

GOOD WEEKEND

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**IS LIFE AS GOOD
AS IT USED TO BE?**

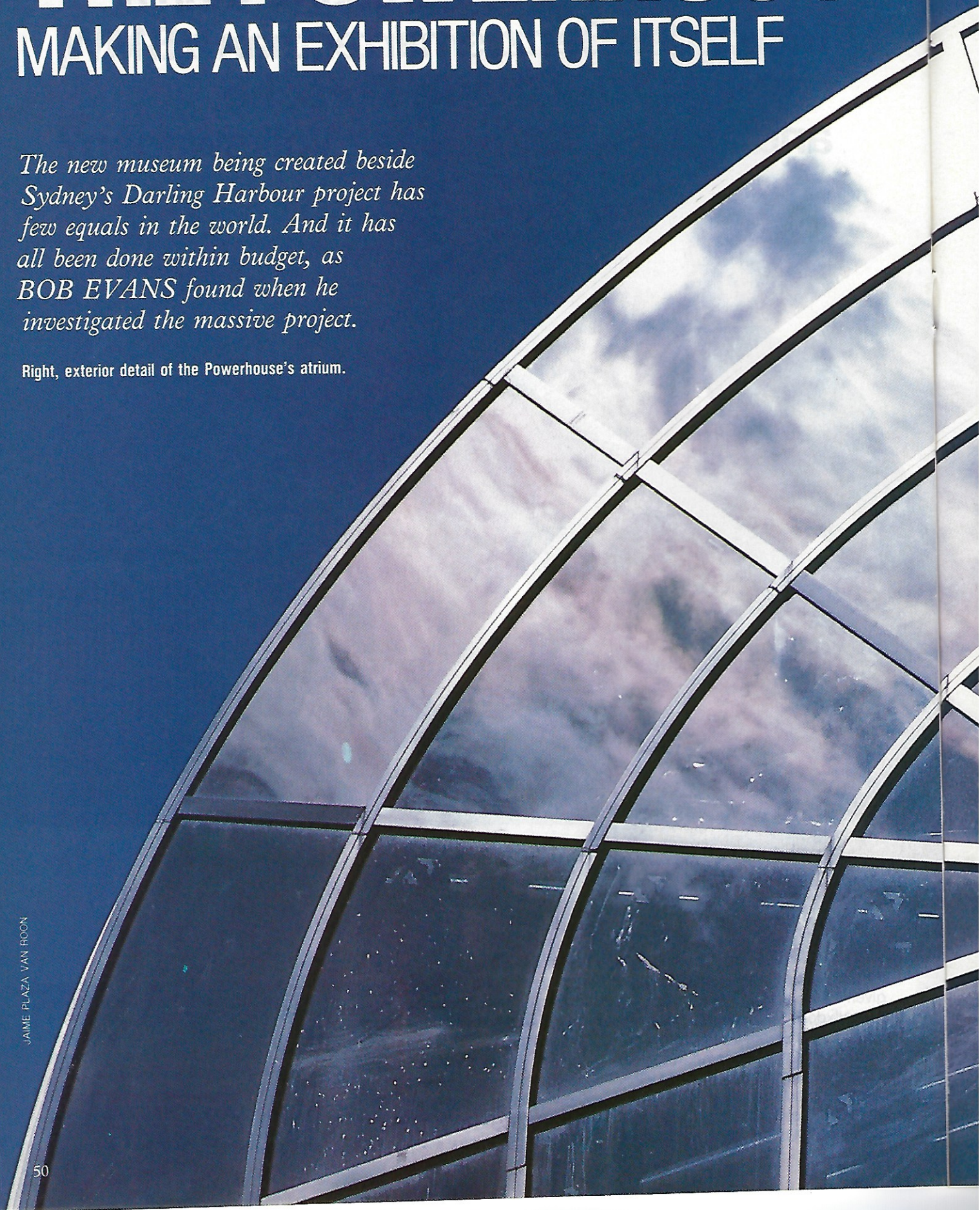
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THE POWERHOUSE

MAKING AN EXHIBITION OF ITSELF

The new museum being created beside Sydney's Darling Harbour project has few equals in the world. And it has all been done within budget, as BOB EVANS found when he investigated the massive project.

Right, exterior detail of the Powerhouse's atrium.

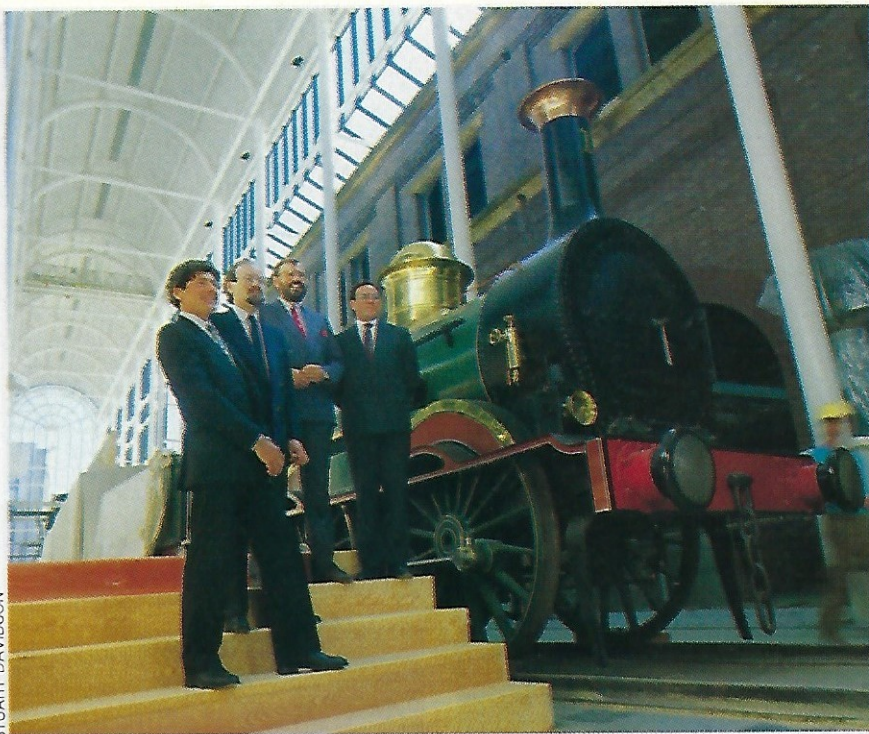


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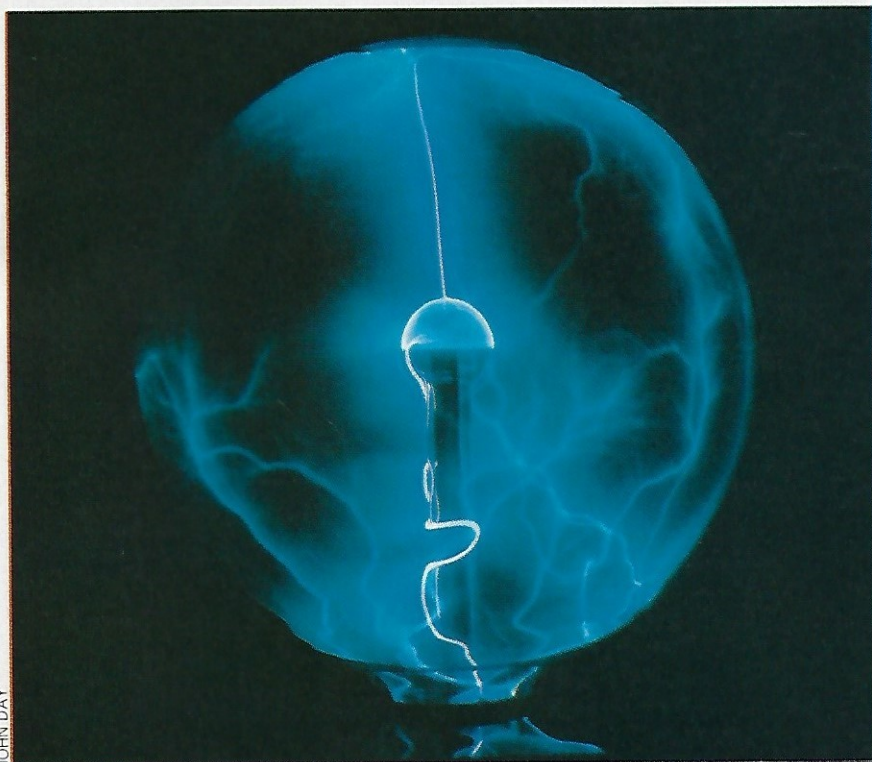




Geoff Friend



Stuart Davidson



John Day



Jaime Plaza van Roon

Some of the exhibits, clockwise from top left: the Plastic Woman, who was considered daring in 1953; Lionel Glendenning, Richard Johnson, Lindsay Sharp and Peter Root with Loco No 1; the interior of the massive atrium; and the Plasma Ball, which produces arcs of lightning controlled by touch.

THE CONCEPT of horsepower as a measure of the work done by a machine came into being just as Captain Arthur Phillip was getting ready to sail off to found a colony in New South Wales.

It came about by way of a bargain struck between the inventor, James Watt, his partner, Mathew Boulton, and a London beer baron, Samuel Whitbread, who wanted a steam engine to drive the pumps and millstones in his brewery. Whitbread offered Watt a deal: he and Boulton would be paid the

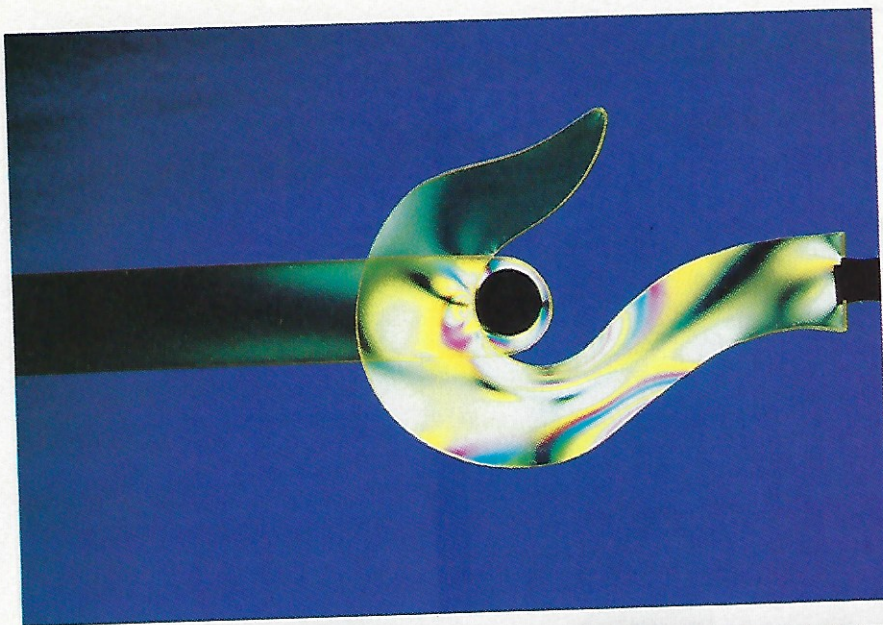
equivalent value of the number of horses their steam engine replaced.

It is worth noting here that James Watt did not derive his ideas about steam engines by watching a kettle boil. Steam technology was in fact pioneered by Thomas Savery in 1698 and improved upon early in the next century by Thomas Newcomen and John Calley. Watt made significant improvements to the technology in the 1760s and 1770s, first by using a separate condenser and then by devising a system of "parallel motion" for the piston rod.

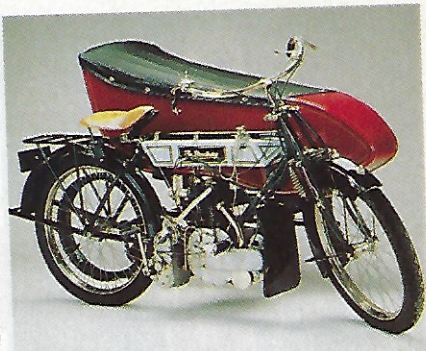
At the time of the Whitbread offer,

there were more than 600 steam engines operating in Britain. Within a year of its installation, the Boulton and Watt Steam Engine was doing the work of 24 horses. Once Watt had mastered rotary motion and adapted the engine 10 years later, 70 horses were put out to pasture.

The Boulton and Watt engine continued to pump and grind for 102 years until 1887, when it was dismantled to make room for a more powerful version. Fortunately, a trustee of the Sydney Museum of Applied Arts and Sciences, Archibald Liveridge, was in London at the time and persuaded



GREG PIPER



More exhibits, clockwise from left: a crane hook between two sheets of polarising material reveals stress patterns; Bradbury motorcycle, 1913; The Boiler Hall with Catalina flying boat; and the Delphos robe made by Mariano Fortuny in Venice, 1910, of hand-dyed silk with glass beads.

JOHN DAY



GEOFF FRIEND



JAIME PLAZA VAN ROON

Whitbread's to donate the engine to the fledgling museum. It was packed in 45 crates and arrived in 1888, the year Sydney celebrated the centenary of Captain Phillip's colony.

It has taken another 100 years to find the Boulton and Watt engine a home befitting its reputation. This engine, the oldest surviving rotary steam engine in the world, an icon of the Industrial Revolution, valued at more than \$30 million, now stands in pride of place at one end of the vaulted galleria in the museum's new home in the Powerhouse at Ultimo in Sydney.

It is a jewel within a jewel and it is in good company. The Boulton and Watt is the premier exhibit in the world's largest collection of "steam engines within a climate-controlled building", according

to Powerhouse director, Dr Lindsay Sharp.

Coincidentally, these engines stand on the very floor where once three massive vertical reciprocating steam engines — direct descendants of the Boulton and Watt — cranked out 850 kilowatts of electricity to drive Sydney's trams and, later, its trains. They are long gone but the spirit of their thundering motions is not.

The former source of Sydney's power is set to generate a new kind of energy when the Powerhouse opens in March, 1988.

The Powerhouse museum was conceived 10 years ago by Dr Sharp, with a principal architect from the Department of Public Works, Lionel Glendenning, the then Deputy Premier,

Jack Ferguson, and the former Premier, Neville Wran.

This was in the days before there were plans to celebrate the Bicentenary. But the museum was approaching its own centenary with the commemoration of the Grand Exhibition in the Garden Palace of 1879, Sydney's answer to the Great Exhibition in London's Crystal Palace in 1851. The timing of its opening with the Bicentenary has, according to Sharp and Glendenning, been largely coincidental.

As an exhibition space, the Powerhouse has few equivalents in the world and none in Australia. There will be around 9,500 pieces on display when it opens — 20 per cent of the museum's total collection.

There will be 25 different exhibitions▷

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which will explore five broad themes: creativity and Australian achievement; everyday life in Australia; decorative arts; science, technology and people; and bringing people together.

The exhibits range from Sir Gordon Taylor's Catalina flying boat, called Frigate Bird II, which weighs eight tonnes, has a wing span of 32 metres and is suspended some 12 metres above the floor of the Boiler House, down to a glass dog which stands 1cm high.

Architecturally, the building responds to those disparities of scale. The Boiler House has been retained as an enormous open space to house the thematic exhibition *Bringing People Together*, which incorporates three exhibitions — Transport, Space and Communications. Each has unique features. Space, for instance, is the first integrated exhibition of its kind in the world to display space related material from the US, USSR and China. But in the Style exhibition, part of the decorative arts theme housed in the former Switch House building, the spatial relationship changes completely to match the dimensions of the exhibits. It takes a much more traditional approach, with show cases built into the walls and smaller architectural features which create the impression of distinct gallery areas reserved for particular periods. Visitors are led subtly through the exhibition in chronological order.

This incredibly complex layering of the building has involved four principal planners in the Powerhouse project: the architect, Lionel Glendenning, director of design, Richard Johnson, project director, Peter Root, and museum director, Lindsay Sharp. Significantly, two of the men, Glendenning and Root, claim the project has made them look 20 years older. Still, there is a discernible spirit of professionalism, co-operation and even good humour between them.

Of the four, Lionel Glendenning was the only one to speak about his fluctuating feelings during the 10 years the project has been running. "I had to be buoyant and tough-minded. I believe buildings eventually take on their own personalities. In the process it can be happy and bright, miserable or difficult. I went through periods when I felt I was being kicked from pillar to post."

The blackest time for him was during the resolution of the raw internal spaces of the building with the exhibition design work being supervised by Richard Johnson. The difficulty, according to Glendenning, was finding the levels of excellence which would satisfy them both.

Glendenning was adamant that his design respond to the challenges provided by working within an existing, late-Victorian industrial structure. "The main idea was to create and reinforce the contact between the observer and the object, to rekindle that sense of wonder,"

Glendenning says. "What I needed to ask myself was: what is it about the existing environment that can be enhanced? What can I draw inspiration from? What can I make stronger?"

For him, the great opportunities were the volumes already existing in the Powerhouse buildings. He recalls that he had to fight hard against some of the traditionalists who wanted to create more exhibition space by putting six floors in the Boiler House.

The Powerhouse collection runs counter to many technological museums

in the world. As Lindsay Sharp explains: "So often museums are obsessed with collecting the very biggest, the very latest, the most famous and miss the fact that 98 per cent of life is taken up with ordinary everyday things which can be just as fascinating."

He knows the Powerhouse has its share of superlative objects, including Australia's No. 1 train and its complement of carriages. "But," he points out, "it is part of a broader theme of distance and the way it affects how we live on this continent. There are plenty



A heatwave is somehow bearable, wh

of transport museums which have serried ranks of locomotives — they become almost like a butterfly collection of trains. We don't want to do it that way."

The greatest challenge facing the Powerhouse with this inter-disciplinary approach to its collection and display, often in large spaces, has been to ensure that the viewers don't lose their sense of direction or perspective.

The Powerhouse is so large that sections of it can easily contain three- and four-storey buildings or structural

shapes. There is, for instance, as part of the thematic exhibition called *Everyday Life in Australia*, a typical Aussie pub from the 1930s, a chemist shop and a picture theatre from the same era.

"Just as people can relate to a townscape which has grown incrementally over time and has developed its own idiosyncrasies and landmarks, so the Powerhouse," says Johnson, "has townscape features built into it which will help people orientate themselves."

Unlike the major NSW Bicentenary

project just across the road at Darling Harbour, the Powerhouse project has, amazingly, kept within its budget almost to the dollar.

Glendenning was adamant that working on a project fostered by the then Premier, Neville Wran, and his deputy, Jack Ferguson, did not mean easy access to the State Treasury. "Ferguson and Wran were brilliant foils for each other," Glendenning says. "Wran had a sense of the future and Jack Ferguson certainly had a sense of the past. In a way the Powerhouse encapsulates their views of the world and their philosophies. I distinctly remember when I was given the budget for the building, which is \$54 million, the Premier said: 'And not a penny more, not a penny'."

Glendenning has worked within that constraint, as has Peter Root, whose exhibition budget was fixed absolutely at \$32 million. Root has a dream of walking up to the Premier after the opening ceremony and handing him a dollar coin and saying: "Here's the change."

Each man seems almost relieved that they have had to work within an absolute figure. It has meant there was no latitude for extravagance. Everything had to be judged on its merits.

"It's a good discipline for the project," said Root. "An extra \$10 or \$20 million would have made us slack. As a manager, the budget gave me a lot of leverage to say: 'No'. A massive new project like this is subject to brilliant new ideas which are welcome but there's a lead time to turn a brilliant new idea into an end product and the Powerhouse had to learn that lesson."

Glendenning points with some pride to the fact that a comparable building in France, such as the Centre Pompidou or the Museum d'Orsay, cost two to three times as much. The one area where he feels uneasy with the compromises is in the finish of the building. "The French were able to use marble; I finished the Powerhouse in paint. It's not that the building is any less for it in a way. It's just that it doesn't reach that next layer of quality. It's all right. And it isn't. It's one of those things in architecture — you strike a balance."

There is a pride and a buoyancy evident among all the Powerhouse staff. Root locates it in the importance of the role the Powerhouse will play in the life of both Sydney and the nation. "We'll be reaching upwards of two million people a year and acting as a conduit for the display of advances in Australian technology and the arts, as well as acting as a major international source of cultural communication. A city of this size and sophistication needs a major asset like the Powerhouse. Museums bring people together: politicians, tourists, academics, collectors and the general public. That's what makes them dynamic." □



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ble, when a cool change is on the way.

Gilbey's Gin. The coolest drink under the sun.