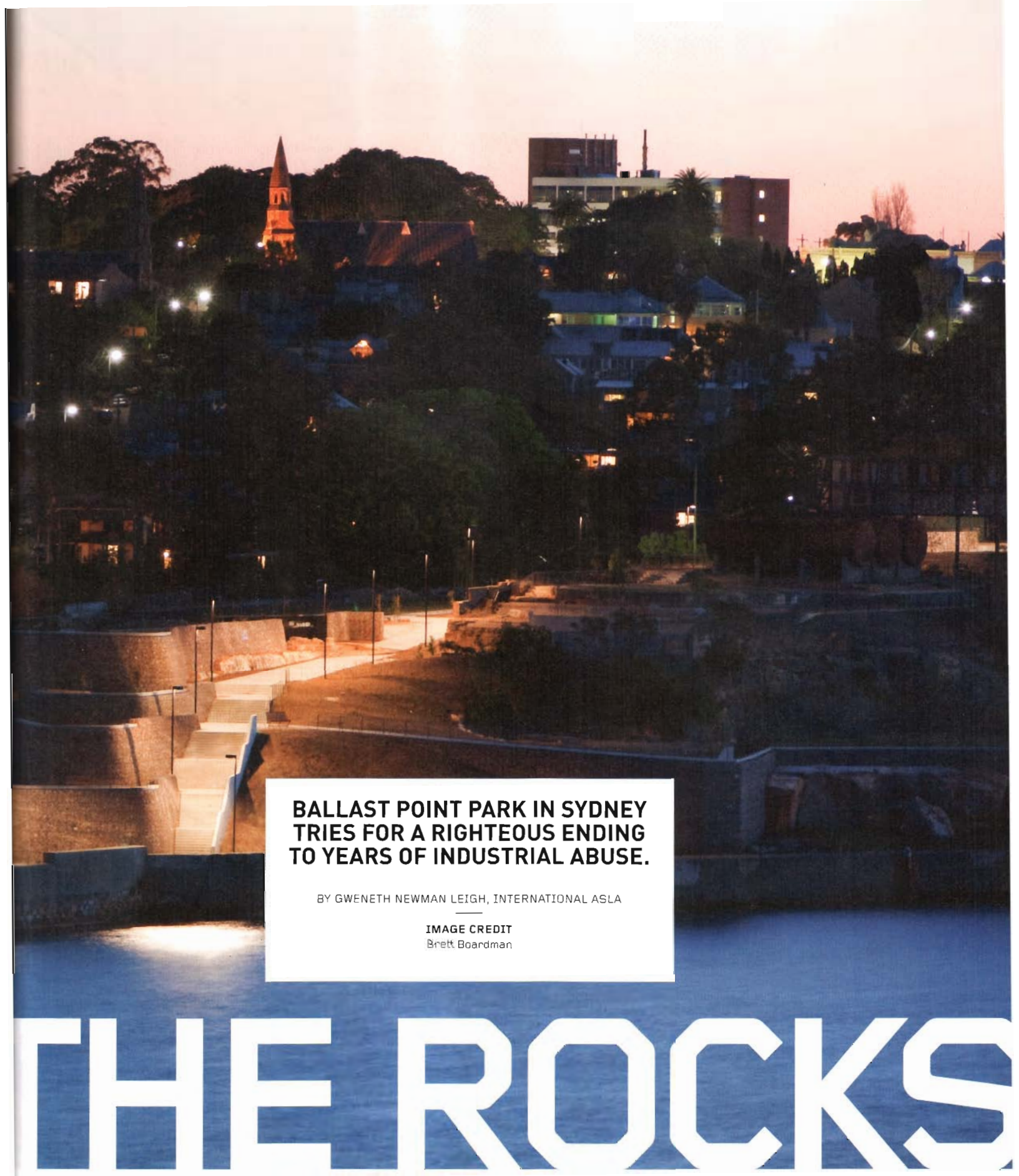


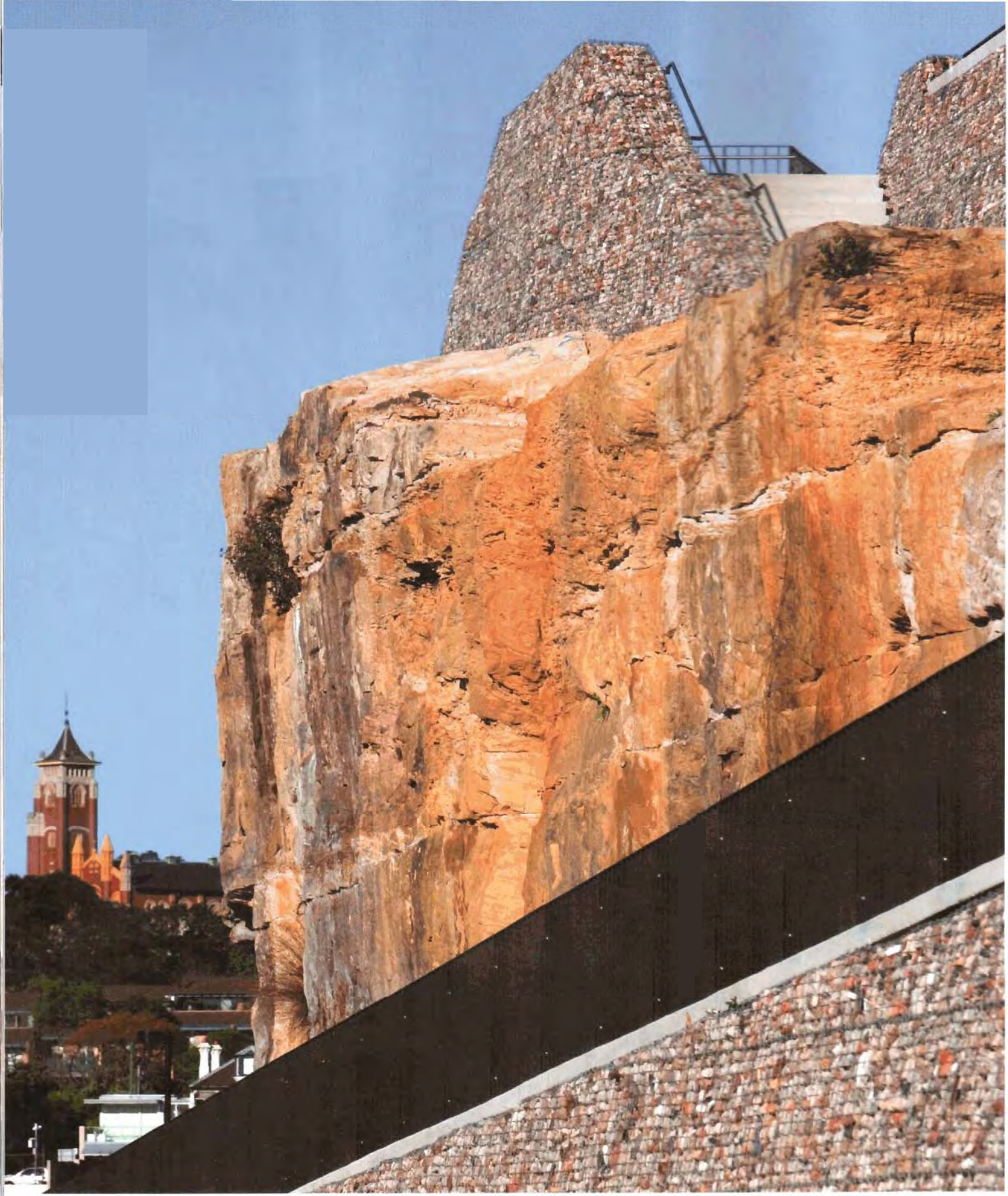


THE ROCKS

BALLAST POINT PARK IN SYDNEY TRIES FOR A RIGHTEOUS ENDING TO YEARS OF INDUSTRIAL ABUSE.

BY GWENETH NEWMAN LEIGH, INTERNATIONAL ASLA

IMAGE CREDIT
Brett Boardman



"ARE WE CLOSE TO BALLAST" POINT PARK?"

THE COUPLE, I N THEIR MID-50S, WERE SWEATY AND LOST. HAVING JUST DESCENDED FROM THE PARK, I POINTED BACK TO THE STEEP STAIRCASE BEHIND ME. "JUST AT THE TOP THERE."

THEIR FACES BRIEFLY FELL. THEN, WITH PURSED U P S AND FURROWED BROWS, THEY SET OFF.

Ballast Point has always been a place of hard work. From its origins as a supplier of ballast for ships during Australia's colonial settlement to its industrial heritage as a lubricant manufacturing site, this prominent peninsula in the western reach of Australia's Sydney Harbour has not traditionally been regarded as a thing of beauty. Its steep sandstone cliffs have been quarried, carved, and sliced to accommodate industrial tanks, buildings, roads, and car parks. But after decades of industrial occupation, the 2.6-hectare headland has been turned into a new public park and is finally being appreciated as more than just a resource to be ravaged.

OPPOSITE
During early settlement around Ballast Point, visiting ships, after unloading their cargo, quarried sandstone from the cliff face to provide balance and stability for the vessels on their return journey to Europe.

IMAGE CREDIT
Brett Boardman

THE SITE IS VERY EXPOSED, SURROUNDED ON THREE SIDES BY WATER, AND OFFERS BREATHTAKING PANORAMIC VIEWS OF SYDNEY HARBOUR.

LEFT
From the Wharf Road entrance, visitors encounter the large interpretive element of Tank 101. Recycled panels frame the skeleton of its previous form.

BELOW
Ballast Point was originally covered by more than 30 industrial tanks. The grass rings behind the bund wall reference the site's past by "greening" the footprints of former tanks.

IMAGE CREDITS
Brett Boardman

The plans for Ballast Point Park, by the Australian landscape architecture firm McGregor Coxall, contrast with the site's history as a place of plunder, underpinned as they are by environmentally responsible design principles. The designers strategized ways to retain and reuse as many materials on the site as they could. The park even incorporates wind turbines. However, the journey to the park's creation demonstrates the challenges of constructing a landscape with a reduced carbon footprint.

COMPLETED IN JUNE 2009, BALLAST POINT PARK is located at the top of the Birchgrove Peninsula in the inner western suburbs of Sydney, approximately seven kilometers from the central business district. The site is very exposed, surrounded on three sides by water, and offers breathtaking panoramic views of Sydney Harbour. Along the park's western edge is the residential suburb of Birchgrove, which was historically a working-class community but has gentrified through the years.

The story of Ballast Point's evolution into a public park began more than 25 years ago. People who lived near the site discovered that the petroleum company Caltex—the site's previous owner—was trying to get the property rezoned for high-density housing.

SITE PLAN

IMAGE CREDIT
McGregor Coxall

1 TANK 101
Structure frames the outline of the largest storage vessel on the site.

2 BBQ AND PLAY AREA
Instead of a formal playground, designers incorporated a landform for exploration.

3 BUND WALL STAIRS AND PATH
The bund wall was originally created to contain spills. A path slices through one section.

4 MENEVIA VILL FOOTPRINT
Designers needs a way to incorp the historical ar unearthed unex during construc the park.

5 VIEWING TERR
Terraces provid panoramic view Sydney Harbour

6 SHADE STRUC
A shade structu overlooks Mort

The locals were unwilling to see the site converted into a series of compact high-rise developments, so they formed the Ballast Point Campaign Committee in 1984 and rallied for the government to convert the property into public open space. After more than a decade of grassroots campaigning, the group gained support from local, state, and federal politicians. Finally, in September 2002, the site was acquired by the Sydney Harbour Foreshore Authority (SHFA) by eminent domain. After a long struggle, plans for developing the site into a park could begin.

Early in the process, a team of landscape architects including Anton James of Context Landscape Design and Craig Burton worked on a conceptual master plan for the park that won the community's approval. Their proposal called for a harborside park that would connect people with the rich layers of the site's history by retaining several industrial structures and recognizing the foundations of a colonial villa called Menevia that had existed on the peninsula in the late 1800s. McGregor Coxall was brought on board in 2006 to fine-tune the design details and get the project built.

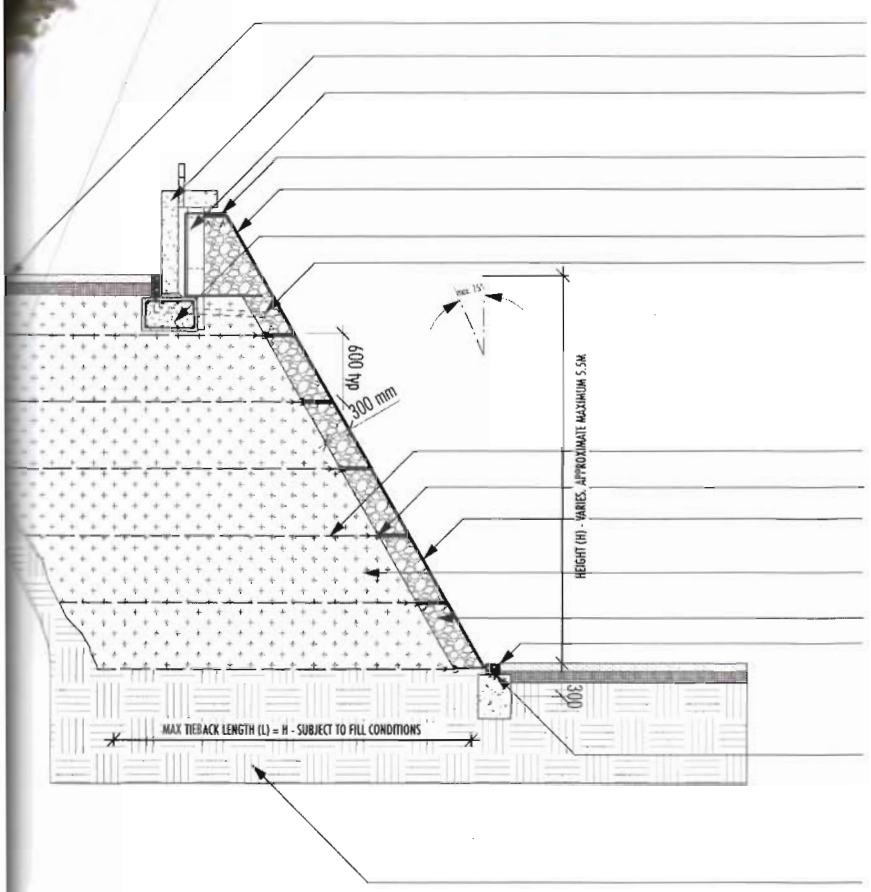
This was no small challenge, as the site was still undergoing remediation, and the shape of the landscape kept changing. "We didn't know until after the contamination was removed what kind of site we [would be] left with," says Philip Coxall, one of the principals of McGregor Coxall and the lead designer on the project. "When we got our first survey we had to go back in and redesign to adjust and look for new opportunities as a result of these new levels. It was a continual process of discovery." The lack of information on paper was a challenge, but Coxall didn't mind. "In a lot of ways I really liked that, because I could interpret the site a lot closer, and get out there and work directly with what was happening," he says.

Examples of McGregor Coxall's attention to detail are obvious across all sections of the site. Slabs of sandstone bleed onto

ABOVE
The creation of the viewing terraces using gabion walls enabled recycling of site materials while negotiating nearly 60 feet of grade change.

RIGHT AND BELOW
The gabion walls are actually reinforced dirt walls that use on-site fill, with a front cladding of recycled rubble several inches thick.

IMAGE CREDITS
Brett Boardman, above; McGregor Coxall, right and below



Surface finish

Precast concrete coping and balustrade

150 ø uPVC pipe—concrete filled—as support to precast coping element (2 off – 150 either end of capping element). Level set 50 mm higher than finished wall height.

'Galfan' reinforced wire mesh forms three sides to wall cage

'Galfan' reinforced wire mesh lapped and tied off to connect to cage and provide front face and top 600 mm wall lift

Concrete strip footing to suit future mortar bed to lay precast capping

50 mm ø drainage pipe and discharge—locate within rubble facade—100 mm protrusion to rock

Soil reinforcement as specified—Tensar Grid

Soil reinforcement tied internally with mesh ['bodkin ties']

'Galfan' reinforced wire mesh acting as facing 300 x 600 x 300 mm

Sieved site material as engineered fill—compacted to 99% smd — to be tested and confirmed by NADA registered laboratory

Recycled rubble facade infill at specified minimum 80 mm size

10/20 mm recycled aggregate

5 x 100 mm GAL flat bar edge with 50 x 100 mm tabs welded at 1 m centers and bolt fixed to concrete strip footing

Proof roll existing subgrade

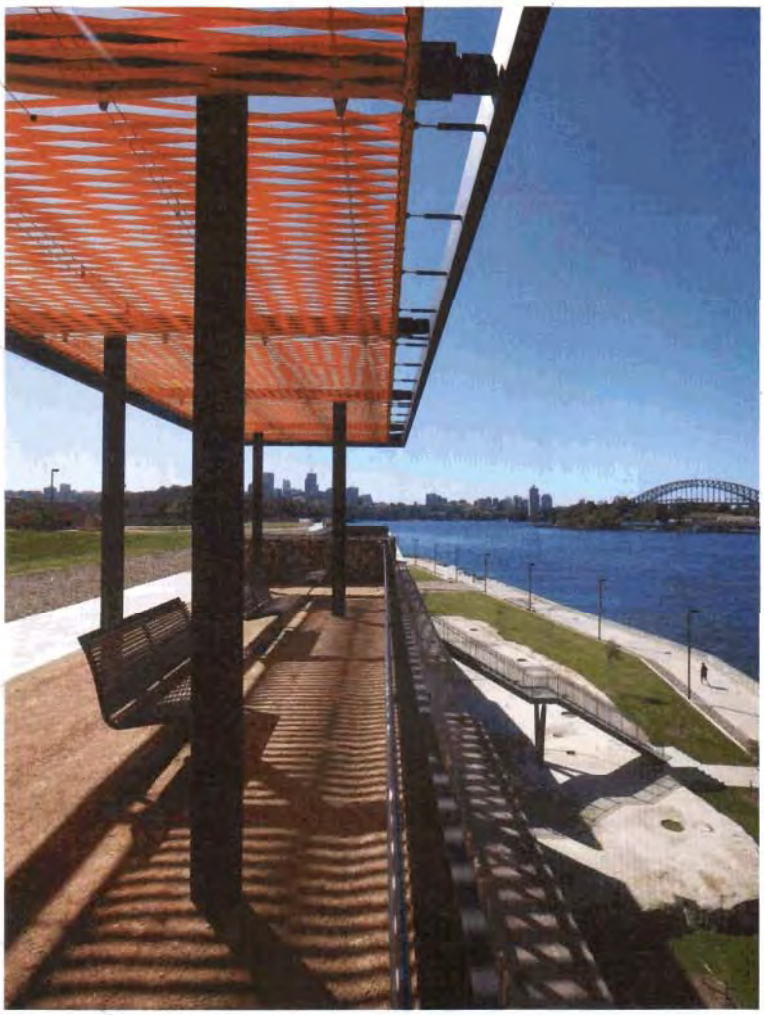
1 RAMPS
Ramps carry you up along the sandstone cliff face to the viewing terraces.

2 GABION WALLS
To create the gabion walls, material needed to be transported off site, crushed, and brought back on site from a local recycling plant.

3 SAFETY BELTS
Recycled safety belts in the canopy of the shade structure create interplay of light and shadow.

4 SANDSTONE FOOTINGS
Remnant sandstone footings of the Menevia Villa were preserved and enhanced with an L-shaped wall featuring the villa's history.

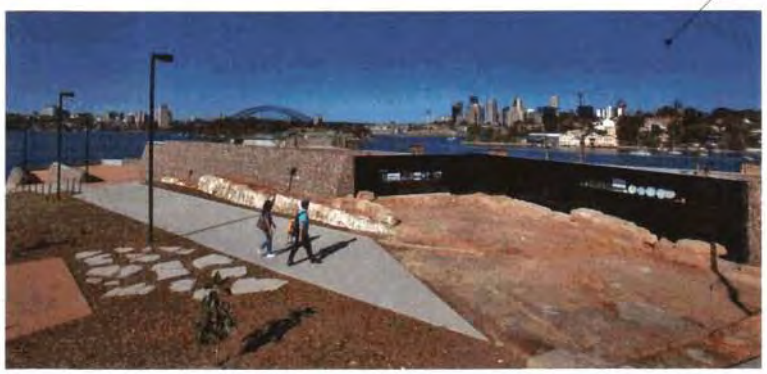
IMAGE CREDITS
Brett Boardman



concrete paths. The ringed foundations of old industrial tanks rise within beds of crushed gravel or grass. Silver railings stretch in long uninterrupted lines, negotiating nearly 60 feet of grade change over rugged and uncertain terrain. During my visit, one section of silver railing was being replaced because it didn't match with specifications. Two years on since the park's opening, and details were still being refined. A workman named Moe explained that he had been involved in the park's implementation from the beginning of construction five years ago. When we began constructing the park, there were no stairs on the site," he said. "We had to lug a 180-pound generator across the jagged cliff face. It was no easy feat."

From the entry off Wharf Road you can choose to appreciate harbor views from an elongated table and barbecue facility or wander toward Tank 101, a large interpretive structure that frames the skeletal remains of the largest oil tank that once existed on the site. Panels of the original tank were cut, engraved with a line from Les Murray's poem *The Death of Isaac Nathan,* and remounted. Standing inside the tank, the panels read: Stone *statues of ancient waves, tongue like dingoes on shore.* Eight vertical wind turbines are installed within the framework of the structure, above the etched panels. These turbines can contribute up to 8 kilowatts of electricity into the city grid. That's not a lot of energy—about enough to power eight window air-conditioning units. Although the wind was blowing during my site visit, it wasn't enough to rouse the turbines into action.

Looking northward from Tank 101, one can see the preserved bund wall—an industrial relic once used to contain oil spills—which encloses a series of large, raised grass rings demarcating former industrial tanks. A concrete platform slices through the bund wall,

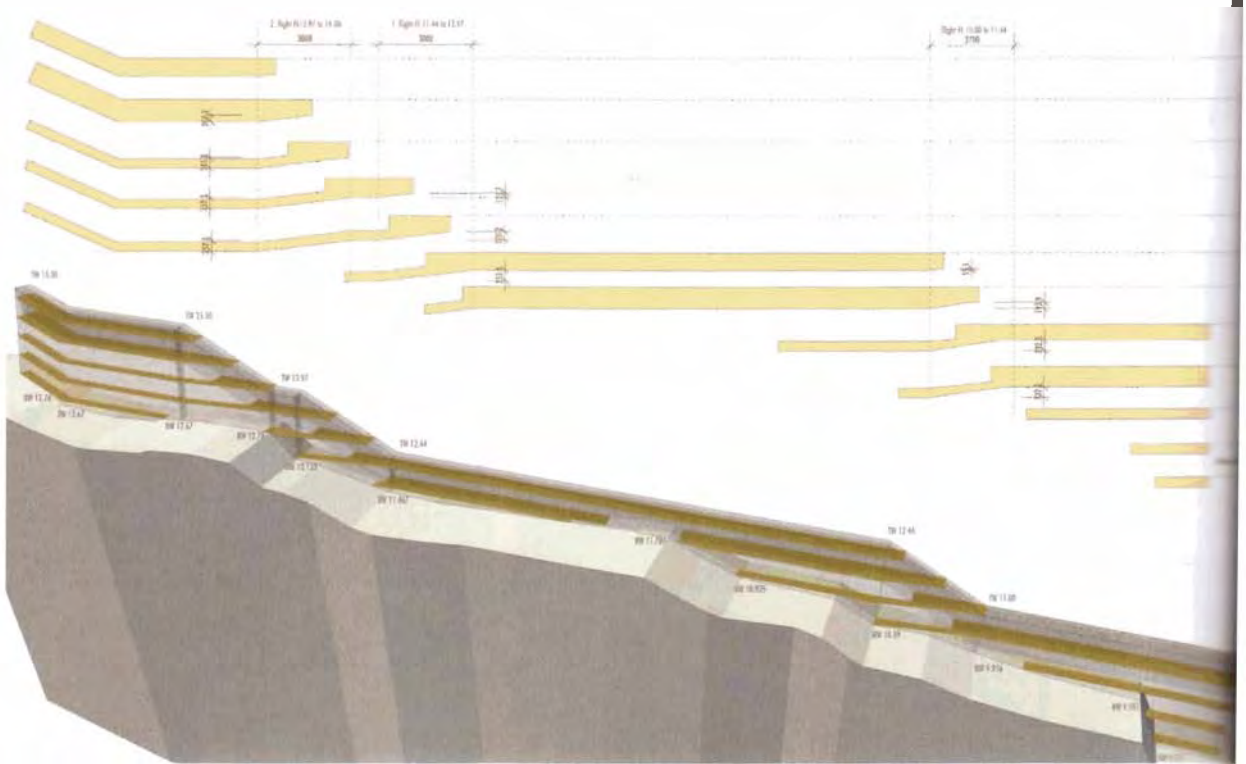


ABOVE
In 2002, Ballast Point was acquired by the Sydney Harbour Foreshore Authority to be renewed as a headland park, contributing to the state government's goal of greening the Sydney foreshore.

RIGHT
Insertion of the gabion baskets required careful detailing given the length of the walls and the amount of grade change across the site.

OPPOSITE
Tank 101 was the largest tank in Australia to use rivet construction technology. Using dot-font typeface for the inscription of Les Murray's poem was meant to reflect the use of these rivets in the history of the storage vessel.

IMAGE CREDITS
Brett Boardman, above and opposite; McGregor Coxall, right



acting as both a path and seating, and a series of stepping-stones connect the grass circles, instilling an element of playfulness within the space. Heading due east from Tank 101 along the ridgeline you encounter the remnant sandstone foundation of the Menevia Marine villa, which was unearthed unexpectedly during construction. A black L-shaped interpretive wall along its edge features historic information, photos, and a case of domestic artifacts from the villa. Continuing east from here, you descend past several terraces framed by gabion walls, each outfitted with a bench and tree. The views extend toward Sydney's iconic Harbour Bridge.

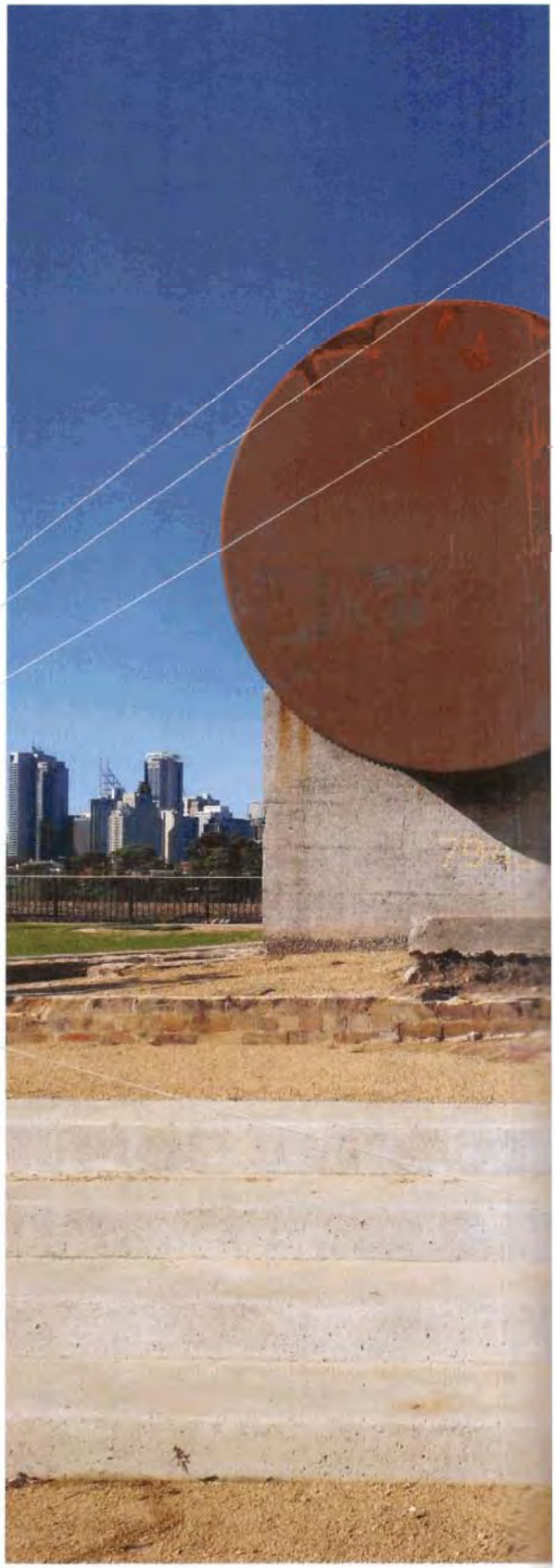
Wrapping down along the park's southern edge is the Ballast Garden, where long swaths of lawn sporadically planted with trees are integrated with more fragments of sandstone and industrial foundations. Throughout the park, you find wetland areas for collecting and filtering stormwater and native trees, shrubs, and grasses grown from locally collected seed. While some paths along the northern edge hem you tightly between walls and plantings, the site mostly leaves you feeling exposed to wind, water, and sun. Part of this can be attributed to the youth of the plantings. However, the generous use of crushed stone and hardscape, particularly along areas south of the ridgeline, does make me wonder whether more shrubs could have been incorporated.

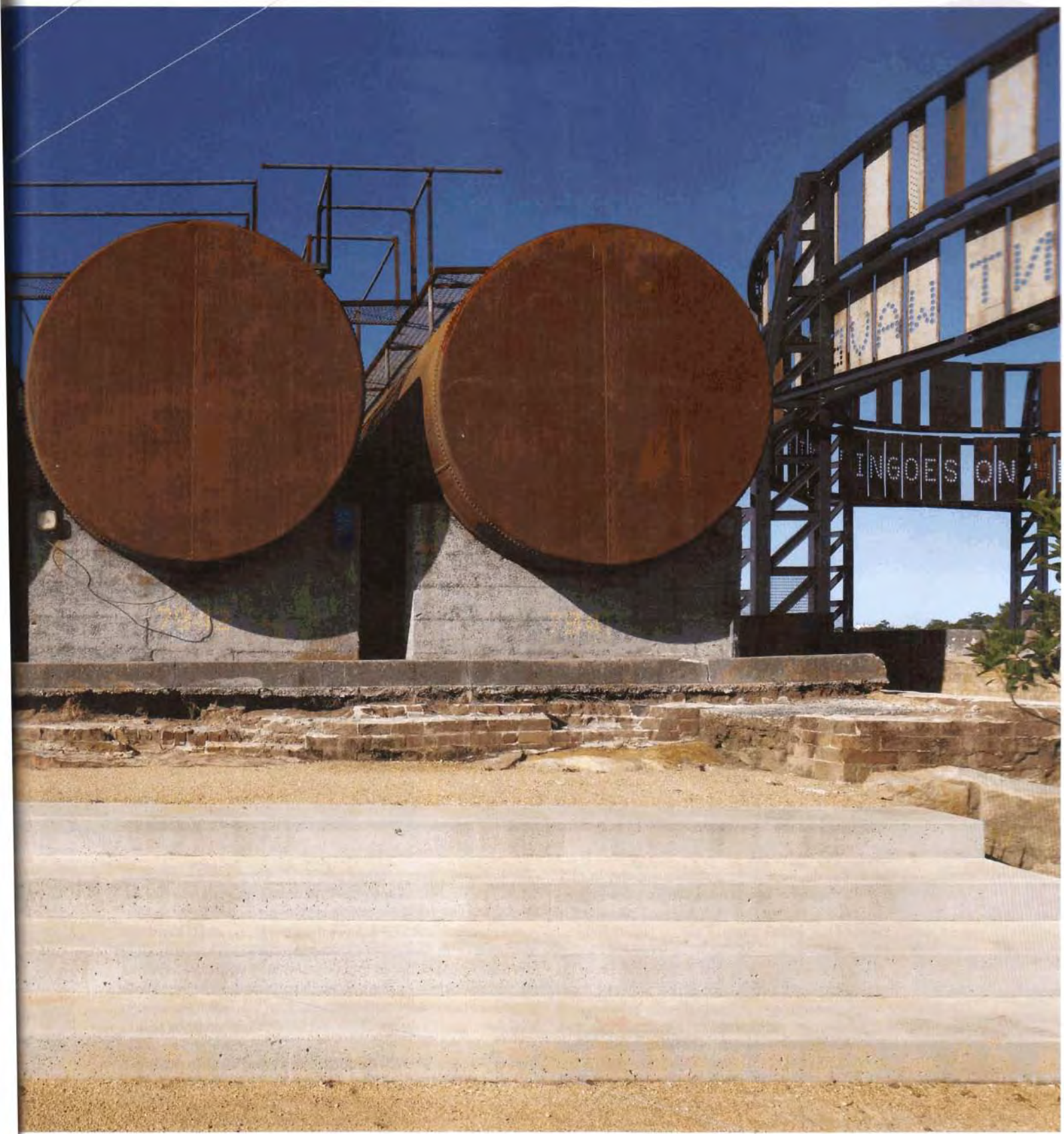
The material palette across the site is simple and consistent. Polished steel railings, concrete paths, and recycled timber benches provide a neutral background against deeply rusted industrial relics. The viewing deck and toilet blocks (designed in collaboration with Choi Ropiha Architects) are sheathed by a brilliant orange canopy woven from recycled safety belts. However, it's the gabion walls that are the biggest conversation piece. From the harbor, they rise above the sandstone cliffs, their straight-lined silhouette resembling section cuts of a drawing—except these slice through history. "Imagine if I came to you, threw you a bag of rubble from the site, and said this is what I want to put on top of your sandstone cliffs in Sydney Harbour," said Coxall. "It was a big step for the foreshore authority to come on board."

While many of the former industrial buildings on Ballast Point could not be salvaged, their materials could. Coxall initially tried to have all materials crushed on site for reuse within the walls, but it proved too costly. Instead, the rubble was broken down at a recycling center and transported back to the site for filling the gabion baskets. Coxall is quick to point out that they are not gabion walls in the truest sense—they are actually a reinforced dirt wall, created using on-site fill, with a front cladding of rubble that is several inches thick. Inserted within the rubble are pieces of history from the site, from old pieces of plumbing and shards of porcelain to maintenance signs.

The walls have been embraced by some of the community and shunned by others. At the easternmost tip of the site, a growing collection of padlocks engraved with the names of sweethearts have been locked onto the wire mesh. According to Coxall, some visitors have enjoyed tracking down former Caltex employees to let them know their names are featured in the wall. But some of the community have been upset by the prominence of the walls in the site design, claiming they give the park a fortress appearance from the water. Lindsay Anderson, a local resident, says: "[The process of creating] these gabion walls has determined the way the park looks; I think the designers went overboard. When you sit down at park benches, you are surrounded by gabion walls rather than spectacular views." →

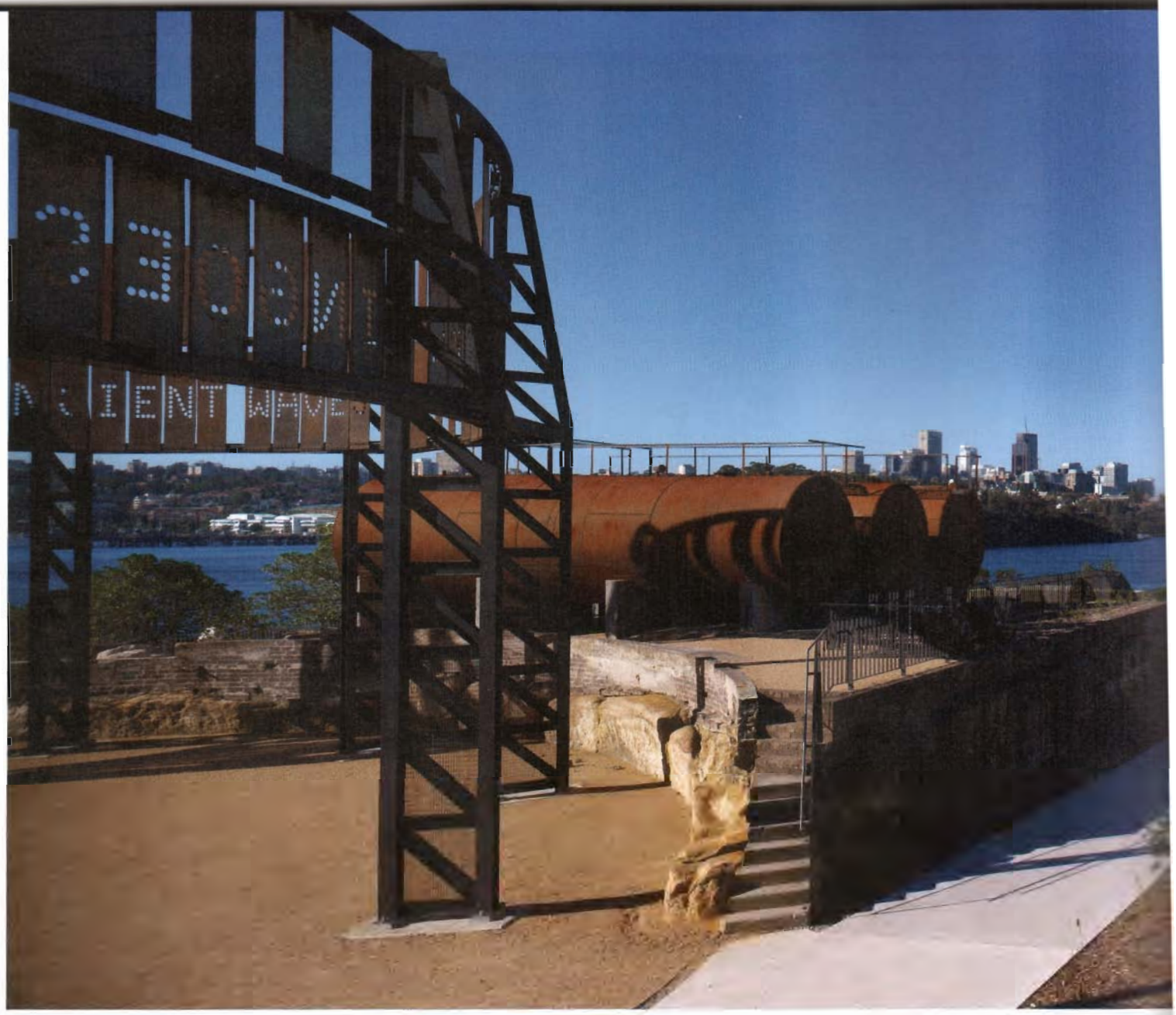
POLISHED STEEL RAILINGS, CONCRETE PATHS, AND RECYCLED TIMBER BENCHES PROVIDE A NEUTRAL BACKGROUND AGAINST DEEPLY RUSTED INDUSTRIAL RELICS.





ABOVE
To cut carbon emissions generated by the park's construction, designers sought to recycle as many materials on site as possible, from crushed rubble, **OPPOSITE,** to pieces of industrial equipment.

IMAGE CREDITS
Brett Boardman



← During my visit to the site on a warm summer weekday in mid-January, I observed a rotation of groups using the barbecue facilities and a steady stream of dog walkers. One man practiced martial arts in the shelter of the bund wall while a group of teenage boys fished near the Ballast Garden and swam in the harbor. While the use of the park wasn't heavy, it was consistent. The gabion walls do dominate the site, especially when viewing the park from the harbor—one hopes that with time, vegetation will provide a natural buffer to soften their effect. But the spaces framed within them are beautifully executed, their grand scale in keeping with the industrial relics.

Close up, there is a sense of folly and fun among the details—for every staircase leading up to a platform, a tempting cluster of rocks is also provided for the more risk-taking explorer. But based on the amount of temporary fencing erected through the site, it's evident that the folly has fallen flat for some within the SHFA, which maintains the park. During my visit, wire mesh prohibits access to interesting overlooks or is mounted to low walls near the ocean. (The wire mesh does, however, provide good crevices from which to balance unmanned fishing poles). According to Coxall, much of the fencing was erected during 2010 as a safety precaution by the maintenance department at SHFA. Since then, two access audits have been conducted by the designers that confirm the fenced areas are safe for public use. Despite this, authorities within SHFA have informed me that since my visit, the wire mesh has now been replaced with permanent balustrades. Such issues touch on the challenges between McGregor Coxall's design intent and SHFA's interpretation of it.

One visitor from Western Australia commented to me in passing—"It's beautiful and it's grand, but what the f*** is it for?" According to SHFA, no large events are scheduled here outside the occasional wedding. It seems a bit unusual that the Australian government invested $10 million toward the construction of a local neighborhood park, but it is also unusual that local residents sustained a park campaign for close to 25 years. By 2002, their lobbying had reached the ears of former Australian Prime Minister Paul Keating.

HERE
Owing to the youth of the plantings, the south side of the park provides dramatic *views of the harbor,* but not much protection from wind and sun.

IMAGE CREDIT
Brett Boardman

who was keen to see the western edge of Sydney's Harbour be converted back into an archipelago of naturalistic headlands and islands reminiscent of early settlement landscapes.

Keating's influence helped tip the scales in favor of securing Ballast Point for open space rather than residential development. What's questionable is whether so many taxpayer dollars should have been invested on such a remote site, or whether a modest neighborhood park would have sufficed.

Ballast Point Park provides us insights to the challenges of reclaiming industrial land and reducing our carbon footprint. The design reflects a thoughtful study of its previous industrial history, where the designers worked hard to deliver a project using sustainable methods. However, if we want to showcase such ambitious projects, we also need to be more strategic about where we place them. Ballast Point Park has a lot to say—but you've got to find your way there to hear it. ●

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Project Credits

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