

# CUTTINGS

URBAN ISLANDS vol 1

EDITED BY JOANNE JAKOVICH

COCKATOO ISLAND

**Urban Island (n):**  
a post industrial site devoid of program or inhabitants;  
a blind spot in the contemporary city;  
an iconic ruin;  
dormant infrastructure awaiting cultural inhabitation.

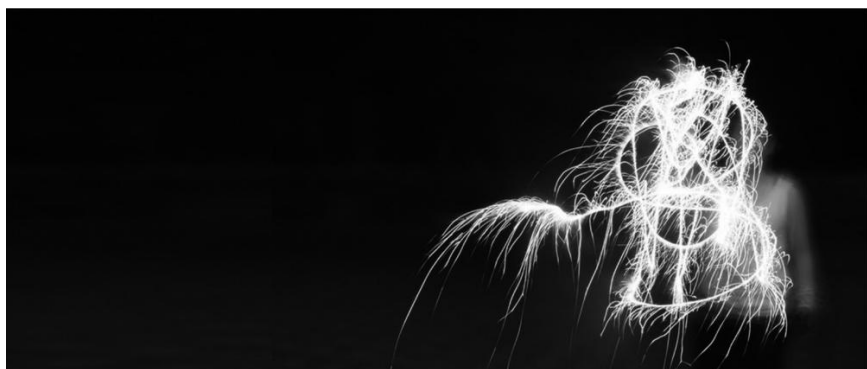












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URBAN ISLANDS vol 1 : *CUTTINGS*

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I NAUGURAL URBAN ISLANDS STUDIO , REVIEW + SYMPOSIUM ORGANISED BY :  
OLIVIA HYDE, THOMAS RIVARD, JOANNE JAKOV ICH & I NGO KUMIC, AUGUST 2006

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# PREFACE

Describing Cockatoo Island as a post-industrial site is a little like examining a Joseph Cornell box and not noticing its contents. Without taking the analogy too far, for many Cockatoo Island stands as an empty shell, an echoing reminder of old uses, whether as a convict prison or shipbuilding yard.

Take a look inside the box and your imagination takes flight.

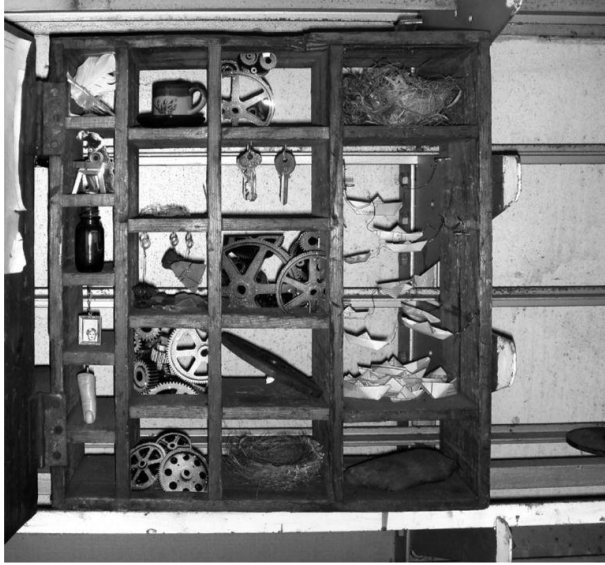
Cockatoo Island is all the things described in the Trust's comprehensive plan: Sydney Harbour's largest island, formed by natural forces long ago, occupied by Aboriginal people for thousands of years and over the past two centuries dramatically adapted by the colonial masters of New South Wales and later the Commonwealth Government.

The history of the island is undoubtedly part of its attraction. A more potent force in imagining its future is the possibility of creating something truly unique.

What's the goal? Nothing less than a site as emblematic of the city as the Sydney Harbour Bridge and the Opera House. Being an island in one of the world's great inhabited harbours is a good start. What else? Free public access is a must. So too an eclectic array of businesses from maritime operations to artists' studios to form the island's population base. And people, tours and events daily to sweep the aprons, docks and precincts with colour and life. Park benches. Camping. Night life. Stories. Noise.

The glue, however, is the indefinable, unorchestrated collaboration between what's there and what's in people's heads; the interplay between expectations and experience exceeding expectations. A day at work and a day full of surprises.





*A SMALL BOX OF CURIOSITIES FOUND ON COCKATOO ISLAND AND SUGGESTS THE CREATIVE PASTIMES OF ITS SHIPPING WORKERS*

The Trust's plan for Cockatoo Island refers to step by step re-occupation. This is simply good sense and wise management. There are limited resources with which to upgrade infrastructure and remediate the building stock. At the same time, there is scope for risk taking and trial and error; the opportunity to seed exciting initiatives in business and the arts; to explore partnerships with the city's cultural institutions; to think big and to think under the radar.

The research articles and design projects in this book consider how post-industrial sites may be used as templates for new ways of energising cities with cultural activity. The Urban Islands Project on Cockatoo Island is a pointer to the possibilities.

GEOFF BAILEY  
EXECUTIVE DIRECTOR, SYDNEY HARBOUR FEDERATION TRUST

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# INTRODUCTION

*The world turns...and leaves a rusting, empty swing in the shadow of a smoke-stack.*

Shifting economies have left the world's post-industrial cities with abandoned sites that are both functionally and culturally vacant. These brownfields are typically dislocated, contaminated, and often construed as a danger to be made safe or an economic burden to be made profitable. They exist within the urban fabric, though through disuse or disconnection, they exist distinct from that fabric.

They are Urban Islands.

In a climate of increasingly interconnected homogeneity, Urban Islands present new challenges and opportunities for the cities in which they exist. The unique conditions of these sites, relics from previous modes of production and distribution, demand responses that are more expansive and more flexible than conventional practices of urban redevelopment and regeneration.

Cockatoo Island, a contemporary ruin within the city of Sydney, is one such Urban Island requiring an innovative approach. Its formal complexity reveals its diverse uses over time: convict prison, girls' reformatory, city jail, boys' training facility, a naval and commercial shipbuilding site and, during these times, a work place of thousands of ship workers and administrators. Few sites in Australia have hosted such a diverse and intense range of functions as Cockatoo.

In addition to this heritage, surrounded by the waters of the Sydney Harbour, this place is geographically special - it is, after all, an *island*. Ominously, this has made it an especially valuable piece of real estate, tagged with all the right commercial clichés: harbour views, water access, dress circle position, and more. In 1992, Cockatoo Island's industrial operations ceased and for some time its future was unclear - was there a viable alternative to sale for private development? Abandoned and derelict until now, the Island is under the stewardship of the Sydney Harbour Federation Trust, a Federal Government agency created in 2001 (after much public campaigning) to rehabilitate and make public a number of disused naval sites around the Sydney Harbour. The Trust is dedicated to in-

jecting Cockatoo Island with ideas, events and uses that uphold and extend its inherent magic.

The inaugural Urban Islands Studio on Cockatoo Island was conceived with these strategies in mind: to mesh making and reflecting, performing and installing; to interact with the island's political, physical and ideological context, and to establish a continuity with the site and context outside the short life of the Design Studio. International guests from Costa Rica, Germany, Japan, Switzerland and the United States were invited to bring global knowledge and debate to this local context. Within the 12-day intensive studio period, participants were to inhabit the island, and within that time and space, develop real projects there. As it emerged, Cockatoo Island was an ideal host for a model of trial and error: interventions were immediate and the outcomes were impressive, low-impact and temporary. The diverse schemes produced were all at once possible and viable. Rather than a series of proposals for the same site, they were fragments, or cuttings, of a greater collage for inhabiting Cockatoo.

In parallel, we observed that the notion of *cutting* was a recurrent theme in Cockatoo's past, not only evident in its diverse functions, but also in its physical form. Its sandstone core is a sculptural record of the impact of each era on its shape, cut and hewn to over time according to the requirements of program.

Cockatoo, stripped of activity, appears like a stone vessel of sheer sided sandstone, with a low-lying almost water-level apron surrounding it. It is a place of cutting. Cutting down to form the dry docks lying nose to nose. Cutting down to form a battery of silos deep within the body of the stone. Cutting through to form tunnels. Cutting to form slipways and housings for heavy machinery. Cutting down the sides of the natural contours to form cliffs, like fortress (or gaol) walls, and spilling out beyond its old high watermark to form its promenades.<sup>2</sup>

#### *REFLECTIONS ON A MARITIME CITY*

But beyond a formal quality, the collation of *cuttings of program* is a responsive strategy for inhabiting Urban Islands. This book brings together ideas, research and designs that assemble a confederation of cuttings for Urban Islands, with Cockatoo Island as the experimental subject.

The first Part of the book addresses urban islands as a typology of the post-industrial city, and the following two Parts address Cockatoo Island specifically.

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2 [www.urbanislands.info](http://www.urbanislands.info); Collaborations and proposals welcome.



*the crown, sheer-sided walls and apron of  
Cockatoo Island. By Richard Leplastrier.<sup>1</sup>*

All contributions are original research and represent an important step in developing academic and design discourse on Urban Islands in Sydney and around the globe. Part I presents theoretical approaches to conceiving new modes of planning, commerce and design for Urban Islands and urban dimensions of commerce and culture are reframed through themes of paradox, branding and ‘soft’ architecture. Part II presents theoretical and poetic reflections on the past and future of Cockatoo Island, portraying the complex state of intrigue that surrounds Cockatoo currently. Part III presents pedagogical critiques and design works from the Urban Islands Studio and situates the embedded urban studio as a model of urban intervention and social contribution.

One work that highlights the nature of the Urban Islands Studio is the temporary installation *Soft Inversions* that transformed the vast Turbine Hall on Cockatoo Island into a kaleidoscope of refracted light, sound and animated structures. Its immersive, ephemeral experience was just the first flickering of many such temporary ‘cuttings’, intended to bring forth from this ruin a vibrant, ani-

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<sup>1</sup> *Reflections on a Maritime City: An appreciation of the Trust lands on Sydney Harbour*, published by Interim Sydney Harbour Federation Trust, 2000.



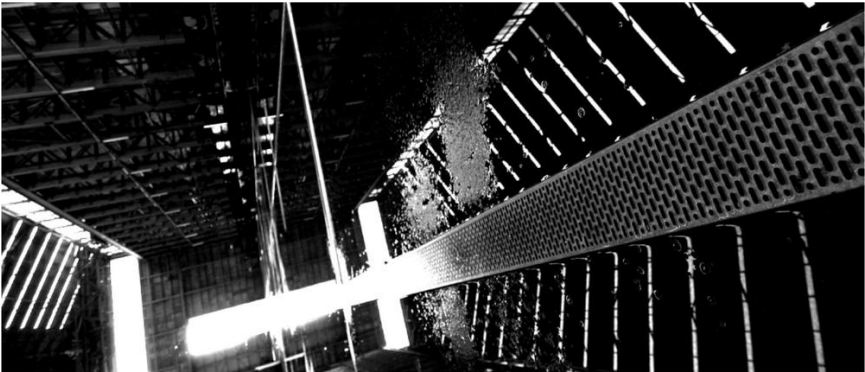
## INTRODUCTION

mated Urban Island.

Beyond Cockatoo, the Urban Islands Project<sup>2</sup> is an innovative framework for dialogue, experimentation and participation in the remaking of cities. It is dedicated to exploring strategies of engagement with sites and cities across cultures and around the globe. From Mumbai to Tokyo, Bogotá to Berlin, Sydney to San Jose, Urban Islands collaborators are engaging with the conditions and contents of shifting cityscapes, facing the challenges of urbanism in an increasingly connected world.

Welcome to Urban Islands.

JOANNE JAKOVICH , OLIVIA HYDE & THOMAS RIVARD  
URBAN ISLANDS PROJECT







# PART I

## ISLANDS + URBANISM



# 01

## BUSINESS/CULTURE

MARTIN KORNBERGER

We are swiftly moving at present from an era when business was our culture into an era when culture will be our business.<sup>1</sup>

MARSHALL MCLUHAN

Whoever speaks of culture speaks of administration as well, whether it is his intention or not.<sup>2</sup>

ADORNO

## URBAN/ISLAND

As Rem Koolhaas notes in his essay *Junkspace*,<sup>3</sup> there is a new wave of oxymorons that transgress any old-fashioned concerns for incompatibility between concepts. The recently united oppositions include life/style, reality/TV, museum/store, food/court, waiting/lounge etc; the concept of urban/island might be one of the latest additions to this list of unlikely alliances. In fact, one might argue that urban islands are rather strange entities. Let me explain.

In his highly entertaining trilogy entitled *Spheres*<sup>4</sup> the German philosopher Sloterdijk reconstructs history as an ongoing yet incessantly failing effort to create an 'inside' in which humans can survive. In this perspective culture is the creation of stories about places that are exclusively ours. From the biblical Arc Noah to the omnipresent air conditioning, culture is an effort to create a more liveable, less hostile inside that protects us from a hostile outside. Globalisation is but the latest move in this game of creating an inside that no longer faces an exterior.

Given this ontological and epistemological condition, islands have always exercised a magical yet ambiguous power over our collective imagination. Think of Kant's description of our faculty of reason as an island in the stormy ocean

of darkness and chaos.<sup>5</sup> Think of Robinson Crusoe and his spiritual enlightenment that could only take place with maximum distance from the urban chaos<sup>6</sup>. Remember what Percy Bysshe Shelley said about London: “Hell is much like London, a populous and smoky city.”<sup>7</sup> In this and other stories, islands are utopias in which mankind is able to travel back to its destiny and unveils its reason d’etre. Simultaneously such islands are a critique of those chaotic, all- including and transforming engine rooms called cities. In fact, cities become dangerous oceans themselves, as Balzac writes in *Pere Goriot* about Paris:

Paris is indeed an ocean. Sound it: you will never touch bottom. Survey it, report on it! However scrupulous your surveys and reports, however numerous and persistent the explorers of this sea may be, there will always remain virgin places, undiscovered caverns, flowers, pearls, monsters – there will always be something extraordinary, missed by the literary diver.<sup>8</sup>

In *The 100 Mile City*, Sudjic arrives a century later at the same conclusion:

The city is a complex organism, never entirely comfortable, always a place with its dark corners and suffering. But it is precisely that edge of danger and instability that makes the city such an extraordinarily powerful force. ... it is in its role as an engine for change that the city is most alive.<sup>9</sup>

The fact that cities are about intensity, about interference and about change makes them both a powerful force and a dangerous organism. Not surprisingly, the inhabitants of such ‘virgin places,’ ‘undiscovered caverns,’ ‘flowers,’ ‘pearls,’ and ‘monsters’ will find themselves transformed as well. Simmel speculated that the psychological basis of the metropolitan individuality consists in the “... intensification of nervous stimulation,”<sup>10</sup> turning the city dweller into a neurotic homo metropolis. The good news is that, beside other things, cultural production might be a function of this intensification of nervous stimulation. In their *Communist Manifesto*, Marx and Engels are in praise of the bourgeoisie society and its cities that “rescued a considerable part of the population from the idiocy of rural life.”<sup>11</sup> However, their optimism and praise for the bourgeoisie society’s city policies was not always shared. For a long time in history it was not evident that cities would be a sustainable sphere for human habitation. As Louis Wirth put it, up until the 20<sup>th</sup> century cities had higher death rates than birth rates and were dependant on migration from the country.<sup>12</sup> Only relatively recently have cities become net producers, not net consumers of people. For Wirth, a city “is like poetry: it compresses all life, all races and breeds, into a small island and adds music and the accompaniment of internal engines.”<sup>12</sup>

Cities have turned into islands themselves; but rather than offering a portal

to a pre-societal, utopian order they are rhizomatic zones of maximum intensification. Hence, urban islands constitute a paradox: islands defy the intensity that distinguishes the urban. And almost by definition cities extinguish the solitude and the purity of an island. Cities are heterotopias; islands are utopias.

## PRODUCTION/CONSUMPTION

Luhmann's systems theory tells us that a paradox is nothing other than a subtle hint that our trusted ways of connecting things and making sense of them might not work any more.<sup>13</sup> The point we want to make is simple: urban islands must appear paradoxical if we conceptualise them as urban + island. Borrowing from Deleuze and Guattari we could argue that both concepts change when brought in proximity to each other.<sup>14</sup> It's a story of becoming in which one part frees up particles of the other and changes them. Think of Kafka's transformations where humans become animals, but at the same time animals become human, creating something new, monstrous and unheard of.<sup>15</sup> An urban island that moves beyond the admittedly boring paradox of utopia vs. heterotopia will have to do exactly this: create a new intensity, a new zone, an in-between in which elements of both collide in order to transform each other.

Cities are places of deterritorialization and exchange; intersections of streams of people, money and ideas; monsters that have turned from net consumer to net producer. As per definition, an island is what is not connected and where exchange is made impossible. We speculate that an urban island is a space in which both logics are intensified, cumulating in a simple yet compelling formula: production = consumption. What do we mean by that? The traditional division of labour between production and consumption is breaking down. People that were meant to passively consume suddenly turn into producers that author and edit their own realities. Linux makes you a programmer; ebay.com transforms you into an entrepreneurial selling-buying agent, etc. Behind these examples there is a new and powerful driving force: people become involved in the creation of value. This might well be the most important news for a while since it questions the established capitalistic idea that institutions produce and people consume.

In an intensified urban island scenario this tendency might be pushed even further. Our new economy mainly produces cultural goods, i.e. meaning, symbols and discourse. The point is that these 'products' only exist and in fact are created during the act of consuming. In fact, the act of consuming gives these cultural products meaning. Think of the value of a film, a book or a piece of design: it is only the act of consuming, reading, feeling, seeing, touching, interpreting it, that brings it alive and makes it valuable. Simultaneously, consumers create their identity through the very act of consuming. Historically, identities were defined



through what people do and what they produce: you are a blacksmith, working class or a creative person. Today, identity is defined through what one consumes: I consume therefore I am. Our society is glued together by the individual choices one makes that constitute one as consumer and therefore member of our society.<sup>16</sup> One's social status is defined through the levels of consumption one can maintain. In this context, consumption becomes inextricably intertwined with production; we are what we consume; and while we consume we engage in production.

This challenges the traditional view that cultural production has to happen outside the sphere of administration and business. Rather, we'd argue that cultural production and consumption become key economic drivers. As we have said with Adorno, "whoever speaks of culture speaks of administration as well, whether it is his intention or not."<sup>17</sup> Culture and administration, business and creativity, production and consumption might collapse into each other. As Adorno suggests, the commercial character of culture causes the difference between culture and practical life to disappear. Of course, 'commercial' means that everything is a currency that can be exchanged and consumed. When production = consumption everything becomes commercial. This also means that culture and business are no longer opposites. Le Corbusier was simply wrong when he complained: "Business! What a dilemma! If you try to please people, you become corrupt and sell yourself; if you do what you feel you must do, you cause displeasure and create a void around yourself."<sup>18</sup> We would rather argue with Adorno that cultural production never happened outside of business or administration. Business is the very means by which a message is multiplied and a powerful effect can be created. In the context of an urban island, this would mean integrating business with cultural production as much as possible. This might be pushed to the point where the difference between both starts to blur and business becomes a form of expressing symbols and meanings. One could say that this is already happening: think of branding as a new universal system of signs that refer to each other, can be read by most people and that denotes nothing but itself. In this perspective, an urban island is an experiment; it's not a location but an event, an experience where intensity and connectivity are increased to a maximum.

Three final remarks follow. The collapse of business and culture might create a new and exciting aesthetic language. Umberto Eco suggested that there are two conflicting aesthetics – an aesthetic of provocation and one of consumption.<sup>19</sup> We are not sure on which side this new experiment would occur. It might well be that it produces an aesthetic that is similar to the beauty of endless rows of suburban houses – something we are only able to understand when we see it in the safe environment of a gallery through the eyes of an Ed Ruscha painting.

Such an experience might also give rise to new experiences of who we are. Robert Park listed *reporter, bartender, stockbroker, shopgirl, police officer*, etc as "... characteristic products of the conditions of city life."<sup>20</sup> Urban islands

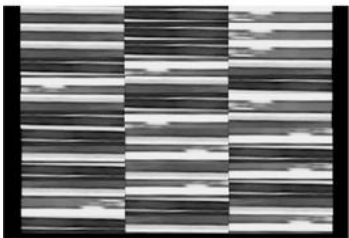
might produce a different kind of personae – traders of cultural and symbolic capital; experience engineers; designers of systems and entire organizations; etc.

In his book *The Shape of Things: A Philosophy of Design*, Vilém Flusser argued that the modern human being isn't a homo faber but a homo ludens.<sup>21</sup> Life is no longer a drama but a performance; it's about sensations, not actions; and programs have replaced things and problems. Speaking critically (again with Adorno), such a cultural industry is always in danger of breeding conformity and replacing conflict and debate with shock and sensation.

In any case, the new will always look monstrous as Derrida remarked.<sup>22</sup> An urban island might be the perfect opportunity to start experimenting.

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## 02

# FEEDBACK ARCHITECTURE

## ADHOC SYSTEMS TO ENGAGE THE URBAN ISLAND

JOANNE JAKOVICH

In creating urban systems that might host disturbance with novelty, self-organisation with adhoc participation, and feedback with planning, we observe the lessons of the field of AI:

Planning is just a way to avoid figuring out what to do next.<sup>1</sup>

BROOKS, 1987

In his seminal work in Artificial Intelligence, Rodney Brooks developed robots whose internal reasoning process was generated on the fly through interaction, trial and error, and feedback from the real environment. This initiated a fundamental shift in AI, breaking down predominant notions that intelligence resided in knowledge and could be logically reasoned upon with ‘knowledge-based systems.’<sup>2</sup> Brooks advocated exploratory ‘making’ over theoretical modelling, and saw the potential for simple bottom-up intelligence over higher-level reason. In demonstration of his stance, he declared:

In particular we advocate building robotic insects.<sup>3</sup>

In their traditional forms, urban and architectural planning can be likened to the redundant ‘knowledge-based systems’ of AI. They perform routine procedures using statistical data and simplified representations, and deduce plans for a supposed, ideal mode of operation. They disregard outliers and do not accommodate ambiguity. Foremost, they are incapable of responding in the present.

Just as the field of AI now values flexibility, self-organization and responsiveness, so too must architecture and urban planning develop new modes of ‘making.’ The following introduces a pragmatic model of bottom-up planning called *Feedback Architecture* in which the programmatic operations of an urban zone are shaped in real time by distributed, interacting ‘tactics’ – groups, events, artefacts – that are driven by participation and responsive adhoc strategies. This

model is presented with a view to creating innovative and appropriate modes of inhabitation for the post-industrial city's new frontier: the Urban Island.

## URBAN ISLANDS + REGENERATION

The Urban Island is an anomaly of the contemporary city. Through changing patterns of urban commodification, these formerly abandoned industrial sites are increasingly favoured as potential zones for new forms of cultural and commercial inhabitation.<sup>4</sup> On the surface, these vast, iconic spaces could be seen to offer an ideal skeleton upon which to build a new multi-faceted program – they are spacious, have charming old buildings, and their former links to industry mean they are centrally located. But in reality, even though they lie embedded within the functioning city, Urban Islands – as labelled – are inescapably zones of isolation, disengagement and decay.

Encumbered by this inherent conflict, Urban Islands require more than a physical and cultural 'program' for regeneration. These sites call for the introduction of a programmatic *ecology* – a living, adaptive approach to injecting and sustaining activity.

## FEEDBACK + ENGAGEMENT

In nature and in human cognition, feedback is a process that stimulates development. In humans, sensory information, and its complex processing, allows us to grow and learn, changing paths and making decisions where necessary. Feedback both motivates and informs further actions. In the natural environment, feedback is the complex exchange dictating the balance between resources and population. Short term feedback enables survival on a daily basis, and long term, multi-generation feedback enables the evolution of a species.

Cities too are organisms that operate, grow and shrink according to complex processes of feedback. In 1961, Jane Jacobs observed:

Cities happen to be problems in organized complexity, like the life sciences. They present situations in which a half-dozen or even several dozen quantities are all varying simultaneously and in subtly interconnected ways. ...The variables are many, but they are not helter-skelter; they are interrelated into an organic whole.<sup>5</sup>

The accuracy of this analogy has been illustrated more recently in the field of computational modelling, which develops mathematical models that simulate the evolution of complex systems (e.g. towns, cities, and regions) as a function of in-

tricate co-evolutionary interactions between and within them.<sup>6</sup>

Feedback can also generate and perpetuate negative influence, causing parts of a system to become idle. Within the city, Urban Islands are zones where (programmatically, functionally) feedback has almost ceased. After part of a system has become inactive, the energy required for it to be reactivated must derive from more than a single node. Much like a neural network, it needs multiple inputs that share similar valencies or goals in order to create an excitation of a larger area. In the Urban Island scenario, this same analogy applies: broad-based energisation and positive reinforcement is needed to activate and reconnect the dormant region - the disconnected island.

Here, a key condition for viability of the Urban Island emerges. Typically when planning a suburban mall, a theme park or new town development, viability of the proposed plan is judged on its potential to attract future business. Its immediate aim is to *engage the inhabitants of a city*, and on a greater scale, entice investment and the tourist market beyond. One strategy might be to develop events or attractions to assure that the new development brings in enough consumers. On the other hand, and as has already been suggested, Urban Islands may well already possess several layers of potential value: proximity, spaciousness, architectural heritage, cultural history, physical infrastructure.<sup>7</sup> Re-developing and re-branding them to suit some 'ideal' market would simply defy the integrity and complexity of their evolution. Rather, it is necessary in this context to conceive of them as systems of historical, physical and cultural richness that lie idle, and which through interaction with citizens, as an integrated whole, can once more *become engaged*, that is, become activated.

## INTERACTIVE SYSTEMS

In the 1960s, art installation emerged as a potential form of interactive, temporary architecture. That is, it attempted to do what architecture had always done—produce spaces, places and experiences by adapting existing conditions—but in addition, it placed emphasis on the *participant*. Art thinking in general was moving away from the 'art object' towards new forms such as performance and video art. In his influential text *Systems Esthetics* of 1968, Jack Burnham describes a perceivable shift from an object- to systems-oriented culture within which:

...the specific function of modern didactic art has been to show that art does not reside in material entities, but in relations between people and between people and the components of their environment.<sup>8</sup>

Following this logic, within installation art, the audience is an integrated component of the work, rather than a passive, invisible onlooker. Through participation



(prescribed, incidental or other) the artwork evolves and progresses over time based on the interactions with numerous participants.

At the same time architecture also underwent changes of a comparable nature. The emergence of the Non-plan theory embodied in Cedric Price's 1961 *Fun Palace* proposed that buildings need not be planned but rather respond to conditions of users.<sup>9</sup> Spatial design was conceived in the form of systems for enabling potential activity, rather than as a fixed spatial plan. This was in fundamental opposition to the simplistic geometry of post-war Modernist approaches. Unlike art, however, architecture did not come to conceive its existence as possible through - and one with - the interaction and participation of the human user. Architecture was, and arguably still is, conceived as infrastructure to contain and *enable* human activity.

In parallel, urban theorists of the 1960s including Jacobs, Meier and Alexander, developed a theoretical understanding of the city as a complex adaptive system, focussing on connectivity and information flow, rather than physical form.<sup>10</sup> This thinking, in parallel with the emergence of the computer era, gave rise to recent notions that the urban environment can be programmed, or guided, using a bottomup distributed approach, rather than planned using a top-down, geometrically determined method.<sup>11</sup> This proposes small modifications of existing dynamics of the city, with the aim of influencing larger patterns in a 'ripple effect'.<sup>12</sup> Roger Sherman explains how processes of the city can be penetrated:

Comprised, like an ecology, of layered, overlapped and nested arrangements of systems and subsystems organized in scale-hierarchic arrangements, these intangible but actual processes and functions—which are materially manifest in the structure, forms and patterns we observe in the city—once understood, allow architects and planners to get at the operations behind them, providing the tools by which to change urban life.<sup>13</sup>

Hence, in this and other concepts of participation and responsiveness in art, architecture and urbanism, the capacity for the human user or participant to actively stimulate or influence the art/architecture/urban system is an emergent theme. The artefact and human, together conceived as a system, are able to react and evolve in response to each other and the greater environment. This brings us back to a discussion of feedback, since a key feature of feedback is that it involves the return of part of the output (from a person, artwork, city, machine) back into its input. If the output influences the information coming back in, then even the most simple adaptive system has the capacity to affect future events. Thus a system at any given time is a consequence of actions at an earlier time. Likewise, the human participant is more than an integrated component, but also an active creator of the system.<sup>14</sup>

Following Sherman's speculations for bottom-up architecture and urban

planning, it is possible to extract and define a new mode of design common to these three spatio-experiential practices (art, architecture, urban planning).<sup>15</sup> Varying in manifestation and progression, but nevertheless apparent, all three processes involve the design or modification of structures that enable human interaction with a complex system (existing or fabricated), with the aim of stimulating or guiding its development and output.<sup>16</sup> Thus art, architecture, and cities alike are *systems* that can be constructed or modified expressly to integrate and enable human *participation*, not simply as a mode of inhabitation, but as a means for *influencing* the development and direction of the system itself.

This notion for design is especially applicable to the context of the Urban Island. If the Urban Island is conceived as an existing system to ‘be engaged,’ this overlooks the possibility for new, innovative and creative modes of interaction. If the goal is simply to ‘reactivate’ this system it would mean bringing back its former state of operation (e.g. industrial production). Rather, the challenge for Urban Islands is the introduction and integration of *meta-systems* through which innovative, exploratory programmatic modes can be investigated. These meta-systems must engage and adapt existing systems of the site, upon which a feedback-based participation infrastructure can be introduced. The foundations of these ideas are concretely demonstrated in the following participatory urban development projects.

## PREVIOUS EXAMPLES: ART + URBAN DEVELOPMENT

Urban development is a theoretical and practical pursuit that addresses issues arising in the urban realm, such as the planning of a new highway or the redevelopment of an old industrial site. The approach presented here is to develop events and frameworks that function as large-scale ‘analogue’ interactive systems within which members of a community can explore these issues in an alternative, engaging way. This avoids a top-down approach to planning, but rather aims to provide a system for motivating and inspiring creative and meaningful participation towards a common goal, while also providing an avenue for expression of opinion not available through traditional urban planning. An important aspect of the design of the system is the harnessing and adaptation of existing structures of urban interaction within each context. These include existing methods of information exchange, infrastructures for enabling physical urban change, or culturally specific means of expression of opinion.



FIGURE 1

## SAMPLE PAGES FROM THE TADA MANIFESTO

THE TADA MANIFESTO: The Old Taichung Brewery is a controversial six-hectare abandoned industrial site in the centre of the city of Taichung, Taiwan. The government has earmarked it as the site for the new Taiwan Art Design and Architecture (TADA) Centre. In an era of economic uncertainty, the program-

ming of an institution to propel Taiwan into the global cultural economy, while maintaining responsiveness and flexibility to local demands and context, is a key concern of the involved parties. Without creating a fixed spatial or infrastructural plan, it is imperative to design a system for enabling numerous people to collectively build a vision and methodology for action for the ongoing development of the centre.

The *TADA Manifesto* is a document containing 99 so-called guidelines for the design of programs for the TADA site (Figure 1).<sup>17</sup> Rather than proposing a fixed program, the manifesto is an evocative collection of interrelated yet ambiguous statements and images that can be used individually or collectively to stimulate ideas for the site. "The manifesto proposes an alphabet that can be used to invent the site over again. It is a device for generating an endless number of situations. It is a multiplier of chance and a freedom machine."<sup>21</sup> Some statements are '04 TADA means love', '29 TADA has rhythms,' '12 TADA is Dada' and so on. The original document contains 99 statements, however an important clause maintains that any statement can be modified, and new statements can be added, with only one rule that none can be deleted. Thus it is intended as a participatory document that is developed by all interested parties to be used as a means for communication and generation of new ideas for the program of the TADA site.

### ***SHIMOKITAZAWA URBAN TYPHOON WORKSHOP:***

Shimokitazawa is a thriving, alternative neighbourhood buried within modern Tokyo. Its narrow street morphology, which survived destruction during the war, underlies the charm, visual complexity, and diversity of its mostly privately owned shops, bars, clubs and restaurants catering to the diverse tastes of its inhabitants. It is a 'sub-culture island' within the city. *Urban Typhoon* was a five day workshop established to provide a framework for participatory activism in response to a massive road construction that the municipality is planning to run through the neighbourhood.<sup>22</sup> The implications of the road plan are that the local culture and unique street morphology will be lost, not only through physical destruction, but also due to the introduction of large, generic commercial centres flanking the 26-metre wide road.



PHOTOS: MATIAS ECHANOVE

FIGURE 2

*WORKSHOP PARTICIPANTS USE PERFORMANCE TO  
PROTEST THE SHIMOKITAZAWA ROAD DEVELOPMENT*

The significance of the workshop was that it generated intense interaction and debate between leading creators and critics from Shimokitazawa, greater Japan and numerous other countries. Thirteen units of ten participants were formed that individually developed creative schemes to address the issue of the road construction (Figure 2). An important strategy of the workshop design was to initiate relationships with local grassroots activist groups and businesses. The feedback from the workshop was the basis for a series of new collaborations between inter-

national artists and local activists, enabling the initial structure of the workshop to continue evolving as an experiment in broad-based (international, interdisciplinary) participatory planning for a normally inaccessible, local urban issue.

## FROM INTERACTION TO ACTIVISM

The *Urban Typhoon* and *TADA* projects provide a basis upon which to build a multi-nodal, development-oriented participatory system for initialising and motivating community involvement with an Urban Island. As seen, the function of the constructed ‘system’ within the urban realm is to guide new forms of interaction. If the structure of the system has the capacity to generate new relationships, feedback offers guidance for the participant to instigate change through informed action. Furthermore, beyond action, *activism* is possible. The system encourages meaning to be produced about issues and in ways not otherwise accessible; the system both motivates and protects its participants. Moreover, the nature of interactivity (action and feedback) itself influences a sense of purpose and motivation, as similarly expressed by interactive music developer Todd Winkler:

Interaction means action...Interactivity comes from a feeling of participation, where the range of possible actions is known or intuited, and the results have significant and obvious effects, yet there is enough mystery maintained to spark curiosity and exploration.<sup>20</sup>

Winkler is describing a system with both constraint and freedom that enables intervention but also continuously generates possible pathways. It implies a system within which semi-autonomous growth or arrangement of structure is able to occur through ongoing participation and feedback. The design and function of such a system is what I term *Feedback Architecture*.

## FEEDBACK ARCHITECTURE

Where architecture traditionally dealt with buildings and structures for long-term human inhabitation, it now must also address systems and their structure as spaces within which the demands for human existence can be fulfilled in temporal and intangible ways. This is not implausible if one observes the increasingly digital and networked methods being adopted in design and construction today. Digital theorist William Mitchell’s vision of architecture in the digital era proposes:

Architects of the twenty-first century will still shape, arrange, and connect

spaces (both real and virtual) to satisfy human needs. They will still care about the qualities of visual and ambient environments. They will still seek commodity, firmness and delight. But commodity will be as much a matter of software functions and interface design as it is of floor plans and construction materials. Firmness will entail not only the physical integrity of structural systems, but also the logical integrity of computer systems.<sup>21</sup>

Exploiting this flexibility of the term ‘architecture’, I will outline three basic points that characterise the emerging definition:

1. *Architecture is an abstract, natural, or man-made system consisting of two or more interacting parts.* For example, cellular architecture, skeletal architecture, software architecture, naval architecture, information architecture, neural architecture, musical architecture, et cetera.
2. *All systems can be said to have an architecture.* A system is a complex of interacting and interrelated components that has structure and, through interaction, behaviour. Structure is the interrelationships within a system that collectively form the ‘architecture’. Structure defines the behaviours between components, and the behaviour of the system overall. It may be fixed, responsive, adaptive, or autonomous.
3. *In the system, the structure embodies the subjective mapping from elements of the human experience to elements of other components of the system.* The human component, which is the human inhabitant(s) or user(s), is an equal and integrated part of the system. For this reason, architectural design is always concerned with human interaction in constructed systems.<sup>22</sup>

Hence the practice of Architecture is the art of creating an actual, implied or apparent plan of any complex object or system that incorporates human interaction, inhabitation, utilisation, adoption, manipulation, or participation. The design of the system structure aims to achieve functional/operational and aesthetic/experiential goals through interaction. As a medium in architecture, with its own inherent affordances and constraints, interaction can be used to bring certain qualities to a built environment, just as form, light and sound do.<sup>23</sup>

Furthermore Feedback Architecture involves designing buildings, workshops, software, businesses, events, and so on, not as individual modules with a long-term function and commercial stability, but as integrated systems that attempt to address short-term goals directly through human interaction. Each such occurrence can be likened to a game or battle tactic: a course of action to achieve a short-term (localised) goal, but operational within a greater strategy, the overall



plan (e.g. to win the game), which may involve complex patterns of individual tactics. Here I adopt Michel de Certeau's notion of a 'tactic': individuals or small groups that are able to establish 'ways of operating' within a greater constraining system that rely on improvisation, modification and flexibility to generate creative solutions for 'survival'.<sup>24</sup> In this view, tactics are adaptable in the face of change, and able to take advantage of opportunity that results through change. They are lean, makeshift and responsive, and shape their own unique worlds through creative inhabitation of the system.<sup>25</sup>

Considering this blur between roles of participation, design, activism and game play, how can we define the tools and techniques of the Feedback Architect? As illustrated in the above examples, various levels of intensity and responsibility emerge within each 'tactic', and throughout the greater system. *Organiser, participant, designer, guest critic, facilitator, advocate*, are just some of the levels we observed. But in a complex system scenario - perhaps on an Urban Island - where numerous 'tactics' are operating simultaneously and adjacently, and the island itself is offering a physical, cultural and historical infrastructure, there is need for feedback between these systems.

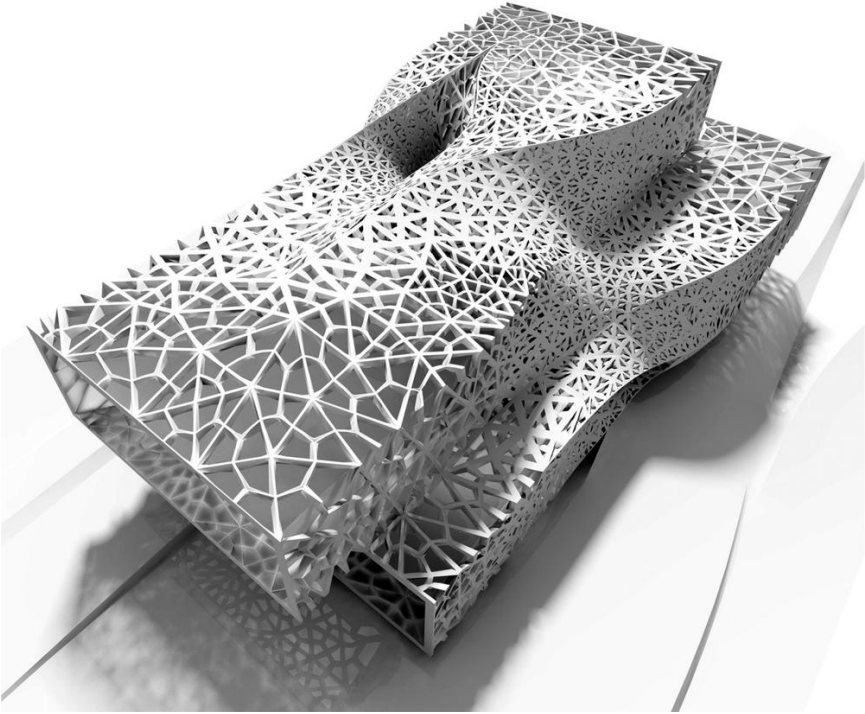
Feedback, and in this case development, cannot occur without a protocol, or channel, for communication. As communications theorist Alexander Galloway notes, without efficient protocols the performance of a distributed system (such as the internet) is weakened. The fact is that its strength lies in the very nature of its connections: non-hierarchical, self-organising and open source.<sup>26</sup> In both city and Internet analogies, the capacity for the designer (or hacker) of these systems to become a "better diagnostician," much like a doctor or mechanic, becomes important. This indicates that the Feedback Architects of the new Urban Island condition, may well be the self-appointed, visionary doctor/hacker-types who little-by-little implement "protological transformations," either as "terrorist or libertarian," advocating symbiosis between nodes of a system or systematically creating disturbance in order to generate rebirth and novelty, since even in the optimistic mode of participatory development, reinvention is an essential element of adaptability.<sup>27</sup>



1 Brooks, R: 1987, Planning is just a way of avoiding figuring out what to do

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  - 3 Brooks, R: 1986, *Achieving Artificial Intelligence Through Building Robots*, MIT AI Lab Memo No. 899, May 1986.
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  - 11 Ibid.
  - 12 Sherman, R: 2005, *If, then: Shaping change as a strategic basis for design*, 306090 08 *Architecture Journal*, May 2005, p.104.

- 13 Ibid. p.104.
- 14 Jakovich, J, Beilharz, K and Echanove, M: 2006, Symbiosis between Participation and System Design: From interactive art to urban development, CoDesign International Journal of CoCreation in Design and the Arts, Special Issue on Interactive Art, Taylor & Francis, UK, pp.249-257.
- 15 Ibid. p.104.
- 16 Jakovich, J, Beilharz, K and Echanove, M: op. Cit.
- 17 Echanove, M., Jakovich, J., Kubota, A. and Chang, G., The TADA Manifesto. Accessed at: [www.urbanology.org/TADA/TADA\\_MANIFESTO.pdf](http://www.urbanology.org/TADA/TADA_MANIFESTO.pdf) (17/12/2006).
- 18 Ibid.
- 19 For activist activities in Shimokitazawa see: <http://stsk.net/en/>
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- 21 Mitchell, W: 1996, City of Bits, MIT Press, Cambridge, Mass., p.105.
- 22 Jakovich, J and Beilharz, K: 2006, From Audience to Inhabitant: Interaction as a medium in architecture, Engage: Interaction, Art and Audience Experience, Creativity and Cognition ACID Symposium, Sydney.
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- 24 de Certeau, M de: 1984, Arts de faire (The practice of everyday life), University of California Press, Berkeley, translated by Steven Rendall.
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*DEEP SURFACE - INFRASTRUCTURAL/STRUCTURAL SKIN*

## 03

# JELLYFISH HOUSE

LISA IWAMOTO + CRAIG SCOTT

This project is designed for the exhibition *OPEN HOUSE: Architecture and Technology for Intelligent Living* curated by the Vitra Design Museum and Art Center College of Design. The exhibition speculates on emerging technologies for homes of the ‘near future’ (25-50 years).

## CONCEPT > CALM TECHNOLOGY

Conceptually, the house draws from ‘calm technology,’ a branch of research associated with ubiquitous computing. Calm technology suggests that the digital realm will recede to the background of our spaces and lived experience. Like electricity, what characterizes calm technology is that rather than being interactive, the digital becomes part of the dwelling environment. It is not ‘smart’ or intelligent, but connective, coexistent, pervasive. The aim of Jellyfish House is to cultivate this latent technological relationship while still offering a productive, non-naturalized awareness of the systems at work around us.

‘Smart’ homes of the past such as the *Monsanto House of the Future* and the *All Electric House* in Kansas City tended toward devising efficient responses for perceived occupant needs. Technologies were brought to the forefront of the home and demanded direct interaction. This is still much the case with personal computers, PDAs and other interactive computing systems. Interaction, by its very nature, keeps something distant and other. Interaction requires that we center our attention on the activity, like reading email or inputting cell phone numbers. Conversely, calm technology engages both the center and periphery of our attention, allowing us to move fluidly between the two.



Jellyfish House is modeled on the idea that, like the sea creature, it coexists with its environment as a set of distributed, networked senses and responses. Jellyfish have no brain, no central nervous system, no eyes, and consist largely of the water around them. Yet, they sense light and odor, are self-propulsive, bioluminescent and highly adaptive to changing aquaculture. Like jellyfish, the house attempts to incorporate emerging material and digital technologies in a reflexive, environmentally contingent manner.

## SITE STRATEGY > AMPHIBIOUS URBANISM

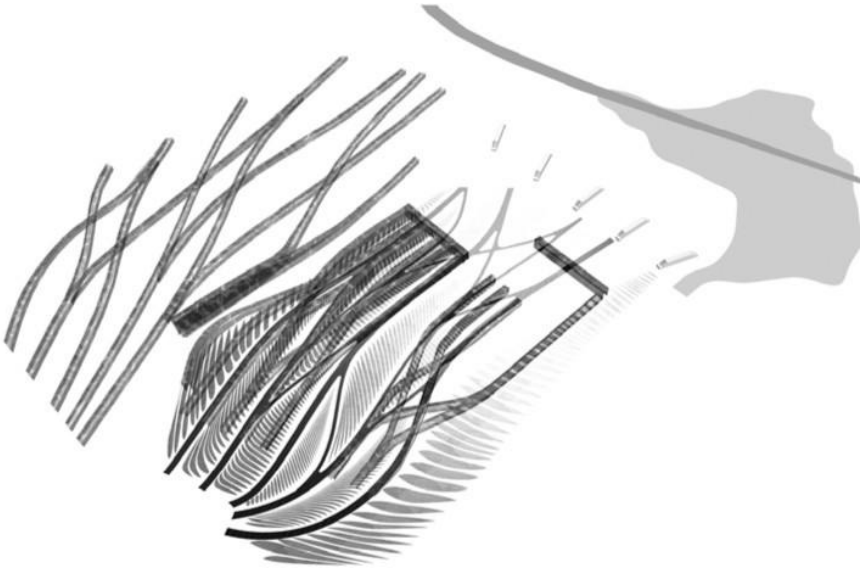
The house is a transformative prototype for reclaimed land. Specifically, it is sited on Treasure Island, a flat, artificial island built off the naturally occurring island of Yerba Buena in the middle of the San Francisco Bay. Treasure Island is at once local and distant, isolated and connected. It has recently been decommissioned by the military, and is currently being redeveloped for new residences. Like many former military bases, Treasure Island suffers from a range of environmental hazards. The most geographically desirable parts of the island have toxic soil that requires remediation. In these areas, the particular hazardous materials necessitate that up to five feet of topsoil be removed for cleansing. In other areas, the contaminated soil can be treated on site using plant based phyto-remediation techniques.

The proposed site strategy is to infiltrate the island with sinuous fields of wetlands that allow the removed soil to not have to be replaced, and remediate the remaining toxins. In addition, the wetlands act as a filtration system for the island, becoming a form of productive infrastructure that naturally filters stormwater run-off.

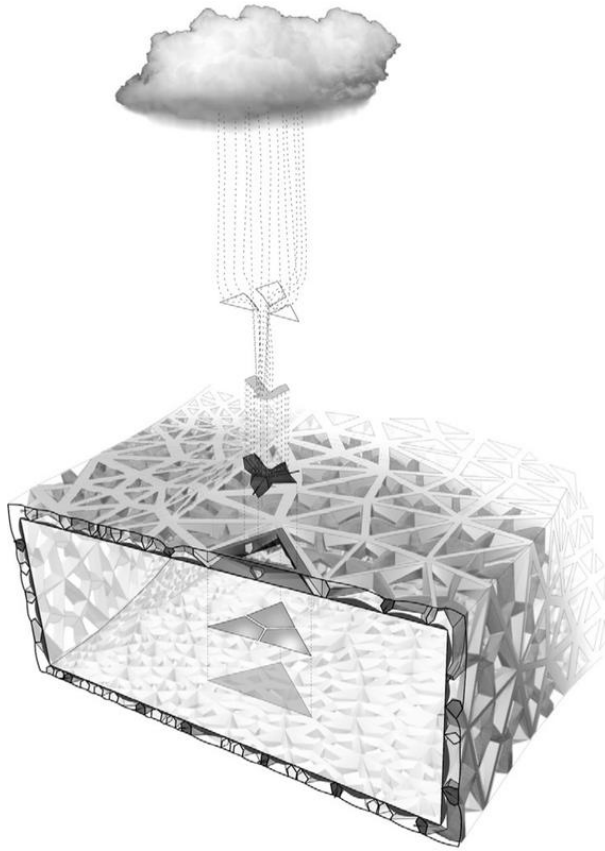


*SAN FRANCISCO BAY WATER CURRENTS*

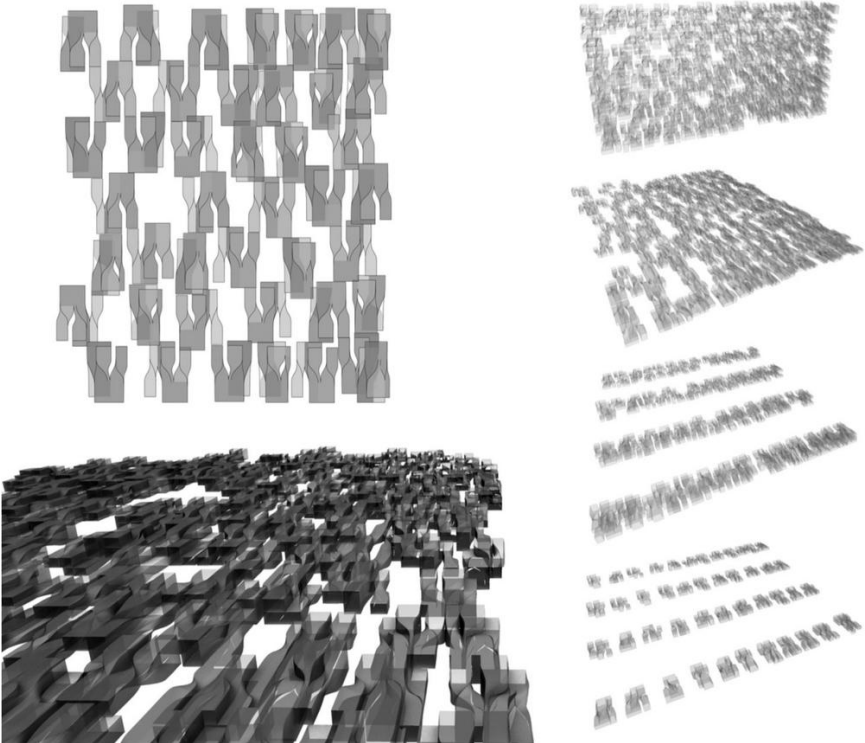
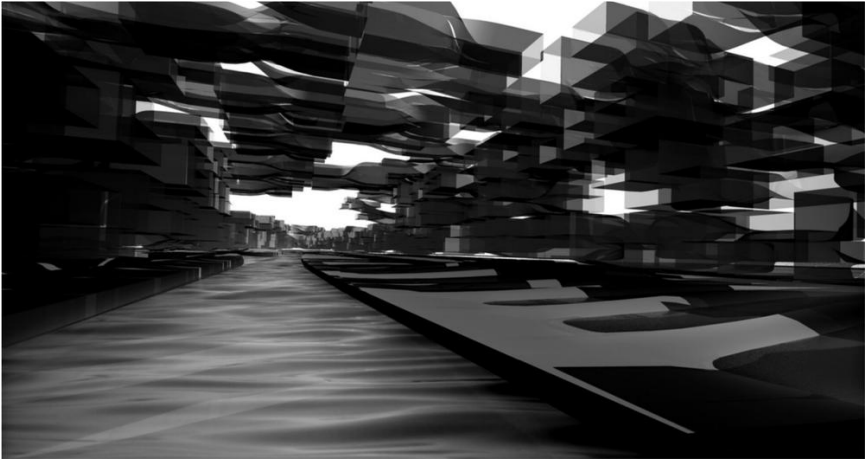




*INFRASTRUCTURAL WATER DIAGRAM*



*WATER FILTRATION SKIN*



*TREASURE ISLAND HOUSING AGGREGATIONS*

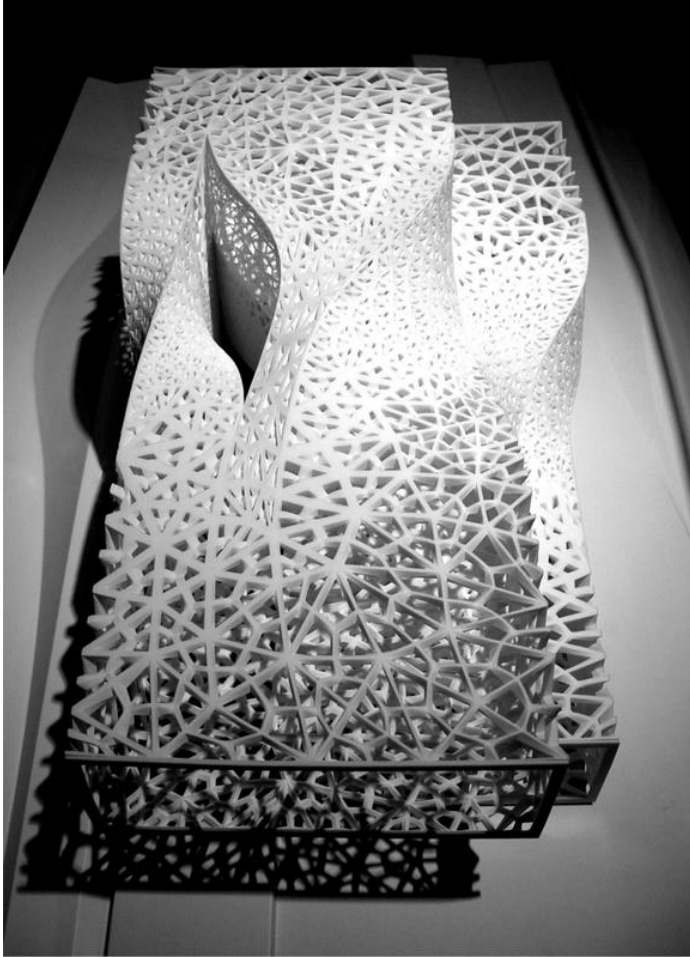
## HOUSE DESIGN > WATER JACKET

Jellyfish House taps into the amphibious urban strategy at the scale of the house. It is designed to have a mutable layered skin, or ‘water jacket’, that mediates internal and external environments. The skin forms a structural and distributed infrastructural system. Formally, it is designed as a parametric mesh that uses efficient geometric logics of Delauney triangulation and its complement the Voronoi diagram. It deforms in density and thickness for geometric, structural, visual, and mechanical performance.

For the water filtration system, the skin captures, filters and stores rain water for use in the home. The exterior surface is parametrically designed to direct rain-water from the roof into hollow tubes making up the skin. The cellular exterior surface transforms from flat to concave based on the building geometry – where it is more horizontal, the cells become concave to direct water.

The water is initially filtered through valleys that make up the the top surface of the infrastructural cavities. The water is then purified in the cavities by exposure to an ultraviolet light filament powered by thin film photovoltaics on the skin surface. UV light is a common means of killing micro-organisms and purifying water, more effective than traditional chlorine processes. Our speculation is that in 25-50 years the technology will be sufficiently available and affordable for use at a smaller scale. The cavities are coated with titanium dioxide, which absorbs the otherwise harmful UV rays, allowing only the blue, visible light to emerge. This results in a softly glowing structure during the filtration process.

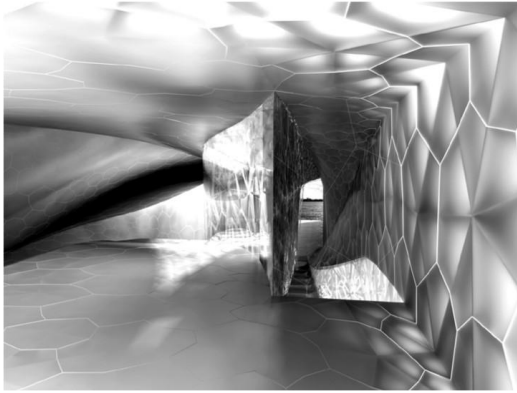
Jellyfish House combines this system with latent heating and cooling using phase change materials. Conceived as a fluid filled water jacket, an inside layer of the skin is composed of quilted baffles that contain phase change materials. These are separated from the exterior by an insulating airspace so as to respond to interior temperatures. They are filled with hydrated salt, a form of salt water that fluctuates between solid and liquid states heating or cooling the surrounding air. When the material turns solid, it releases energy warming the surrounding air, when liquid, it absorbs energy and cools the space. While currently, phase change materials require substantial changes in temperature to change states, we speculate that in 25-50 years, the degree difference can be controlled to be within comfortable inside temperatures, say 65-80 degrees Fahrenheit.



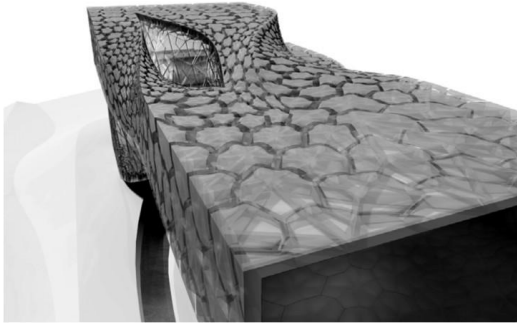
*PHYSICAL SLS MODEL OF SKIN NETWORK*

The skin of Jellyfish House combines structure and envelope with these physical infrastructures. What unites them conceptually is that they create an ambient experience in the home that reveals the work of the skin in largely a peripheral manner. In this regard, the project expands upon aspects of ‘calm,’ or ambient, technology.

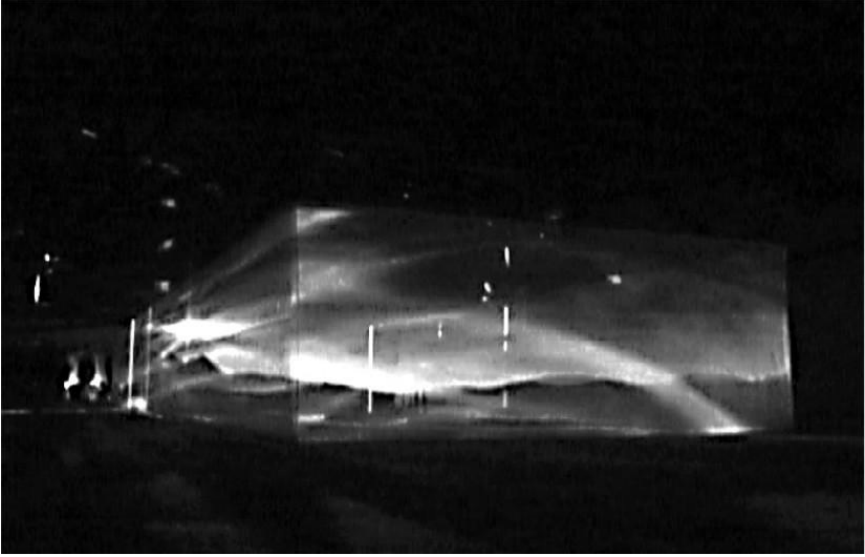
## CUTTINGS



*INTERIOR PHASE CHANGE FLUCTUATION*



*EXTERIOR VIEW OF WATER FILLED SKIN*



*SOFT ARCHITECTURE, INSTALLATION BY RESPONSIVE ENVIRONMENT*

# SOFT ARCHITECTURE / SOFT URBANISM

## THE PARADIGM SHIFT IN ARCHITECTURE AND URBAN DESIGN CAUSED BY MEDIA TECHNOLOGY

I would like to discuss here again the relationship between architecture and urban design. During the Modern movement, architecture was considered to be part of urban design. Urbanism was proposed as a general theory, applicable to several different scales and architecture was considered one of them. Buildings and cities have in common the fact that they are both physically built, resulting in a continuous space. A number of theories were possible based on this approach, framing the way urbanism was proposed by both urban designers and a number of architects. Architects usually experience designing buildings first, before designing cities. But Modern architects often found it necessary to explain even their smallest works within the context of a certain urban theory. For them, architecture as ‘part’ always predicted the ‘whole,’ that is, the urban condition that would derive from it. In this way, they imagined scenarios where ideal cities could become reality through the widespread application of their proposed architectural systems. ‘Architecture as part / urbanism as a whole’ was the typical relationship between architecture and urbanism established by Modern architects, closely linking them, in theory. Both could be built through ‘planning,’ and the planning of architecture / urbanism was presented as a way to materialize the continuous spaces of buildings and cities.

In this way, the failure of the Modern movement has been frequently linked to the limitations posed by functionalism in architecture. But in reality, weren’t the urban theories, so closely linked to architecture, also a failure? Most of the ideas presented by Modernist urban designers were conceptual ‘planning’ proposals of ideal cities. The real cities charged with real problems lay just in front of them, but as a separate entity. However cleverly stated, the idealistic urban theories could not fit into the real city and were in fact rarely realized. This resulted in many gaps between the remaining pre-modernist buildings within the city. We could call them ‘Modern urbanism gaps,’ which can still be observed in several cities around the world. They were the result of the collapse of Modern urbanism, which was in turn caused by the belief that architecture and cities could be continuously planned, and in following, the failed attempt to realise this concept. It



was the collapse of the concept of planning.

## ソフト・アーキテクチャ / ソフト・アーバニズム

メディア・テクノロジーによる建築・都市デザインのパラダイムシフト

日高 仁

いま、あらためてここで、アーキテクチャとアーバニズムとの関係性をとりあげたい。

モダニズムにおいて、アーキテクチャはアーバニズムによって描かれる部分として存在した。アーバニズムはひとつの総合的な理論として提唱され、様々なスケールで描かれる。そして、その一部にアーキテクチャが位置づけられた。建築と都市はともに物理的な構築物としての共通性を持つ。それゆえ両者は建築-都市連続した空間に関する一連の議論の対象となることが可能であり、都市計画家のみならず多くの建築家によってもアーバニズムが提唱された。通常、建築家は都市より先に単体としての建築を実現する。しかし、たとえそれが小品であっても近代の建築家はしばしば、自身の作品を敷いて独自の都市理論のなかに位置づけ、説明しようとした。彼らにとって、部分としてのアーキテクチャは常にその先に全体としてのアーバニズムを見通したものであり、いずれ同様の建築システムがあまねく流通するようになったあかつきには、かくも理想的な都市が現れるだろうというシナリオが提示される。「部分としてのアーキテクチャ／全体としてのアーバニズム」、これがモダニズムにおけるアーキテクチャとアーバニズムの典型的な関係であり、両者は理論上、密接にリンクしていた。両者はともに「計画」によって構築することが可能な存在として対象化され、実態として連続した空間をかたちづくるものとしてアーキテクチャ／アーバニズムの「計画」が提示されたのである。

こうしたモダニズムの破綻は、しばしばアーキテクチャにおける機能主義の限界とともに語られてきた。しかし、現実には、アーキテクチャと一体の関係にあったアーバニズムの側面からの方がその欠陥はより顕著だったのではないだろうか。近代アーバニズムによって描かれたものの多くはいわば理想都市としてのコンセプトチュアルな「計画」であったといえる。実際の都市は、現実的な問題を孕みながら、別の存在として目の前にひろがっていた。巧妙に描かれたかにみえたアーバニズムが実際の都市空間の中で理想的に実現されることはごくまれであり、様々な条件によって彼らのシナリオには邪魔がはいった。都市ではいたるところに前近代の遺構との間に大きな断層が生じた。これを近代アーバニズムのギャップと呼ぶならば、このギャップは、現在でもなお世界中数多くの都市で見ることが出来る。そしてこのギャップを生んだモダニズムの破綻は、建築から都市までを即物的な手法で、連続的に「計画」できると信じ、それを実行しようとしたことに起因しているように感じられる。計画概念の破綻。

アーキテクチャ／アーバニズムは、その時代の共同体のイメージと表裏一体の関係にある。そこで、次項の年表は、アーキテクチャとアーバニズムの関係性、共同体のイメージをキーワードに大まかな時代の流れを追いながら制作した。グレーの部分が、パラダイムシフトが起こる時期、およそ10年ほどの期間を想定できる。それに続く白い部分は、そのパラダイムシフトによってつくられたコンテクストの中で活動が行われ、状況が深化する過程。この期間は、およそ20年ほど続き、次のパラダイムシフトをむかえる。このように、約30年のピッチでひとつのパラダイムから次のパラダイムへと、アーキテクチャ／アーバニズムをとりまく状況が大きく変化した。

Architecture and urbanism are profoundly linked to the collective images of their societies. The chronological table that follows (Table 1) establishes the relationship between architecture and urbanism, with collective images represented in key words, for determined periods of time. The grey sections represent periods of paradigm shifts, which can be estimated to have lasted for about ten years each time. The white sections show the activities exercised within the context built by the preceding paradigm shift periods, and the process of intensification of the conditions previously set. These periods lasted for about twenty years until the next paradigm shift happened. Therefore in a span of thirty years, shifts from one paradigm to the next occurred, greatly changing the conditions of architecture and urbanism. It is within this perspective that I would like to continue the present discussion. Some events and works listed could not fit exactly within the ten-year-shift period, therefore they were placed according to their meanings and resulting impacts.

The abovementioned ‘collapse of the concept of planning’ can be confirmed in the period of 1965-75, which I call the ‘anti-establishment/dismantling’ period. When the notion of planning collapsed, the changing conditions caused the rejection of old collective images, for example the idea of nationality. In other words, the concept of planning collapsed simultaneously with the destruction of an old, single, collective illusion. Roughly speaking, the anti-establishment - dismantling period of 1965-75 marks the increasing distance between architecture and urbanism. The planning concept in use until that time was destroyed and the number of proposals based on the idea of buildings and cities as one unique body radically decreased. In Japan, according to architect Arata Isozaki, architects were inclined to adopt a ‘withdraw from the city’ attitude,<sup>1</sup> while in urbanism the ‘invisible city,’ which can exist without traditional notions of planning, was the basic concept of the period.

36年周期 パラダイムシフト発表表 Paradigm Shift Chart with 30 years cycle		灰色部分：パラダイムシフト（約10年間） 白色部分：そのパラダイムシフトによってつくられたコンテキストの中で活動が行われ、 状況が深化する過程（約20年間） Grey: paradigm shift (approx. for 10 years) White: the process intensifying the situation after each paradigm shift (approx. for 20 years)			
年代 period	キーコンセプト key concept	イベント・作品年鑑 Events and works	アーキテクチャとアーバンイズムの関 係性 the relationship between architecture and urbanism	共同体イメージ community images	
1945-65	スーパーパワー Super Power	広島・長崎原爆投下 1956 F・W・ライト「マイルハイ・タワー」 1957 L・カーン「シティ・タワー」 1957 スーパーシティ計画 1960 丹下健三「東京計画1960」 1961 B・フラー「モントリオール博のジオデシクドーム」 1967 アポロ11月面着陸 1970 大阪万博 1970 丹下健三「東海道をメカロポリス」	A bomb in Hiroshima, Nagasaki F.Wright 'Mile High Tower' L.Kahn 'City Tower' Spain 1 K.Plan for Tokyo 1960 R.H.Fulfer 'United States Pavilion Expo '67' Apollo 11 launched on the moon Expo 1970 in Osaka K.Lange 'Osaka Megalopolis'	○部分としての建築と全体としての都市 メタポリズムをはじめとする様々なアー バンプロジェクト ボスツ・アートの建築 architecture as a part / urbanism as a whole many urban projects such as metabolism, pop art	○共同体幻想 大量破壊・人類滅亡可能性 東西冷戦・強い共同体としての国家主義 宇宙船地球号：地球外から見た地球 community fantasy Mass destruction Cold War Nationalism as a strong community Spaceship 'the earth'
1965-75	反体制・解体 Anti-established Dismantling	1962 磯崎新「プロセス・プランニング論」 1966-76 文化大革命 1966 磯崎新「見えない都市」 1968 五月革命、プラハの春 1968 磯崎新「Electric Labyrinth」 1968 S.キューブリック「2001年宇宙の旅」 1968 ウッドストックロックフェスティバル 1968 A・プランジ「ノンストップシティ」 1970 磯崎新「ハット・アーキテクチャ」 1971 オルトディズニールワールド 1972 A・タルコフスキー「惑星ソラリス」 1972 磯崎新「コンピューター・エイデッド・シティ」 1974 石浜俊晴 1975 磯崎新「建築の解体」	A.Isozaki 'Process Planning Method' Cultural Revolution A.Isozaki 'Invisible City' May Revolution, Prague Spring A.Isozaki 'Electric Labyrinth' S.Kubrick '2001 a Space Odyssey' Woodstock Rock Festival A.Branz 'Non-stop City' A.Isozaki 'Self Architecture' Walt Disney World A.Tarkovsky 'Solaris' A.Isozaki 'Computer Aided City' Old Shock A.Isozaki 'Dismantling Architecture'	×計画概念の破壊 ユートピアの崩壊 見えない都市 Collapse of the Planning concept Collapse of a Utopia Invisible City	×共同体幻想の崩壊 宇宙船地球のユートピア性批判 スーパーコンピューター the collapse of community fantasy non-utopia vision of space development super computer
1975-95	VR（ヴァーチュアル・リアリティ） Virtual Reality	1977 ボンビーセンター 1978 R・クルーバー「デリアスNY」 1979 ソニー、ウォークマン発売 1980 村上隆「コインロカベ（ベビーズ）」 1982 R・スコット「ブレッドランナー」 1983 森田芳光「東洋ゲーム」 1983 J・バダム「オー・ゲーム」 1984 W・ギブソン「ニユーロマンサー」 1982 T・ギリッシュ「未来世紀ブラジル」 1986 チェルノブイリ原発事故 1986 スペースシャトル爆発事故 1986 香港上海銀行 1986 ロイズ・オブ・ロンドン 1989 天安門事件 1989 ベルリンの壁崩壊 1989 「インフォメーションアート展」(MoMA) 1991 湾岸戦争 1991 ソ連崩壊 1992 V2 「Book for the Unstable Media」 1994 R・クルーバー「ス」(Figures)	George Pompidou Cultural Center R.Koolhaas 'Delirious New York' Sony 'Walkman' R.Murakami 'Coin Locker Babies' R.Scott 'Blade Runner' Y.Moria 'Family Game' J.Balaban 'War Game' W.Gibson 'Neuromancer' T.Gilliam 'Brazil' Explosion of Chernobyl N-Plant Explosion of Space Shuttle HSK, Shanghai Banking corporation Lloyd's Tsunamien Square Incident The fall of the Berlin Wall 'Information Art' MoMA Gulf War Soviet Union collapse V2 'Book for de Instabiele Media' R.Koolhaas 'Hijoux'	×都市からの撤退 ターマパーク 近未来都市のユートピア 都市的状況の世界的展開 キャピタリズムによる均一化 ビッグケス ハイテック メディア・アート インタラクティブ withdraw from the city, theme park, the anti-utopia of a near future image, global deployment of a suburban situation, equalization by capitalism, hijoux, high tech media art, interactive	×リアリティの疑問視 東欧の解体 ヴァーチャル シミュレーションズ ゲーム文化 東欧冷戦の終結 The doubt of a reality Demolition of a family Virtual Simulation Game culture The end of cold war
1995-2005	ネットワーク Network	1995 Windows95発売 1997 京都宣言 1997 磯崎新「海市」 2001 911事件	Windows 95 released Kyoto Protocol A.Isozaki 'Mirage City' The 911 attack	○グローバル化レジ コンバトシティ、地球環境問題への対応、GIS、ユビキタスコンピューティングシステム Global village, compact city global environment problems GIS, ubiquitous computing system	○ネットワーク社会 パーソナル・コンピューター がスーパーコンピューターを 定義し、1人単位 テロリズム Network society IT terrorism
2005-2025	RV（リアル・ヴァーチャリティ） Real Virtuality			○アーバン・ダイナミクス メディア・タクトロジーの応用 時間・空間スケールの変化 都市現象の変化 urban dynamics, Application of media technology, Change of time and a space scale, Change of a border concept	○コラボレーション オープンソース 専門領域の解体 知の財産の共有化 collaboration, open source, collapse of professionalism, Sharing of intellectual property

TABLE 1

## CRONOLOGICAL RELATIONSHIP BETWEEN ARCHITECTURE AND URBANISM

ているというパースペクティブのもとに、以下の論を進めたい。また、イヴェント・作品年鑑にはこの10年単位のくくりと多少の誤差を含むものもあるが、そのイヴェント自体のもつ意味を考え、あえて別の年代に位置づけているものもある。

冒頭に述べた、計画概念の破綻は、1965-75年間の「反体制・解体」とでも呼ぶべき状況の中で確認されたといえるだろう。計画概念が破綻したとき、その状況変化を求めたのは、国家に代表されるそれまでの共同体イメージにたいする反発であった。すなわち、共同体幻想が崩壊したと計画概念が破綻したことはほぼ同時期の出来事として起こった。

大雑把に言えば、1965-75年の「反体制・解体」の時代を境にしてアーキテクチャとアーバニズムの関係は乖離した。それまで信じられていた計画概念は崩壊し、建築と都市が一体的に提案されるケースはこれ以降急激に姿をひそめる。日本においては、磯崎新によって、建築家の「都市からの撤退」が方向付けられ、アーバニズムにおいては、計画不可能な存在としての「見えない都市」の議論が時代のベースをかたちづかったといえる。そして、少なくとも1975-1995年ごろまでは、アーキテクチャとアーバニズムの関係性、共同体イメージという観点から見れば、この「反体制・解体」によって築かれたパラダイムの中で活動が行われたといえる。ここでは、これを「VR（ヴァーチャル・リアリティ）」の時代と呼ぶ。この時期アーキテクチャとアーバニズムの関係は乖離したままその溝を深め、周辺のコテクストと断絶したテーマパークや郊外の街並みが、キャピタリズムの潮流とともに世界中で一世を風靡した。マンハッタンを論じた「デリリアス・ニューヨーク」や「ビッグネス」といった理論は、建築・都市をデザインする行為そのものが、キャピタリズムの中で無力であることを指摘するものであったが、この時代に対する状況認識のテクストとして受け止めざるを得ない説得力を持っていた。この時代の共同体イメージは、家族の解体、個人存在のリアリティ、アイデンティティの問題化など、「反体制・解体」の時代の特性がさらに強化され、見えない都市の見えない共同体、巨大化したメトロポリスの中で自分を見失った個人のあり方が大いに問われることとなった。

しかし、ここで論じたいのは、現代に至る最後のパラダイムシフト、1995年から2005年頃を目指して、今まさに起きているのではないかと考えられる新しい動きについてである。とりあえず、この時代を「ネットワーク」の時代と仮に呼ぶ。1995年のウィンドウズ95発売をひとつの契機として、パーソナル・コンピュータを主体としたネットワークとインターネットによる社会システムは変化した。加えて、先進国を中心とした経済成長の鈍化や少子高齢化、環境問題への対応策の必要性などが要求する新しい社会的状況は、再び、アーキテクチャとアーバニズムの関係を問題化し、新しい共同体イメージの編成を求めるのではないだろうか、というのが本論の仮説である。すなわち、いま、まさに新しいパラダイムへのシフトが進行中なのではないかという考えだ。

ここで、タイトルとした「ソフト・アーキテクチャ／ソフト・アーバニズム」について説明したい。

ソフト・アーキテクチャは1970年に磯崎新が提示したコンセプトであり、ソフト・アーバニズムは、恐らくそれに同調するかたちで90年代に入って八東はじめによって提示された。

それらはいずれも、従来のハードウェアのコンストラクションストという意味合いが強かった建築、都市デ

Then at least until the period of 1975-95, from the point of view of the relationship between architecture and urbanism, and of collective images, most architectural production took place within the paradigm established during the anti-establishment/dismantling period. For the present discussion, I will call this period 'VR' (virtual reality). During this period, the distance between architecture and urbanism increased. Following capitalist trends, suburban developments and theme parks with no relation to their surroundings became widespread in cities around the world. Theories on Manhattan such as *Delirious New York*<sup>2</sup> or *Bigness*<sup>3</sup> pointed out the fact that the act of designing architecture and cities was powerless within the capitalism system. Nevertheless, they were irresistibly persuasive as writings that so well acknowledged the period's situation. The collective image of this period - the break up of the family concept, the realities of the individual existence, the problem of identity, etc. (all characteristics of the anti-establishment/dismantling period) - became even stronger. Questions like invisible communities of invisible cities, or how the individual who lost his/her identity within the giant metropolises should exist, were more frequently asked.

Nevertheless, for the present discussion I would like to focus on the last paradigm shift, from 1995 to 2005, which corresponds to a new movement that might be happening just at the present moment. To start with, I will call it the 'network' period. With the release of Windows 95 providing the necessary momentum, social systems became more dependent on the Internet and networks, with the personal computer as their main tool. In addition, most developed countries faced a new social condition with an overall economic slowdown, low birth rates, ageing societies, and environmental problems – all demanding solutions. This led me to think that the relationship between architecture and urbanism might become questionable again, together with the search for a new collective image order; this is the hypothesis I propose here, or in other words, that a new paradigm shift is happening.

デザインに対して、ソフトウェアを含むデザインの必要性を強調したものであり、旧来の建築、都市計画のあり方を大きく変革しようとするものだったといえる。論の基調をなす考えは、以下の部分に要約されるだろう。

「つまり、建築はソフトウェアを含むことによって、不可視の部分の占める割合が増大し、さまざまな新しい環境を決定づけるメディアによって、活動が遂行されるものになる。さらに全都市的に活動が拡散していくことによって、都市と一体化し、都市内に溶解してしまう。かくして、建築が都市となり、都市は建築そのものになるという言い方が可能になり、都市＝建築という環境を設計することが、大きい課題になってくることが予想されるのである。」

建築文化1970年1月号 磯崎新「ソフト・アーキテクチャ／応答場としての環境」

しかし、当時のコンピューターシステムは、未だパンチカードを記録メディアとする、現在では想像に難いほど原始的なものであった。この論を具体的にサポートするだけのメディア・テクノロジーとしては、当然ながら不十分であり、それゆえかえって磯崎の卓抜な先見性がいっそう強く印象付けられる。事実、当時のコンピューティングの未来像は、巨大なスーパーコンピューターであり、磯崎がほどなく提案している「コンピューター・エイデッド・シティ」（1972）はまさしくスパコンが都市を統御する絶対的存在として描かれている。こうしたメディア・テクノロジーの遅延ゆえに、「ソフト・アーキテクチャ」に関する具体的な展開がその後、磯崎によってはっきりしたかたちで示される機会が訪れなかったのは残念だ。しかしこの論は、いまふり返ると磯崎の「プロセス・プランニング論」や「見えない都市」の概念を正面から受け止め、リアリティを備えたデザイン論へと発展するだけの可能性を充分備えていたのではないだろうか。

一方の、「ソフト・アーバニズム」は、くまもとアートポリスという具体的な実践例があまりに強くオーバーラップしてしまうがゆえに、かえって前者ほどの強度を感じられなくなってしまっている。さらに疑問なのは、明らかに「ソフト・アーキテクチャ」と対になる概念として提示されているにもかかわらず、アーキテクチャ／アーバニズムの議論はそこでは据え置かれてしまっている。

本論があえて再び、この二つの言葉「ソフト・アーキテクチャ／ソフト・アーバニズム」を並べて取り上げる理由は、「ネットワーク」の時代におけるパラダイムシフトによって、一旦は乖離したアーキテクチャとアーバニズムの関係性が、再びここで密接なものとなり、改めてこの問題を取り上げる必要性を感じたからに他ならない。

現在、メディア・テクノロジーによって、建築及び都市デザインの可能性は大きくひろがりつつある。われわれの世代は、これまでにない個／集団の枠組みをクロスオーヴァーする情報伝達手段とスピード、多くの要素を同時に処理するだけの演算能力を備えた、あるいは漸次飛躍的に高めつつあるメディア・テクノロジーをもって、この生きた相手である都市にのぞむことができる最初の自由を手にした。

比較的専門的でアカデミックな印象の強かった建築、都市デザインの領域に、現在多くの領域から、建築家や都市計画家以外の人々が、自然なかたちで参入してきていることは、この分野に重要な変化がもたらされつつあることのひとつの現れである。アートやサイエンスの領域で、これまでラボやギャラリー、シアターなどのボックス

I would like to go back now and explain the meaning of the title *soft architecture/soft urbanism*. Soft architecture is a concept presented by Arata Isozaki in 1970.<sup>4</sup> Soft urbanism was probably presented as an equivalent theory in the field of urban design by Hajime Yatsuka in the 1990s. Both concepts emphasized the necessity of incorporating ‘software’ into the future city, in addition to the ‘hardware’ or constructed elements that were more easily identifiable with architecture and city design practices. These ideas tried to revolutionize the former concept of architecture and city planning and can be summarized as follows:

In other words, the incorporation of software in architecture will increase the proportion of its intangible aspects, and activities will be carried out according to the new environments determined by the media. Moreover, the spread of these activities around the whole city would make architecture and city become one single entity, architecture dissolving itself within the city. In other words it will be possible to say that architecture will become the city and the city will become architecture. The great challenge will be planning and designing this new environment city = architecture.<sup>5</sup>

ARATA ISOZAKI

The computer systems at that time still used perforated cards as recording media, which are unimaginable and primitive nowadays. Of course these systems were insufficient as the technology to support his theory, therefore making Isozaki’s foresight all the more impressive. In fact, the futuristic image of a computer at that time was a giant super computer and in the *Computer Aided City* project<sup>6</sup> proposed by Isozaki, computers were absolutely necessary elements connecting the city. Unfortunately, as a consequence of this media technology delay, the soft architecture theory could not be developed and given a concrete form by Isozaki. However, by going back to this theory we are now able to see that it applies concepts from Isozaki’s *Process Planning Theory*<sup>7</sup> and *Invisible City*<sup>8</sup> and that it probably had good chances to develop into a design theory not detached from reality.

*Kumamoto Artpolis*<sup>9</sup> is a concrete, practical example of soft urbanism in which the concept is perhaps too dominant; although it set out to discuss soft urbanism and soft architecture simultaneously, it simply ends up dropping the relationship.



ス状の閉じた空間内で行われていた実験的試みの多くが、現在都市の中に出て行こうとする動きが見られる。それらはまさしく、新しい建築・都市デザインの可能性を示すものだ。

「VR」の時代に盛んに論じられたヴァーチャル・ワールドの存在は、既にあえて議論するまでもないほど、われわれの日常に定着している。われわれは、現実の街を歩く間にも、目に見えぬ情報が常に世界を駆け巡り、そこで無数の出来事が「現実」に起こっていることを肌で感じる。ヴァーチャル・ワールドは、それが例えばわれわれの生き方を具体的に左右、決定するという身近な意味においても、すでにリアル・ワールドと等価な存在になったといえる。「VR」の時代には、メディア・テクノロジーは仮想空間でいかにリアリティを演出するかという課題を追求した。しかし、ヴァーチャル＝リアルという世界観が既に成立した現在、既にこれは最も重要な課題ではない。実際、現在の限られたインターフェイスでヴァーチャル・ワールドを覗き込み、そこに見出せるリアリティにはかなりのテクノロジー的限界がある。今後より決定的な知覚入力システムの開発と精神科学の発達を俟たねばならない。

そこで発想を転換し、われわれのリアルな日常の中に、いかにしてヴァーチャルな世界との接点をつくりだすかという新しいテーマを考えたい。これを、「RV（リアル・ヴァーチュアリティ）」と呼ぶ。

「RV」のコンテキストにおいて、空間や時間のスケールは必ずしも、例えば近代計画概念のなかでその連続性が信じられていたのと同じ意味では連続的でない。CADやモデリングソフトにおける空間スケールの自由な設定、ノンリニア・ムーヴィーやアニメーションの断片的な時間構成の技術は、現実の空間・時間のデザインに対して大きな影響を及ぼす。すなわち、新しい建築・都市デザインにおいては、空間・時間のスケールは物理的な連続性、同縮尺性という束縛から解放され、われわれの体験に応じて自由に伸縮し、流動的に歪められることが可能となる。それらは演出的な要素として建築・都市デザインの中に組み込まれることになり、こうしたダイナミックな空間概念は、われわれにアーキテクチャー／アーバニズムの関係性の再構築を要請する。これまでの建築・都市デザインは、不動産の敷地を相手にしていたが、「RV」の歪んだ空間においては、この絶対座標系すら問い直されなければならないだろう。

また、共同体イメージも同様に変化を見せる。メディア・テクノロジーが提供するシステム・アプリケーションのプラットフォームは、すでにこれまでの社会システムを大きく変化させた。専門領域は解体し、自由なコラボレーションが方々で始められている。知的財産の共有化が進み、良くも悪くも全てはオープンになっていく。こうした出来事を端緒として、居住、労働、所有といったわれわれを取り囲むあらゆる概念が再検討されていくだろう。

そして、その先に、まだ今は名前の付けようのない、建築デザイン・都市デザイン・メディアアート・そしてそれらの境界を越えるものの姿が見えてくる。あまりにも乱暴のそしりを免れ得ない非常に荒削りな仮説からのスタートではあるが、さいわいにも非常に興味深い活動を行っている多くの方々の協力を得て、本誌をまとめることができた。これから始まる一連の、実験的なプロジェクトの数々は、今後われわれの具体的な思考の場となるだろう。

There is a reason why I keep bringing back these two phrases - soft architecture, soft urbanism - to the present discussion. As a consequence of the paradigm shift occurring in the network period, the once distanced position between architecture and urbanism seems to be closing in once again, prompting me to revisit the question of their present relationship.

In contemporary times, thanks to media technology, the possibilities in architecture and urban design have greatly improved. We are part of a generation provided with unprecedented individual and group frameworks, integrated by means of information transmission and speed, capable of operating and organizing many elements all at once, and supported by rapidly improving media technologies, which all allow us to aspire to a new freedom for the city as a living organism.

Thematically and technically, architecture and urban design have usually been considered as academic activities, but recently they have been naturally attracting professionals from several areas, indicating some important changes to be carried out from this field. In arts and science, experiments that previously took place within box-shaped, enclosed spaces like laboratories, galleries and theatres have recently been occurring in city spaces, in a growing trend. This fact represents precisely the new possibilities for architecture and urban design that I am talking about.

During the VR period, discussions about the existence of a virtual world were frequent, but nowadays this virtual world has become so much part of our daily life that it makes no sense to talk about it anymore. While we walk around the real city, information that can't be seen with our eyes is continually running around the world and at the same time there are countless 'real' things happening that can be sensed physically. If this virtual world can concretely influence our lives, such as on a simple personal decision to go left or right, then we can say that it is already equivalent in importance to the real world. In the VR period, the main challenge posed to media technology was how to produce reality in virtual spaces. But in a world where virtual = real, as we have it in the present, this is not an important question anymore. In fact, we now look at the virtual world through limited interfaces and therefore the reality we find there presents some considerable limitations in terms of technology. From now on we can only look forward to decisive innovations in interface systems and new developments in the cognitive sciences.

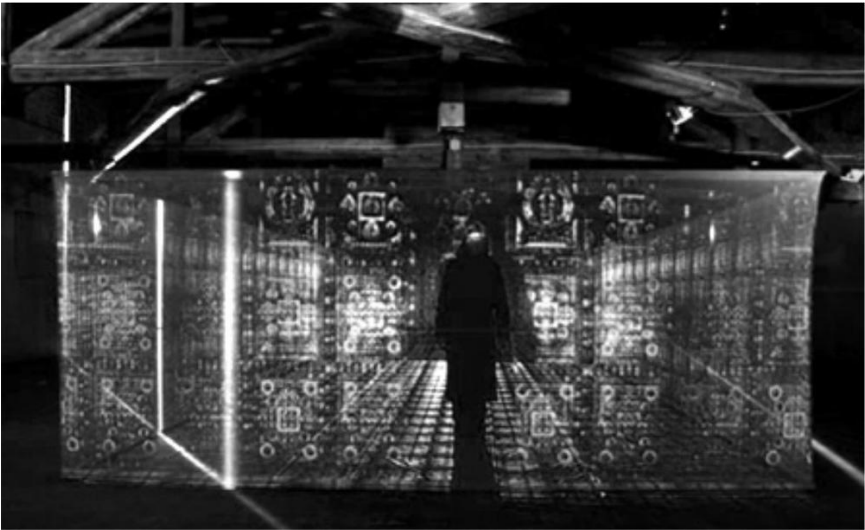
In this way, we could change our way of thinking and somehow start to create links between our daily lives and the virtual world. This is the new subject I want to think about. I call it 'RV' (real virtuality).

For example, within the RV context, the continuity of time and space that was adopted in Modern planning has no correspondence in contemporary circumstances. The freedom of space and scale offered by CAD and modelling software and the fragmented time structures of non-linear movies and computer

animations, has strongly influenced the design of real space and time. That is, new architectural and urban designs can be freely imagined; released from the physical restrictions of the conventional time and space structure. It is now possible to stretch and twist them freely in a fluid manner according to our personal experiences. As they are incorporated into architecture and urban designs as fundamental elements, the resulting dynamic spaces make us reconsider the relationship between architecture and urbanism. Until now, architecture and urban design used to deal with immovable, real sites. However in the space deformed by RV even the use of these types of absolute coordinates should be questioned.

Likewise, changes can also be seen in the collective image of this period. The system applications platform supplied by media technology has already caused numerous changes in the present social system. The technological domain has been reorganized and collaborations have started taking place freely. Intellectual property has been increasingly shared and for good or bad, everything has become open. Starting from these events, all our usual concepts of residence, work, property, etc., might be re-examined as well.

Then, we can start to see something we cannot name yet, something that is beyond architectural design, urban design or media art. I have started from a very rough hypothesis, which may well attract criticism, but fortunately, with the collaboration of numerous people, the emergence of projects and discussions within this undefined space is generating increasing momentum.



*SOFT ARCHITECTURE, INSTALLATION BY RESPONSIVE ENVIRONMENT*

- 1 From a discussion with Arata Isozaki in 2002.

- 2 Koolhaas, R: 1978, *Delirious New York : a retroactive manifesto for Manhattan*, Oxford University Press, New York.
- 3 Koolhaas, R and Mau, B: 1995, *SMLXL*, 010 Publishers, Rotterdam.
- 4 Isozaki, A: 1970, *Soft Architecture as Responsive Environment*, Kenchiku Bunka (Architecture Culture), January 1970.
- 5 Ibid.
- 6 Isozaki, A: 1972, *Information Space*, Kenchiku Bunka (Architecture Culture), August.
- 7 Isozaki, A: 1963, *Process Planning Theory*, Kenchiku Bunka (Architecture Culture), March.
- 8 Isozaki, A: 1967, *Invisible City*, Tenbo (Prospect), November.  
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- 9 1996, *Soft Urbanism: 15 Projects*, Inax Publishers, Tokyo.

# A BRAND NEW URBANISM

## MAKING THE COMPETITIVE CITY IN A GLOBALIZING ECONOMY OF CULTURAL CAPITAL

INGO KUMIC  
INTRODUCTION

As sites that expose the conquests and failures of the human condition, cities can be understood as a consequence of social, political and economic manifestations of conflict between tradition and aspiration, of the utopian visions of autocrats, and the more recent dystopic realities of a progress-induced human ecology. Our cities consolidate values, people, and activity. Their form, a clear articulation of meaning and function, reflects our inclination to create and recreate our urban condition, to engage, occupy and re-occupy space and to experience and critique it with a view to either reinforcing tradition or promoting aspiration. This reinforcement or promotion underpins the project of improving the competitiveness of individual cities within a globalising economy of cultural capital through the process of place branding and place making. It is on the convergence of place branding and place making that this article focuses. To contextualise the arguments advanced, what follows is a brief survey of pertinent background material after which definitions of the major terms appear.

To examine the city is to engage with a complexity of systems, which in and of themselves reflect the diversity of services and opportunities expected of the city. Cities might therefore be understood in terms of the political mechanisms that prioritise and mediate the relationship between social, economic and environmental values, and the systems of communication, transport, faith, housing, health, education, recreation, and work deployed to uphold them. However, cities can also be understood within a context of technological change and population pressures.

Arguably the most significant legacy of the 20<sup>th</sup> century has been a technology-induced globalization in which the traditional relationship between values and systems have been re-defined to reflect the liberation of geographic, economic and political ties between the city and the nation-state. Of particular impact has been the advent of the information age and the network(ed) economy

which has induced the collapse of time and space so as to allow for the “capacity to work as a unit in real time on a planetary scale”<sup>1</sup> and which in turn serves as a continuing catalyst for a level of urbanization not previously witnessed in the history of the planet.

According to the *UN Report on the Urban Future 21*, by 2025 approximately 65% of the world’s population is expected to live in cities.<sup>2</sup> Of the world’s twenty-seven mega-cities (10 million people or more), eighteen are currently in Asia with fifteen of these expected to be in the top twenty of the most rapidly growing cities in the world. The continuing process of urbanization is placing unprecedented strain on government and modes of governance. While cities have benefited from an increase in social capital, they are also required to provide more services and opportunities for wealth creation. Increasingly, cities are required to compete against one another for volatile global capital, but more importantly make available a greater diversity of capital that can be exploited. A global economic condition has emerged in which the collapse of the critical distance between capital and culture<sup>3</sup> has been fuelled by an ideology of neo-corporatism and cosmopolitanism. Governments now refer to citizens as clients or customers (as evidenced by the New South Wales Government’s recently released *State Plan*<sup>4</sup>) and deploy strategies geared towards the ‘production and consumption of culture’ in order to be more competitive.<sup>5</sup>

## GLOBAL ECONOMY OF CULTURAL CAPITAL

Arguably, the most significant expression of a culture is human settlement.<sup>6</sup> Increasingly government strategies deploy the city, and therefore urban design as cultural capital with which to solicit the investment required to make and network other forms of cultural capital (knowledge, ideas / solutions, experience etc).<sup>7</sup> An important aim in this process is to solicit interest from those people capable of generating the capital itself, a class that Richard Florida refers to as the creative class.<sup>8</sup> However, only one component in the broader process of making cities more competitive in a global economy of cultural capital is of interest here.

Alexander Cuthbert notes that the physical organization and design of cities has taken on an inflated role in the world economy, citing: “... this is fundamentally political since a major benchmark for successful cities is their capacity to generate a promotional image that can be broadcast internationally.”<sup>9</sup> More specifically, this political agenda, and the broadcast image is *of* the cultural capital itself. Jean Baudrillard’s fundamental assertion in “... a critique of the political economy of the sign” is that the mainspring of modern society must be located within the economy of consumption.<sup>10</sup> Further, he notes that this economy of consumption must be one characterized by the re-deployment of culture as capital where it is produced as *sign* and *exchange value* and where the *sign* in

turn becomes a commodity in its own right.

The inference that image of the city's cultural capital has now become a significant tool in the political agenda of government, accords with a growing level of recognition and interest in the making and deployment of the city or place, and its image in the strategic project of making cities competitive.<sup>11</sup> However, less well examined and understood, are the competing and complementary approaches of two seemingly disparate disciplines in this process.

On one hand, place or city branding (communications-marketing based) has emerged as a means by which the image of place capital is deployed to solicit investment (e.g. Sydney Film Festival, Sydney Architecture Walks, Sydney Gay and Lesbian Mardi Gras, Austrade NSW Design Services Industry Sector promotion, Sydney City – A City of Villages). On the other hand, place-making / urban regeneration / renewal / revitalization (urban design) has been deployed to develop and manage place-capital itself (e.g. Sydney Olympic Venues, NSW Main Street Program, Sydney Metropolitan Living Centres Program, Guggenheim Museum Bilbao, Millennium Bridge London).

The evolving body of knowledge on the post-modern phenomenon of *place branding* suggests the form and function of urban design (n.) are integral to the efficacy of branding place and therefore crucial to the competitiveness of cities in a globalising economy of cultural capital.<sup>12</sup> The interest in this paper is on the convergence of 'place branding' and 'place-making' as part of the same political agenda of making a city more competitive in a global economy of cultural capital. The problem it seems is that while seemingly coterminous in the making of place brands neither marketing, urban design, or government, is cognisant of the other's contribution to this project resulting in a fragmented approach that undermines the key objectives and claims of each. A significant reason for this is the lack of a theoretical framework to clarify this relationship.

To overcome this, the paper will serve two main aims towards developing a theory of place branding. The first is to provide an introduction to place / city branding from a communications-marketing perspective, and the second is to offer a preliminary position on the role of urban design in managing urban economies and its contribution to place-branding.

## PLACE/CITY BRANDING

It is not the city but the image that has to be planned.<sup>13</sup>

While image, as Paul Patton notes, is crucial in accounts of the post modern condition,<sup>14</sup> the focus here is the specific relationship between the signifier (media such as an image or words), the signified (concept), the object / product (referent), and the sign (brand) in the process of making cities competitive. Place/

city branding is at first understood as, and for many nothing more than, a sinister and vacuous outcome of our image-obsessed culture. However, on further examination, place brands appear to be an outcome of something far more complex, pervasive and crucial to the survival of cities in post-modernity.

According to Simon Anholt, "... cities have always been brands, in the truest sense of the word" and everyday decisions about buying a product with origins in a particular place to important decisions such as relocating to another city are based partly on rational factors and partly on emotional.<sup>15</sup> The brand images of a city therefore become crucial in making a decision. To ground this discussion, it is necessary to offer some definitions derived from the communications-marketing disciplines. In the first instance an overview of the terms *brand* and *branding* will be provided. Following, the dominant term of reference, *place branding*, which deals with the making and deployment of brands for the economic development of cities, will be briefly examined.

## BRANDS AND BRANDING

Simon Anholt notes that the difference between *brand* and *branding* is a complex issue and requires significant attention.<sup>16</sup> The concept of the brand is central to our society. Its origins derived from the "... practice of indelibly marking or stamping property."<sup>17</sup>

While brands and branding are now inextricably linked to our current political age, their pervasiveness has met with considerable criticism over the past decade, much of which originates from the anti-globalisation movement. This loose affiliation appears to be organized around the belief that the corporatisation of the globe exploits many in the service of a few by deploying a range of tools including brands. One of the best known exponents of this movement is Canadian journalist and author Naomi Klein. In her book, *No Logo*, Klein takes an aggressive stand against the corrosive qualities of brands noting: "...brands are the main source of identity. ...the brand fills a vacuum and forms a kind of armour, taking over the part once played by political, philosophical or religious ideas."<sup>18</sup>

Klein's position has resulted in leading marketing practitioners and academics such as Simon Anholt to lament the fact that *brand* has not only become synonymous with *thing* but thanks to the success of a raft of anti-globalisation books,<sup>19</sup> *brand* has rather more quickly become synonymous with a *bad thing*.<sup>20</sup> Anholt argues that the negative colouring of the term brand has served as an impediment to place branding due the cognitive dissonance that has emerged between participants involved in the process. According to Anholt, this dissonance can best be understood as three commonly held definitions of brand and branding:

- *Popular* definition – this is the least precise and is "... often used as a vague



conflation of several marketing disciplines... (such as) advertising, marketing, PR and sales promotion... and often has a connotation of something aggressive and malevolent.”<sup>21</sup>

- *Simple* definition – is often used by marketing services firms and their clients as a reference to a designed visual identity. It is the dress or guise that is recognized which in and of itself is also a form of communication implying something about the nature and personality of the product.
- *Advanced* definition – is a total conception of branding that, in a corporate sense, provides the ‘brand DNA’<sup>22</sup> for company strategy and corporate culture.

It is interesting to note that while Anholt’s *popular* definition conflates the communication disciplines and therefore confuses their roles and contribution to the branding process, the *simple* and *advanced* definitions epitomize the confusion between the brand itself and the branding process. To investigate this a little further, I will refer to the work of Jan Rijkenberg and his ‘concepting’ thesis.<sup>23</sup>

Rijkenberg notes that traditional marketing processes characterized by the four P’s of Product, Price, Place (distribution) and Promotion (communication), have largely fulfilled their role in enacting Kotler’s original conception of marketing. In Kotler’s seminal text entitled *Marketing Management, Analysis, Planning, Implementation and Control*,<sup>24</sup> his advice to companies roughly translated into “... look at what is happening in a market, observe the needs, and then offer solutions to satisfy them.” Rijkenberg, like many other observers of this consumer age, notes that the consumer habits of developed nations no longer seek product differentiation in order to satisfy needs as much as wants or aspirations.<sup>25</sup>

In keeping with this shift, Rijkenberg also notes that the traditional marketing sequence of the four P’s was not arbitrary but reflected the relative importance of the Product in an industrial age:

This made eminent sense, since companies in the 1950s and 1960s were essentially production enterprises, offspring of industrialization, concerned with providing the growing populations of Western industrial societies with a variety of new products and actually meeting real needs.<sup>26</sup>

Gradually however, products reached a point where they could no longer be improved, resulting in a process that seeks to impose goods on an already contented marketplace. Branding, as defined by Anholt’s *simple* definition, therefore seeks to add-value “... in a bid to gain a preferential position for their essentially generic products.”<sup>27</sup>

Rijkenberg notes that a new phenomenon is emerging that reflects a shift in emphasis from industrial to post-industrial economies and therefore a shift towards information and knowledge-based capital.<sup>28</sup> Accordingly, Rijkenberg suggests a new term is required because the existing terminology, as illustrated

by Anholt's series of definitions, did not adequately reflect the specifics of this new phenomenon.

'Product development' itself is, of course, not appropriate because of its stress on product. 'Brand development' is also inadequate, because it is commonly used to refer to the process of developing new names for products and 'concept development' is too often employed to refer to the development of an advertising or communications concept.<sup>29</sup>

Rijkenberg's new term of *concepting* allows for the development of a brand that embodies concepts. According to Rijkenberg this deploys *concept* as a rubric under which one could find "... visions, attitudes, convictions, philosophies, mentalities, motivations, 'wavelengths,' areas of interest, world views and indeed, whole 'worlds'."<sup>30</sup> In this way, products are not sold but are bought.<sup>31</sup> This new term required a revision of the four P's to reflect an emphasis on the new role of the brand. Rijkenberg's revision was to reverse the traditional marketing sequence so as to now read; Promotion (Communication), Place (retail), Price, and Product.

Therefore a brand may best be understood as a concept of contextualized values induced through media (words, images etc). *Branding* on the other hand can either be understood as the process of assigning the media required to mediate between the product and the brand,<sup>32</sup> as in Anholt's *simple* definition, or it can refer to Anholt's *advanced* definition<sup>33</sup> and what Rijkenberg refers to as *concepting*,<sup>34</sup> that is, as the process of making of the brand itself.

For current purposes, I will adopt the term *concepting* to mean the process by which the *brand* is made and *branding* as the process by which brand-values are conferred to an object, transcending its utility-value and transforming it as a consumer object whose real value is entirely governed by the brand (sign).

## PLACE BRANDING

Local places become appropriated to global strategies. Urban marketing requires civic imagery that can identify places and cities as different products. In particular this stimulates the market for iconic imagery embedded in 'signature' projects that signify a sense of 'place' for global consumption... the Manhattan skyline, Westminster, the Eiffel Tower and the Sydney Opera House set the standards in urban iconography. Like corporations without logos, cities without icons are not in the market.<sup>35</sup>

The assertion that the branding and (re)branding of cities and places in post-modernity is a tool of capitalism, relates to the growing trend of deploying

the image of cultural capital, such as the Manhattan Skyline, as the basis of a struggle for meaning and by implication, power. This practice, commonly referred to as place branding, has its origins within the communications / destination marketing-based professions. The practice, and by virtue of a rapidly growing body of knowledge,<sup>36</sup> the study of place branding, is beginning to attract attention from disciplines outside of marketing including sociology, history, national identity, politics and now, urban design.

Place (and city) branding is derived from three substantial areas of marketing theory and practice:

- Destination Marketing
- Corporate Marketing
- National Identity Marketing

Keith Dinnie notes that while the body of literature is small it is growing rapidly,<sup>37</sup> as the need to attract "... tourists, factories, companies and talented people ... requires countries to adopt conscious branding if they are to compete effectively on the global stage."<sup>38</sup> This view is also supported by Ham who claims that "... image and reputation are becoming essential parts of the state's strategic equity."<sup>39</sup>

Place branding is very much part of the domain of marketing and still positions marketing as the means by which the *image of value* is circulated, as opposed to denoting a process by which a brand (the strategy) is made in order to guide the making of that value. In some instances, place branding is seen as a crucial mechanism in adding-value to existing marketing conceptions such as Product- Country Image (PCI) or country-of-origin image, a fusion that for some commentators is expected to transform government and business worldwide.<sup>40</sup> In this and its broader context, place branding is seen as typically having four core objectives:

- to enhance the place's exports,
- to protect domestic businesses from 'foreign' competition,
- to attract or retain factors of development, and
- to generally position the place for advantage domestically and internationally in economic, political and social terms.

The product-country-image, which typically refers to "... the image of a country (or place) with which a product is associated by sellers or buyers,"<sup>41</sup> draws on the promotional value secured through place branding. Papadopoulos reinforces the notion that place branding is largely concerned with deploying the image of place rather than with its development, a technique that is used extensively in the promotion of places for tourism (destination branding). Anholt, like many others, shares the view but states that "...the diverse and complex nature of place brand transcends the narrow confines of any single industry sector, including that

of tourism.”<sup>42</sup> For Anholt, a destination is but one component of a nation, region or city. However, unlike a nation, region or city, a destination can be sold as a product.

The growing realization within the marketing profession that the systematic marketing of place image is crucial to the future of these places has also lead to the realization that *place* is a complex entity which as yet is not reflected in the competency of place branding practitioners. A recent example of this is the City of Glasgow. Glasgow was chosen as the European City of Culture in 1990, an award that, according to many critics, confers significant status and cache to cities that were not recognized as cultural centres in their own right. However, for many Glaswegians this was nothing more than a cynical exercise which sought to gloss over profound social and economic problems.<sup>43</sup> A conflict echoed by the Workers’ City Group of Glasgow, is the defacing of the Saatchi and Saatchi slogan *There’s a lot of Glasgowing on* to read *There’s a lot of con going on*.

The Saatchi and Saatchi campaign was an effort to (re)brand (in the old marketing parlance, i.e. brand as logo) Glasgow as a place. It illustrates the disjuncture between traditional marketing competencies and the requirements of place-branding.

Papadopoulos draws from the seminal work of Aaker and his conception of *brand equity* to propose that place branding must be grounded within an understanding of *place equity*.<sup>44</sup> Place equity according to Papadopoulos, would refer to “the real and/or perceived assets and liabilities that are associated with a place and distinguish it from others.”<sup>45</sup> This raises two interesting issues. The first is that Papadopoulos equates the conception of brand with that of place. Secondly, while place branding suggests a process that results in the inducement of the brand in the mind of the consumer, the question remains as to who constructs the brand itself? This point is not lost by Papadopoulos who suggests that unlike the obvious competencies exhibited by marketing professionals in relation to specific industry sector brands; place marketers have much to learn before such competencies emerge in the practice of making place brands.<sup>46</sup>

## URBAN DESIGN , PLACE EQUITY AND SPATIAL POLITICAL ECONOMY

If the substance of a place behind the brand is not adequately mature, the major communication activities should be postponed until the infrastructure meets with the chosen identity. Starting the holistic branding process gives a place a lead over locations which only practice promotion, because the branding process forces the development of the place resulting from the process.<sup>47</sup>

Place branding is confronted by a profound challenge; if *place*, in a marketing sense, equals *brand* and *place branding* is to be pivotal in making a place more competitive, then it must develop a competency in constructing the *brand of place*. In order to do this, it must understand what place is and therefore its equity.

The post modern political condition has always understood place to be the antithesis of the cosmopolitan, that is place as an incubator which nurtures human relations inspiring the in-situ development of culture - the very repository of cultural expression. Culture as a phenomenon is therefore more often than not imbued with the characteristics of a place and is formative in the practice of place-making.<sup>48</sup> However, the *place* referred to here is not one typically defined by history, as the 'god-given' and 'of the land' rather, *place* in this context is the manifest representation of sign value, developed within a context of emotion and desire. In this context, cultural forms and meanings of place, and in turn image, have become critical if not dominant elements of the city's productive strategy and thereby the competitive (re)positioning of cities in a global economy.<sup>49</sup>

Examples of this repositioning abound over the last three decades, and in particular the last two. Governments have deployed mass urban programs across the globe aimed at (re)igniting depressed or stagnant local economies as a means of improving the production of the material basis of a city's life. The primary intention is to improve its image, solicit investment, and in turn, and by association, improve prospects of political tenure (e.g. Bankside Regeneration, London; Green Square Development, Sydney; East Darling Harbour Renewal, Sydney; Eastern Harbour District, Amsterdam; Abandoibarra, Bilbao). These programs often arose under the guise of urban regeneration / renewal / revitalization and often deploy cultural capital, via urban design, as part of place-making. For example, the regeneration of Temple Bar in Dublin sought to exploit both place as cultural capital and the mechanisms which were seen to be integral to producing this capital. As one of the earliest instances of urban regeneration, Temple Bar sought to build an economy based on soliciting interest from the *creative classes*.<sup>50</sup> In a process almost reminiscent of industry clustering, once disparate socio-economic classes were (re)organized and clustered according to the production and consumption of *sign* value. Struggling artists had their rents subsidized while the wealthy middle classes, attracted by the event of cultural production and the condition of experience created, became live-in patrons. In many respects, the process of place-making or urban regeneration at Temple Bar demonstrates how urban design was integral to a strategy that sought to develop place-equity. The result is that the branding (marketing) process now induces a conception of what actually exists at Temple Bar.

In order to clarify the contribution of urban design to the marketing practice of urban branding a departure from what might be considered normative theoretical constructs of urban design located in physical determinism, representation

and aesthetics is necessary. Urban design reframed as an executive agent in the management of urban economies of cultural production and consumption can be understood as pivotal in the development of a strategy that guides the development, management and eventual promotion of the material basis of urban life, that is, the economy as a whole.<sup>51</sup> In this line of thinking, Gospodini argues:

In the era of globalization, the relationship between urban economy and urban design, as established throughout the history of urban forms, seems to be reversed. While for centuries the quality of the urban environment has been an outcome of urban growth of cities, nowadays the quality of urban space has become a prerequisite for the economic development of cities; and urban design has undertaken an enhanced new role as a means of economic development.<sup>52</sup>

Gospodini's observation of this current or emerging state of urban design practice alludes to a changed condition within which urban design is now understood, and accordingly raises the concern that "...design may have all the answers but are we asking the right questions?" Current theoretical constructs which constitute urban design orthodoxy, cast doubt over its preparedness to execute this new position in a manner that fully appreciates the critical role that place brand plays in the survival of cities in a modern capitalist economy, a role which urban design has been co-opted to perform rather than one which it has actively cultivated.

Cuthbert argues that it is imperative that we accept the idea that the built environment, and therefore the quality of urban space, is the epiphenomena of deeper, more enduring social forces and that urban design *theory* must "... realign itself with the substantial theoretical base being constructed within urban social theory, human geography and cultural studies, a grouping that roughly equates to what is termed Spatial Political Economy."<sup>53</sup>

In the new cultural economy of capitalism<sup>54</sup> both the *place* and the *product of a place* have seemingly been co-opted by an economic development agenda. Marketing has become crucial to this project, constructing and projecting an *image* that is of that place. This is an image or *brand image* which induces the concept of the *culture of place* (brand) in the mind of a potential investor / consumer. It deploys, its cultural values in order to solicit global financial and social capital and thereby contribute to the broader project of making a city competitive.

Following Anholt, the culture of a place harbours the *brand DNA*.<sup>55</sup> Establishing brand DNA means that a whole family of branded products can all come from the same place and share similar characteristics of the brand while still possessing a distinctive image necessary to appeal to different markets.<sup>56</sup> However, this is commonly constructed as part of the process of *place-branding*, a task largely understood to be the domain of traditional communications-based professions, which apply traditional brand positioning techniques. In this sense the

brand-image, rather than the brand, seeks to (re)contextualize the product, or as the case is with city marketing, imbue *the place* with context in a very superficial way. This means that when the *city as product* seeks differentiation within an already saturated market of cities vying for volatile global capital; the brand-image relies on a surface or exterior with which to (re)position or, (re)contextualize the city (product).<sup>57</sup>

According to branding experts however, the brand-image must be supported by the product. That is, if the brand is to succeed in its role of guiding the development, management and eventual promotion of place-equity then it must establish a relationship based on trust between the user and the object.<sup>58</sup> Given the current praxis of place-branding is not in a position to explain and therefore construct a brand that is complex enough to do this, it can only ever deal in superficiality. A desirable process would cast the place-brand as antecedent to the making of the urban condition and transfer the executive role of making urban brands from communications oriented disciplines to urban design (v.).

To suggest, for example, that architecture is capable of re-branding a city is to ignore the complexity of brands and the systemic nature of place-equity. Architecture can at best contribute or contest the brand-image of a city or as part of an urban design-lead brand development process, contribute to place-equity. The city's brand is a complex and entirely abstracted set of values that have developed over the entire duration of that city's existence.<sup>59</sup>

The key shift taking place now is that *brand* is being consciously deployed as the strategy for validating and enacting a broad range of culture-lead productive strategies. The city of late-capitalism is therefore, in the Baudrillardian sense, an effect of the logic of the brand (sign).<sup>60</sup> That is, the city as experienced in reality, is a referent of the brand (sign), projected or mediated by it. Architecture, or urban design (*n.*), is a representation, an image, deployed to induce the concept of the city's existing brand (reinforce tradition) or, as is often the case, contest the existing brand by referencing a foreign, aspiring condition of place.

Governments will increasingly rely on the cultural content of place and therefore place-brands, whether imagined or experienced, and the deployment of their image to attract investment and thereby compete with other cities. The commodification of the *expression of culture* has therefore firmly positioned the role of branding and brands at the forefront of economic development, and the role of urban design at the heart of the continuing aestheticisation of the city and its political condition.

## CONCLUSION

The current theoretical framework of urban design is failing to expose, understand and explain its executive role in the making of the contemporary urban

condition or place, and therefore urban brands. Due to the co-opting of the urban condition by capitalism and its re-deployment as a cultural product, the praxis of urban design is, as Gospodini notes, entirely complicit in its making and therefore, one might argue, formative in managing the spatial political economy of urban brands. However, urban design theory does not encompass this.

Understanding urban brands as either a consequence of, or an antecedent to the urban condition is fundamental to the way in which brands, and in particular urban brands are made, and how they relate to urban design in the future. In the first instance, understanding the role of urban design in the management of urban economies requires a theoretical reframing of how it develops, manages and promotes place-equity before we can highlight how it contributes to a body of knowledge that guides place-branding.

Given that both marketing and urban design have a body of knowledge within which to examine this phenomenon of place / city branding, a decision must be made as to which body of knowledge is to be advanced, that is, the emerging body of knowledge on 'place / city branding' (marketing) or the extensive body of work on 'place-making' (urban design). The implications are that an attempt needs to be made to either:

- re-theorise urban design to reflect its complicity in making brands and therefore underpin place-making / urban regeneration / renewal / revitalization' with marketing-based principles of brand and branding, or
- to underpin the developing theory of place / city branding (marketing) with urban design principles derived from spatial political economy to assist one of its core tenets, that is that the brand should act as strategy which guides the development, management and eventual promotion of place-capital / equity.

The emerging body of knowledge within marketing demonstrates a far greater awareness of the potential efficacy of place-brands and its own disciplinary limitations vis-à-vis place-equity. It has also made greater in-roads into political agenda setting than that of normative urban design practice relative to this issue. To this end, it could be concluded that it may be more beneficial to the development of urban design as an executive agent in the material production of a contemporary economy if it contributed to the development of a body of knowledge on place-brands located within marketing. In this way, urban design may become pivotal to the development of a theory that inherently reflects the multi-disciplinary nature of the praxis of place branding.

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# 06

## SONIC ISLANDS

### SOUND AND RESPONSIVENESS EXTENDING THE DIMENSIONS OF SPACE

*KIRSTY BEILHARZ*

Designing space is an activity for all the senses. This chapter unpacks multidimensional designing, new ways to think of designing architectures and spaces using sound and interaction (or responsiveness) as additional dimensions in negotiating and experiencing space and hence in its conception. Islands are unique and exciting. This discussion raises three different possibilities for integrating the sonic and interactive potential of space to elaborate the essence of the Urban Island.

#### ONE: ACOUSTICALLY SYMPATHETIC ARCHITECTURES

Acoustically sympathetic architectures preserve, augment, amplify and enhance natural acoustic phenomena that contribute to our sense of place and space. One example is Nikko, the ancient World Heritage site of temples, shrines and majestic Cedars outside Tokyo in Japan. What is immediately striking is the obvious visual beauty of the place but also very memorable is its acoustic atmosphere. The atmospheric characteristics can be identified quite precisely: the sound of quietness, remoteness, refraction of sound bouncing off the Cedars that resulted in an enclosed space enveloped by mountains, all affecting the humidity and the wetness of the acoustic profile. In this way, one could hear the lichen and greenness, the remoteness of traffic or mechanical sounds contributing to the timelessness and spiritual presence.

Due to their industrial texture, disconnectedness and abandoned condition, urban islands are special and distinctive acoustic locations. Acoustic sounds play a very important role in capturing this essence of place and architecture, as well as fabricated synthetic site-specific sound works that amplify this experience. From Friedrich Handel to John Cage, via Marcel Duchamp, the Fluxus movement and Raymond Roussel, water sounds, drips, rivers, washes and waves, have been an integral part of musical and conceptual sound.<sup>1</sup>

Surfaces can be selected to bounce and capture the reverberations to reduce or enhance the gusty urban air or to resonate the mighty, low, carnal sounds of city rumble, the flying gulls and other blended natural and man-made imposing sounds. Concave surfaces focus sounds, even serve to amplify them; dappled, dimpled, irregular surfaces diffract sounds; cavernous shells of old turbine halls and ship yards echo to the sounds of both inhabitants and nature. In the same way that optic fibres can channel light through layers of concrete, parabolic ceilings can convey sounds from one side to the other and narrow physical corridors/conduits convey sounds from one location to another. One could insert auditory channels/corridors from the exterior to bring the outside to the interior, sonically equivalent to light-wells or optic fibres, to further mesh nature and materials, the greater city and the occupants. Especially in urban island locations where the soundscape is so remarkable, it is useful to consider this extra dimension in designing for it.

On visual and acoustic space, Marshall McLuhan considers that acoustic space is the 'dwelling space' "... for anyone who has not been conquered by the one-at-a-time, uniform ethos of the alphabet."<sup>2</sup> This balance of inner and outer ear experience and the polyphony of the everyday world is much more acutely perceived in the Third World. Developing a greater awareness of the contribution of sounds to spatial awareness could reinvigorate and renew the balance of the senses, simultaneously enriching the experience through various modalities. Acoustic space is natural space in which humans are capable of detailed and complex spatial acuity. It is a question of adjusting focus so that this dimension of spatial and architectural perception can be maximised and contemplated.

As new structures and architectures are designed, rather than old structures transformed, there is more substantive scope for integrating the structural purpose, program flow and physical form with sound qualities. An example of integrally tied relationships between architectural structures and sound structures or musical form, can be found in works by Iannis Xenakis, both composer of international renown and architect, who at one time was an assistant to Le Corbusier involved with his serial and Modulor systems.<sup>3</sup> Xenakis designed building structures, such as the Brussels World Fair Pavilion, that shared its parabolic geometry with the pitch contours in his orchestral work, *Metastasis*.<sup>4</sup> In Xenakis' graphic summary, the x-axis marks progression of durations over time and the y-axis indicates pitch gradations (frequency slides) distributed across the range of orchestral instruments. The overall impression of curves in this graphic depiction follows the geometry of the conoid shell of his Philips Pavilion architectural design. Serial and stochastic distributions and values for proportions can equally be applied to dimensions of sounds such as granular density, distribution, and grain length as their architectural counterparts of measurements for length, periodicity, and proportion.<sup>5</sup>

By using shared structures, i.e. mapping equivalences in sound and space

and systems of generativity to cross boundaries of medium or dimension that are traditionally divided [architecture/sound/space/lighting] and by using bi- or multi-modal mapping equivalences; designers can tightly knit their design thinking to fuse ideas across the pervious, permeable distinction between design domains. Shared sonic and spatial design that makes us listen augments and reinforces our awareness of a place.

## TWO: SITE-SPECIFIC SOUND

While the previous section proposes architectures and spaces that moderate and utilise natural sound phenomena, the focus of site-specific sound shifts to man-made sound design (an extra dimension) affecting spatial perception, experience, decoration or ambience. This can be considered as a dimension of spatial design. Sound installations have many purposes and possibilities, ranging from peripheral ambient display to decorative or entertaining. The site-specificity refers to those particular characteristics that uniquely identify the work with the space and place, location and context (social, spatial and geographical) in which it is set. The sound designer or composer can do this in various ways, e.g. by capturing local sounds and using them literally and processed as the fabric of her/his construction and/ or by responding in real time. This real time aspect makes each work specific to people and place by using them partially in the fabrication of an auditory response. These are computationally viable with contemporary technology and provide a seamless juncture between environmental sounds and created ones.

Part of the reason for working in sound is to stimulate our consciousness of the beauty, uniqueness and contribution of the sonic attributes of a place. In the 1960s, John Cage's contentious 4'33" 'musical work' scored for 'silence' raised several poignant issues surrounding environmental sounds. Firstly, there is no such thing as silence in our daily experience, much less within an urban island. Secondly this composition invites us to concentrate, obliterating visual distraction for a short time, and really deeply take in sounds that compose our environment. Obviously, no two 'performances' are alike, and I believe any sonic work that integrated or focused our attention on the environmental sonic landscape of the urban island would be rich and experience-altering. Thirdly, Cage's piece raises the inevitable and perennial debate about the position of the boundary between noise and sound, which it might be said, is largely a perceptual and inferred one, revealing something of the thinker's open-mindedness. The difference would appear to be the inference that noise is a negative term while sound is neutral or positive.

In Paris, an encounter with works, *Oto-Date* ('Hearing Awakening') and *Nuit Blanche* the nocturnal version of the piece by Akio Suzuki, engaged the

participant to wander around the small district of Montparnasse to a number of listening points, indicated by ear-shaped feet painted on the pavement, where our ears could discover what the artist wanted us to perceive or notice.<sup>6</sup> Suzuki is motivated by the pace of modern urban life that is too quick to permit serious receptiveness and listening. His work forces the participant to slow down and to listen thoughtfully, becoming increasingly balanced and conscious of the city as an auditory, as well as visual and olfactory, mine. The kind of listening it requires is similar to that state achieved when suddenly we experience timelessness and awareness, enveloped by wilderness or in nature. This type of listening encourages an intimacy with the city and re-connection with our place that can too easily become lost in everyday mind-chatter and superficiality.

Auditory awareness is a spatial paradigm often under-utilised.

As I penetrate the deep drone of the bulldozer with my ear, the mind opens and reveals the high-pitched whine of my nervous system. It reaches out and joins the flight of an airplane drone, floats down the curve of the Doppler effect.<sup>7</sup>

Murray Schafer was a key figure in the early 1970s for bringing to society's attention the notion of the soundscape, i.e. in his terms, 'acoustic ecology,' once again describing the acoustical environment, qualities of sounds and their affect on experience. He worked with environmental sound artists who found their material in environmental sounds, the basis for creative works, e.g. Hildegard Westerkamp, David Dunn, Douglas Quinn and Chris Watson. These artists worked long before the contemporary generation of electronica and post-industrial artists developed hypnotic ambient music fabricated from found sounds with the convenience of modern technology for synthesizing and splicing, sculpting and filtering to produce a plethora of phantasmological sound blocks.

An important aspect of contemporary soundscape, like other forms of landscape, is its rapid transformation to include more machine- and man-made sounds. The fascinating incidence of Cockatoo Island is the way in which the man-made and the natural sound concur, blend, transfigure in the wind, the anarchic combination reiterating the natural and manmade building structures, natural and synthetic materials of architectural structures with comparably different resonant and reverberant characteristics that capture, dampen, reflect and diffract sound waves. The disembodiment of the natural and man-made sounds through walls obliterating natural light and our visual contact with the source, contribute to a complex experience of sounds from without, whilst from within enclosed spaces, edifices, walled buttresses and building shells. Due to the isolation from the density of usual urban noise levels, almost surrounded by sea, the audibility and poignancy of natural wave and wildlife sounds heard from inside constructed architectures is magnified, thereby intertwining these elements.



Robert Coontz unfolds the way in which the deeply ubiquitous yet subconscious "... background subsonic [inaudible to human ears] oscillations of the earth [that] have no obvious source... not earthquakes, not nuclear explosions... vibrations triggered by cataclysmic events fade away to nothing but the Hum continues, regardless..." have led to composers' theories about free oscillations in the atmosphere. For example Naoki Kobayashi and Toshiro Tanimoto have turned the environmental concept into music obsessed with throbbing air pressure, drops, fluctuations of atmospheric pressure, humming and drumming.<sup>8</sup>

From beneath the frenetic, threshing rhythms of jungle, a very different vibration has fermented, feeding off the technical errors and unplanned outcomes of electrified society - the world at the mercy of glitch. Crackles, pops, pocks, combustions, gurgles, buzzes, amplitude tautenings, power spikes, voltage differentials, colliding pressure fronts, patterings, jump-splices, fax connections, silent interjections, hums, murmurs, switchbacks, clunks, granulations, fragmentations, splinterings, roars and rushes have overwhelmed the soundscape - as if the Ambient soundfields on the Cage-Eno axis have been zoomed in on until we are swimming amid the magnified atoms of sound. Characterised by colossal shifts in dynamics, tone and frequency, this is an urban environmental music - the cybernetics of everyday life - that reflects the depletion of 'natural' rhythms, in the city experience, and in the striated plateaux of the virtual domain.<sup>9</sup>

In this quotation the onomatopoeic description palpably stimulates the aural imagination to appreciate the compositional value and potential of man-made and machine sounds, a subset of urban environmental sounds that have been principally plundered by the glitch scene in contemporary electronic music. Some examples of modern sound designers who have utilised such electro-environmental sounds and their inherent site specificity include: Haco *Start Up + No Wave* [2002/3] in performance capturing oscillating sounds emitted by electronic mechanisms of her computer's minutiae, scaling the normally sub-audible or ambient. Lucier *Sferics* uses natural radio frequency emissions in the ionosphere, caused by electromagnetic energy radiated from nearby or distant lightning and amplified natural phenomena to challenge our understanding of proximity and perspective. Toshiya Tsunoda records environments by placing the microphone inside resonators like bottles - *Bottle at Park* [1999] producing distortion, perspective and acoustic images filtered by the bottle and the nuances of the local environment. Others, such as Chris Watson, develop their soundscapes from environmental recording, e.g. his remarkably iconoclastic adaptation of recorded Icelandic glacier, *Vatnajökull* [2003] reconfiguring our personal relationships to enormity and time by auralising or sonifying it. Ryoji Ikeda's *Dataplex* series is concerned with magnification, machine sound, repetition, periodicity, rhythm,

phasing, regularity/irregularity, frequency extremes, perceptual thresholds, again uncovering a resolution of hearing not normally given attention.<sup>10</sup>

Certain frequencies, due to their periodicity, refraction and other acoustic phenomena, highlight psychoacoustics characteristics of a space. For example, Ikeda's minimal glitch electronica ambient pieces constructed from subtly transforming yet repetitious machine noises, cover a gamut of frequency so wide that some of the highest and lowest tones are perceived only as blips and vibrations, respectively as physical experiences of a corporeal nature. Some of Ikeda's pieces intended to be audited in specific environments, exaggerate or isolate the relationship between the body, mind and the sense of hearing, such as *Matrix* "for an anechoic chamber." In various performance manifestations, it has also exemplified experimentation with the bimodal effects of vision and sound exploding synchronicity, phasing, pulsing and space/silence in periodic rhythms. Some audiences are captivated by the visceral and powerful effect of the minimalist and unrelentingly sparseness - no performer on stage, darkness, seeming emptiness.<sup>11</sup> Sporadically charged by simultaneous pulses of light and sound, pervasively anonymous, dark, free of time measurement though regulated by patterns of irregular impulses: unpredictable and erratic. The designer with an acute awareness of the psycho-acoustic effects of frequency bandwidths and architectural acoustics, can harness a level of physical energy through sound not normal, cultivated and the composer/sound designer working together with the architect can develop a synergistic physical spatial experience.

Roger Reynolds highlights the notion that art as process, not art as event, can include experimentation across the threshold of public and private, and with altered states of consciousness. Disrupted thought processes, a disturbed sense of time, changes in emotional expression [and impression] and perceptual distortions could be among those dimensions affected by sonic interaction with architecture.<sup>12</sup> Reynolds, an influential composer of the late twentieth century, identifies space as the last dimension, meaning the least explored yet most modern dimension of musical expression for contemporary composers and sound designers. The dimension is one that has only fully become accessible through the sound production systems and spatialisation technologies, software and 'architectural' thinking of composers in the last 40-50 years. Composers differentiate between points and their radiating area, between different refractive surfaces and they move sounds in spaces as dynamic dimensions of time-based communication.

Much earlier, composers started to experiment by using spatially unusual positioning of players in orchestras on the stage and distributed displacement in performance venues. However, tele-interactive and electronically controlled spatial fine-tuning are luxuries of recent times that afford a new realm or dimension of expression. Examples of early pioneering in this new frontier include Joji Yuasa's *Icon* for directional sound composed in 1967 for 5 speaker channels; semi-

nal works for electronics emanating from the French School of Pierre Boulez, Edgar Varese, Iannis Xenakis, Philippe Manoury, Georges Asperghis; and didactic theatre/opera composers such as Louis Andriessen, Philip Glass and Karlheinz Stockhausen. Stockhausen produced the opera *Licht*, which demands spatial interaction and dynamic motion during performance and presents a scale of venue unprecedented in classical performance. It is outshone only by his own tele-immersive *Helicopter Quartet* for airborne string quartet members each in separate helicopters, first performed by the Arditti String Quartet. Yuasa's *Icon* for 5 directional loudspeakers (1967/8) involves a lyrical high section then narrow, complex, constantly inflected noise bands, interlocking in opposing rotational patterns and slow, circular low bands indicated graphically in a representation with striking resemblance to architectural elevations.<sup>13</sup> Hence, the potential for linking these structures across disciplines is obvious.

The idea that technologies are prostheses, expanding existing organs and fulfilling desires "... continues to legitimise vast swathes of technical development."<sup>14</sup> This idea was also presented by Ben Shneiderman<sup>15</sup> and William Mitchell (*The Cyborg Self*).<sup>16</sup> Marshall McLuhan might well provide us with a way of conceiving of augmented bodies, networks and distributed or disembodied capillaries, conduits of communications and their communities as extensions of ourselves.<sup>17</sup> However, it is necessary to recognize that these technologies, in turn, mutate and transform the affecting body<sup>18</sup> and that our augmented, extended self might also describe the spaces and architectures we occupy. Contextualised in this way, built structures and architectural spaces form a filter or moderator between our body and senses and the external universe. The sympathetic architecture proposed here serves to clothe us in a permeable, sonically porous, environmentally attuned cladding that mediates, even articulates, the topical acoustic surroundings.

Visionary artists of all kinds, from tribal Americans to Shakers to vernacular [or 'outsider'] artists to the avant-garde, depend on some connection with the spiritual side of 'nature', but specific places play minor roles in vision quests, transcended by the experiences produced there ... [in Land Art] the viewer is affected by the space as by the object, often more so. The artwork is endowed with the emotional power of the space or place.<sup>19</sup>

Beyond creating a permeable interface between the environmental sounds and experience, site-specific sound installation and site-specific sound-capture can re-focus and shape the spiritual connection with nature and the spiritual quality of place. Sound as a dimension of architecture has the potential to mingle natural and fabricated, to build on the site in ways that make the listener/viewer/experiencer more conscious of the interrelationship between structures and context, of the integration of urban and isolation. Harvesting real environmental sounds of

the place composited with synthetically constructed sound worlds is one material methodology for bringing these parts together. As the term ‘ambient’ music might imply, as well as utilizing somewhat peripheral attention, sound can create ‘ambience’, atmosphere, environment – to transform or, as here, to reinforce and illuminate interesting features.

By raising awareness of inherent environmental sounds and layering on top of that designed sounds, the composer or sound designer can bring an additional dimension that affects our conception and perception of place. The *Soft Inversions* installation by the Responsive Environment Studio group, using projected light and sound in the Turbine Hall on Cockatoo Island, demonstrated how eloquently and effectively different sensory and designerly dimensions can synergise to transform our awareness of a space. Thus it is the purpose of sound installation or site-specific sound to convey ‘geography,’ in which the subject and practice can be situated, temporal and constructing a new social space.<sup>20</sup> In the same way that it might be argued that ‘architecture cannot exist without the body’, and ‘how does the body and architecture form a spatial conversation?’ – it might also be asked, ‘can sound resound without a listener?’<sup>21</sup> This is the oscillation between sound and architecture as the object or, sound and architecture as the result of the presence of bodies, the experience. Drawing on Zen thinking: does the physical architecture and sound exist without its being experienced? Responsive sound spaces (discussed in the following section) epitomise and make essential the presence of the person, the body and interaction to elicit contextualised site-specific sound.

### THREE: RESPONSIVE SPACE

Integrating technology in spatial and responsive, reactive design is a new and current phenomena enabled by inexpensive pervasive computing, increasingly ubiquitous wireless networking and other features that allow rapid data collection and responsive display. For example, environmental information about habitat, climate control, lighting, etc. and socio-spatial data concerning the number of people in a space, timing, motion, specific regions of activity, proximity to specific objects, can ethically (anonymously) be collected and used to provide a reflexive informative ambient art-work derived from place-specific and people-specific information flows.

According to William Mitchell, in *Placing Words*, the nature of architecture, its function and the places at which certain activities occur, is being quite radically disturbed or transformed by the ubiquity of modern technologies.<sup>22</sup> This need not be perceived as a destructive element but may equally be utilised to cocoon rooms or ‘wallpaper’ transitional spaces with informative, data-rich visual and auditory representations. Information display is the purpose of the domains

of visualisation and sonification. Often the data display is solely for complex data-driven industry solutions. This chapter advocates the use of architectural, environmental and site-specific data as the platform for artistic, aesthetic ambient visualisation and sonification, not simply to optimise deciphering abstract data, recognising patterns, flocking and eccentricities. Socially, it can trigger discussion, social interaction, to articulate points of convergence and social curiosity, as well as to promote better understanding of dynamic flows of people, information and responses to environmental controls in buildings and space (that can equally occur in distributed or exterior spaces). Computer vision, gesture or motion capture, auditory, visual, proximity, temperature and touch sensors are just a handful of these readily available technologies derived from more insidious practices of surveillance and tracking that can be utilised for socially benevolent and curiosity-provoking engaging responsiveness.



FIGURE 1

*EMERGENT ENERGIES: AN AMBIENT RESPONSIVE VISUALISATION AND SONIFICATION IN A SENSATE ENVIRONMENT, GENERATING AN EVOLUTION TREE THAT GROWS ACCORDING TO ARTIFICIAL LIFE (LINDENMEYER-SYSTEM) RULES, TRIGGERED BY ACTIVITY ON PRESSURE MAT SENSORS.*



FIGURE 2

*SONIC TAI CHI: (SYDNEY POWERHOUSE MUSEUM) INSTALLATION RESPONDING TO DIRECTION AND RAPIDITY OF MOTION CAPTURED USING COMPUTER VISION (CAMERA TRACKING) TO POPULATE THE SCREEN AND SOUND SYNTHESIS WITH VIRTUAL LIFE.*

In our earlier works for exploring socio-spatial interaction in sensate (sensor-enabled information-gathering) space, features of population, traffic, proximity, temperature, position, rapidity of movement were utilised, e.g. in Beilharz, Vande Moere and Scott's *Emergent Energies* installation to provide a responsive, evolutionary (growing using a Lindenmeyer tree system of branching rules) reflection on socio-spatial activity in a place (Figure 1).<sup>23</sup> Jakovich and Beilharz's *Sonic Tai Chi* at the Sydney Powerhouse Museum generated a dynamic microcosmic environment of 'pixel-creatures' that colonized, moved and formed patterns on screen according to rules from Conway's (generative Cellular Automata) Game of Life, triggered by the lateral direction and intensity of motion of visitors to the space (Figure 2). Responsive environments such as these induce active and reactive human behaviour, acute consciousness of space and, applied in an architectural context, could stimulate new ways of thinking of the space, prompting more vigorous exploration of presence and consequence. Further, Jakovich presents kinaesthesia as an innovative modality through which architecture can be explored.<sup>24</sup>

There is no question that current technologies including sensors, wireless computing, non-tactile interaction, gesture-sensing, motion-capture, derived from arts performance and music (hyper-instruments),<sup>25</sup> the movie business (motion capture) and surveillance (tracking, sensing), compel a new application meshed with site-specific responsive architecture (Figure 3). Jon McCormack even suggests that sensors themselves, the receptor devices, might one day undergo Artificial Evolution to reflect their situated artificial environment. "Can an artificial system display creative emergence by constructing a sensor in a manner analogous to evolution? ... this requires plastic artificial systems that can develop their structure on the basis of their interactions with their environmental niche."<sup>26</sup>

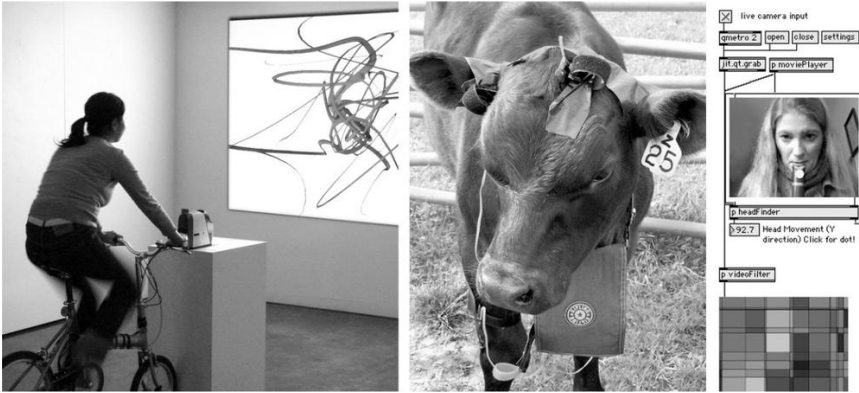


FIGURE 3

*FLUID VELOCITY INSTALLATION (LEFT) AND SENSOR COW SONIFICATION (CENTRE) USING WIRELESS GYROSCOPIC, ROTATIONAL, BINARY AND PRESSURE SENSORS TO CAPTURE MOTION DATA. HYPER-SHAKU SONIFICATION AND VISUALISATION USES SOUND AND COMPUTER VISION TO TRIGGER GENERATIVE RESPONSES.*

This is exactly the paradigm of adaptive interaction.

The described interactivity is equivalent to adaptive and generative architectures that could physically transform according to environmental and social stimuli, akin to the conceptual work proposed by R&Sie(n) architectural group comprising architects/artists/engineers: Francois Roche, Stephanie Lavaux, Jean Navarro, & Benoit Durandin. Their exhibition *I've Heard About* at the Musée d'Art Moderne de la Ville de Paris [2005] extrapolated a process for extruding a city/colony of organic-looking structures, i.e. a generative architectural city. The work proposed using genetic and other algorithmic generative processes (e.g. modified L-systems and stochastic aleatory, Brownian Serpent, etc.) to produce designs fabricated in real time by a self-propelled 3D polymer printers at the ends of morphing tendrils (Figure 4).

If a building is an organism, living and breathing, its sensory perception, intelligence, expression, responsiveness and informative feedback are modes for enabling architecture's humanity and digital aesthetic. Jin Hidaka and Satoru Yamashiro present soft architecture as a paradigm shift. Perhaps the argument here echoes the same idea: not only that spaces are continuous, they are not limited to the fabric of hard architecture. Spaces can share intelligence and personality and spaces can have user-awareness and ears. Spaces expanded in sonic and interactive digital dimensions extend the impact of their embodied experience.

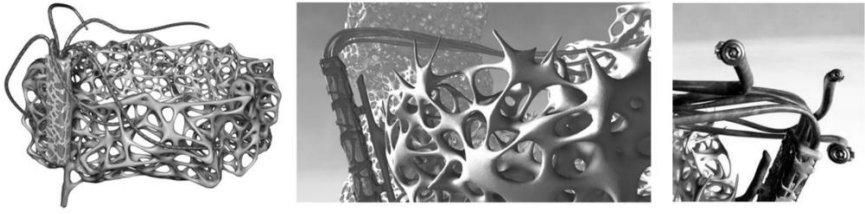


FIGURE 4

*SELF-PROPELLED POLYMER 3D PRINTING FABRICATES GENERATIVE ARCHITECTURAL STRUCTURES IN RESPONSE TO SOCIAL INPUTS.*<sup>27</sup>

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- 2 Cox, C and Warner, D: 2006, *Audio Culture: Readings in Modern Music*, The Continuum International Publishing Group, New York, p. 71.
- 3 Beilharz, K: 2005, Integrating Computational Generative Processes in Acoustic Music Composition, in Edmonds, E., Brown, P. and Burraston, D. (eds) *Generative Arts Practice '05: A Creativity and Cognition Symposium*, University of Technology Sydney, pp. 5-20.
- 4 Xenakis, I: 1971, *Formalized Music: Thought and Mathematics in Composition*, Indiana University Press, Bloomington, pp. 1-11.
- 5 Roads, C: 2001, *Microsound*, MIT Press, Cambridge, Massachusetts.
- 6 Suzuki, A. and Zadkine, O: 2005, *Resonances: Installations pour le Musée Zadkine*, Les Musées de la Ville de Paris.
- 7 This excerpt from Pauline Oliveros' 'Some Sound Observations' unpacks a small instance of observant hearing in Cox, C and Warner, D: 2006, *Audio Culture: Readings in Modern Music*, The Continuum International Publishing Group, New York, pp. 102-106.
- 8 Coontz, R: 1999, The Planet that Hums in *New Scientist*, U.K. 2203: 11, September.
- 9 'Digital music, electronic disturbance' description of glitch by Rob Young, in Young, R: 2002, *Undercurrents: the Hidden Wiring of Modern Music*, Continuum, London. pp. 45-56.
- 10 *Dataplex* and *0 Degrees* are two works on Touch Records CD recording built up from sounds of data packets or grains of data comprising internet



flow.

- 11 Toop, D: 2004, *Haunted Weather: Music, Silence, and Memory*, Serpent's Tail, London, p.14.
- 12 Reynolds, R: 2005, *New Forms of Musical Experience*, Routledge, New York.
- 13 ibid. Reynolds, R: 2005, pp. 97-100. Reproduced sound directional version of Joji Yuasa's *Icon* 'score' produced at NHK Studio, Tokyo and assigned to Ongaku No Tomo Sha Corp. Tokyo, Japan. The 'score' shows frequency range, dynamic levels, time passage, distribution of the sounds among the 5 channels corresponding to 5 loudspeakers spatially separated.
- 14 op cit. Toop, D: 2004.
- 15 Shneiderman, B: 2002, *Leonardo's Laptop*, MIT Press, Cambridge, Massachusetts.
- 16 Mitchell, W J: 2003, *Me++: The Cyborg Self and the Networked City*, MIT Press, Cambridge, Mass. USA.
- 17 op cit. Cox, C and Warner, D: 2006.
- 18 Plant, S: 1998, *Zeroes + Ones*, Fourth Estate, London, posits: "quite beyond their own perceptions and control, our bodies are continually engineered by the processes in which they are engaged".
- 19 LaBelle, B, Vitiello, S and Ehrlich, K: 2003, *Surface Tension: Problematics of Site*, Errant Bodies Press in collaboration with Ground Fault Recordings, Los Angeles, p. 64.
- 20 LaBelle, B: 2004, *Site specific sound*, Errant Bodies/Selektion with Ground Fault Recordings; distributed by DAP, Frankfurt, Germany; and LaBelle, B: 2006, *Background noise: perspectives on sound art*, Continuum International, New York.
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- 22 Mitchell, W J: 2005, *Placing Words: Symbols, Space, and the City*, MIT Press, Cambridge, Massachusetts.
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- 24 Jakovich, J and Beilharz, K: 2005, *A Framework for the Extension of*

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- 25 Beilharz, K and Jakovich, J: 2006, *Hyper-Shaku (Border-crossing): Towards the Multi-modal Gesture-controlled Hyper-Instrument* in *Proceedings of New Interfaces for Musical Expression (NIME)*, IRCAM, Paris, pp.352-357.
  - 26 McCormack, J, Bird, J, Dorin, A et al: 2004, *Impossible Nature: The Art of Jon McCormack*, Australian Centre for the Moving Image, Melbourne, Australia, p.48.
  - 27 R&Sie(n): 2005, 'I've Heard About' Exhibition, the Musee d'Art Moderne de la Ville de Paris. Images from their web site <http://www.new-territories.com/I'veheardabout.htm> that also details the manifesto for their new world order.







## PART II

# SYDNEY + COCKATOO



# INTRODUCTION TO PART II

## *SYDNEY + COCKATOO*

The history, and the magic, of islands have always been bound up in processes of discovery, communication and creation. Over time, engagement with and development of these special places revolves around what we find there, what we bring there, and ultimately, what we make there.<sup>1</sup>

### *ALTOGETHER ELSEWHERE*

Cockatoo is the largest island in Sydney Harbour, and a visual landmark with its distinctive silhouette. It lies at the junction of two rivers, affording magnificent harbour views.

Cockatoo Island contains important evidence of the history and development of Australia, and its convict remains are of great heritage significance. As an island it has invited particular uses due to its isolation and reliance on water access. The courtyard cluster of prison barracks, water towers, workshops and houses sits atop ‘the hill,’ an acropolis-like feature of sheer-sided sandstone carved to make the apron for the workshops below. An enormous complex of industrial workshops, cranes and the powerhouse with its rare electrical equipment furnish the island. These, and other elements, have contributed to the island’s intense industrial character.

The island has been expanded over the years from 12.9 hectares to 17.9 hectares. The sandstone knoll of the acropolis has undergone extensive cutting and filling to create distinct upper and lower levels. Adaptation and change are the stable elements on this island that has been transformed continuously by its maritime industries.<sup>2</sup>

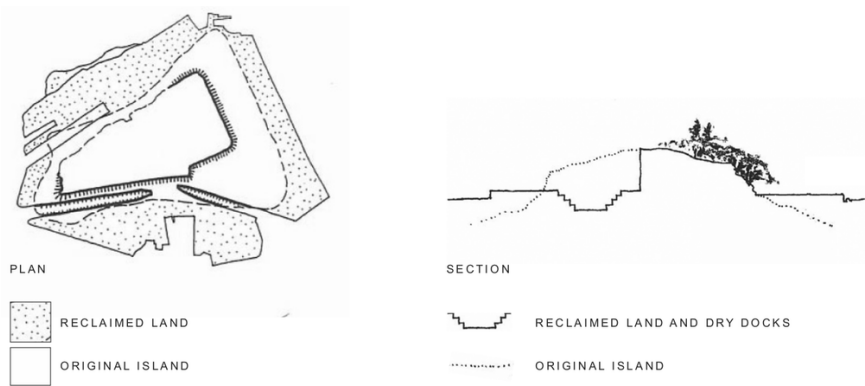


*WARSHIP BUILDING FACILITIES ON COCKATOO ISLAND IN 1944*

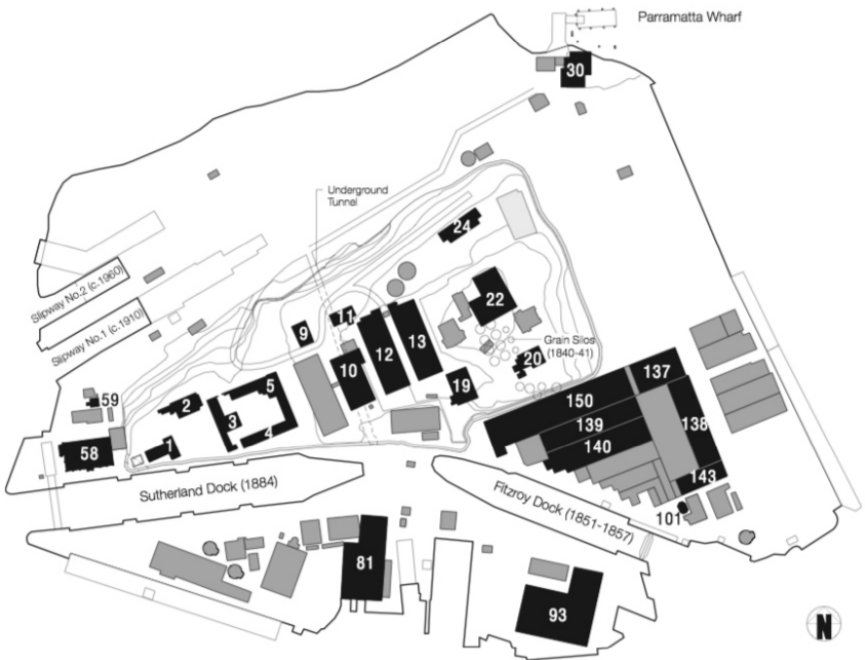


*COCKATOO ISLAND DURING THE FESTIVAL IN 2005*





*EXTENSIVE CUTTING AND FILLING EXPANDED COCKATOO FROM 12.9 TO 17.9 HECTARES*



*A MAP SHOWING THE HISTORICAL FUNCTIONS OF THE BUILDINGS EXISTING TODAY ON COCKATOO ISLAND*

LEGEND:  
1 Military Guardhouse (1842)

## CUTTINGS

- 2 Military Officer's Quarters (c.1845-57)
- 3 Mess Hall (c.1847 - 51)
- 4& 5 Prisoners' Barracks (c.1839 - 42)
- 9& 11 Free Overseer's Quarters (c.1850 - 57)
- 10 Estimating & Drawing Offices (1915 - 1918)
- 12 Pattern Storage/Joiners Shop (1912)
- 13 Pattern Shop/Polishing Shop (1911)
- 19 Timber Store (1916 - 1917)
- 20 Clerk of Petty Sessions Cottage (c.1845 - 50)
- 22 Superintendent's Residence 'Biloela House' (c.1841)
- 24 Federation Duplex for Managerial Staff (c.1913 - 1916)
- 30 Administrative Building 'Brindabella' (1930)
- 58 Powerhouse (1918)
- 59 Powerhouse Chimney & Base (1918)
- 81 Shipwright's Shed (1909)
- 93 Weapons Workshop for O Class Submarines (c.1968 - 71)
- 101 Pay Office (1914)
- 137 Iron & Steel Foundry (c.1856)
- 138 Engineers' & Blacksmiths' Shop (c.1853)
- 139&140 Heavy Machine Shop (c.1896)
- 143 Boilers, Pumping Engines & Offices (c.1845 - 57)
- 150 Turbine Shop (c.1942)

In 2001 the Sydney Harbour Federation Trust was handed management of Cockatoo Island. At this time it was almost 10 years since the island had been used. Since then the Harbour Trust has been decontaminating the island and rehabilitating many of the buildings and structures.



*CRANES USED IN SHIP CONSTRUCTION*



*THE NAVAL ARCHITECTS DRAWING OFFICES*



*AN ACCESS TUNNEL CUT THROUGH THE ISLAND CORE*

In 2005 the highly-acclaimed Cockatoo Island Festival of music and arts was held on the island, attracting over 7,000 visitors a day. One challenge for Cockatoo is not its future program, but its programmatic sustainability. While in the short term it may be able to host temporary cultural inhabitations – bars, music events, art installations, workshops, heritage tours – there remains the challenge to secure long term viability. Urban Islands are fragmented and fundamentally different to other urban typologies; they require new strategies. How can we cultivate diversity? How can heritage and an adopted program co-exist? How do we maintain freedom, yet ensure commercial viability? How do we sustain creativity? Do we plan at all? Or do we just act?



PHOTO: MARC GRIMWADE

*COCKATOO ISLAND HISTORICAL TOURS*



PHOTO: MARC GRIMWADE

*TENTSCAPE: TEMPORARY ACCOMMODATION AT THE COCKATOO ISLAND FESTIVAL 2005*



*GOMEZ PLAY TO THREE THOUSAND FANS IN THE TURBINE HALL COCKATOO ISLAND FESTIVAL 2005*



*FRIENDS CLUB COCKATOO ISLAND FESTIVAL 2005*

- 1 Altogether Elsewhere proposal for Cockatoo Island, [www.altogetherelsewhere.org](http://www.altogetherelsewhere.org)
- 2 This text has been compiled from the Sydney Harbour Federation Trust website, [www.harbourtrust.gov.au](http://www.harbourtrust.gov.au), where more detailed information can be found. Of particular interest are two publications available there: ‘Sites Unseen’ and ‘Reflections on a Maritime City’, which evocatively portray the

sculptural and scenic quality of the lands surrounding Sydney Harbour. Sketches are taken from Note: Sketches from 'Reflections on a Maritime City' p18,20. Reproduced with kind permission of the Sydney Harbour Federation Trust.



*ROYAL AUSTRALIAN NAVY DESTROYER HMAS TORRENS LAUNCHED BY LADY HELEN MUNRO FERGUSON, COCKATOO ISLAND, 28 AUGUST 1915*



## A COLLAGE OF YEARNINGS

*TOM HENEGHAN*

Cockatoo Island splices together ‘place’ and ‘space’ (the specific and the general), intimate and panoramic scales; the ‘force of action’ and the ‘repose of the sublime’; and (of course), ‘man’ and ‘nature.’ All of which inform the polar twins of memory and anticipation.

The lawns and the tennis court of the veranda-ed Overseer’s villa speak of a remembered distant Motherland, and of an affinity with that mother’s other far-flung colonial outposts – which could be reached, and defended from enemies, only by ships of the type pieced together in the vast industrial sheds overseen (but not overlooked) from this idyllic bungalow. This juxtaposition of these very different structures - the quaint villa and the immense Heavy-Workshops – is an eloquent expression of the simultaneity of the overwhelming, world-spanning sea-power of Britannia, and the romantic nostalgia of her imaginary, carefree, long afternoons of summer.

Opposition to Britannia’s expansion, in the case of this distant southern place, included not only the native people, but also the native land. The new townships of Australia were slashed into the harsh landscape – the natural vigour of which required savage subjugation. The lessons of the voyage to Australia – cutting through the worst seas of the world as they rounded Cape Horn – were applied to this equally turbulent inland. It was cut. Sliced. Carved.

Cockatoo Island was cut for the making of ‘cutters’ – the warships of the Empire. Cut, again and again, to make docks, and graving-docks, and dry-docks, and space for fabrication sheds, the island has been consistently treated as a ‘raw material’ to be re-composed at will. Throughout its post-settlement history it has been in a state of transition, bearing traces of all its pasts but having no specifically envisaged future or terminal ‘state of being.’ It has been permanently in ‘a state of becoming.’

In such a ‘genius loci,’ the only possible architectural response is that of indeterminacy – an architecture which, through its incompleteness, joins with the island in its yearning for ‘closure.’

However, almost by definition, architecture resists indeterminacy. The Clas-

sical languages of form and proportion on which both traditional and modern architecture have been based and have derived their meaning, have required adherence to rules, or codes. Even Mannerism, in both its historic and contemporary versions, has involved the breaking and/or distortion of codes, or their incompleteness – in which the codes are given emphasised importance by the fact of their absence. This void of this calculated incompleteness, in effect, ‘completed’ the composition.

Nor is there actual indeterminacy in that which might be considered the inverse of the formal concepts of architecture – the computer-generated ‘blob’ architecture of Greg Lynn,<sup>1</sup> Kas Oosterhuis<sup>2</sup> and others, which is generated from equally subjective and very specific algorithms (i.e. codes) which, essentially, differ from the codes of traditional classical architecture only in their results.

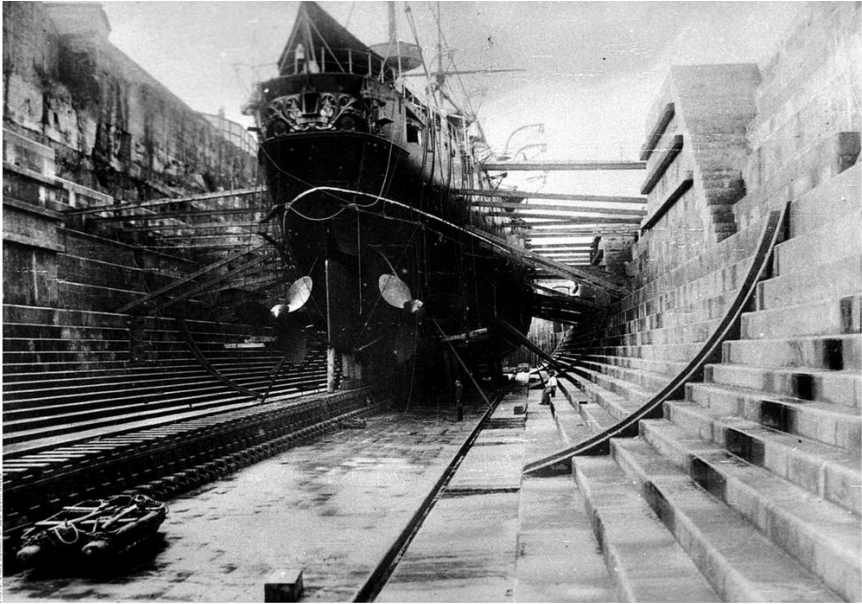
Interestingly, the form and fabrication of the ship hulls, seen in old photographs of the shipyards at Cockatoo Island, follow another determined language of code where “... the abstract space of design is imbued with the properties of flow, turbulence, viscosity and drag.”<sup>3</sup> The hull curvatures were determined in response to the natural forces of the hydraulics with which the ships were obliged to contend. These ship-shapes resulted from the then current understanding of natural forces - forces beyond human will, beyond process, beyond aesthetic judgements and all notions of physical beauty. These forms were the products of the non-negotiable laws of nature, and - unlike those of blob architecture - were determined by human analysis but not by human intervention. Inherent in all design interventions is an at least partially envisaged state of completeness. These hulls, however, find completeness only in the partner for which they yearn and whose forces have given them their form – the sea. But, this relationship has ambiguity – do the hulls carve their form and volume into the surface of the sea, or do the forces of the sea – at least conceptually - carve the hull’s shape out of a generic block-form primitive?

One finds a similar sense of reciprocity when considering the present land-form of the island – which differs in all respects from its pre-settlement ‘whole.’ There is a reciprocity between the cutter and that which is cut. While the Sydney sandstone is of extreme softness, allowing the creation of vast geometrical incisions - such as the Cahill Expressway loop at Observatory Hill, which have the incomprehensible, almost metaphysical wonder of corn-circles – there is the question of whether the exploitation of the malleable characteristics of the rock is the acknowledgement and emphasis of its natural character, or the destruction of it. The cutting of the rock brings encounters with differing strengths and folds of rock strata, which require diversions and which make the planned locations and forms of all workings provisional. All the man-made cuts, in a sense, are the products of negotiations with the island’s physicality.

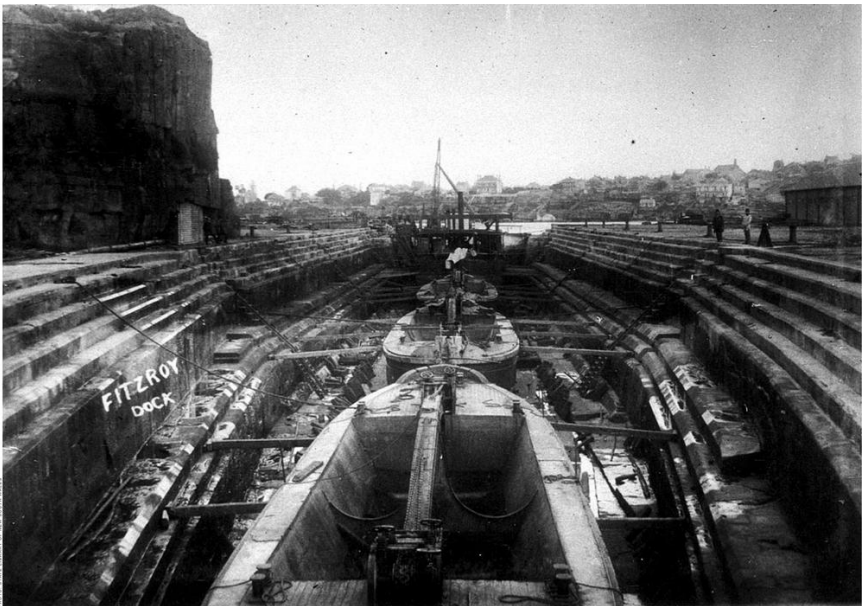
The future of the island must continue to result from negotiations with its physicality and with the many physical and programmatic evolutions of its past.

As Crown land, and as a piece of working terrain valued only for its ease of use and for its isolation – not for its beauty or for the romance of its location – the island has always been, of necessity, subservient – and therefore immediately responsive – to changing needs, without regard for questions of design. The island has been, inadvertently, a graphic demonstration of *Non-Plan* – the superficially absurdist, but strictly serious theory of urbanism proposed in England in 1969 by the architect Cedric Price, the planner Peter Hall, the critic Rayner Banham and Paul Barker, editor of *New Society*, the journal in which *Non-Plan* was proposed, under the title *An Experiment in Freedom*.<sup>4</sup>

The argument of Non-Plan was that the segregation of civic, work, residential and entertainment districts which was – and essentially remains – fundamental to urban planning theory, resulted in a stultifying blandness of urban experience and the destruction of any sense of ‘civis,’ and the communal estate. The 1933 *Athens Charter* of the *Congres Internationaux d’Architecture Moderne* (CIAM), influenced by Le Corbusier’s *Ville Radieuse* project of the same year, committed CIAM to rigid functional cities, with citizens housed in high, widely-spaced apartment blocks, with green belts separating each zone of the city. It was a powerful vision, immensely influential on post-war urban planning. Against this, Price, *et al*, argued for the removal of all planning controls. As demonstrations, they conducted a ‘Non-Plan Test’ in which each took a section of the British countryside and re-visioned it blanketed with a low-density sprawl driven by automobility, with results that were clearly in no way worse than what had happened in equivalent districts developed under the usual planning controls. Non-Plan could, unsettlingly, be read, ambiguously, as anarchism or hard *laissez-faire* capitalism, but the lessons were profound, and led subsequently to the enterprise zones that were adopted at the London Docklands, and which led to the almost unimaginably rapid transformation of these abandoned areas.



*HMAS ORLANDO IN SUTHERLAND DOCK, COCKATOO ISLAND, C.1870*



*FITZROY DOCK, COCKATOO ISLAND, C.1888*

As a check to all things ‘planned’ or ‘structured’ or ‘logical’ and ‘commercially viable’ in the contemporary city, Cockatoo Island offers the potential for continued indeterminacy and variable response. Given the immense differences of terrain that exist cheek-by-jowl in such a small plot of land, the new architecture of the island can never be complete, uniform or coherent. It can only ever be contingent, and essentially provisional. Consequently, the island offers the unique possibility of a permanently-transitional urban prototype.

“The fundamental characteristics of Futurist Architecture will be obsolescence and transience,” wrote Filippo Tommaso Marinetti in 1914 in the *Manifesto of Futurist Architecture*, “Each generation will have to build its own city.”<sup>5</sup> This was a notion extended *in extremis* by Yona Friedman in his 1957 proposition for a *Program of Mobile Urbanism* in which all institutions founded on eternal norms would be subject to periodic renewal – including marriage, every five years, and property rights every ten years. “The concepts determining life in society are in perpetual transformation,” wrote Friedman, and consequently:

... the following are required: techniques which permit construction of temporary urban clusters conceived in terms of their periodic regrouping, according to necessity... techniques which permit movement of networks of water and energy supply, sewers and circulation routes... (and) these techniques must lead to utilisation of cheaper elements, simple to assemble and to demount, easy to transport, and ready to be reutilised.<sup>6</sup>

The *Inter-Action Centre*, in central London, built by Cedric Price in 1971 as an example, in miniature, of Non-Plan, examined the same idea as Friedman, being constructed as a system of structures, services and enclosures which could be endlessly re-arranged to provide for whatever functions and ways of use were wished by the local community. It had neither prescribed use nor meaning. And, in the 1990s, when attempts were made to place the Inter-Action Centre on the Heritage Register, for permanent preservation, the original idea was denounced by Price, himself, who argued that a building which is intended to be responsive to changing ways of use must accept its own demolition when it can no longer provide for the patterns of use of a changed society. Similarly conceived were the works of Price’s contemporaries and occasional colleagues, the Archigram group, who speculated in their *Instant City* project of 1970 on a prosaic, generic ‘Anytown,’ above which, one day, arrives an airship from which drops down ‘infonets,’ tent-roofs, seating and projection screens to transform the small municipality – instantly and temporarily – into a media-mediated virtual urban environment of the type which now, 40 years later, seems such a current conversation. In their international-competition-winning, un-constructed *Features Monte Carlo* project of 1969, Archigram conceived a vast underground chamber which, along with the open spaces above and around it, was to be ‘seeded’ with

almost limitless possibilities by the provision of transformative mobile mechanisms and services – again, echoes of Friedman – the possibilities and purpose being limited only by the wit of the ‘imagineer.’ There were no rules, other than that there must be a state of constant change.

Such an embrace of the provisional is a challenge to the ‘order’ which is embodied in our notion of civilisation, and our ‘civilising’ of a place by our overcoming of its natural disorder – rendering it ordered, and therefore beautiful. A counter-argument is found in Jean-Francois Lyotard’s interpretation of the ideas of the eighteenth-century philosopher Immanuel Kant, where it is argued that it is impossible for man to create beauty by his/her actions. Kant proposed that we can only consider truly, and purely aesthetic an artefact which may have a purposeful structure, but which has no practical purpose whatever.<sup>7</sup> Consequently, since all things man-made, including art-works, have in them non-aesthetic practical aspirations, or embody ideas, or conventional or anti-conventional stylistic decisions, which are unrelated to aesthetics, only the beauty of nature – which has no additional agenda – can be considered aesthetic. As Remko Scha has written:

In the course of the twentieth century, the challenge (of Kant’s theory) has been taken up by many artists. Several artistic traditions have developed art-generating processes of some sort – processes which are initiated by an artist who does not try to control the final result that will emerge. Indifferently chosen readymades, chance art, *écriture automatique*, physical experiments, mathematical algorithms, biological processes... artists imitating the blind mechanism of natural processes.<sup>8</sup>

As Sol LeWitt wrote, “The artist’s will is secondary to the process he initiates from idea to completion...the process is mechanical and should not be tampered with. It should run its course.”<sup>9</sup> In other words, it is in the provisional and unreservedly responsive systematic incompleteness of the Inter-Action Centre, and of the island, that pure aesthetics – beauty – can be found.

The implications of change to a former, now-disused, industrial complex such as that of Cockatoo Island, and its potential relevance to the contemporary society, have been outlined by Peter Buchanan, who argues that the rush in every city to construct new cultural facilities such as the Tate Modern is part of the transition to the post-industrial city, and that this “... is inescapably obvious because so many are converted industrial premises, factories, power stations that are now museums and concert halls, or the headquarters of media corporations (producing intangible content rather than physical product.)”<sup>10</sup> As factories were vacated because of the move of manufacturing to lower cost workforces in the developing world, ‘First World’ cities converted these factories to house services, the ‘creative industries’ and culture. Buchanan argues:

With globalisation First-World cities must compete for investment, skills and tourists by offering a high quality of life, including lavish cultural provision... Now globalisation is entering a new phase. Following manufacturing's move to the developing world, an exodus is beginning of computer-aided mental work – software development, accounts and administration, call centres, even legal matters and medical diagnosis – all of them linear sequential (left-brained) skills. So, in the First World, the industrial and then the first post-industrial age – the information age – are already being followed by what has been called the Conceptual Age.<sup>11</sup> This prioritises quintessentially human skills that the machine or computer cannot replicate, those involving such things as creativity, pattern recognition, meaning making, aesthetic discrimination, emotional responses and empathy, all part of and honed by what we commonly think of as culture.<sup>12</sup>

The current city of *doing*, Buchanan argues, "... is one of discrete and discontinuous functions dispersed in different locations (home, workplace, sports field) requiring different modes of behaviour (parent, employee, athlete or fan) dispersed in a spatial and experiential void."<sup>13</sup> The city of the Athens Charter, he argues, "... with its zones of monofunctional buildings, free-standing in a void of fluid space and connected only by vehicular roads,"<sup>14</sup> was "... a machine for avoiding the chance encounters, complexities and contradictions that lead to self knowledge and psychological maturation."<sup>15</sup> In the emerging city of *being*, however, "... there is an emerging concern with the subjective, experiential and meaning-seeking dimensions of being that were downplayed by modern planning and its utilitarian architecture. In short (there is an emerging concern with) making cities better places in which to be and become."<sup>16</sup>

As a place that has been permanently 'in a state of becoming,' the Island anticipates the city that Buchanan foresees. The island has never been zoned, and is an example of myriad contrasting functional and spatial characteristics, histories and architectural types – that which is burrowed and that which is assembled – which Gottfried Semper describes, respectively, as stereotomic and tectonic space<sup>17</sup> – the two fundamental material methods of creating space in architecture.<sup>18</sup> In contrast to such as the Museo Guggenheim Bilbao – an architecture which seeks to suggest the casualness of naturally-occurring organisms or mineral outcrops, the sandstone of Cockatoo Island has been carved into explicitly man-made forms, and no clear lines have been drawn between that which is artificial (man-made) and that which is naturally-formed, or between that which is permanent and that which is temporary. It is a hybrid. Appropriate as a test-bed for a future which Buchanan, above, suggests will be essentially hybrid. It is a 'terrain vague' – a place whose purpose is ambiguous or undefined, described by Kate Fielding as:

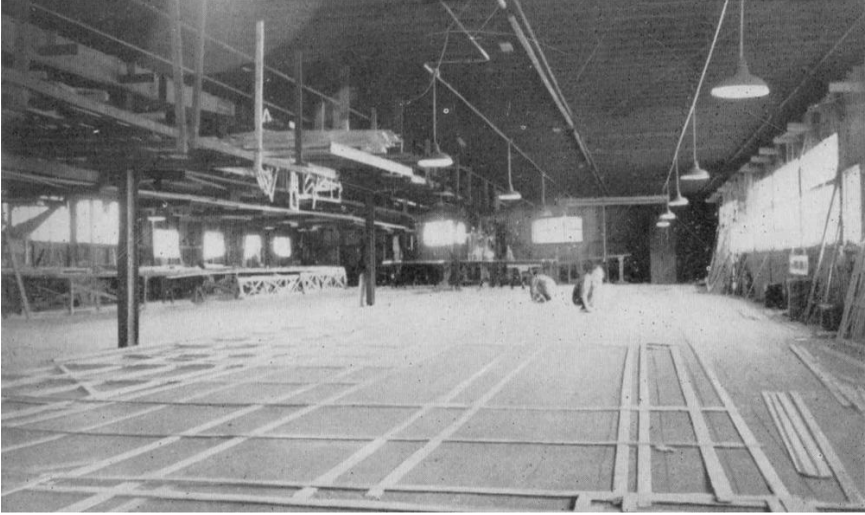
... forgotten, waiting, off-limits, these sites mark the 'wildness' within an urban setting, which spasms with new construction and development. Such sites are wild not because they are 'untouched', but because they fall outside the definition of metropolis as productive, industrial and expanding. They are important for their potential — not in the property-development sense — but as available space for the possible dreams and activities of people who would never get (or necessarily want) the chance to own and develop space in a conventional way... Most advocates of the terrain vague, academic and otherwise, point to the crucial function of these wild places as spaces for the imagination, for roaming, for exploration.<sup>19</sup>

Cockatoo Island is simultaneously a place of memory and anticipation, issuing a provocation to the metropolis that surrounds it – challenging its stability, its ambitions, its values and relevance.

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- 4 Barker, P (ed), Price, C, Hall, P and Banham, R: 1969, *Non-Plan – An Experiment in Freedom*, New Society, 20 March 1969. See also: Barker, P, 1999: *Non-Plan Revisited : Or the Real Way Cities Grow*, *Journal of Design History*, 12(2) Summer 1999). And in: Hughes, J and Sadler, S: 2000, *Non-Plan : Essays on Freedom, Participation and Change in Modern Architecture and Urbanism*, Architectural Press, Oxford.
- 5 Marinetti, FT: 1914, *Manifesto of Futurist Architecture*. Quoted in Ockman, J (ed):1993, *Architecture Culture 1943-1968*, Rizzoli, New York.
- 6 Friedman, Y: 1993, Quoted in Ockman, J (ed), *Architecture Culture 1943-1968*, Rizzoli, New York, pp. 274.
- 7 Jean-François Lyotard, JF: 1989, *Die Erhabenheit ist das Unkonsumierbare. Ein Gespräch mit Christine Pries am 6.5.1988.*, *Kunstforum International*, 100 (April/May), pp. 355-356.
- 8 Scha, R: 1992, *Towards an Architecture of Chance*. On-line: <http://iaaa.nl/rs/wiederhaE.html> (accessed 4/12/2006)
- 9 Sol LeWitt, S: 1969, *Sentences on Conceptual Art*, *Art-Language*, 1(1) (May 1969). Reprinted in: Meyer, U (ed): 1972, *Conceptual Art*, Dutton, New York, pp. 174-175.
- 10 Buchanan, P: 2006, *From Doing to Being*, *Architectural Review*, 220



- (1316), pp. 44.
- 11 Pink, DH: 2005, *A Whole New Mind: how to thrive in the new conceptual age*, Cyan Books, London. Referenced by Buchanan.
  - 12 Buchanan, P: 2006, *From Doing to Being*, *Architectural Review*, 220 (1316), pp. 44.
  - 13 Ibid. pp. 45.
  - 14 Ibid. pp. 44.
  - 15 Ibid. pp. 45.
  - 16 Ibid. pp. 45.
  - 17 Fielding, K: 2003, *Spinach*, 7(1), <http://www.spinach7.com/magissue01/story-exploring-the-terrain-vague.html> (accessed 4/12/2006).
  - 18 van de Ven, C: 1978, *Space in Architecture*, Van Gorcum Assen, Amsterdam, pp.5.
  - 19 Fielding, K: 2003, *Spinach*, 7(1), <http://www.spinach7.com/magissue01/story-exploring-the-terrain-vague.html> (accessed 4/12/2006).



*IMAGE OF THE MOULD LOFT IN OPERATION FROM SYDNEY HARBOUR FEDERATION TRUST LIBRARY ARCHIVES*

## 08

# THE MOULD LOFT

OLIVIA HYDE

PHOTOGRAPHS BY SAMANTHA HANNA

### Loft

*noun.* From Old Norse ‘loft’ air, sky, upper room.

*verb.* Gently hit, throw, kick or otherwise send (a ball etc) high up... ; the activity of a loftsmen, a loftsmen’s work.

### Loftsmen

*noun.* A person who reproduces a draughtsman’s specifications for a ship or aircraft in full size on the floor of a mould loft.

### Mould (mold)

*noun.* From Latin ‘modulus.’ A pattern by which something is shaped.

*Fig:* that which gives an essential shape or form to something.

*verb.* To produce (an object) in a particular form...<sup>1</sup>

The words ‘mould’ and ‘loft’ share the characteristic, common in English, of existing as both noun and verb. Between them and their associated words (lofting, moulded, etc) they run over a column each in the Shorter Oxford English Dictionary (OED). I can loft in a loft and mould a mould in many ways and with many distinct outcomes. In the case of mould - putting to one side its dusty green second meaning - its noun refers to a pattern, a template, a hollow form, a vessel. To mould is to engage in the activity not of creating the mould itself, but of creating the object the mould would represent – the cast. The two words hold a looping and slightly slippery relationship – one casts a mould, yet can remove from the mould – a cast. In fact until recently (the OED suggests that this usage is now rare or obsolete) to mould could mean “to take a cast of.”

A loft is a place close to the sky, above us, its sense strongly attached to the other words derived from the same root; aloft, lift, lofty. Lofts are airy places full of light, their program unfixed, vague and spare. To loft can mean to build oneself a loft, but it has the dual meaning of sending something upwards into the air – a ball typically. Inherent in a ‘loft’ - as opposed to a ‘throw’ or a ‘hit,’ is a sense of graceful trajectory, of a path inscribed fleetingly yet with geometric precision

up and across space. A ‘lofter’ is a number eight iron in golf – used for lofting the ball. It sends our eyes upwards in admiration; it is six runs, a birdie, or lost altogether.

In the late sixteenth century, with the European nations engaged in the grand project of navigating the oceans of the world in search of wealth, ‘mould’ begins to develop a specific definition applicable to shipbuilding. Originally this is one of “giving a particular form or structure to a vessel” but as the science of mathematics and geometry develops mould adds to its more traditional haptic applications (mixing ingredients, shaping loaves of bread, planing wood) a more representational role. In shipbuilding it becomes over time the provision of “a particular pattern (for timbers etc) using moulds”; a system by which an object not yet made (known) can be measured and understood. Running in parallel with the three dimensional understanding of the planet and its means of representation on a two dimensional surface, comes the inverse application; the means to imagine and represent a complex three dimensional object in two dimensions. As the movement of the planets and the spherical world begin to unfold before us in the elegant early cartographic experiments of Gerard Mercator and the like, so does the ship expand, growing to meet its new and more distant horizons. It exceeds the scale of craft emerging instead into a new world of projection.

By the time the Endeavour departs Plymouth to observe the passage of Venus, our two words, loft and mould, have met. The distinct shipbuilding meaning of mould “any of various thin flexible pieces of wood used for making a pattern of the frames used in constructing a ships hull” encounters its preferred surface of inscription in a new shipbuilding definition for loft “a large room or gallery where something can be spread out for working on.” Thus the place becomes synonymous with the means. The path through the sky is captured, flipped and inscribed. The inscriptions cut and fixed, and the vessel launched. Here in the brief brisk breeze of the golden age of sail, the mould loft is born; streamlined, ship-shaped, to water via air.

•

The traditional art of lofting in ship building (and subsequently aeronautics) consists in the translation of each rib of the hull of a ship, and plate in the case of steel ships, into lines on the floor of a mould loft. The lines are derived from models and scale drawings and are first laid out by scribing into the timber boards of the floor using a series of points and radiating projection and calibration lines. The complex geometry of a ship structure and the compound angles formed by the joints mean that accuracy is critical. Once set the lines are annotated and marked off in paint. Wood or sheet metal templates are made of each segment and these taken to the wood or plate shops where the actual members of the ship are cut. As the floor of a mould loft cannot be replaced with each new project, it becomes

over time a record of the manufacturing history of the shipyard, each ship being recorded in full scale one over the other on the floor of the loft. This process became redundant in the 1980s with the advent of Computer Aided Lofting (CAL).

The following images were taken of the mould loft at Cockatoo Island in November of 2006. It is a light and airy room on the island's plateau that echoes with our footfall and the shrieks of seagulls. Giant elliptical lines crisscross the floor in white, red and pale blue painted dashes with neat inscrutable annotations. Only as the sun begins to lower and the shadows lengthen does the maze-like network of pinpricked points and finely inscribed geometrical construction lines emerge; arcs, chords, radii...our eyes adjust and they fill the floor, a vast and distant constellation, revealed by the darkening night sky.

### *Notes:*

1. All definitions from the Shorter Oxford English Dictionary, 1993.

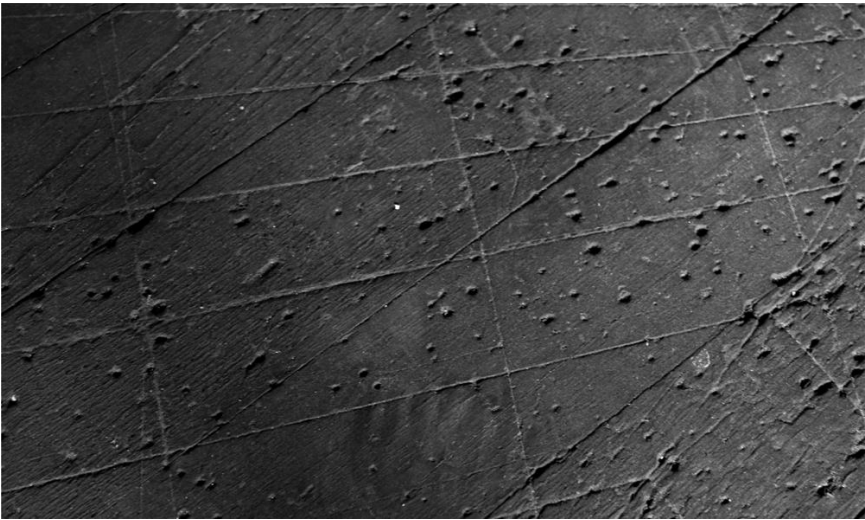
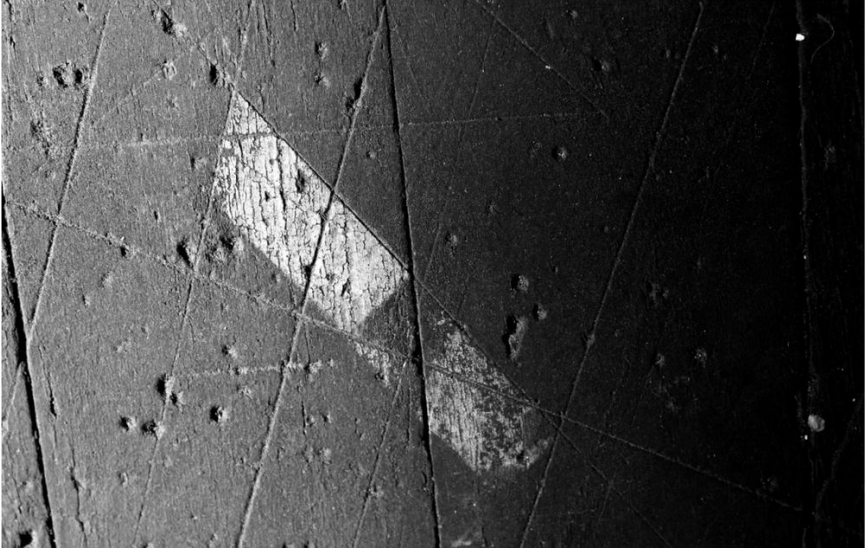
The mould loft floor at Cockatoo Island is due to be stereometrically photographed by the Sydney Harbour Federation Trust in 2007.











## 09

# Systems of Change, Reality and Revelation

Program matters more than we expect!

*Henri Praeger*

Sydney presents itself as a vital place offering one thing in particular, alongside the monuments (opera, harbour bridge and museums) - a heightening of senses. As a city with a lively nightlife, various creative scenes and multi-cultural environment, it holds all the tickets admired in cities like New York or London. Sydney as a tourist destination does not just present images; it offers locations, specific urban milieus, and atmospheres representing the nodes within a network of metropolitan conditions.

These atmospheres are hardly readable in an image; they are experienced rather than read. Atmospheres do not succumb to classification, like typologies, functions or characters. They are much more embedded in the urban context and in subtle transformations. Atmospheres appear and fade away as a result of both organised circumstances and things we cannot control. That is their quality.

Atmospheres are strong and sensible, changeable and massive, specific and mobile, impressive - but also transitory. The design of atmospheres could extend the definition of 'program' in architecture.



Architectural program should exploit a place to develop concepts that form extraordinary atmospheres. It can be more than just a functional device.

Modernism used the independent terms ‘form’ and ‘function’. The facts of function often became a primary issue for the production of form. It’s time expand the definition to include the informal and alternate sources for architecture.

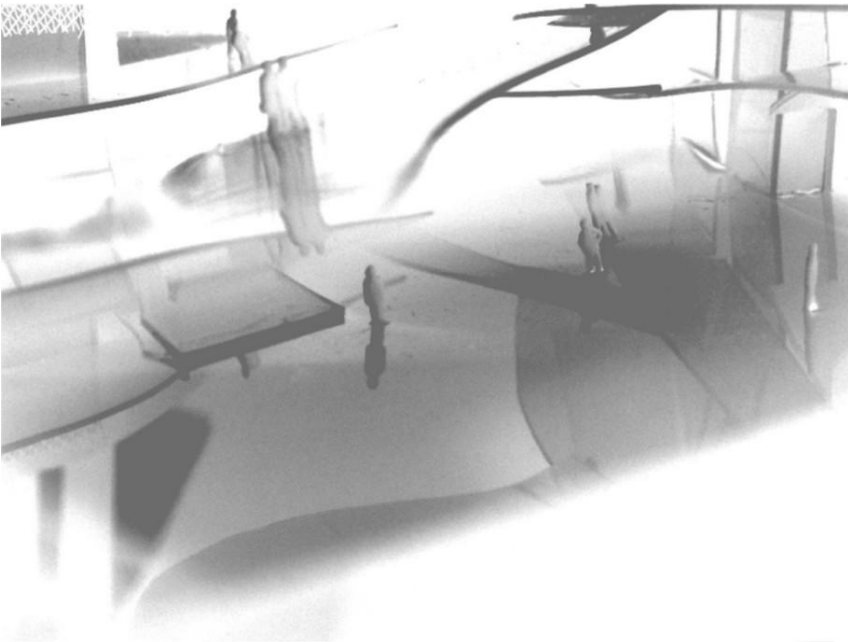
Just as narratives or diagrams are clever manipulations of interpreting an existing environment, architectural program has already consistently extended beyond its historic understanding. Away from the form/ function device, program offers a combination of styles and new collective associations in architecture. As a local fragment of a social pattern, program constitutes the matter of architectural form because it alternates between an evocation of arrangements and a transition between contexts.

As the future increasingly becomes alien and new to us, the more we seek continuity and history to take with us. Today’s world heightens both the tempo of innovation and the need to cultivate slowness. On the one hand, more is forgotten and thrown away than ever before, but on the other hand, more is remembered and stored more respectfully than in the past. Globalisation and universalisation

are compensated by regionalisation, localisation and individualisation.

Conversion and conservation should not be understood as just oppositional strategies, but as matching approaches in a rapidly changing global society. This seems to me essential if heritage is to be understood as authentic territory, authentic to our identity. Individualisation, privatisation and ‘auratisation,’<sup>1</sup> now shape our relation with the built heritage. More and more frequently the value of a heritage building derives not from its former function or social significance but from its possibilities for individual auratisation and socio-cultural recording. Any kind of heritage can acquire significance today if it is no longer interrogated about its value as a historical artefact, but is used above all as a symbolically charged projection screen for itself or for a specific group.

The fact is that, liberated from the burden of historical knowledge and its fixed codes every heritage today can be interpreted and transformed by anyone as raw material that is available and changeable at will. History has become a very soft location factor, freely open to interpretation. This factor can be highly significant economically on the level of attracting tourists.



#### *ARCHITECTURE OF PLEASURE*

Cockatoo Island is overloaded with this kind of raw material waiting for interpretation. Once a prison, a reform school and shipyard, the island could be

apparently a miniature city that deals with atmospheres, motion and ambient spaces. There could be a breath of a unique urbanism predicated on a future that includes tourist interests. Cockatoo Island could be animated and networked by a strategic system of change, reality and revelation.



- 1 To create an aura is a process of detecting the particular uniqueness within the context of a place or history. In German this is called 'auratisation'. It is based on the aesthetic theories of Adorno and Walter Benjamin.

# 10

## DAEDALUS

### A FABLE FOR COCKATOO

[ 19 rituals of resistance + re-inhabitation ]

THOMAS A. RIVARD

*There's a crack in everything, that's how the light gets in.* L. Cohen<sup>1</sup>

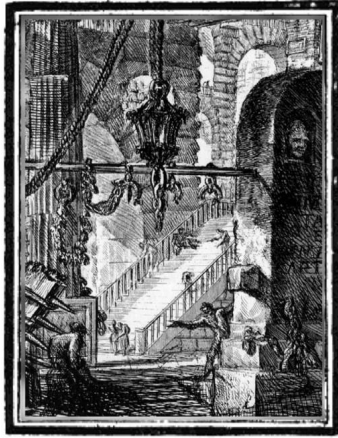
#### Excursus

**Ex11.** Tuesday night, 1008BC - As the Cretan barge glides up the Sutherland Dock, the nightclub nymphs passing around champagne all stop and point to the cliff top where, amidst torches, a crescent moon and the haze of the milky way, the lonely silhouette of the Minotaur strides, lowing plaintively in a misery he cannot explain.<sup>2</sup> Though his horns are gilded, he does not understand the meaning of guilt. His father was FAME itself.

Understand that cities and their precincts, as well as their people, achieve vitality not simply from the nature of what is built, but also from events that occur. Pay attention: in this production, there are only good seats, and the best one is yours. NB. From this point, feel free to jump ahead, and then double back. Pick a card, any card.<sup>3</sup>

**Ex13.** Dusk. An electric cello scratches through the dust in the air, as the Spandex-clad neo-Cretans wander through the ruined hall, inspecting this season's wares. Like so many Mediterranean salamis, the 14 (and 3000 years before Title 9, equitably 7 of each sex) virgins swing languidly from the rafters, shrouded in cheesecloth. Distracted by the music and the cache of wine discovered behind a turbine, the audience drifts away, knowing that the best bits are always reserved for the Beast, stabbed with steely knives or no.<sup>4</sup> Like Walter Benjamin's journeys through allegory, this approach cannot be categorized or quantified; the best that we can do is "plot an itinerary through this text, and by so doing, map it (misread it)." <sup>5</sup>

## Dialectics



**D1.** A precedent. Out in the shifting (and shifty, sez our gov's de-rigueur neocon sensibilities) hot sands of Dubai, Sheikh Mohammed bin Rashid Al-Maktoum (Sheikh Mo' to his fans – his rap album is coming soon) is rapaciously fabricating his very own 7 star version of tomorrow's paradise, a Minotaur-like bastard offspring of Las Vegas and Paris (Hilton, not France, though sans slacks-wearing middle American pensioners, but replaced by moneyed + honeyed Eurotrash pensioners), out of oil profits, sand and slave labour. A tidy town megalopolis, and every Planning Minister's dream, it will have shiny and monstrous towers, scintillating cultural attractions such as an audio-animatronic Jurassic Park™, the world's largest indoor ski slope and a new Guggenheim™ designed by Jean-Paul Gaultier™ in the form of a gigantic gold-plated burkha. Naturally, there will be shopping galore, pricey real estate to be snapped up (Rod Stewart™ has bought "Scotland," one of the islands in the World™ development) and all manner of licit (none beyond, mind you – beyond rap, She Mo' has his rep to retain in the region, you see) delights to sate the jaded global urbanite who has, he says, as he sips his 2 litre Sea-sponge Martini™ while being gloriously massaged by a Filipino boy chained (humanely, mind) to his deck chair, "seen it all."<sup>6</sup>



**Ex2.** Friday night, in a western town in a dead end world. Outside a former convict workshop in a parking lot strung with 10,000 meters of silver twine, illuminated by 1000 twinkling lights, and hung with 100's of champagne flutes, Bacchus, 4 feet tall and resplendent in silver lame, whispers through the crowd, his chromed Richard Nixon mask concealing his lovelorn grief. Cutting glasses from the web, he holds them out as faceless black-clad servants dispense first a clear liquid, then a pinch of white powder then, as the contents effervesce to the top of the glass, a blue liquid that extinguishes the effervescence. Only the owners of Bacchus' Bar could have managed to get 24 cases of real Absinthe past customs and on to the Island.

## Coparceny

**C1.** Our guide for the first part of the journey is Giambattista Piranesi, in his guise as mapmaker, the creator of the magnificent and (deliberately) incomprehensible *Campo Marzio Iconographia*, a series of plates purporting to depict a plan of ancient Rome. The maps, though, bear little resemblance to Rome, instead being a collage of the real, the imagined, the prospective and the impossible.<sup>7</sup> Along with a homemade metal detector (based on a design by Walter Benjamin), he carries with him a heavily annotated volume by Jorge Luis Borges, so well thumbed that its title is illegible.<sup>8</sup>

Only by making room for the impossible (via the imaginary) can we ever progress. Catering simply for the possible, the likely, only whatever real estate agents<sup>9</sup> can sell, only leads to greater and greater homogeneity as every process of realisation removes detail, elides edges, blurs images. By introducing the impossible, the unimagined, we allow new edges, conflicts, novel and unexplained juxtapositions.



**Ex3.** 1944, midnight. Deep beneath the rock of the island, in a moist and altogether non-sterile cavern, a room that is as much convoluted and cacophonous cabinet of curiosities as it is magician's workshop, Daedalus, alone, works on perfecting his design for a new guidance system around the Island based on his experiences in both the Labyrinth and the sky. Abandoning the strangely analog correspondence of GPS technology, he devises a neonavigational narrative system based on historical correspondence, mood rings, and a randomiser algorithm banned by the CIA. He calls it NAV, or non-linear arrayed video.<sup>10</sup>

## Eduction

**Ed1.** Romeo Castellucci talks of the need to create works (for the theatre, his milieu, but he may just as well be talking about the city) that “represent something that doesn't exist, and cannot be represented.”<sup>11</sup> His work (and ours) does not attempt to **represent** the unknown, only allow us to live with it. At the same time, the impossibility of representation introduces the necessity of the personal experience as the filter through which we read event, place and their confluence. The further specific events are delineated, the less centralised the work becomes; this has the effect of lending a certain interruption, a locational and situational fracture. This disassociation, which eschews contrived resolutions common to network sitcoms and design studios, allows disparate elements to exist – in a framework of openness and ambiguity which is, one hopes, more typical of life than of art.



**Ex4.** Sunday afternoon, autumn. While a schoolgirl choir hymns lamentations for River Phoenix, 10,000 waxy feathers drift down onto the lawn behind the mess hall as a single word is scrawled across the sky, disappearing even before it can

be completed: PRIDE.



Those empirical gaps, while preventing one from ever grasping the complete scope of the project, might instead serve to allow a more important conjecture to take place: a re-writing where the viewer projects themselves, their own ideas, or their own expressions.

**Ex19.** Perched on the edge of water and land, the House is a machine for harvesting wind, sun, rain and dreams. The architect (it's only resident, ever) eats its roof, while the house eats it's own waste. Like a negligent dog owner, Daedalus spends most of his time elsewhere, while his offspring flaps and convulses about its z-axis. Unwittingly, his latest invention is designed to destroy buildings such as this, while leaving people bemusedly and unquestioningly standing – he has licensed it to the Ministry of Planning.

The history, and the magic, of islands have always been bound up in processes of discovery, communication and creation. Over time, engagement with and development of these special places revolves around what we find there, what we bring there, and ultimately, what we make there. This involves 2 acts: reading and writing.

**Ed2.** Italo Calvino believes, as you would suspect, in “writing,” an act which manifests both the fictional and the “real,” both internally (as we read) and externally (as we write). This matter of writing, its constituent glyphs, continuously form and reform, on a shifting surface that changes only when we do, as well as whenever we look away.<sup>12</sup>

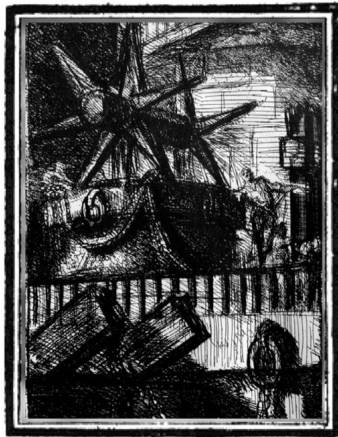
We advocate an architecture of obscurity, mystery and richness. It would seem that those relationships which can still maintain (if not generate) desire (erotic, aquatic, tectonic) are, strangely, unclear relationships. Frankly, Antonio Banderas was a lot more interesting in those Zorro films before he took off his

mask and spoke; and how satisfying was it to see Anakin Skywalker finally put on his Darth mask and save us all from yet more execrable acting? <sup>13</sup>

**Ex12.** Half past Midnight. “In the cavernous space of the turbine hall, amorphous bodies float adrift invisible currents of air. Glowing gently, floating randomly, they beckon to the body to join them, to abandon gravity. Nothing more is planned.” <sup>14</sup> As proprietary as ever, Apollo welcomes his children home, decrying their love of media attention all the while.

To find true perception beyond the purely visual and scenographic, Steven Holl tells us, we need to get over the banal urgency of “things to do.” This involves not necessarily a repudiation of context as content, but rather an equanimitous balancing of external sensibilities with personal intuition, “that inner life which reveals the luminous intensity of the world. An awareness of one’s unique existence in space is essential in developing a consciousness of perception.” <sup>15</sup>

“One velvet morning when I’m straight, I’m gonna open up your gate, and maybe tell you about Phaedra, and how she gave me life, and how she made it end” L. Hazelwood. <sup>16</sup>



**Ex7.** 6 months into the future, every street corner. Even though you know that every tiny bronze card set into the pavement cannot possibly indicate a real security camera, the logo of Poseidon Security, the post war Kellogg-Root spin-off hired to “securitise” the city, suggests otherwise: “We’ll be watching you.” High above the floor of the turbine hall, in a space you weren’t meant to see into, a bank of monitors show the immediate past, the unvarnished present and, if you look long enough over the shoulders of the jack-booted guards, your future.

**D2.** An example. Salivating at the notion of international stature (by standing on a really, really big soapbox), everyone’s favourite Uncle Frank<sup>17</sup> is juicily aiming to insert (repeatedly, and vigorously) a bit of Sartorial splendour into

Redfern-Waterloo in the form of a whole lotta new tall buildings passionately erected by his colleagues at Merevac, Merton and Merkin, and comprising the Holy Trinity of urban development, NSW style: The patrimony of Office and Retail Space, its sacred offspring Housing (as in “Jesus, look at that pile of shit!”), and the Holy Ghost of real estate agents from here to the Rodeo Drive, Le Car Parking. This is urban development as religious dogma or, better, as body building, confined to a limited set of (eminently quantifiable) operations (or poses) where bigger is, of course, always better. This institutional inability (or worse, unwillingness) to conceive of Sydney as anything more than a series of sites of deracination, desalination and developmentation (instead of, say, delectation and degustation<sup>18</sup>) resulting in banal buildings with embarrassing appellations (developed in focus groups) dooms the city to a future as bleak as that of the Gold Coast or the Costa del Sol.



**Ex6.** 2am, the Turbine Hall. The Chemical Brothers finish their set in a characteristic giga-bitten flurry of light and sound pyrotechnics, leaving the frenzied thousands addled and dripping, perfectly tenderised for the headline act. Taiko drummers on platforms suspended from the rafters pound out a bone shuddering beat, as a dangling troupe of Butoh dancers contort at a speed measured in beats per hour, not minutes. The lights dim further, then throb, and finally, preceded by a raft of security staff dressed as vestal virgins, the White Bull, shirtless, buffed and glistening, larger than life, bigger than Beazley, comes on stage to close the night.

**C2.** Our guide for the second part of the journey is Gordon Matta-Clark, famous (or infamous, if you were either an official of the City of New York, or a slum landlord with a crumbling building) for his incisions, excisions, insertions and interruptions of buildings, the built fabric and the urban social order. He has

bought along his illegitimate (whatever that means these days) daughter Orlan. Precocious beyond her years, she carries with her a box of knitting needles and a dismembered and partially reconstructed Barbie doll – she claims that it is a map.

**Ex14.** Early morning, summer. A flotilla of black sails drift into the docks, ghosted images barely printed on their surface, mirroring empty spaces, selling souls and announcing (yet again) the triumph of age and guile over youth and exuberance. And like Ronnie Reagan in his blissfully ignorant dotage, we all wish we could forget so completely those things that had been done.

The ongoing history of Cockatoo Island is one of accretion, adaptation and change. We intend to promote this distinct character but move beyond the static nature of industrial production into the realms of imagination. Throughout much of its history, the island has been inhabited by many different groups, all reworking the island, its productive capabilities and, most importantly, their lives. We view this multiplicity of uses as one of the most vibrant resources that exists in the Island's history and for the future development of Cockatoo Island as a vibrant (and impossible) precinct in Sydney. Thus, we propose not one thing, nor one profession, nor one activity, but a multitude.<sup>19</sup>

**Ex17.** One summer afternoon, last year. Disguising the waxed cruisers in their midst, the flock of seagulls (really, pigeons with hairdo's) ascend in unison into the sky, paparazzi snapping every Lady Di (Dead)-like flutter and coquetry. This divine geometric choreography so transfixes the happy snap crowd below that hardly anyone notices the obnoxious blond boy silently fall into the oily harbour. Two dozen people got it, though, on their Polaroids.

The terror that faces us is that of the all-inclusive, the pre-ordained, the master planned. How do we make room for the unknown?

**Ex5.** 4 weeks in the spring. In a damp and cold concrete bunker, 2 incarnations of Pasiphae (one regretful at her transgression, the other lamenting the loss of what is, after all, still her son) stitch together thousands of cloth fragments into a gigantic bedsheet. She (they), assisted by passersby, write the names of all the war dead on the scraps, then black them out. On March 20, the bunker is completely wrapped in the quilt, a pixilated funeral shroud. The work is called *Atyaf*<sup>20</sup>. The ink cannot be removed from their hands.



**Ed3.** “For Teddy Cruz, development often defines a process of flattening the landscapes, both physically and culturally, in what might be described as a form of cultural holocaust. Thus, if our fingerprints form an essential attribute of personal identification and differentiation, the same might analogously be said of the natural and cultural contours of our cities, the destruction of which (through gentrification and sprawl) also destroys the individuality and identity of our cities.”<sup>21</sup>

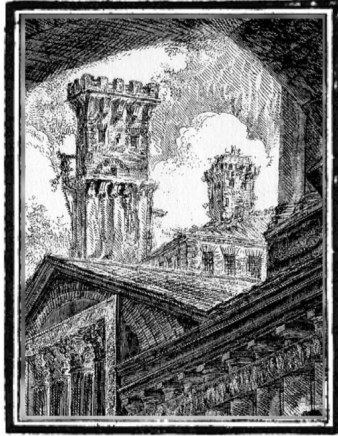
**Ex8.** November 22, 9pm. Amidst the great, encrusted machines, silent and attendant, only a chalk outline remains of Talos, brilliant, mercurial, and doomed to an early death in the presence of a man who was less clever, less inventive, less intuitive, but altogether more powerful (or more obsequious to power). Jealousy of a skill one can never attain can be quite a weapon in the hands and minds of those nearly competent grey fellows behind grey machines who make the day to day decisions in the city. But already, Talos’ colleagues have vowed to lodge an appeal with the LEC.<sup>22</sup>



The inhabitation of ruins is an act of “minor” architecture, involving as it does ambiguous objects and a dislocation of linear narrative, instead offering an assemblage of incomplete objects or events. What stands out are the joints, or those spaces between exactitude and lack of definition - they are similar to Castellucci’s gaps of interpretation.

**Ex15.** We had lost all sense. Time became strange. The crane a blue chicken, the destroyer dock buzzing with activity. In our delirium, we listened to the thin red line of talking bricks that told us stories, and led the way through, no never in the same place twice, nor in the same order. Some bricks refused to speak, and were given sentinel duty instead.<sup>23</sup>

**D3.** Close your eyes and imagine some kind of likely scenario: 2011, Saturday, 3:30pm, Cockatoo Island. As your water taxi from Point Piper pulls up, spewing diesel fumes, you recognize Eddie Macguire’s superyacht, “Eddie,” moored alongside the VIP dock for Hugo’s Waterside Bar and Brothel and Model Hangout. Eddie’s Filipino butler is gently backing Eddie’s Maserati convertible, license plate “Eddie,” onto the wharf. Fellow convertible owners and their respective models either wave or pout, as decorum demands. You hope this doesn’t mean there’s going to be a queue for the loos again once everyone gets in. At least there are no more sniffer dogs since the NSWPF was privatized and bought by Halliburton. Chopper Read<sup>24</sup> is the new Commissioner, and he seems to be doing a great job. As you hop onto the Harry Seidler Memorial Monorail and Waterslide for the trip up the hill, two silver plated semi-converted Apache attack helicopters thunder into view, a buff figure with a 2.8 million dollar smile hanging from the rope ladder – it’s Tom and his good pal Jamie and their Scientology retinues, arriving spot on time (and so dramatically so) for the preparty opening ceremonies of Stage 6 of the Kerry Packer Casino, Resort and Mall. It’s going to be a great night!



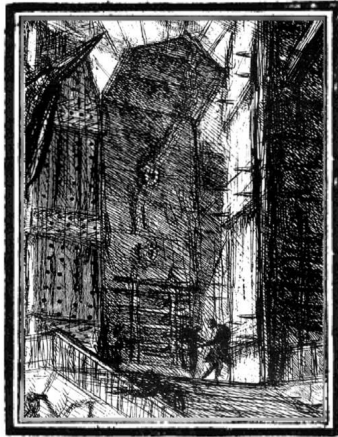
**Ex10.** The Bolt Store, March 7, 2007, 7pm. Only loosely contained in a somewhat cheeky box that does a thousand and one things, inside a room with a thousand and one boxes for bolts that no one uses anymore, a thoroughly modern Ariadne canvasses her shoe collection and sets out to re-write *A Thousand and One Nights*, from a post-Germaine, pre-President Spears point of view. The audience, though always one step behind, loves it.

A universe in a house, a city in an article.

**Ex1.** The Big Night Out. Shadows the size of gods play across the sandstone cliffs. Thunder rumbles from beneath the Island. The delicate and debauched party-goers (there to bear witness to the wetness of miscegenation between the Talk Show Queen and the Talk Radio Maggot) scurry prematurely for cover into the tunnels, only to retreat from the mournful soundscape surrounding them. Ever



the social aesthete, especially at Cup time, Pasiphae apologises in advance for her lust: “It’s not my fault!” she pleads.



**C3.** Our guides for the third part of the journey are Lou Reed, poet and purveyor of a unique (and oft-emulated) urbane sensibility – fresh in from Berlin, he wears a famous blue raincoat, it’s torn at the shoulder. With him is, again, our old friend Piranesi; this time though, he comes as a much more visceral, though no less dark persona: the creator of a series of monumental etchings of prisons, mines, caves and other subterranea generally compiled as *Il Carceri*. Conceived and created when in the midst of a fevered delirium, Piranesi himself prefers to title these works “Dreams.”<sup>25</sup>

**Ex9.** 7pm, near the beginning. On the disused gantry, the armor clad mis-

shapen beast clanks across, the chain saw revving in his massive mitts. Though she seems as formally serene as Whistler's mother, the old woman rocking in the chair in front of him lets out a continuous keening howl that can be heard above the noise. Below them, behind the screen of red that showers down, Bernard, in his scrubs, calmly and carefully slices and dices the body parts, fastidiously labeling each and every transgression. The subtitles of many of the labels bear names similar to those of some very well known politicians, property developers and prostitutes, as well as their sins: Birkenhead Point, Gluttony, East Circular Quay, Jealousy, Darling Harbour, Vanity, etc.

**Ed4.** Crossing water has often been construed as a journey into dreams, as Bachelard reminds us: "Thus a farewell at the water's edge is the most heartrending and, at the same time, the most literary of farewells. Its poetry makes use of an old wellspring of dreams and heroism. It awakens in us, no doubt, the most painful of echoes. One entire facet of our nocturnal soul can be explained by the myth of death conceived as a departure over water. For the dreamer, there is a continuing transposition between this departure and death. For some dreamers, water is the new movement that beckons us towards a journey never made. This materialized departure takes us away from the earth's matter."<sup>26</sup>

**Ex16.** Pitch Black. From across the water, the ferry passengers watched the fabric of the Island shift and slip, over and past itself, only momentarily captured in the flickering lights. Watch closely to what happens at the edges, or the boundaries, where perhaps space or enclosure begins and ends, and read (dream) the events of interaction at these points. Daedalus postulated that a black hole's event horizon is the junction between two realities, a space-time omphalos.<sup>27</sup>

Experience of a real place allows the eye (and the mind) to roam free among inventive details [not all of them need be concrete and present – we must learn to expand the experience of architecture beyond the senses, and beyond the physical, to incorporate the imagination]. Our experience of an urban place can only be personally perspectival, fragmented, experiential, incomplete. It is in this incompleteness that we find the opportunity for unique understanding of a place. We might even become that "participatory, critical subject."<sup>28</sup>

**Ex18.** The day after yesterday, 218 years ago. For the opening, the mayor wanted Cirque de Soleil. Instead, and in spite of this, the inflatable white shape rose anyway, hissing from the slipway, discarding slime and seagulls. The rising sun made it seem newborn, though rather like Athena, and fully formed - the White Bull rose over the Island. The question on everyone's mind: would it ever go away, or instead linger fragrantly well beyond its sacrificial date like some cheesy chalky eternity<sup>TM</sup>.<sup>29</sup>

"And sweet to me is foundering in this sea."

G. Leopardi<sup>30</sup>

1. Leonard Cohen, *Anthem from The Future* (Sony Music, 1992).
2. For some measure of the pathos inherent in being an immortal beast, see Steven Sherril, *The Minotaur Takes a Cigarette Break* (John F. Blair, 2000), which ends, elegiacally: The Minotaur dreams the brevity of hearts in a labyrinth of days, Dreams a flock of grackles settling in a field of narcissus, The birds descend in unison, their wing beats cease.
3. For one inspiration into the deliberately disordered, see Robert Coover, *Heart Suite*, in *McSweeney's Quarterly Concern* (McSweeney's, 2005). Presented as a gigantic pack of cards, the reader is instructed: "The 13 heart cards may be shuffled and read in any order, with this card first and the joker last."
4. Drew Fairley, Sydney presenter and comedian, does a cracker of a performance of the old Eagles standard. Our program is to architecture what his interpretation is to the original "Hotel California." Welcome to the abattoir of sacred cows.
5. Jennifer Bloomer, *Architecture and the Text: The (S)crypts of Joyce and Piranesi* (Yale University, 1993), 36.
6. Mike Davis, *Does the Road to the Future End at Dubai?* in *Log 6* (New York: Anyone Corporation, 2005), 61-64.
7. Bloomer, *op. cit.*, 68-72.
8. Definitely not Labyrinths; that would be too easy.
9. Apologies.
10. See, for example, *The Onyx Project* (<http://www.theonyxproject.com/>), an individual user interface narrative project that allows that "... no two viewers may see the movie unfold in the same way, yet its basic facts, characters and message will permeate the experience."
11. From a talk given by Romeo Castellucci at NIDA, Sydney, October 7, 2006.
12. Italo Calvino, *Visibility*, in *6 Memos for the Next Millenium* (New York: Vintage International, 1988), 99.
13. Apologies again; bad acting is rather a lot like real estate agency, though.
14. Jennifer Turpin, *précis* for an artwork on Cockatoo Island, *Lighter Than Air*, submitted to the author, 2006.
15. Steven Holl, Juhani Pallasmaa, Alberto Perez-Gomez, *Questions of Perception: Phenomenology of Architecture* (New York: William K Stout, 2006), 57.

16. Lee Hazelwood, *Some Velvet Morning from Fairy Tales & Fantasies: The Best Of Nancy & Lee* (Rhino, 1989).
17. In late 2004, the NSW government formed the Redfern Waterloo Authority (RWA), granting itself sweeping powers to displace residents and pave the way for urban renewal, via sale of community assets and approval of mega-developments. The authority is headed by Sydney's ultra-authoritarian, the (former) Hon. Frank Sartor; he is directly accountable to the NSW Minister for planning, the (former) Hon. Frank Sartor.
18. Strangely, these connoisseurs of the convertible, the blond and the convertible bond seem to prefer the all-you-can-eat deal at the Black Stump rather than an experience at Tetsuya's.
19. See Italo Calvino, *Multiplicity*, in *6 Memos for the Next Millenium* (New York: Vintage International, 1988), 101-124.
20. Arabic for "Ghosts."
21. Adam Haddow, Review of Teddy Cruz' Lloyd Rees lecture at the MCA, August 9, 2006, in *Architecture Review Australia*, 098.
22. Land and Environment Court, or the final arbiter of taste, "responsible for interpreting and enforcing environmental law in the state of New South Wales, Australia."
23. Refer Timothy Leary, *The Politics of Ecstasy* (Ronin Publishing, 1998).
24. Chopper Read, real name Mark Brandon Read (born November 17, 1954), is a former Australian criminal and author. Convicted of armed robbery, firearm offences, assault and kidnapping, Read spent 13 months outside prison between ages 20 and 38, then went on to become a successful author, selling in excess of 500,000 copies of his works. More recently, he has also found success as a recording artist. While in prison he had a fellow inmate cut off his ears in order to be able to leave the prison temporarily to avoid an ambush by other inmates.
25. Marguerite Yourcenar, *The Dark Brain of Piranesi* (New York: Farrar, Straus and Giroux, 1984), 88-95.
26. Gaston Bachelard, *Water and Dreams: An Essay on the Imagination of Matter*, (Dallas Institute Publications, 1999), 123.
27. Michael Lewarne, précis for a light installation on Cockatoo Island, *Event Horizon*, submitted to the author, 2006.

28. Bloomer, *op. cit.*, 41. It is best, though, to recall that not everybody likes either allegory or a critical faculty. Adolf Loos of course was horrified at the thought of tattoos, while Universities today, frightened of no doubt litigiousness (or losing the affections of their affectionate charges, rather Clinton-like) find critical thought (let alone expression) censorious.
29. Pace Arthur Stace, 'Mr Eternity'. At least 50 times a day for 30 years he wrote the word 'Eternity' in chalk on the streets of Sydney. Today, one is obliged to refer to City of Sydney's Graffiti Policy: <http://www.cityofsydney.nsw.gov.au/Residents/Graffiti/GraffitiManagementPolicy.asp>
30. Giacomo Leopardi, *Il Infinito*, from *The Canti* (Routledge, 2003), 54.

# 11

## Parallelisms

*Jaime Rouillon*

### **Parallelisms (post industrial sites)**

Cockatoo Island is another post industrial site, first known as a prison, later as a reformatory school for girls and later as a shipyard. In my thoughts it compares and relates to sites like the Arsenale di Venezia. Known today as one of the most prestigious art and cultural centres in the world, it began its life in 1104 as an impressive military construction and was continually extended from the 14th to the 16th century. (Cockatoo Island was also continually extended by dumping rock fill into the harbour.)

The Arsenale is surrounded by high walls with square towers bearing the insignia of the winged lion. During its golden age, more than 16,000 people worked there. Working in teams and employing jealously guarded techniques, protected as a military secret, these skilled workmen called ‘arsenalloti’ worked astonishingly fast. When in 1570 Cyprus was threatened by the Turks, in just two months they produced 100 ships. The Arsenale di Venezia has two docks and lots of huge buildings.

It is notable that while at the height of the Renaissance Venice was a major ship building centre, almost four centuries later Cockatoo Island served the same purpose as an industrial manufacturing shipyard and a military and secret site for research and development into shipping during World War II.

Today it seems obvious from its location and geological formation that this ‘fortress’ could easily become a world class art centre for exhibits and cultural exchange within the Asian Rim. Australia holds a strategic position in the shifting world of Asian economies and is easily recognizable as a point of cultural fusion.

### **Preservation, Renovation & Intervention**

To preserve is to keep a memory. The rise of industry or the machine age created a new form of expression within a new building-art. Huge spaces once reminiscent of the Middle Ages would be revived but instead of churches rising from

man's spiritual aspirations, the warehouses were made in a technical style reconciling humanity and machine.

In today's shift from industrial to digital technology, we inherit these structures, responding to the nostalgia of the relationship between architecture and the changing system of production. These silos, warehouses, workshops, water towers, cranes and so on conform clearly with the purpose for which they were built. Rigid in appearance and implacably expressive of economic demands, they are today a path for freedom and the alternative use of space, carrying unmistakably the new aesthetic elements for implementation, intervention and renovation. To deny their existence or reject their use would be a waste of energy.

As David Leatherbarrow and Moshen Mostafavi point out in *Weathering*: “(Since) some buildings raise particularly difficult questions about their preservation and conservation, should buildings of this sort always be preserved?” and “Some buildings may be imagined to have a relatively limited lifespan, while others, because they are intended as permanent, may be realized perfectly in time through a series of sequential interventions.” This exactly represents the quality of structures on the island; some were never meant to withstand the test of time while others like the Turbine Hall allow new flexible and potential use.





# THE FAT, THE OLD AND THE BEAUTIFUL

## MATERIAL PROCESS AND FRICTIONAL RESISTANCE ON THE BODY OF ARCHITECTURE NOTE

*DAGMAR REINHARDT*

A shift has seemingly taken place in architecture, from understanding architecture as object towards an understanding of architecture as process. But architecture has always been object, material and process – shaped by context, phenomena, and time. Cockatoo Island in Sydney's harbour, visited on occasion of the Urban Islands Studio Review, set a mode for rethinking architectural processes, and became a memory search of things abandoned, diluted, lost, or stored away. The island initiated a reflection on aspects of architectural processes that are currently marginalized, such as age, beauty, erosion, material, thickness, and loss of context. This paper pursues these aspects as explorations found in the fabric of Cockatoo Island and its architecture. The aim of the paper is to present a sequence of observations that might reintroduce and amplify tunes temporarily absent - or merely inaudible? - from architectural discussion.

Material processes define the formation of architecture. They drive decisions in selecting material, working techniques, shape, density, texture and structure. The construction process gives sense to a material. Once architecture is built, another series of material processes begins: transformation and deterioration. The material reacts to the site and specific dynamic forces such as currents or climate. Materials maintain a mode of resistance. This resistance occurs as a friction on the surface, as resistance to the concept applied to it; or it might manifest by forming a reactive layer, by giving in, fading, or vanishing. A process of becoming is initiated.<sup>1</sup> Transience is part of architecture. It may emerge as a physical transformation, as a change in meaning, as dislocation, or as reinterpretation. Aspects of conversion can take many paths.

This paper follows traces in material, becoming 'other,' gradual changes of a diverse nature, and frictional resistances. A number of simultaneous processes are discussed by assembling an overlay, contra-post, or superimposition, rather than stringing aspects in a continuous order. It is a reflection on material frictions

and phenomena of deterioration, building and unbuilding, numbers and use, order and beauty, displacement and absence. To be contemplated. To be materialized. To be continued.

## ISLAND DISLOCATION

Cockatoo has one main point of arrival and departure across the sea. The island is a voyage that leads in a directional sequence through spatial settings that differ from the interwoven, seamless fabric of the city. Isolated and detached from urban structures of multiple layers, the presence of the island's topography and objects becomes more apparent. Here, time comes to a halt. Detached from its former program, and just before the insertion of the next layer of use, the island may be understood as raw material, abstracted, and tranquil.

Cockatoo is the site of various degrees of dislocation; the removal of architectural objects or substantial parts, the discontinuation of a program, the displacement of mass and material in the topography. A conversion alters the relationship between object and fact. A dislocation influences the permanence of an object. When detached from its context, the object tends to lose part of its meaning. When context changes, character changes, and identity shifts. A programmatic change triggers a crisis of the object, it requires a conversion, and initiates a morphosis. The whole island is the object that is displaced. Such an exposed, stripped-bare territory is in need of a readjustment in context and content. On Cockatoo Island, matter was always a matter of reinterpretation. An absence of program was rapidly equalized, shifting from industrial, maritime, educational and legislative appropriation.<sup>2</sup> A compression of time can ensure continuity and identity.

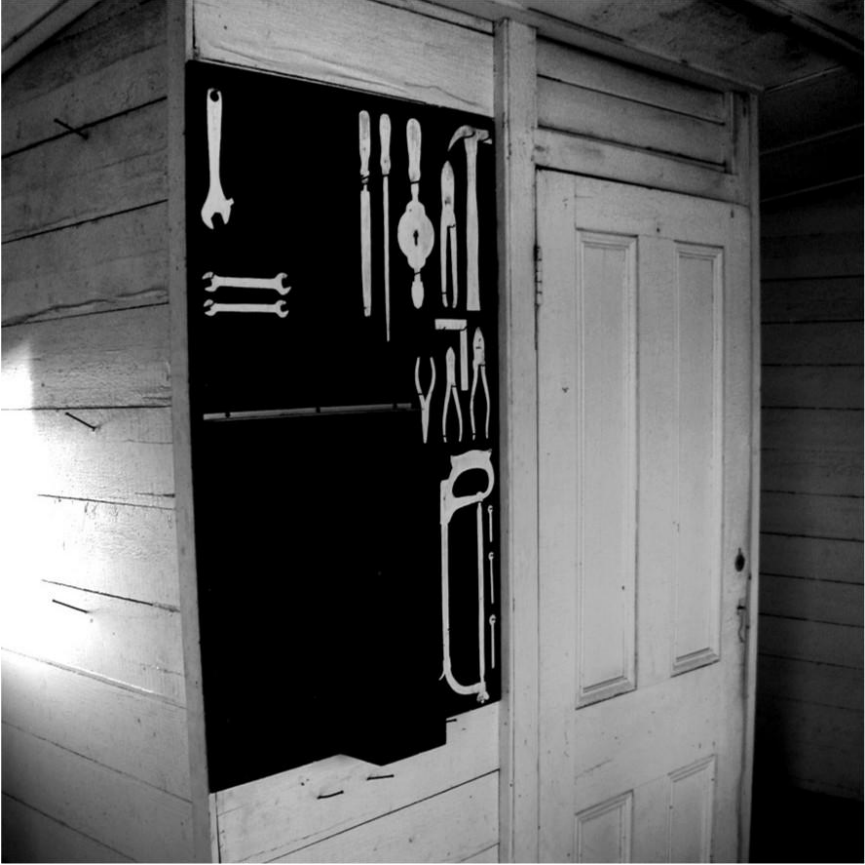
The easiest thing is to condense time, logically, by overlapping traces. In the end, you are not working with the physical reality of the moment, but with the physical reality of everything that has been there as well, that has built up a place. Any construction that has been capable of surviving the passage of time is by definition an ongoing transformation.<sup>3</sup>

*ENRIC MIRALLES*

Traces and tracing describe what has been there, what is in progress, and what might come. These traces evoke simultaneity of present, past and future. Similar to a Deleuzian fold, strata of time are enfolded in each other. The traces give an indication of potential, actualities and possibilities.<sup>4</sup> They forecast strategies for architecture and island, which are embedded in its present and past.

The removal of objects leaves an imprint of a former position on a surface, legible only to someone familiar with former use or meaning (Figure 1). To the inexperienced eye, these traces signify merely forms and shapes; the code becomes enigmatic. Though the signage might appear precise and thus enable a reestablishment of a tool, the working process and technique might get lost together with the instrument and the knowledge of the material.

Part of identity and meaning are lost in the discontinuation of a program. When the object loses its function, it loses its base of existence, unless an alternate use can be found. Sometimes this is not possible. The precision of a mechanical object shaped according to its function leaves no space for a conversion. In Slipway No 2, the machine objects become matter, the material returns to a raw state. The steel elements transmit a beauty of abandonment, a life of their own (Figure 2). Industrial turns *mechanimal* – a mechanical animal.



*FIGURE 1*

*SURFACE POSITIONS OF A TOOLKIT*



FIGURE 2

*SLIPWAY NO. 2*

## THINKING MATERIAL MATTERS

More intense than a merely abstract shift in program is of course a tangible shift of mass and material. A material has its own logic. A million ways exist of thinking, sensing and shaping matter.

...to cover, to wrap, to dig, to tie, to bind, to weave, to join, to match, to hinge, to mark, to expand, to dilute, to light, to modulate of mapping, of location, of context, of time to stretch, to bounce, to erase, to spray, to systematize, to refer, to force...<sup>5</sup>

*RICHARD SERRA*

The topography of the island is not a stable entity. It is a sum of the forces it has been exposed to, applied to it equally by man and nature. Stones cut from the body of the island were used to reclaim land, or assembled to form buildings.

The material was repositioned as officers' quarters, prisoners' barracks, or factory buildings. Shapes carved into the rock became shipyards; cavities were used as grain silos. A substantial amount of stone has been dislocated from its original position (Figure 3). The island exists thus with the same mass of material, but in varying degrees of density and intensification. Each stone might be traced back to its original strata. A definition of *genius loci* on the island is thus not the place itself, but a variety of processes that shaped it and continue to do so.

Rarely as apparent as they are on the island are two principle categories of constructive processes. The opposites of carving in and building up are present in architectural objects and ground conditions as the typologies of shelter and burrow. They describe contrasting approaches to and material conceptions of architecture.

These two conceptions are not simply two methods of designing a building but spring from deep-seated ways of viewing human existence and hence from two different architectural styles... In sculptural terms, that the one is a modeller, the other a carver. To the builder or modeller, paths are interstices between volumes; to the digger they are the primary ducts, around which the supporting matter accumulates.<sup>6</sup>

*RUDOLF ARNHEIM*

The shelter is primarily a visually conceived form. It is comparable to an agglomeration of spaces in an envelope, displaying an outer shape. Architecture is assembled in a specific order of construction, dependent on gravity, with modular parts, structural layers and material specification, within a given context of building up (Figure 4). These buildings reflect a particular condition and function to which they respond. In contrast, the three-dimensionality of the burrow is formed by a system of channels, rather than by shapes. It is a network of pathways, an architecture engineered by motor behaviour. Here, a sequence of movements through a material body determines interiorised spaces. The cut applied results in hidden insertions in resistant stone or in discrete passages between two points.

Equally important in both approaches is not the resulting appearance, but the physical shaping of the material itself. A material comprises a structural property, directionality, character, and truth. Its working method thus follows the material's inner logic. Each material inherits an essence that needs to be considered and exposed in the process.<sup>7</sup> Techniques applied to a material are not always interchangeable. The process of handling, of shaping and transforming, can either reveal its essence or destroy it. The process of making is thus a form of research, in which threshold conditions are explored. This begins with the selection of the raw material from an area of indifference. The choice establishes juxtaposition

between a concept applied and the material's dormant possibilities, as in selecting stone from a quarry. A process of shaping is an investigation in and on the material itself: written in stone, clay, aluminium sheets, leather, glass, brick, concrete, wood, and steel. In each, the departure point is a question phrased as an approximation; only then does a realm of invention become accessible. And then it is not the finite product or the result, which is the subject of research but the process, its defaults and resistances. Each material has its own tune.

Richness and multiplicity emanate from the things themselves if we observe them attentively and give them their due.<sup>8</sup>

*PETER ZUMTHOR*

But process is also a domain of experience, of skilled knowledge. In the process of shaping, the material, the projected object and the human body merge. Through the force applied, the muscular tension, the material receives its formative impact. Ideally, a material exploration is executed with all senses. Consecutively, the body senses in architecture, through the material traces, the forces that generated it.



*FIGURE 3*

*DISLOCATION OF SOLIDS / STONE STRATA*





FIGURE 4

*SHELTER / PATTERN STORAGE*

## FATNESS AND RESONANCE

Cockatoo Island has been extensively carved to yield silos, docks, and shipyards from sandstone. It is this massiveness of stone, the solidity and thickness, the shapes and echoes of spaces inserted in the island body that have a primal, subconscious impact. The stone hides dark spaces with almost illegible boundaries lying in shadows and stained wet walls. The space inserted in stone is a fat space. In the vaulted passage to Sutherland and Fitzroy Docks (Figure 5), this fatness becomes the sound of architecture.<sup>9</sup>

The shape of the excavation enters the ear as acoustic signal. The solid sandstone reverberates with sound, transmitting echoes, amplifying small noises, tuning the distant sound of water. The fatness of the material produces a body of resonance. Space becomes an instrument.<sup>10</sup> Its tunes originate from the surface materials that cover the walls. Stone, wood, metal reverberate in different ways. But more than that, the sound creates interiority; it reconnects body and architecture through experience and perception.

Hearing structures and articulates the experience and understanding of space. We are not normally aware of the

significance of hearing in spatial experience, although sound often provides the temporal continuum in which visual impressions are embedded.<sup>11</sup>

*JUHANII PALLASMA*

The phenomenal appearance of the material fatness has a direct influence on the perception of both space and body. Whereas sight implies exteriority and isolates, sound incorporates. The sound rebalances between eye and ear. The observer becomes a listener, and a spatial sensation occurs. The architecture transmits meaning and dignity through a quality of experience.<sup>12</sup>

## PASSAGES OF UNBUILDING

On the island, a number of natural phenomena are in progress. Its body of sandstone was formed by sedimentations of shifting marine layers and particles, still visible as coloured strata in the stone architecture. Ground, cliff, and buildings are subject to erosion. The displacement by agents such as wind, water and ice sets free small elements of their body. These suspended, abrasive particles then traverse other material surfaces. Fragments from one material dynamically move over a surface and cause friction through which its protecting upper coat is destroyed. The force impact results in bruises, scratches, and incisions. Here, the material becomes even more penetrable. A friction in material is like a ripple running over once impeccable surfaces. Corrosion uses a timer in deterioration, a form of self-protection that is a necessary part of becoming other. A coat of rust forms, spreading particles. In all these, a material's broken strata and layers show time passing over surfaces, the passages of unbuilding. They are not a default, an inevitable misdemeanour, but they establish a richness of reality.

A material dissolution is the unbuilding of architecture. It commences immediately on completion, and establishes a conjunction with other strata of enfolded time. Material traces pass on knowledge of transience. A material defragments, dissolves, and vanishes. A surface starts to change. It reflects traces of usage, it ages. Materials develop a patina, a crusted coat acquired in time passing, they ripen. The hue and saturation of a material's colour deepen. Wood becomes darker. Gloss, the indicator of newness, wears off. Sometimes, different surfaces adjacent to each other seemingly undergo a process of homogenisation (Figure 6). Textures become similar. Wood turns white-grey, steel fabrics turn dark-grey, both stained equally through distribution of corrugated iron particles. Colour palettes shift. When colour coats burst and peel off, underlying layers are revealed. Iridescent facets of broken strata merge into one another, and stone shines through.

A material has a duration as well as durability. Materials define the body of

architecture. This body is subject to time, and it behaves, it does not remain untouched. As much as the internal truth, structure, line of growth and directionality shape the appearance of a material in construction, so they do in the process of unbuilding. There is a silent but violent movement in materials.



*FIGURE 5*

*BURROW / PASSAGE TO SUTHERLAND AND FITZROY DOCKS*



*FIGURE 6*

*MATERIALS EQUALIZE / ESTIMATING-DRAWING OFFICES*



FIGURE 7

*COLOUR STRATA/ MESS HALL*

Everything is approximate, less than approximate... What arrogance is concealed in perfection? Why struggle for precision, purity, when they can never be attained. The decay that begins immediately on completion of the work was now welcome to me... Dust and insects are also efficient in destruction. The light fades the colours. Sun and heat make blisters, disintegrate the paper, crack the paint, and disintegrate the paint. The dampness creates mould. The work falls apart, dies... This dissolution must have been followed by the negation of all action. Form had become uniform, the Finite the Infinite, the Individual the Whole.<sup>13</sup>

*JEAN ARP*

Architecture is part of a continuous process of material deterioration; structures are exposed, surfaces are dismantled, and objects become raw material. Material dissolution is part of a material's becoming (Figure 7). It is transience, a death that rules over all things being. And it is the prospect of transience that forms the understanding of a whole. The acceptance of dissolution is the abandonment of perfection, in favour of a higher order. Material processes possess a reason of

beauty, of dignity beyond perfection only visible in the process of vanishing, in the return to a different order.

## A LOGIC OF BEAUTY

Materials require their own system of form. Contemporary genealogies work with an ethic of abstraction, wherein form translates as formation, driven by animation, superimposition, rotation, etc. When a discussion of aesthetics is delayed, architecture and material processes are driven by necessity rather than preference. Devoid of materiality, content or beauty, an abstract formal solution is no more than an equivalent of natural evolution. But not all evolution is the survival of the fittest. It is also the survival of the most attractive. The criterion is aesthetics.

Aesthetics, in fact, are to ethics in the sphere of conscious civilisation, what, in the sphere of the external world, sexual is to natural selection. Ethics, like natural selection, make existence possible. Aesthetics, like sexual selection, make life lovely and wonderful, fill it with new forms, and give it progress, and variety and change.

14

*OSCAR WILDE*

Beauty is the imperfect machine, the object restored to rawness, shape and material, free to receive an impact of imagination, of design. Generative processes produce forms, in computational applications and manual explorations, but neither instrument nor material ultimately generates the design. The design is done by the designer. And as each instrument is a conversion between intention and corporeality, it influences the process of thought and design.<sup>15</sup> The result is subject to a continuation of search.

It seems that ultimately beauty is at the core. It is not a by-product, but a destination. Beauty contains an inherent formal logic, it drives a material truth. It is not necessarily perfect and not always comfortable. Most important, beauty is the correspondent of an enhancement, an uplifting experience, which gives reason and right to an object's existence. Beauty also conveys surrender to the dynamic forces of life. The material process thus must be engineered by a research for the unforeseen, the un-projected, the unplanned, the astonishing. This requires one to relinquish control. For control of all elements establishes a situation of equilibrium, where the constituent forces compensate each other to form a homogenized area devoid of tension.<sup>16</sup> In contrast to such homogenization, the material becoming of architecture requires to incorporate oppositional dynamics, logic and intuition, feeling and reason.<sup>17</sup> Then, an apt material process can bring out a con-

centrated substance in material and architectural gestalt: the essence of an idea, which is the ‘hard core of beauty’.<sup>18</sup> And this material process might then include the passing of time and program. The essence remains, for essence is difference; the ability of a thing to become another, the capacity for change.

The essence of Cockatoo Island is its richness - balancing sizes, materials and shapes, integrating distances, directions, curvatures, and volumes in a process of building and in the inevitable unbuilding that follows. Here, a readable interrelation of the whole and its parts, and an improbable arrangement of elements coexist. As discussed, when notions of age, beauty, erosion, or thickness determine the material process, this consecutively affects architecture in a number of dynamic phenomena; as frictional resistances, in becoming other, as gradual changes. Such a strategy requests an order of diversity, guided by a cognitive preference for complexity: dynamic, multi-layered, asymmetrical, and unforeseen. Through this, a continuation of genius loci as process, the retracing of traces, and a repeated conversion and recontextualisation are engendered.

Architecture, instead of communicating form, instead of representing, might just be and become other through its material processes. It then answers a demand of plenitude – a full and rich spatial experience. The island needs to submit to such logic that maintains, continues and reveals a strategy of becoming – and that incorporates the fat, the old and the beautiful.

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- 18 Zumthor, P: 2006, 'The Hard Core Of Beauty', in: *Thinking Architecture*, Birkhaeuser, Basel Boston Berlin, p. 30.

# 13

## Cockatoo: D'Érive as Program

Matias Echanove

*J'ai vu des archipels sidéraux ! et des îles Dont les cieux  
délirants sont ouverts au vogueur : - Est-ce en ces nuits  
sans fond que tu dors et t'exiles, Million d'oiseaux d'or,  
ô future vigueur ? -*

Arthur Rimbaud

Cockatoo is an ancient shipyard, genesis of all travels, point of departure to possible worlds; floating island or bateau ivre drifting away. Embarking and disembarking, the multitude determines haphazardly its direction. Utopia is the risky destination of this magnificent journey.



Cockatoo mirrors and inverts its geography and history. Australia was a destination for European prisoners: Cockatoo was the prison island of the prisoners' island. Today, the prison's ruin is a party site for the living and the dead.



Australia is now a symbol of hope and freedom for migrant populations, and Cockatoo embodies the dreams of Sydney's bohemians. From the vast world to Sydney, Sydney to Cockatoo, and Cockatoo back to the world, this small island has enormous liberating potential, being at the same time in the city and altogether elsewhere. Cockatoo is an enclave of freedom, a borderless island, a dot of infinite depth on the map.

Cockatoo is a space of contradiction where incompatible worlds meet: backpackers, tourists, hipsters, friends, families, picnickers, dog keepers, nudists, hippies, astrologists, naturalists, researchers, architects, conservationists, experimentalists, individualists, collectivists... The juxtaposition of different worlds creates hybrid forms. In this sense, Cockatoo is a laboratory and a heaven for creators. This estranged island is every traveller's home.

Time also collapses onto itself in Cockatoo. Old industrial machines are reinvented as futuristic structures. The future is divined from the rocks and projected onto the cliffs. But the time that predominates over all others is the present moment. Cockatoo is a natural space for temporary events such as festivals, circuses and parties.

Cockatoo can only be accessed by sea. The waters around it give it a special autonomy from Sydney. At the same time in and out, it is a space of compensation where the city's fantasies can be lived up. Cockatoo escapes the mainstream. It is a disconnected location for people to free their crazy geniuses. Cockatoo is far out.

This heterotopian island is tremendously healthy for the city. It is the valve through which the pressure of everyday-life can be released and the fertile ground from which new forms can emerge. What appears to be a disorganized playground actually functions as social stabilizer and economic incubator.

Gathering together a heterogeneous mix of people in one space and time generates cross-encounters and horizontal linkages. Cockatoo is a rare space for interaction across the whole social spectrum at a time when many cities are suffering from privatisation, ghettoization, and sectarianism. Cockatoo is the exact opposite of a gated community since its purpose is to be open to all. Cockatoo is an island and an ocean.

On Cockatoo people all share the same exceptional condition. Together elsewhere they are no strangers to each other. As in the psychedelic TV-series, *The Prisoner*, in which fellow inmates of the prison-island greet each other with the phrase "Be seeing you," reminding each other constantly of their shared condition, visitors on Cockatoo are 'all in the same boat'. The same samba boat.

PHOTO: KOTA ARAI



Like the Carnival, Cockatoo simultaneous includes all segments of society and excludes social conventions and expectations, liberating individuals from the stress to conform and fit in. Spaces of decompression allow a temporary dissolution of social boundaries; so the white schoolboy can hear stories from an aboriginal grandmother, the business man can get drunk with a punk girl, and the Japanese surfer can practice English with a Lebanese drag queen. The experience of diversity is an important act of socialization and the key to the world.

PHOTO: KOTA ARAI



Cockatoo is a school of thought for soul adventurers, a spirit guiding wanderers to

otherness, towards the discovery of lost multiverses. Cockatoo spreads its dreams back to the world, nurturing new grounds and generating reality. Zion or Babylon, Cockatoo belongs to all.

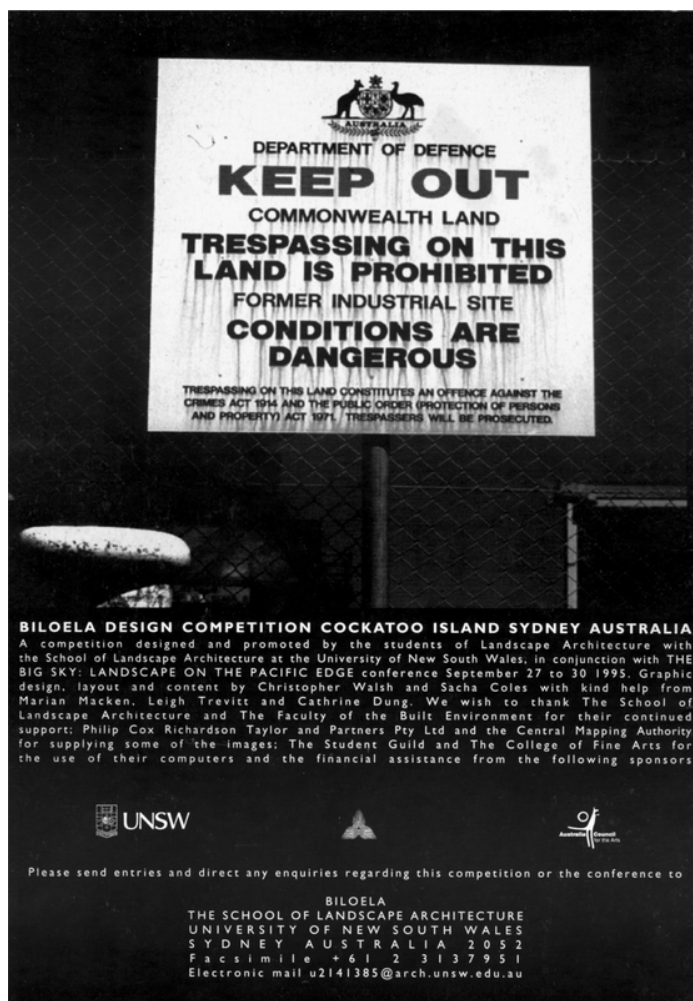


FIGURE 1A: BACK OF BILOELA COMPETITION BRIEF

## 14

# A BRIEF, AN ISLAND AND A CHANCE TO ENHANCE DESIGN CULTURE

*CHRISTOPHER WALSH*

The obsession with patrimony, the conservation of a few scattered centres, some monuments and museographic remains, are just such attempts to compensate for the loss of social representation in urban architecture. Nonetheless they are all still in vain. These efforts do not make memory; in fact they have nothing to do with the subtle art of memory. What remains are merely the stereotypical signs of the city, a global signal system consumed by tourists.<sup>1</sup>

*MARC GUILLAUME*

## 1995

The fence was high then, high with barbed wire and large intimidating signs warning KEEP OUT. Cockatoo Island, a former convict gaol, had now become a prisoner. The Commonwealth Government had deemed the island unsafe, so they kept it packed up and out of reach; private not public. Deals were hatched behind those fences. Rumours that the Commonwealth Government was planning to sell Cockatoo Island circulated and gained currency. The possibility that a real estate developer driven proposal—the kind that was already transforming magnificent harbour sites into mundane generic housing—could be realised on Cockatoo Island became our motivating factor. How could a balance between public and private, commercial and community interests be achieved whilst maintaining the integrity of the island's maritime past and the continuing working harbour?

In 1995, in response to this condition, landscape architecture students from the University of New South Wales (UNSW) proposed an international design competition to elicit ideas from around the world about ways that the island could become part of Sydney's public domain. This competition was part of a larger initiative by landscape architecture students: it sat within the Big Sky - Landscape

on the Pacific Edge conference, a four-day event in Sydney that examined the role of landscape architecture within the region. Practitioners and academics from key centres around the Pacific rim - George Hargreaves — USA, Cristina Felsenhardt — Chile, Richard Goodwin — Australia and Kazuyo Sejima — Japan, were invited to give keynote addresses, delivering perspectives on design practices and cultural influences on their design processes.<sup>2</sup>

At the time, the School of Landscape Architecture at UNSW was undergoing change. The new structure saw the individual, autonomous Schools become Programs, which in turn formed the Faculty, many bodies sharing one brain. ‘Centralised’ was the term and greater efficiency and unity was the aim. The fires that had started were now being fanned by this student run initiative. It drew support from some staff, was watched with suspicion by others, and seen as an inconvenience to the rest. We were taken away from our studies, pursuing the cause with passion and explosiveness of incendiary devices.

Along the way, our cause attracted allies in Richard Leplastrier and Roderick Simpson, prominent Sydney architects; former Labor Party minister, Tom Uren, the man so beset upon by causes, and Jack Munday, the man behind the green bans that rocked the building industry and helped preserve large parcels of Sydney’s public domain. We started to probe and discovered the Friends of Cockatoo Island.<sup>3</sup> We attended meetings and gave presentations, heard stories and discovered historians collecting histories. We made covert trips in small boats to photograph, feel and see this place up close. Each visit made security guards on the island more vigilant. A letter from the Commonwealth Department of Defence informed us that “security has been doubled; more guards and more guard dogs.” We were onto something. The interest started to grow.



*FIGURE 1B: FRONT OF BILOELA COMPETITION BRIEF*

## BILOELA

An Island in a state of entropy – the spoils of an industrial age.<sup>4</sup>

The competition brief used the Aboriginal word for cockatoo, Bioloela, the name used for the island in 1871 (Figure 1). It called for visionary urban design ideas: to consider the island's history from servitude to shipbuilding, its contemporary

state of industrial decay and its future role in the public domain. Primarily, it called for alternatives to selling Cockatoo into private hands. The agenda, in addition to returning the island to the public, was to highlight the dealings that the government was trying to keep invisible. The brief questioned the role of public space in the city. Sydney was being frantically redesigned in the run up to the 2000 Olympic Games. We asked: ‘What will become of Cockatoo Island?’

The Biloela competition was unique because it was run in its entirety, from conception to publication, by students. It sought to raise public awareness of the issues surrounding not only Cockatoo Island, but also other post-industrial sites along Sydney Harbour. Increasingly, predominantly real estate driven development pressures are infringing these sites, as they become the only vacant parcels of land available in Sydney’s urban centres. The prospect of a ‘new suburb,’ fuelling the already rampant privatisation of Sydney Harbour’s water edge seems, as Roderick Simpson notes, “...plausibly inevitable because it is so consistent with current urban consolidation policies for redundant industrial sites and with the chaotic but pragmatic shifts in use that have been Cockatoo’s history to date.”<sup>5</sup>

The competition attracted over 92 entries from Australia and around the world - including; Finland, Thailand, Mexico, Germany, Spain, Chile, USA and Singapore. The stage was set and the interest continued to grow. The jury was chaired by Richard Francis-Jones and included a Big Sky international speaker, Cristina Felsenhardt from Chile, keynote speaker from Sydney, Richard Goodwin and local landscape architects and academics Catherine Rush and Tom (Vladimir) Sitta. After deliberating the jury awarded the following:

- First: Ross Ramus and 14 students from RMIT, Melbourne
- Second: James McGrath, Sydney
- Third: Mathis and Michael Güller and Markus Schaefer, Bern (Switzerland)
- Commendations: Jason McNamee, Melbourne & Richard Weller, Perth

The student conference, The Big Sky: Landscape on the Pacific Edge, provided the focus and the perfect forum for announcing the winners and providing debate. The jury formed a live panel in a packed auditorium, creating a sense of theatre (Figure 2). They announced and discussed the short listed schemes, via slides and then spoke to the schemes that they championed individually—a live critique—as they made their way to the winning scheme. The session also included talks about Sydney the Harbour City, by Sydney based architect Roderick Simpson and Professor James Weirick of the University of New South Wales.





FIGURE 2

THE JURY DEBATE ENTRIES OF THE BILOELA COMPETITION LEFT TO RIGHT:  
FELSENHARDT, SITTA, FRANCIS-JONES, GOODWIN, RUSH

The exhibition of the entries formed an important part of the competition process and the ensuing debate. It was staged as a three-fold event. First, and most importantly, all entries were exhibited as a complete set, anonymous and without any indication of the jury's selected designs. Here the entire body of work produced in response to the brief could be viewed, unaffected by the jurors' preferences.

The second showing occurred after the lectures by Roderick Simpson and Professor James Weirick, and the judges' announcement of the finalists. It opened with the selected schemes brought to the front of the exhibition space with all names revealed. There is no doubt that this set a very different tone. More than just the celebratory nature and a sense of *fait accompli* for the competitors, one automatically viewed the other schemes differently, for now there was an 'other' — those that did not win. This provided a point of comparison and debate.

I placed a jar in Tennessee,  
And round it was, upon a hill.  
It made the slovenly Wilderness

Surround that hill.

The Wilderness rose up to it,  
and sprawled around,  
No longer wild.<sup>6</sup>

*WALLACE STEVENS*

The schemes around the selected few seemed to differ. The worth, in qualitative terms, of the unordered pre-judgement showing of the entries of any design competition, lies in their purity. They hinted at the collective creative efforts of a cross-section (hopefully generous, though not necessarily representative) of the design community's response to a design issue at a given time.

The second showing, with the winning schemes set upon their pedestals, initiated the next equally, if not more potent phase of the competition process, as the masses attempted to either rock or re-affirm those pedestals through critical debate. This debate kept the essence of the Biloela competition alive long after the competition was judged and has since been produced in various magazines as well as internationally via the Internet and recorded on video, for posterity and educational purposes.

The first two showings were held on the UNSW campus, both on and for the duration of one day, primarily attended by The Big Sky conference delegates. For this reason, I decided to stage a third showing, more accessible to the public, over a longer period and at a more central public venue. The Lend Lease Group donated a space at the MLC Centre in Sydney as part of their commitment to urban design. Here, a showing of the short listed schemes and the finalists were mounted, along with the remaining entries on twin slide projectors.<sup>7</sup> I felt it was important for the public to view all of the schemes, not just the selected few. This was a sign of the competition's integrity, as it showed respect to all those who entered.

Approximately 300 people viewed, questioned and engaged with the displayed designs. Because of the controversial history of Cockatoo Island, particularly during the union action of the late 1980s and the incensed public reaction to the island's closure in 1989, the debate was dynamic. Magazines took the stories and newspapers became interested. This was looking like a raw nerve for Sydney and for State and Commonwealth politics. The comments that were recorded reflect a range of responses from 'Save the island – beautiful conceptual ideas', to 'Not realistic enough to convince the government or private sector for any practical actions.' These comments are a vital element of the on-going debate.

Those people who viewed the schemes not only saw drawings for Cockatoo Island, but also became aware of the wider implications of development and privatisation of Sydney's post-industrial landscape and harbour foreshore.

## ENHANCING DESIGN CULTURE

Biloela achieved many benefits of the type that enhance design culture through competitions. It had a very public profile: John Mant, the Head of the Premier's Urban Design Task Force in NSW, announced the prizes. Other political party members attended, including the now retired Tom Uren, a staunch ally. Members of the media were present, so too were eminent designers, such as Richard Le Plastrier along with students and educators from around Australia and overseas.

The competition presented a strong duality. As an ideas competition, the unbuilt nature became an issue of content as the polemic nature of the island's history and political pressures became more evident; Cockatoo Island was the typical *hot potato*. This condition is recognised by Richard Francis-Jones, the jury's Chair, in the judges' report, which reads:

The ideas competition for Cockatoo Island provided a great challenge to both entrants and judges, poised as it is between formal, theoretical investigation on one hand and the social, cultural, and political reality on the other hand. Bridging this gap is the powerful physicality of this carved and scarred rock at the heart of Sydney Harbour.

It is the classic duality of the ideas competition which at once provides an important opportunity for open theoretical investigation while also putting forward realistic propositions that challenge the political orthodoxy and positively contribute to the public debate over the future of a city.

Given this inherent duality, the judges regard the selected Prize Winning schemes as a 'set,' which taken together represent an outstanding response to the competition and for which the five Prize Winners are sincerely congratulated by the Jury.<sup>8</sup>

Roderick Simpson writes in the journal 'Architecture Australia':

As with all competitions, it is the elegance of an idea and its resolution that wins the day. Rarely are complex or ambivalent statements chosen. Instead the many directions available are represented through the curatorial selection of the jury.

The five premiated schemes, which the jury considered as "a set," literally, though unintentionally scoped Cockatoo's history – with different phases providing different starting points for the various schemes' trajectories: Weller, nature; McNamee, prison; McGrath, institution; Ramus, work place and Güller and Schaefer, the emerald city on the Hollywood axis.<sup>9</sup>

In ideas competitions, commonality of purpose, which produces vagaries in design approach, is what fuels the debate. This enhances design culture through

vital discourse, and gives the specific issues longevity.

A competition system facilitates the lifeblood of a design culture in so far as it provides a regular forum for design work. It allows new people with various approaches to the problems of design to speak out and be heard.<sup>10</sup>

The 19th century philosopher, Kierkegaard, poignantly points out: “People hardly ever make use of the freedom they have, such as freedom of thought, and instead they demand freedom of speech.”<sup>11</sup> The environment that encourages and provides the freedom to really ‘think’ is embodied in the intention of design competitions.

## CREATIVE THINKING

Creative thinking is probably one of the most important skills a designer can have. It is the ability, as Edward de Bono describes, “... to visualise the path of thinking that you travel and to take off at any time to explore tangents, but still arrive back on that path if the tangent proves fruitless.”<sup>12</sup>

One of the most important aspects of creative thinking is the ability to understand, interpret and think about problems in different ways, not to be limited by our preconceived ideas of how we think things are or should be.<sup>13</sup> Often a faculty of the young, creative thinking becomes harder to achieve as one works longer and longer in a bureaucratic system whose foundations lie in order, efficiency and a firm notion of ‘the way things should be.’ Boden describes creative thinking:

To be creative is not enough for an idea to be unusual, not even if it is valuable, too. Nor is it enough to be a mere novelty, something that has never happened before. Genuinely creative ideas are surprising in a deeper way...our surprise at a creative idea recognises that the world has turned out differently not just from the way we thought it would, but even from the way we thought it could.<sup>14</sup>

Design competitions genuinely encourage creative thinking. Often briefs call for ‘visionary ideas’ and ideas that ‘challenge our perceptions.’ Individuals and groups who work on competitions in this environment of reinventing and challenging preconceived ideas will ultimately be more ‘switched-on’ and able to view a new perspective on design matters. Such fresh vitality and approaches will flow back through the office or school, influencing their peers and enhance design culture, both intellectually and through built projects.

## POST BILOELA

Building on the debate initiated by the Biloela competition, we continued to use the body of work to gain public support. Activities, including lobbying the government, continued months after the competition. A petition was circulated which asked that Cockatoo Island not be sold into private ownership, but become part of Sydney's public realm, with provision for commercial activity, and that the ideas generated by the International Design Competition, Biloela, be seen as valid future directions. In July 1995, Senator Vicky Bourne for the Australian Democrats questioned Senator Faulkner in a sitting of Federal Parliament about the present state of the Island. In November of that year, as a direct result of the Biloela competition and the subsequent lobbying, four design journal articles, radio interviews including a news item on ABC Radio National and public exhibitions, Australian Democrats senator Elisabeth Kirkby MLC presented an adjournment speech which raised the question of "the government's intended sale of Cockatoo Island" and brought to the attention of Parliament the efforts of "the Friends of Cockatoo Island and the International Design competition run by the students of landscape architecture, UNSW."

The influence of Biloela and the ensuing events on the government's decision to return Cockatoo Island to the public realm and reverse their decision to sell, is not clear. Nevertheless, the pleasure of sitting in old timber drying sheds on Cockatoo Island's uppermost plateau, with the sun streaming in, during the 2005 Easter Festival - 10 years and 6 months after the Biloela competition, with old allies Richard Leplastrier and Roderick Simpson, was something very special. The public had access to the island for the first time since 1992, and they flocked to it over that long weekend (Figures 3, 4 & 5).

A place like Cockatoo Island needs people and people need a place like Cockatoo.

The fences have now gone.



PHOTO: MARC GRIMWADE

*FIGURE 3*

*SPECTATORS ENJOY A PERFORMANCE AT THE COCKATOO ISLAND FESTIVAL  
IN 2005*



*FIGURE 4: OUTSIDE THE ELECTROPLATE PAVILLION  
AT COCKATOO ISLAND FESTIVAL 2005*



PHOTO: MARC GRIMWADE

FIGURE 5

*THE SPOKEN WORD AND STORYTELLING THEATRE AT THE COCKATOO ISLAND FESTIVAL 2005*

- 1 Guillaume, M: 1986, *L'Etat des Sciences Sociales en France*, La Découverte, Paris.
- 2 The Big Sky: Landscape on the Pacific Edge conference continued a tradition of student run landscape architecture conferences established at the Royal Melbourne Institute of Technology in 1992 with the Culture of Landscape Architecture: Edge Too Conference. At this time, the author was a student of Landscape Architecture at the University of New South Wales and organiser of the documented competition.
- 3 The Friends of Cockatoo was a community body formed to fight the privatisation of Cockatoo Island and bring it back to the public.
- 4 Biloela design competition brief for Cockatoo Island, 1995.
- 5 Simpson, R.: 1996, *Edge Conditions*, Architecture Australia, 85 (1), p.70.
- 6 Cited in Dixon, J.: 1991, *The Garden as Cult Object*, in Wrede, S. and Adams, W: 1991, *Denatured Visions: Landscape and Culture in the 20th Century*, Museum of Modern Art, New York, p. 19.



- 7 [www.bovislendlease.com](http://www.bovislendlease.com)
- 8 Francis-Jones, R: 1995, *Biloela, Monument*, 11, pp. 102.
- 9 Simpson, R: 1996, *Cockatoo Island*, *Architecture Australia*, 85(1), pp. 70.
- 10 Weller, R: 1996, *Making Australia a Better Place in which to Live? Landscape Australia*, 18 (2), p. 37.
- 11 [www.wisdomquotes.com/cat\\_freedom.html](http://www.wisdomquotes.com/cat_freedom.html)
- 12 De Bono, E: 1993, *Serious Creativity: The Power of Lateral Thinking to Create New Ideas*, Harper Collins, London.
- 13 Moore, K: 1993, *The Art of Design, Landscape Design*, No.217, pp. 30.
- 14 Boden, M: 1990, *The Creative Mind, Myth and Mechanism*, Basic Books, New York.

# Postcard from a 21<sup>st</sup> Century City

*Ingo Kumic*

In a world dominated by autonomous cities, continuing urbanization, the corporatisation of government, and a global economic condition which has long since seen the critical distance between capital and culture collapse,<sup>1</sup> cities continue to deploy strategies geared towards the ‘production and consumption of culture’ in order to be more competitive.

The year is 2025, and the planet has witnessed an unprecedented level of urbanization over the past 30 years: 6 of the world’s 8 billion people are now living in cities.

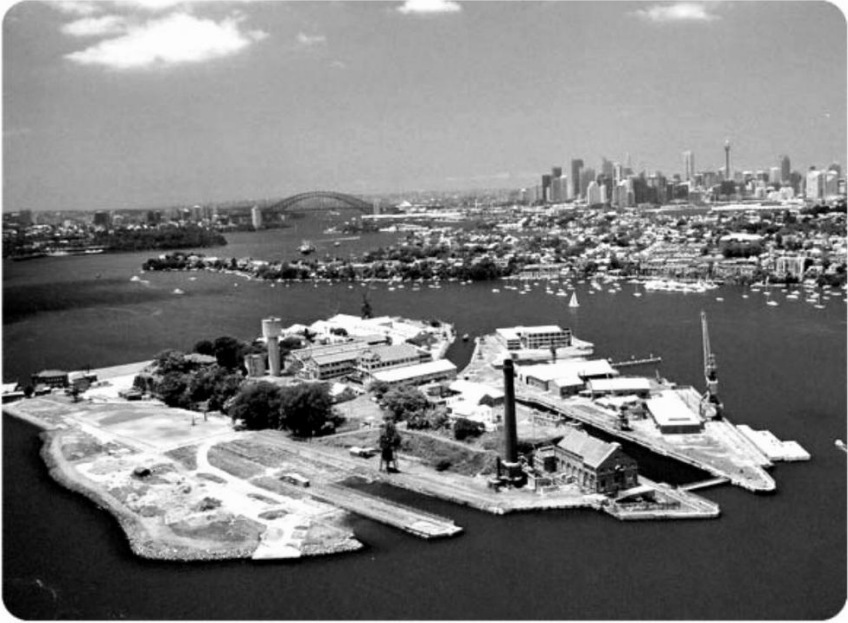
Sydney sits on the doorstep of what is the dominant economic region on the planet. The world’s powerhouse economies, China and India, have displaced the United States and Europe as the world’s pace setters and economic engine rooms.

With a population of little more than 6 million people, Sydney has secured its role as the pre-eminent economic and political state in the region.

Australia’s historical ties to Europe and the United States were perfect for Sydney to exploit and use to its own competitive advantage. Now, Sydney occupies a crucial link in the management of economic and political relations between the West and Asia.

This rise to prominence is most attributed to the notable shift in the Sydney-sider self-image and the corresponding shift in the City’s cultural economic agenda. The return of Sydney’s prodigal sons and daughters (contributors to the Australian diaspora of the late 20th Century) resulted in the desire to create a city of cultural opportunity and innovation, a city which held onto its educated young with the promise that they would work and learn from the best right at home, that the world’s best were represented by Sydney-siders themselves.

Sydney was no longer a City simply offering up a pre-packaged holiday replete with retarding cultural iconography, nor was it simply a theme park for the enjoyment of the world’s sedentary middle-classes; Sydney had grown to become a premier city. This City was profoundly open-ended and entropic, absorbing and reflecting the lives of those that inhabit it. Ambitious and creative people began to see themselves in either, London, Tokyo, Shanghai, New York, or Sydney.



Within a short space of time Sydney has positioned itself as a significant site of cultural production exporting everything from commercial media and design services to globally significant events in the arts.

The former industrial waterfront site of Cockatoo Island has been formative in this transformation and is now a powerful symbol of the City's maturity and influence in the rest of the world. The site is as much a part of the local character of Sydney's inner west and the lower reaches of the Parramatta River as it of the global network of locations hosting cultural innovation.

When one reflects on the City Sydney has become, one can't help but feel it has become a place altogether elsewhere.

- 1 Jameson, F: 1991, *Postmodernism or the Cultural Logic of Late Capitalism*, Duke University Press, Durham.





PART III  
WORKS + CRITIQUES



# INTRODUCTION TO PART III

## *WORKS + CRITIQUES*

Urban islands are places for experimentation; urban labs for acting and reflecting.

Cockatoo Island is a place at once vacant and full, near and far, real and imaginary. As a place that has been continuously inhabited, altered and re-inhabited throughout its history, the physical character of the island itself is entirely open to interpretation. Cockatoo Island thus presented an ideal site for the first Urban Islands workshop, allowing studio investigations to traverse phenomenological, conceptual, material and interpretational concerns.

To provide an operational context, the Urban Islands Symposium held at the outset of the studio sought to broaden discussion to the greater issues surrounding the future of the island itself and of urban development of similar sites.

A group of emerging voices - theorists, practitioners and educators - were invited to co-ordinate the studios: Jin Hidaka and Satoru Yamashiro of Responsive Environment, Tokyo; Lisa Iwamoto and Craig Scott of IS.Ar, San Francisco; Jaime Rouillon of JRA, Costa Rica; and Dr. Henri Praeger of Prarchitekten, Berlin (who was assisted by Chris Abel of Sydney University).

Work varied enormously across the studios, from IS.Ar's investigations into systems and operations; through Rouillon's obsession with exposed physicality; the Prager-Abel group's meandering and experiential 'feedback loop'; and culminating in the magnificent installations in the Turbine Hall by the Responsive Environment group, created using only water, sound and light.



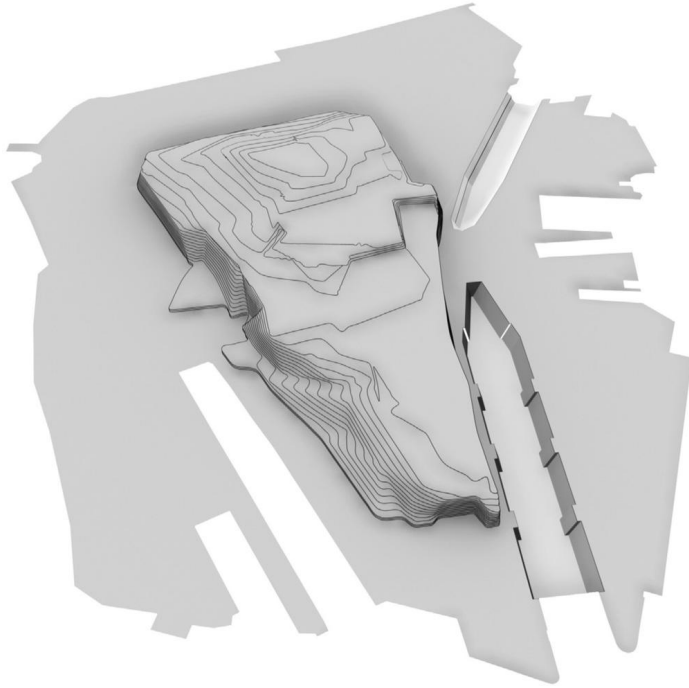
*REVIEW OF THE URBAN ISLANDS STUDIO WORKS IN THE OLD CONVICT CELL,  
NOW CONVERTED TO A DIGITAL MEDIA ROOM*

Finally, the closing Review on the island brought together a wide range of artists, architects and practitioners from many fields to view and critique the work, and to participate in discussions about the potential of the island and the directions developments might take in the future.

The projects presented here are some testament to the inspiration that many found, and continue to find, on Cockatoo Island.

OLIVIA HYDE, THOMAS RIVARD & JOANNE JAKOVICH  
URBAN ISLANDS PROJECT





*FIGURE 1*

*THE 'FRIED EGG' LAND FORM OF COCKATOO ISLAND: THE SANDSTONE WAS CARVED, TUNNELED AND REDEPOSITED TO MAKE WAY FOR INDUSTRY*

# SOFT RESPONSES TO A HARD PLACE

*CHRIS ABEL*

Jutting out from the inner stretches of Sydney Harbour where the waters narrow down to the mouth of Parramatta River, Cockatoo Island presents a stark contrast to the well tended villas arrayed on the opposite banks of the Harbour - an industrial graveyard situated amidst the city's up-market suburbs. A throwback to Sydney's brutal colonial history, the island may not quite rank alongside San Francisco's Alcatraz in infamy, but the parallels are inescapable. Also formerly an island prison, the unlucky convicts were supposedly deterred from swimming across the relatively narrow waters by the presence of sharks attracted to the waste thrown into the harbour from a nearby abattoir. Briefly converted to a reformatory and industrial school for girls, the character of the former penal settlement is said to have rubbed off onto the new inhabitants, dooming "... hopes for transformation."<sup>1</sup> Converted back into an overflow prison for another two decades, the island found a new and more appropriate maritime role at the beginning of the twentieth century as a ship-building and repair centre - a role which acquired special significance through two world wars.

It was during this period, when Cockatoo Island was transformed into "...one of Australia's great industrial sites,"<sup>2</sup> that the physical shape of the island was also totally transformed to accommodate its new purpose. Great chunks of the rocky island were quarried and used as landfill to extend the perimeter and create a flatter landscape more amenable to industrial uses. The result is a drastically altered land mass looking much like a fried egg, with what remains of the original high ground in the centre where the original prison garrison was based, surrounded by a flat apron, where most of the industrial buildings were placed, the abandoned remnants of which still remain (Figure 1). Drilled into and sometimes right through the central mass itself are numerous man-made cavities and tunnels, once used for storage or circulation, so that the rocky centre resembles in part a giant piece of Swiss cheese.

Now a designated conservation area under the public guardianship of the recently formed Sydney Harbour Federation Trust, Cockatoo Island awaits its next rebirth. But as what? Aside from proposals to revive part of the dry docks as a

scaled down shipyard, together with “...the creation of a landmark harbour attraction” and various guided walks,<sup>3</sup> plans for the island’s future remain sketchy – an irresistible magnet for would-be entrepreneurs, conservationists, and now, bands of eager architecture students. Already the subject of occasional individual graduate projects, the role of the island as architectural test-bed and laboratory acquired new impetus with the arrival of a group of University of Sydney students, who, with the active support of the Trust,<sup>4</sup> descended on the island accompanied by their tutors and visiting architects for a brief but hectic two weeks of collective brain storming in August 2006.

Condensed into a dizzyingly short period of intensive creative production, academic projects of this kind can be risky ventures, hovering for most of their time between great promise and disappointment. At their best, however, against all the odds they can sometimes crystallize significant movements and currents in a way that more structured and leisurely projects might not. So it was with the Urban Islands Studio. For one thing, an international outlook – ‘de rigueur’ these days for any self-respecting architectural exercise – was built into the project with the participation of innovative young architects from different parts of the world: Jaime Rouillon from Costa Rica; Lisa Iwamoto and Craig Scott of IwamotoScott, California; Satoru Yamashiro and Jin Hidaka of Responsive Environment, Japan, and Henri Praeger, from Germany.

These participants led four groups of students, focusing on different aspects or parts of the island. For all the diverse origins and interests of the tutors, however, a common approach – at least to this writer’s eyes – quickly emerged amongst the different groups. The international outlook, for example, manifested itself in an unselfconscious use of both digital and more conventional media, with which all tutors and students appeared at ease, bolstered by an equally confident disregard for disciplinary boundaries. The latter was most effectively demonstrated in the two-part *Soft Inversions* installation created by the RE Studio led by Yamashiro and Hidaka, whose Tokyo based group, Responsive Environment, styles itself as an interdisciplinary unit merging architecture, image-making, music, dance and design. Mounted in the enormous space of the former Turbine Hall, the largest industrial structure remaining on the island, the installation consisted of the introduction of two basic elements, water and light, each of which could only be appreciated at different times of the day. First, the vast floor of the hall was flooded in daytime with a thin layer of water, just sufficient to transform the surface into a giant mirror, reflecting the roof of the hall and visually doubling the size of the space (Figure 2). This was followed in the evening by the insertion of row upon row of small candles into the shallow water in straight lines down the full length of the darkened hall, so that they seemed to stretch into infinity – an awesome sight, which left many observers stunned into silence.

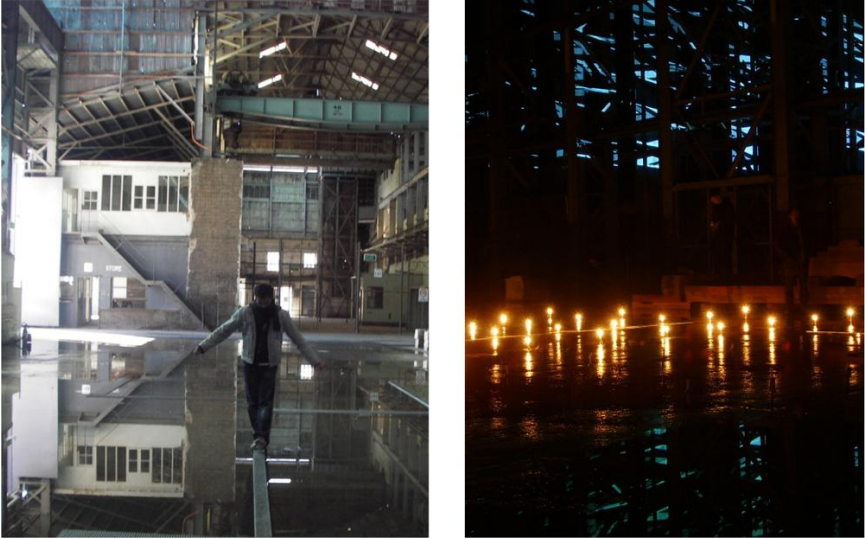


FIGURE 2

*'SOFT INVERSIONS': A TWO-PART INSTALLATION THAT USED A THIN LAYER OF WATER TO DOUBLE THE PERCEPTUAL HEIGHT OF THE TURBINE HALL IN BOTH DAY AND NIGHT*

The magical combination of these simple but powerful elements with minimal and only temporary disturbance to the existing structure also seemed to capture the general spirit of most, if not all of the other works, many of which might also equally well be described as installations, rather than architecture, with all its connotations of durability and completeness. A whole group of students, for example, focussed on the narrow space between the Turbine Hall and the adjacent cliff, the face of which is pockmarked with the cavities of silos (man-made underground storage spaces originally carved by hand into the rock from the surface by convicts) exposed when the rock was cut back to make room for the huge shed. One such proposal involved the casting of vertical moving bands of light onto the cliff face at night along the full length of the space, literally illuminating the drastic manipulation of the island's natural features. Another, slightly more substantial proposal, involved the insertion of a suspended bridge cum circulation corridor linking the Turbine Hall to the silos, some of which would be joined together so that visitors might walk down through these hollowed out spaces from the ground above, across to the Hall. Twisting its way along and across the narrow void like a giant snake, the exposed skeleton of the bridge, each member of which was different to the next, could only have been designed with digital techniques, and was treated as much as a work of art as a piece of structural

engineering (Figure 3). However, like most of the other works, it too could be removed at some future point with little impact upon the existing structure or cliff.

There were, of course, exceptions to these temporary interventions. One ambitious student proposed converting one of the two dry docks for cultural uses, inserting a small theatre and exhibition spaces into the great basin, the roof of which took the form of a monumental ramp connecting the upper and lower levels. Another, recognizably ‘architectural’ transformation, involved the conversion of one of the industrial structures on the central plateau into a museum of the island’s history. One of the more obvious but necessary facilities which will doubtless eventually be realized somewhere on the island, the proposal was enlivened by the insertion of a new curved enclosure into the centre of the structure penetrating and unifying the different floor levels, not dissimilar in form from the upturned hull of a ship, the frames for which were once manufactured in the same building. However, as with most students’ proposals, both projects were treated as separate works, with little or no relation to any wider schema, except that which the students had gleaned from the Trust’s own plans.

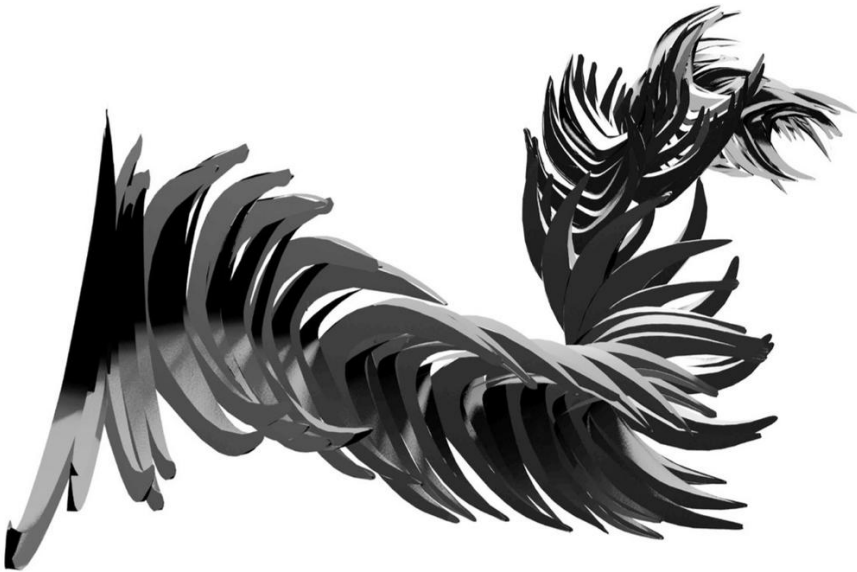


FIGURE 3

*A PROPOSAL FOR A SUSPENDED CORRIDOR LINKING THE TURBINE HALL AND EMBEDDED SANDSTONE SILOS, BY NATALIE MINASIAN*

Clearly, it could be argued that the fragmentary and tentative nature of these projects was simply a consequence of the limited time span and resources available,

and that both tutors and students were compelled to narrow their focus in pursuit of achievable goals and tasks. Some tutors actually stated as much at the outset. But my impression is that there was more to it than that. Following these events in my own role as an invited critic, I could not help but compare the progress and outcome of the Sydney students' efforts with what I and my fellow students at the Architectural Association in London might have made of such an exercise way back then in the wholly different and more optimistic cultural milieu of the 1960s. I imagine that our own efforts may well have been sketchy at most, ill-conceived maybe, naïve and over ambitious almost certainly, but I cannot imagine them involving anything less than a future strategy for the whole island. That's simply what you did back then. You took hold of a given problem and promptly enlarged it to take in whatever other contingent factors or contextual issues were going to affect your proposals. And if that meant re-conceiving an institution or re-planning a whole district, then that's just what you would do, uncertain though the result might be.

To repeat – then was most surely a very different time, when anything seemed possible and the UK's Archigram group, along with Japan's Metabolists, were throwing up megastructures galore, and architects in some cases were actually designing whole cities in different parts of the world. One would not necessarily want to repeat much of what was proposed or achieved. Archigram's Plug-In City included (far from showing the way forward, many of Archigram's ideas were rooted in a wasteful, throw-away consumerist culture based on mass-production technologies that have since been displaced by more flexible technologies of production), not to mention countless dreary new towns. The transition from the continuing Modernist fixation with utopian schemes that characterized the 1960s, to the more humble position that architects and urban designers find themselves in today, has also been well documented, by Hidaka, amongst others. In his essay, *Soft Architecture / Soft Urbanism*,<sup>5</sup> Hidaka describes architects' withdrawal since the 1970s from large-scale urban planning and design in the face of economic and social forces – what he calls 'the real city' - outside of their control or influence. Quoting from Arata Isozaki's related writings in support of his arguments, Hidaka urges architects instead to embrace the 'invisible city' of the internet and other media:

....the incorporation of software in architecture will increase the proportion of its intangible aspects, and activities will be carried out according to the new environments determined by the media.<sup>6</sup>

It is possible, therefore, to read the fragmentary and more media based projects of the Urban Islands exercise as a manifestation of similar ideas and influences, working their way through as the currently dominant gestalt or paradigm, whether consciously or unconsciously. Neither are these entirely new concepts or values.

At the same time as Chandigarh and Brazilia were being built, Melvin Webber and Robert Venturi *et al* were already arguing that new communications media and private transportation were rendering Eurocentric concepts of compact urban settlements and well defined spaces redundant, and that the urban models for the future were to be found in the dispersed cities and suburbs of North America.<sup>7</sup>

Having long argued for a broader understanding of the significance of the internet and related digital media for architectural production,<sup>8</sup> I do not dispute their importance or impact. However, along with the exponential growth of the Net, we have also witnessed a renewed interest in concepts of cultural and place identity, suggesting that the Net may not be simply displacing all the rest, as actually creating counterbalancing forces. Taking various forms, including regionalism, new urbanism, densification and numerous other manifestations, these forces are not necessarily all compatible nor do they spring from the same well. Prominent digital gurus like William Mitchell have come to accept that the growth of such media does not necessarily of itself displace the need for concentrated centres of human activity but may actually complement them.<sup>9</sup> Manuel Castells, celebrated author of *The Rise of the Network Society*,<sup>10</sup> also argues that even workers in the information technology industries themselves function best gathered together in urban centres:

....I argue that in the case of information technology industries, at least in this century, spatial proximity is a necessary material condition for the existence of such milieux, because of the interactive nature of the innovation process.<sup>11</sup>

It is more constructive – and accurate – to view such developments through what I call my ‘layer-cake theory’ of innovation.<sup>12</sup> In place of the simplistic picture favoured by enthusiasts, of new technologies completely displacing older ones, in the layer-cake theory, new technologies create additional ways of doing things but very rarely obliterate their predecessors. In this more ambiguous and challenging world of change, supposedly outdated technologies may therefore continue for long periods of time in parallel with their newer competitors, and may even enjoy a fresh lease of life, successfully adapting to the new situation. Thus radio survived the introduction of TV, railways survived jet-aircraft and the automobile, and printed paper and books have so far even survived the Net. The way things are going, along with the decline of the fossil fuel economy, we are likely to see a great many more similar rebirths of this kind, of both technologies and their related culture-forms.

We should not therefore let ourselves be lulled into either-or positions or attitudes where acceptance of new media compels us to reject or pay less attention to other equally important factors, such as, in this case, the creation or enhancement of a particular place. In that respect, most of the projects, not forgetting

Yamashiro and Hidaka's installation, demonstrated an admirable sensitivity toward the specific locations in the island where they were focussed. However, isolated gestures like this, no matter how imaginative or brilliant, as some of them undoubtedly were, do not of themselves make a place, nor do they add up to a viable strategy for the island's future, which is so desperately needed.

Maybe its time again to recapture some of that larger and more generous vision that architects and students were so addicted to, not so long ago. Nor is it just nostalgia for another era that prompts me to lament designers' shrinking ambitions. But I fear that, having rightly moved away from the utopian fantasies of orthodox Modernism, the ideological pendulum may have swung too far in the opposite direction, and that narrowly focussed urban interventions of this sort are symptomatic of architects' ineffectiveness in the face of the looming environmental crisis that is threatening to engulf the planet. Given that scientists and engineers are now taking seriously what were only just recently regarded as cranky ideas for manipulating the climate, or geo-engineering as it is called, to counteract the effects of global warming, including orbiting giant mirrors to reflect the sun's rays away from the earth, or creating more cloud cover, is it too much to ask for a holistic approach to one small island?

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# 17

## RETHINKING PARAMETERS

*MARC AUREL SCHNABEL*



### THE ISLAND

Design Studios are an essential learning experience for architecture students. Their traditions and proceedings are well established. The studio is informed and supplemented by events, the city and the built environment, all of which contribute to participants' learning. This in turn expands the learning environment and contributes to society in general. Hitherto there has been a gap between skill training and the application of knowledge to the cultural context of society. The Urban Islands Studio<sup>1</sup> went beyond simple skill training and required reflection and the creation of knowledge to flow back into the larger society. In other words, the studio was to the discourse of urban design, what Cockatoo Island is to the rest of the city.

The gap between expertise and the application of knowledge often becomes apparent in relation to urban design studios, where on one hand the underlying concepts of architectural design and philosophies of urban development are presented, and on the other hand, students must be taught the technical skills of the field.<sup>2</sup> The integration of both within a single design studio often fails because the compound acquisition of skills can prevent a deeper exploration of design and its

theoretical aspects. Only long after participants have gained proficiency are they able to tackle design. Yet by then, these skills may no longer be valid because of the complexity of urban design problems. The knowledge and the skills students gain quickly becomes inactive because the learning foci of the urban design problem shift to other aims.

The Urban Islands Studio addressed these issues by integrating the training and designing modes right from the outset, through a series of compact workshops, seminars and lectures. This allowed the participants to draw from their own experiences and expertise and apply this deep into the project and beyond, as documented in this volume. Participants were inspired by their rich and informative experiences of Cockatoo Island from the first day, and from there expanded the development and communication of their understanding. The idea builds upon design studios held in the past that have allowed participants to explore design beyond its original definition and perceived limits.<sup>3</sup> This kind of urban design studio explores and addresses the evolving dimensions of cities, whereas conventional master plans do not reflect the fluid relationship between a city and its inhabitants.

## THE TOWER OF BABEL

The exploration of the relationship between human beings and the natural world and the subsequent implications for their interaction has deep roots in the social-cultural understanding of a society. A city is a direct reflection of its inhabitants, whereas design directly influences the living conditions of the people. In recent practice, cities have been designed and described by master plans that depict a picture-perfect, complete city in which change does not appear. A few have tried different approaches.

In the sixteenth century, Pieter Bruegel painted the Tower of Babel represented as a miniature city (Figure 1). A tower piercing the clouds represents the entire problem of cities and city life. It is not an ideal depiction, but one of a city crumbling and rebuilding at the same time. This city is constantly changing. In the sixties and early seventies, Archigram Architects proposed a similar idea. Reacting against the permanence of the house in their 'Plug-in City' (Figure 2), they proposed ever-changing units adaptable to different social and economic conditions.<sup>4</sup> Nevertheless, these examples never became the norm in thinking about the city. Instead, what has been practiced for centuries is much closer to Le Corbusier's idea of the city as a machine. A description based on an organism or an ever-evolving system for generating desirable outcomes is much closer to reality.



*FIGURE 1*

*PIETER BRUEGEL (1525/30-1569) TOWER OF BABEL <sup>5</sup>*

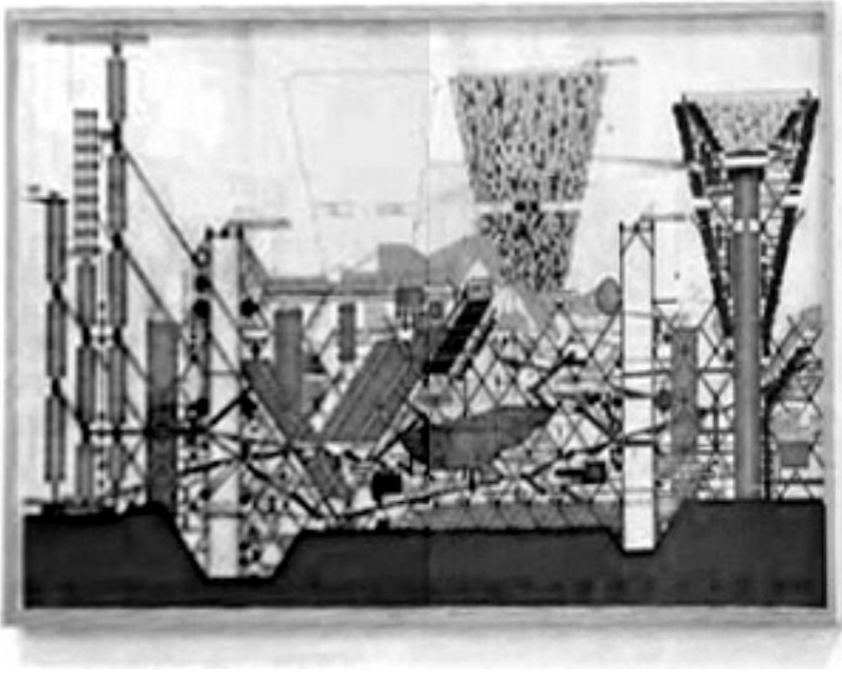


FIGURE 2

*ARCHIGRAM'S PLUG-IN CITY 1962-1964*

A building, an urban situation or architecture in general can be expressed and specified in a variety of ways. Commonly, geometric properties are described with drawings. Thus, a building or a street can be explained, depicted and constructed. Alternatively, observed behaviours can be described, as found in performance specifications. It is also possible to represent properties in terms of relationships between entities. For instance, in a spreadsheet, the value of a cell can be specified as the result of the calculation of other cell entries.

These calculations or descriptions need not be explicit. Responsive materials change their properties in reaction to the conditions around them. A thermostat will sense air temperature and control the flow of electric current and hence the temperature of the air. Using such techniques, artists have created reactive sculptures and architects have made sentient spaces; that is, spaces that react to the occupant or other factors: lights turn on if lux levels fall below a certain threshold, traffic flow is regulated according to need, walls move as users change location.

Using these ideas, connections to a variety of data or atmospheres can be established that serve as a basis for generating innovative urban forms and liv-

ing environments. When designing urban space, it is usual to collect data on the type of urban qualities desired. These are then, for example, translated into master plans, which are themselves specific spatial descriptions. One can also define performance requirements for urban places, linking the description of the urban space to historical, experiential, financial, social, environmental or other factors.<sup>6</sup>

For the design of Federation Square in Melbourne, Australia (Figure 3, left), LAB Architecture Studio developed analogical building facades through the interactive application of sequential rules describing their visual characteristics both quantitatively and qualitatively.<sup>7</sup> Their more recent designs of Beijing's urban master plans at 'SOHO Shang Du' extend this idea even further (Figure 3, right). Rather than producing a master plan, LAB translated planning codes into a series of parametric design rules. The outcome both complies with and confounds the rigid regulations of traditional urban planning. As seen in the 'favela' neighbourhoods in Sao Paulo, Brazil, architects try to respond to the influence of functionalism and economics by rethinking urban parameters.<sup>8</sup> They derive their parameters from the social context of the neighbourhood and its relationship to the urban context in order to create a model that embodies the constant change inherent within the favela.

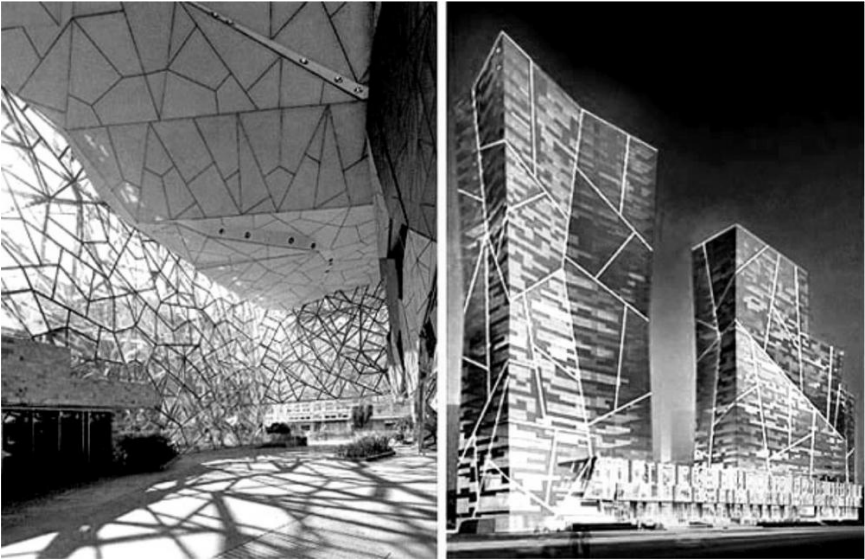


FIGURE 3

LAB ARCHITECTS: FEDERATION SQUARE [LEFT], SOHO SHANG DU, BEIJING [RIGHT]

The Urban Islands Studio used this same thinking to explore and reconsider a distinctive site within Sydney's urban context. Cockatoo Island is an ideal candidate for a parametric rethinking of its earlier development, which failed to anticipate changes that arose over the years, thereby excluding the island from the city.

As the basis of the investigation, the studio explored a distinctive abandoned land within the Sydney urban context. On this island, a variety of facilities and settings lie idle, awaiting redevelopment and integration into the urban context. Sydney's pace of urbanisation, as well as its rate of growth, has had a strong impact on both its sense of place and sense of community. Urban planning in general does not foresee the real changes that occur over years of habitation. The Urban Islands Studio explored these issues, creating a new urban identity for the site and the city itself.<sup>9</sup>

## URBAN PARAMETERS

The Urban Islands Studio was one of the Master Classes offered in the architecture program at the University of Sydney. Forty-five students elected to join the studio guided by international architects and held in August 2006. Its aim was to establish an architectural discourse with Cockatoo Island, the harbour and the city, and their historical and cultural context, and to communicate visions for reintegrating the island within the city's fabric to a broader audience.

In their initial exploration, the participants collected data from the location. This discovery went beyond the traditional 'site analysis' and required students to relate their own interests in the project to data that arose from the 'genius loci' or its urban context. These parameters were informed by the site, and allowed a description of the site based on dependencies and the interconnected relationships between relevant information. The outcomes of these investigations led to personal interpretations of the site as well as a rethinking of urban parameters as a whole. The studio successfully dismantled the boundaries between theoretical and practical realms by focusing on multiple rather than single interactions.

In the next stage of the studio, the participants concentrated on understanding their design concepts and acquiring the skills of design communication, which allowed their concepts and theories to be interpreted. These developments were tested for specific conditions on Cockatoo Island and placed into its architectural framework. The result was not only an academic discussion, but also the broad involvement of all stakeholders as well as the public.

The participants then developed their design creations, reflections and communications into a comprehensive urban proposal. Using the data, their understanding and their recently acquired skills, the participants were able to establish and visualise their design in a variety of descriptive and multidimensional forms to create spatial expressions of their findings and explorations. The outcomes are

strikingly powerful because they describe form by creating both dependencies and parameters that define the urban spaces as well as the landscape. Normally, urban settings are the passive result of the forms of the buildings around them.<sup>10</sup> This studio, however, described generators that created external spaces, which then defined the building forms, resulting in the subtraction of open space from the urban space.

The individual outcomes varied from large-scale installations that responded to various light conditions over a 24-hour cycle (Figure 4), to very small interventions as specific locations on the island (Figure 5). However, all participants carefully maintained most of the abandoned structures and buildings on the island. The interventions combined and redivided spaces and buildings. They re-established relationships with the surrounding water and neighbourhoods on the shorelines opposite the island, and allowed soft responses to hard places. This stands in contrast to Sydney's typical urban development, where relationships across the harbour—density, artificial structures and function—are erased, and new developments are isolated from their immediate surroundings<sup>11</sup>.



FIGURE 4

*'SOFT INVERSIONS' INSTALLATION: LIGHTS, REFLECTION & SOUND*

The studio concluded with a public seminar that brought together the various aspects and results of all participants into one cluster design. After two weeks of daily studio work, the students merged their individual designs and dependencies of urban strategies, components and rules into a single large design concept and strategy. These highly complex representations, however, cannot be communicated using traditional urban planning methods or tools. The synthesis of the final seminar created layers of descriptions and dependencies that are highly complex and interrelated. This resulted in a rethinking of urban parameters, allowing



a seamless communication with a larger audience. Urban planners, architects, stakeholders and the general public were invited to review and discuss the outcomes of the studio. The variety of innovative statements of urban habitation and the living environment allowed the participants to amplify the impact of their generated design proposals beyond the shores of the island and far into the city itself. The students were not limited to their own knowledge or level of skills in order to express their design. At the same time, the audience could engage in a complex discussion about urban planning and design. The proposals presented by the students allowed quick access to a variety of solutions as well as their synthesis within the overall context.



FIGURE 5

*POROELASTICITY: PETER CHRISTENSEN, SHUI KWAN, JONATHAN SPICER*

The variety of individual design proposals, as well as the large multifaceted urban design cluster for Cockatoo Island, demonstrated a high level of thinking that ended in the generation of compound designs. Each participant in the seminar contributed to both the micro and macro scale in order to create and rethink urban strategies. This method allowed innovative urban design to emerge.

## RETHINKING

The Urban Islands Studio addressed novel concepts in the creation of urban design that can influence recent developments in architectural production. This partly experimental, partly realistic studio explored innovative methods of architectural expression, form finding and communication, and developed unconventional solutions. It coupled the in-depth studio-learning environment with a creative real-case scenario in order to close the gap between the studio environment and the application of knowledge. Hence, the studio relates to and reshapes urban design in general, just as Cockatoo Island can relate to and reshape the city. Additionally, it explored novel processes for the integration of compound urban design issues. The rethinking of urban parameters allowed the participants to create an innovative urban design language based on social and cultural descriptions.

One objective of the studio was to frame an intellectual research question linking to a variety of data to generate and integrate an urban form. A more interesting outcome derived from the ability to redefine and reframe the problem itself by stepping out from a preconception based on experience and exploring a set of unpredictable answers. These are higher levels of design problems. The framing of a problem at a higher level allows both a deeper investigation of the problem itself and a rethinking of the variables that contribute to a solution. The establishment of meta-rules creates a precise problem-framing that allows the reference of one problem or parameter to another one. As with our design studio, the outcomes illustrate how nonlinear design processes and re-representations of an idea can lead to successful and responsive design expressions that differ from conventional approaches to urban planning.

Although the synthesis of all individual projects removed the students from individual ownership of their design, it also allowed them to reflect on their own as well as their colleagues' designs as a whole cluster of contributions.<sup>12</sup> This outcome relates to earlier research by design studios based on the same principle, whereby the design environment is applied outside the bounds of its normal prescribed purpose, and innovative design methods are deployed through the interplay of design with exploration.<sup>13</sup>

With the rethinking of urban design habitation, both culture and living experiences can act as generators of spatial dependencies and rules. The generated design can subsequently be linked to various ways of extracting or generating innovative urban forms and understandings (Figure 6). These descriptions can then be used directly in the communication and exploration of urban environments.<sup>14</sup>

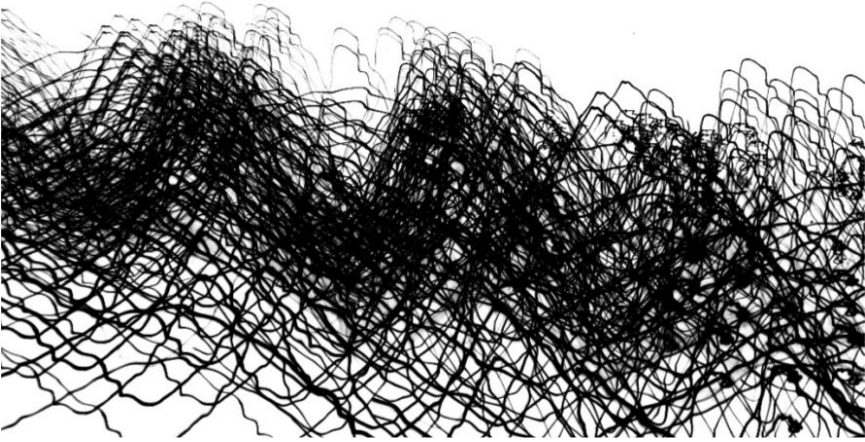


FIGURE 6

*RETHINKING URBAN PARAMETERS AS ABSTRACT DESCRIPTION*

A holistic discussion about design, city, function and development allows its significance to be rephrased not only within architectural education, but also in all other dialogues involving spatial representations. This follows the tradition of artists and designers, who have always pushed creativity towards new definitions of creation itself and its cultural context. The Urban Islands Studio addressed and expressed important aspects of the urban development process. It marked the beginning of a rethinking of urban parameters in design processes, and it is to be continued.



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# EMANCIPATION OF THE SURFACE

ARCHITECTURE OF SPATIAL DISLOCATION

FRAMING THE 'SOFT INVERSIONS' INSTALLATION BY THE RE STUDIO

LIZ BOWRA

The modern fear of the dark emaciated the architectural surface to a veil of transparency in the name of absolute visibility and reality. It was an architectural principle that enjoyed Vitruvian origins, whereby architecture was the product of a triple essence, *utilitas*, *firmitas*, *venustas*,<sup>1</sup> its public edifice imbued with the symbolic manifestation of order and truth. Sharing the visionary attitudes of Taut towards glass as the ultimate destination for an apolitical architecture, Modernists regarded "... construction itself as the primitive cell of architecture."<sup>2</sup> Form could thus be idealised the moment it shed its extraneous and artificial mask, the moment it undressed, or exposed itself to the public eye. For Mies Van der Rohe, the idea of stripping architecture to its essence culminated in his glass skyscraper entry to the Friedrichstrasse Competition of 1921,<sup>3</sup> where the office tower became a monument of transparency. The transparency of glass freed the structure from the exclusivity of its optical barriers, privileging neither the interior nor exterior in the revelation of its inner material truth. Contemporary architecture, while exploiting technical innovation and experimental digital techniques often buttresses the neo-classical stronghold that has both navigated and steadied architectural truths since the architecture of the ancient Greeks. Many intelligent facades and invisible sheaths still operate to filter, reveal or conceal their tectonic basis, forming a polarised relationship on a symbolic level between surface and substrate. The result? We find structures in costume dress. Gottfried Semper, a nineteenth century Viennese born architect and theorist, overturned the architectural surface's representational function by rejecting the historically accepted belief that truth was located in the substratum. He offered instead the decorative woven essence of the architectural surface. Semper asserted that the ritual of primitive space production was that of dressing rather than undressing. He developed this theory following the discovery of traces of paint on the facades of ancient Greek monumental architecture. Theorists had interpreted the naked marble forms of antiquity as architectural paradigms, alluding specifically to their tectonic revelation. Semper insisted that the marble's power lay in its potential to conceal, not reveal. The material's smooth and dense qualities realised its poten-

tial as *antique stucco*.<sup>4</sup> The surface, until then understood as an extraneous outer layer, offered a decorative essence that denied the materiality of its tectonic basis. Semper regarded it as: "...the subtlest, most bodiless coating...the most perfect means to do away with reality, for while it dressed the material it was itself immaterial."<sup>5</sup> Semper's book *The Four Elements of Architecture* overturned not only the wall's tectonic origins, but the location of architecture's essential truth. Architecture was no longer the act of dressing the naked form. It *begins* with masking or dressing; load bearing is a secondary function:

Hanging carpets remained the true walls, the visible boundaries of space. The often solid walls behind them were necessary for reasons that had nothing to do with the creation of space; they were needed for security, for supporting a load, for their permanence, and so on. Wherever the need for these secondary functions did not arise, the carpets remained the original means of separating space.<sup>6</sup>

If architecture begins with the 'creation of space' and the textured surface is the 'true' and legitimate wall, it follows that spatial delineation has primacy over and precedes the requirements for load bearing. The textiles or enclosures provide space with a visible limit, which operate to define the space of the interior and distinguish it from the exterior. They elucidate a twofold truth: that spatial division, the delineation of "... inner....(and) outer life"<sup>7</sup> was an effect or function of the enclosing membrane, and that such spatial demarcation was primordial. Semper's interpretation of the surface as at once decorative and functional resists all symbolic reading associated with the wall. The Semperian surface is not an extraneous outer layer with inherent symbolic meaning but architecture itself. If the mask, or the "... visible boundaries of space"<sup>8</sup> fashion the domestic realm, then the masquerade produces the public realm. For Semper, the masquerade is the "... motive of the permanent monument."<sup>9</sup> Social space is an explicit fabrication produced by *festival apparatus*<sup>10</sup> or the stage-set upon which hangs the optical barrier that defines it. Public space begins with the ritual of the theatre, the "... haze of carnival candles,"<sup>11</sup> presenting an artifice and denial of reality that is entirely visual. Telluric mass is de-materialised and subordinated behind an optical barrier. Public space operates as a function of the destruction of matter. In his paper *Untitled: the Housing of Gender*, Mark Wigley distils the emaciation of architecture that has occurred as a product of Semper's subversion:

Architecture is literally in the layer of paint which sustains the masquerade.<sup>12</sup>

The RE Studio's<sup>13</sup> *Soft Inversions* installation in the Turbine Hall emerges as something of a paradigm for Semper's theory outlining architecture's essence.

For the last ten years the Tokyo based *Responsive Environment* art group<sup>14</sup> have gained renown for their experiments with spatial expression and responsive environments using media, music, digital techniques and light. Adopting the term ‘Soft Architecture/Soft Urbanism’<sup>15</sup> they seek to disturb the historic formal ritual of architecture and planning by exploring the potential of software and thereby “... increasing the proportion of (architecture’s) intangible aspects,”<sup>16</sup> realising the possibility of dissolving architecture within the urban network. In their studio’s site-specific installation at Cockatoo Island they used these methods to blur the distinction between inside and out, reality and illusion, using the entire expanse of the Turbine Hall. Walking into the site-specific installation at sunset, one finds a scene whose centre of gravity consists of candles lining the ground in the innermost part of the space. The candles cast their dim light no further than the radius of a metre, leaving the perimeter of the Hall in obscurity. The presence of a lean layer of water covering the entire surface of the Hall creates the visual illusion of doubled-space and renders invisible the horizontal ground plane. The walls and roof recede beyond the relief of coloured beams of light projected onto them from a peripheral source of illumination. These interventions into the existing body (of the building) culminate into one identifiable act of architecture that simultaneously unfolds and unifies space.



FIGURE 1

CANDLES ALIGNED ON A GRID IN THE ‘SOFT INVERSIONS’ INSTALLATION

The installation celebrates the discipline and scale of spiritual observation marked by the visual metaphor of the cathedral. The hundreds of candles lining the ground plane are disciplined into a grid of rows and columns (Figure 1). The light itself is subdued and regulated, and this together with the encroaching dark-



ness focus the eye toward the centre of the space, to the central and rhythmic source of illumination. The abundance of the ordered candles coupled with the magnitude of the Hall conjures a striking image of a religious spectacle. Even at close range other people are seen as dark silhouettes against the warm glow of the candles. The expansive volume and the intermittent darkness and flickering light revoke the static nature of enclosed space and in its place conjure the masterly illusion of a fluid environment. The flooded surface of the entire Hall locates the site of performance at the horizontal ground plane, transforming the cathedral into a carnival. The water conceals the materiality of the concrete slab and the visual illusion of doubled-space causes it to disappear altogether. The sanctified scene is submerged and upturned, as the observer and candlelight float in space. While the viewer is subconsciously aware of the explicit fabrication afforded by the 'festival apparatus,'<sup>17</sup> or structural slab beneath the water, the artistic atmosphere is not spoiled. The surface mechanism creates a view of the entire ritual beyond reach and thereby cultivates the act of looking. The casual observer is transformed into a spectator or voyeur watching the performance (Figure 2). The denial of reality constructed by the scene's 'carnival haze'<sup>18</sup> resonates with Semper's theory that the public realm is made possible by the fabricated surface, and that social space begins with the theatre.



FIGURE 2

*THE MIRRORED SURFACE OF THE FLOODED HALL REFLECTS THE SPACE OF THE TURBINE HALL AND SPECTATORS WITHIN IT*

While the theatricality of the scene is a result of the watery mask, the same reflected view locates the spectator or voyeur within the scene (on stage). The mirror frames the delight and surprise of catching one's reflection in passing, while instantly locating the viewer physically within the performance. The typical theatre dislocates the observer, who sits in a privileged position of obscurity outside the well-lit performance. The RE Studio group casts the observer as both actor and spectator. The spectator is unveiled in the double act of visual and physical intrusion, dissolving the notional proscenium. The act of looking is gently reverberated. The superimposition of the space of looking onto the scene of ritual reflection establishes the ground plane as a permeable and leaky surface. The horizontal surface thereby operates to distribute observation: the delicate exposure of the ritual and the seductive echo of observation itself. The installation in fact displaces the Semperian surface by denying the operation of the visible limit. The notional boundary instead creates moments of boundlessness. The performance knits light and space into each other, dematerialising the surface of the Turbine Hall into a support for the spatial illusion. Cool purplish light from a peripheral

source is projected onto the roof and wall structures. The steel supports are made visible while the ceiling and walls remain invisible, receding beyond the relief of the truss members. The illumination conjures an animated foil to the tectonic basis of the architectural planes and offers in their place disembodied shafts of light dancing along the beams. Light infiltrates and defines the ceiling and walls, supplanting materiality and creating an atmosphere of surface depth that undermines the gravitas of the walls and roof by dissolving their purposes of shelter and barrier. This conception of light extends the potential of Semper's 'colourful paint' as a limit without substance: the perfect means for enacting the deception of a masquerade (Figure 3).

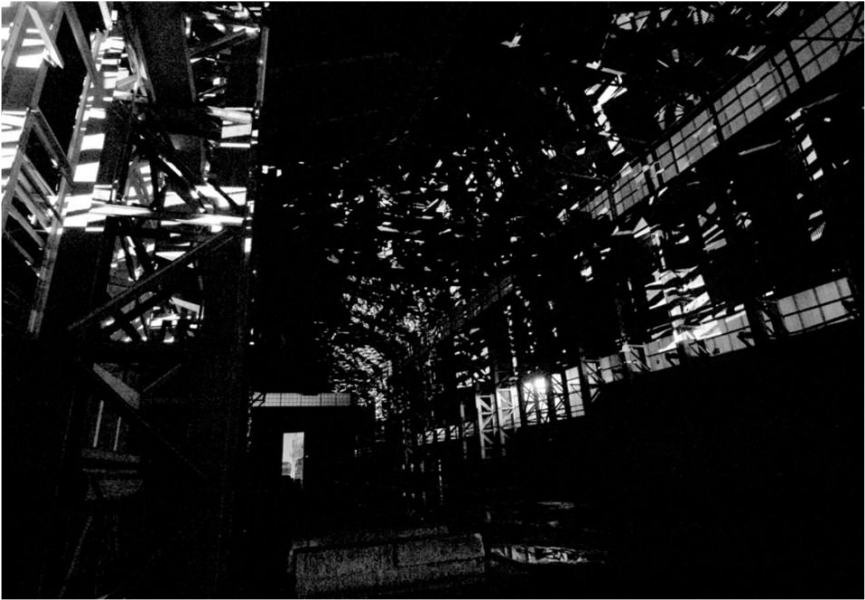


FIGURE 3

*PROJECTED LIGHT BEAMS ILLUMINATE THE WALLS AND CEILING OF THE TURBINE HALL*

If Semper establishes an architectural essence of boundaries, then the Turbine Hall project infuses these with a sense of transience. While Semper's mask or coat of paint presents a limit that is entirely static, the flashing light transforms the constant planes into momentary sparks of colour. The dancing planes flicker in unrest along the trusses as light appears to unfold, bend and kink, keeping beat with the syncopated sounds of the musical accompaniment. Light exerts a temporal force on the building, which buckles under its weightless strength. Con-

struction is no longer “... the primitive cell of architecture”<sup>19</sup> but fleeting and malleable. The power and beauty of the scene comes from the transmutation of a static volume into an elastic shape that deforms in response to forces of light, then instantly recovers its original appearance when the force is removed. The spatial enclosure constantly fractures, as light itself carves into the beams allowing the darkness to erase the visible surface beyond, providing in its place a volatile visible limit. It becomes impossible to determine the demarcation where the hall ends and the sky begins. The effect is of the dramatic transformation of the material into the immaterial, making possible an experience of endlessness. At once dark, moist and disorienting, the ‘responsive environment’ creates architecture that is entirely sensuous and phenomenal - the ultimate expression of Semper’s non-representational surface. Instead of enclosing the space, the installation enhances the void and releases it, allowing light to infiltrate and define the building. In one instant, the viewer gazes down into the sky, at a thousand stars, as space and light are woven into each other in constant flux. Gravity itself feels overcome as one floats in a realm at once deep and shallow and spectacular, the creation of an emancipated surface.

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<http://www.responsiveenvironment.com> (accessed 6/11/2006)
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  - 17 Semper, G: 1989, *The Four Elements of Architecture*, in Semper, G: 1989, *The Four Elements of Architecture and Other Writings*, Cambridge University Press, New York, p.255.
  - 18 'Haze of Carnival candles' Op. cit., p.255.
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19

# RESPONSIVE ENVIRONMENT STUDIO

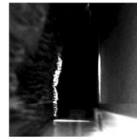
*TUTORS: SATORU YAMASHIRO + JIN HIDAKA*

[JAPAN]

[ TRANSIENT SPACE ]



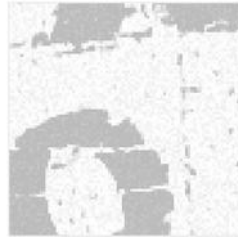
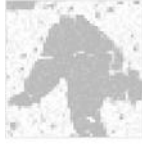
[ MEMORIES ]



[ SPECIAL EVENT ]



[ SHADOWS ]



‘Responsiveness’ is a new element in the architect’s palette. To design a responsive environment is to understand the dependencies of space and human behaviour. In addition to inserting static elements into a space, we can design for the temporal patterns of human actions using the most simple and sustainable tactics. A responsive approach requires a sensitive reading of the inherent qualities of the space, upon which we infer the fundamental actions and perceptions of people in response to that space.

Building on this we can begin to introduce subtle, low impact interventions using light, sound, or water for example, to enhance and extract some new per-



ceptual interactions with the space. We can introduce temporal change within these elements, or enable them to be reactive using new technology.

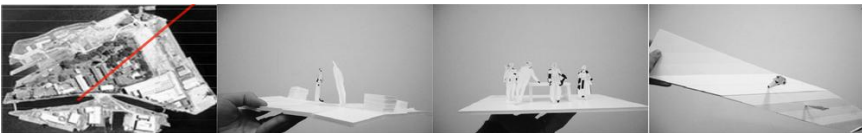
In this studio our aim was to design and build an ‘event’. Beyond architectural space, the brief required students to consider the integrated activities that occur in the space. These are evident as patterns, of movement or interactions, that collectively make the ‘scenery’ of the space. If we think about an ‘event’, it has a beginning and an end, and must therefore consider the ways people enter and leave it.

In the first phase, the students developed individual proposals for an event responding to a specific site on Cockatoo Island. As is documented in the following pages, these designs aimed to enhance the character of the space by heightening the senses, and creating an unexpected, theatrical and temporal transformation of it using subtle, ‘soft’ materials - light, sound, motion.

These ideas were then trialled in the second phase within which we tutors joined the students as equal participants to build and install a group work. Our collective goal was to design and implement an ‘event’ to be experienced by the 100 or so people coming to Cockatoo Island on the closing Review day. We chose the Turbine Hall for its striking infrastructures and vastness, and set about testing and selecting several subtle spatial techniques to transform its hidden character into something never to be forgotten. This work, ‘Soft Inversions’, is documented in Chapter 20.

#### [TRANSIENT SPACE]

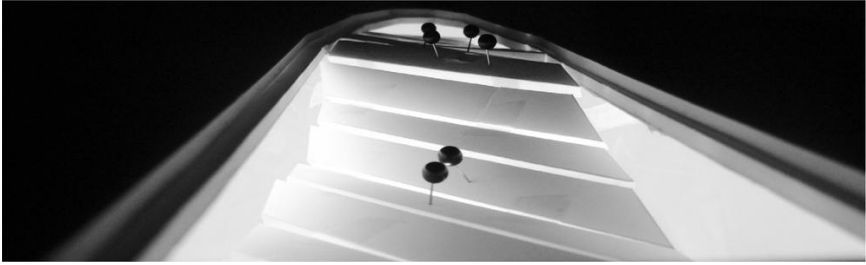
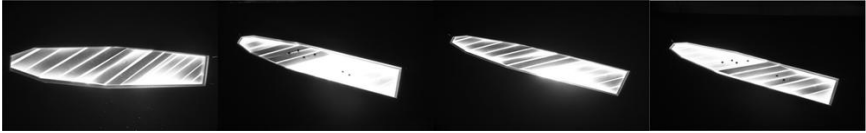
NGUYEN KHANG TRAN [SAM]



Cockatoo Island has hosted many programs throughout its history. Each activity on the site was replaced or influenced by newer activities. As a result the island is not only filled with traces of memories but also constantly changing to make new memories. A site-specific installation somehow has to respond to the island

(space) and the memories (time).

The installation proposes to lay a new surface upon the former dry dock. The installation celebrates the major phases of shipbuilding industry on Cockatoo Island. As the visitor wondering on this surface, the space, shape and lighting of the surface begin to change according to their movements. All of this transforms the former dry dock into a transient space. The visitors will become aware of the properties of water beneath them and the boundary created by the shape of the dry dock.



This installation is successful because it involves human interaction. Each person creates his/her own space that is then influenced other spaces. Their space however then fades away to make way for new spaces created by other people. As the result each person only experience his or her space for a short period of time only, however they will leave traces of their path for others.

[ MEMORIES ]  
CAT DOWNIE



Cockatoo Island has witnessed many periods of occupation and usage, the place is haunted, scarred and distinguished by all the activities that have taken place and constituted its site. In respecting these layers of history and our place within its continuum, the installation sought to add another 'layer', which would however be 'soft' and temporal.

A former dry dock situated on 'reclaimed' land, the particular site chosen represents the Island's major phases of ship building and convict occupation. An embodiment of these activities, the site required an installation that allowed for, and invited an intimate and playful investigation of its historic and rich ground plane.

The eerie emptiness of the Island's vast expanses and the initial sense of isolation experienced were however tempered by the occupation, but a means by which one could make sense of the overwhelming scale of place and history by coming to a phenomenological understanding.



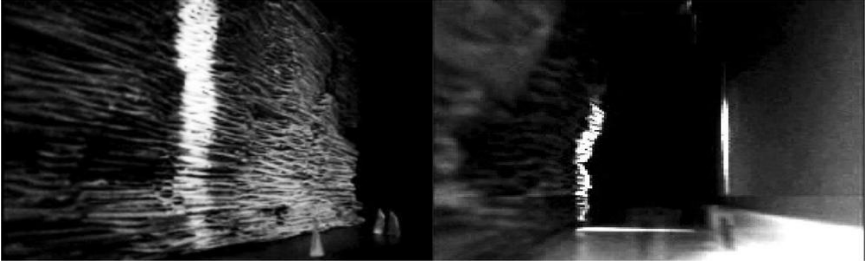
The installation proposes to lay mounds of grain upon the dry dock surface. The grain not only references former grain storage onsite (wheat grain once occupied silos cut into the Island's sandstone cliff) but more importantly provides an unexpected, luxurious, mediative layer that entices interaction and thereby affects the visitor to explore and experience the place with hands, feet and body. As the visitor 'wades' through the wheat grain she displaces the material, uncovering the existing ground plane. However between the visitor and the ground plane is another layer, a layer of glass. As the grain reveals this glass plane, its reflection of sky and light will likewise entice further exploration.

The installation uses 'soft', temporal layers to reveal place through interactive enticement. As a consequence the installation operates through, and is successful because of human involvement.

[ SPECIAL EVENT ]

CARLO GO



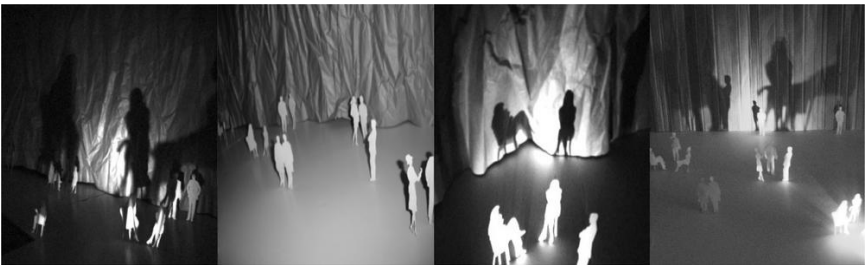
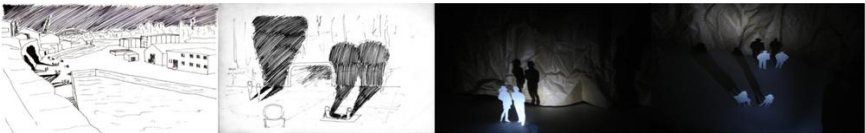


A series of intense light beams scan across the narrow ravine created by the sandstone wall and the Turbine Hall - exposing the beautiful texture of the sandstone.



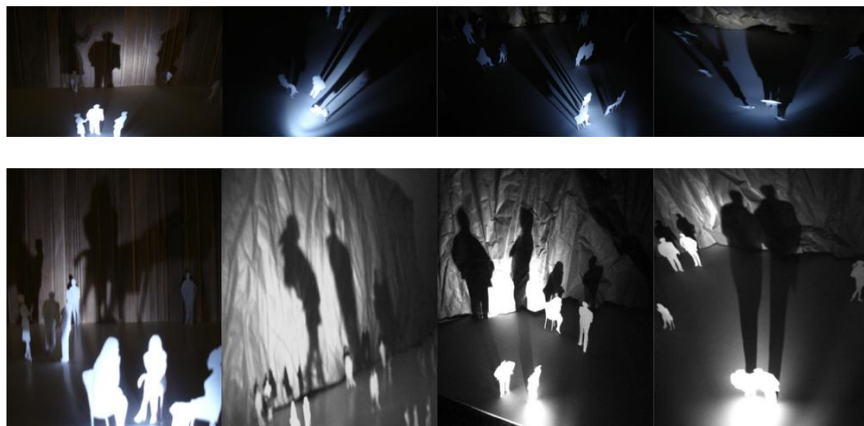
## [ SHADOWS ]

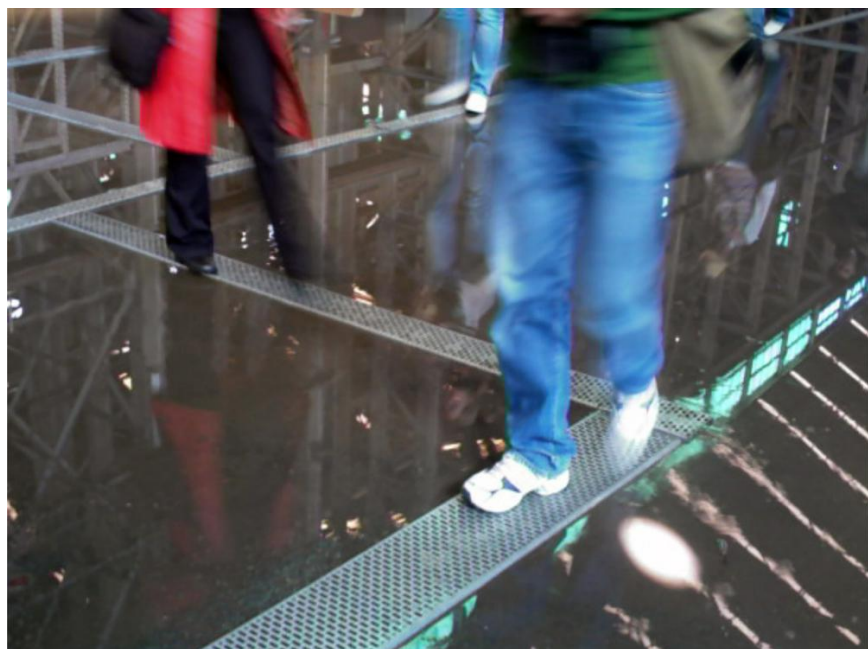
SIDDHARTH MANSUKHANI



This intervention was intended to make the dramatic sandstone wall a significant feature of an outdoor dinner party event. It would act as a canvas on which the shadows of the people participating would be cast. Intense, moving spotlights

placed in strategic locations behind the people would create the shadows. These silhouettes would be interacting with each other and would result in a performance for the participants. The movements and actions of the people dining would be exaggerated and displayed on the sandstone.





20

## ***SOFT INVERSIONS***

*INSTALLATION BY RESPONSIVE ENVIRONMENT STUDIO*

Installation by Katherine Eustace, Tran Sam, Nguyen Mai, Siddharth Mansukbani, Catherine Downie, Carlo Go and Lois Morgan; Tutors: Jin Hidaka and Satoru Yamashiro with Joanne Jakovich. Photography: Kota Arai





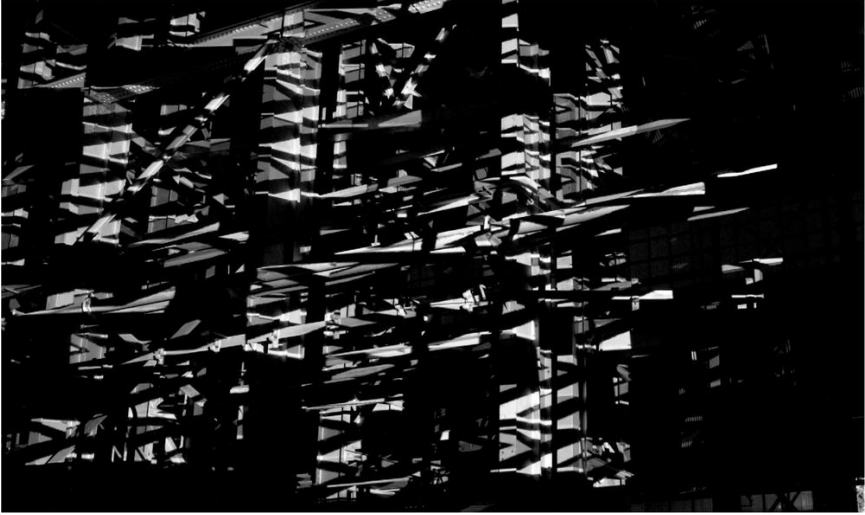














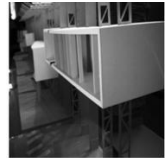
21

# VOID/THRESHOLD STUDIO

*TUTOR: JAIME ROUILLON*

[COSTA RICA]

[ MONUMENTAL  
MATERIALIZATIONS ]



[ RECONCILE ]





*Moulding clay into a vessel, we find the utility in its hollowness; cutting doors and windows for a house, we find the utility in its empty space. Therefore the being of things is profitable, the non being of things is serviceable.*

#### The Tao of Architecture

Within this statement lies the nature of the exercise between the “man made eroded rock.”

The skin of the Turbine Hall. Two surfaces. Tension and light separates both, void unites both. The immaterial void is the most useful and important, even if conventionally regarded as negative, because it is capable of being filled by solid. Time, the sequential experience of going through space is the determinant. The 4 meter by 100 meter by 20 meter voided prism is the generator for ideas between two masses. One eternal as the rock, the other industrial and weathered to its materiality. Two adjacencies and two languages speak to each other.

Since the evolution of man, we have taken action in place. Saarinen’s belief in the creation of a total environment does not imply surrendering the building to its place but the enhancement of place.

Students were confronted here with the notion of space, time and place. The action of man in a determined place called for the need to ask ourselves, what lies within this space? What do the case studies tell us? Gordon Matta Clark’s architectural interventions and Chillida’s urban and monolithical carvings in Spain



explore the void through the means of cutting or carving. By generating space through the understanding and manipulation of material we create a new environment. Just as in Hatshtut's Valley of Kings, or the Lyceum Tombs in Turkey or the caves of Altamira, man has always looked into the voided spaces. It is through the absence of mass that the void is perceived.

**Threshold:** A transitional interval beyond which some new action or different state of affairs is likely to begin or occur.

Thresholds and transitional space occur in between tectonic masses within this place.

All urban situations have conditions where the buildings create planned or unplanned "in between spaces" which eventually become a part of the civic landscape. The randomness of this scenario interested me tremendously from a perspective of a sudden new space formation which had not been planned intentionally. The quality of light in this space directly affected its "left over" potential to be designed, conceived, constructed and used. The way a space is used cannot be controlled as it mutates socially over time, however the architecture of the space remains in its elements, form, material, details, joints and colours.

The built space can have blurred ambiguous contours, random and vague forms. Inside and outside forms can merge and new flexible thresholds can occur. These spaces between-the-built have evolved over time, often as an integral part of the city's urban space. In effect, these in-between spaces can be seen as thresholds spanning urban transitions at Cockatoo Island. Examples of the same phenomenon were recognised in 1954 in Dijkstraat, Holland where Aldo Van Eyck turned vacant lots in the city centre into contemporary play areas bordered by the old walls and existing, abandoned buildings.

The objective of the studio was to address and explore these issues which constitute our perception of architecture and place: void, thresholds, material, tectonics, tension, light and shadow.

**[ MONUMENTAL MATERIALIZATIONS ]**

SAM SAMARGHANDI | PAUL KENNEDY | NINAD



The Urban Islands Studio provided the opportunity to explore an alternative urban living typology by engaging in a highly tectonic exploration of one of the Cockatoo Island's most remarkable, and entirely incidental, corridors.

Our project envisions the dramatic corridor between the hulking ruin of the neglected turbine hall and the cut stone escarpment, as a physical and conceptual link between the evolutionary maritime history of the site, and its potential reprogramming as a generative artistic precinct.



Our objective is to design a combined living, studio and exhibition space for a community of artists. The design aims to maximize flexibility of space and character so as to all allow the historic richness of the site to inform and become manifest in the creative processes of its inhabitants.

The architectural interventions that transform the cavernous void into a place of altruistic inhabitation consist of careful manipulations of solid and deliberately delineated spatial volumes. The scheme manipulates the three spatial envelopes planes (ground, cliff, industrial surface) thereby creating a monumental communal living studio environment with distinct spatial nodes and activity centres. The resulting vision suggests the possibilities for re-development of this venerable but difficult urban passage, without loss of its very *raison d'être*.





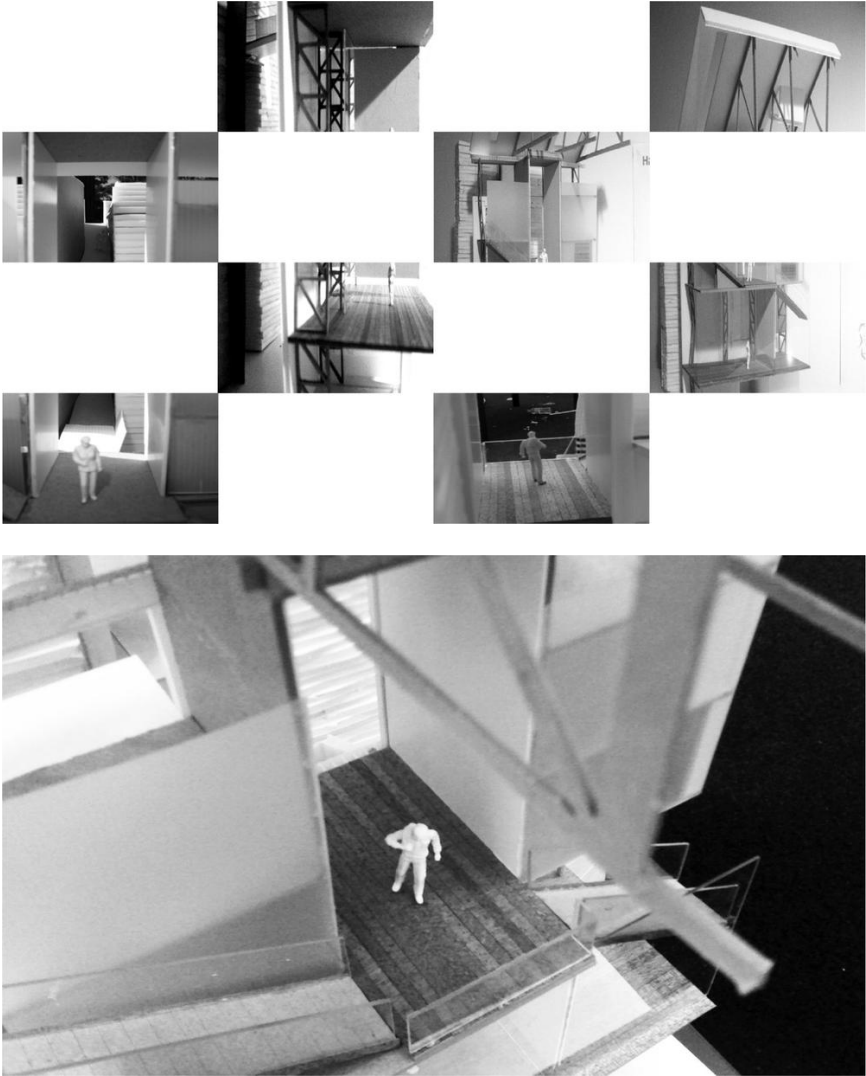
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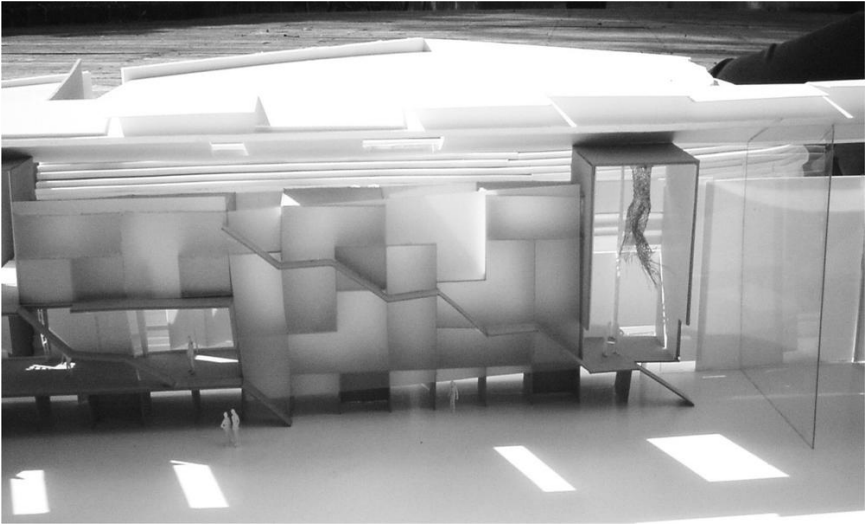
SIMON WILSON | REBECCA SIMONS | TASMIN DUNN

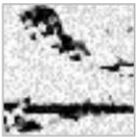


The past is often conceived of in layers. The memory of an era layered upon the earlier creating a form of historical strata. In this site the two pasts of Cockatoo Island do not merge into a single historical entity but stand instead across a 4m wide manmade chasm. On one side a gun-blasted sandstone plateau pockmarked by grain silos, and on the other a dilapidated turbine shed. Our design sought to reconcile this division without lessening the heightened drama of the void. The Turbine Hall becomes an inhabited wall with manipulated fenestration that unfolds to service each internal space but in so doing performs a conciliatory gesture across the void. The bridge that culminates a grand sweeping swathe through the sandstone cliff makes a similar gesture of reconciliation. Yet the two do not touch. In a posture not unlike that of the Michelangelo's God creating Adam the palpability of their meeting imbues the space between all the imaginative power of subtext.

# CUTTINGS









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# SUBTRACTIVE NETWORKS STUDIO

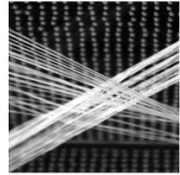
*TUTORS : LISA IWAMOTO + CRAIG SCOTT*

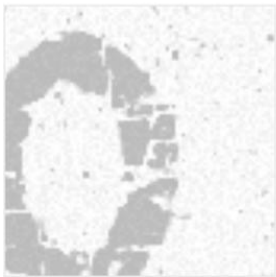
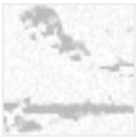
[USA]

[ POROELASTICITY ]



[ FIBRE OPTIC PATH ]







### **TUTORS : LISA IWAMOTO + CRAIG SCOTT [ USA ]**

Visions for Cockatoo Island have gone through significant shifts, particularly in recent years. Once seen as predominantly utilitarian, the island's connection to Sydney and the Harbour has been redefined as a place for environmental rehabilitation, leisure and entertainment. There is a unique opportunity to rethink its role in relation to a public landscape. Implicit in the project is that the design must grapple with engaging the immediate site specificity of Cockatoo Island while addressing the larger Urban Island context.

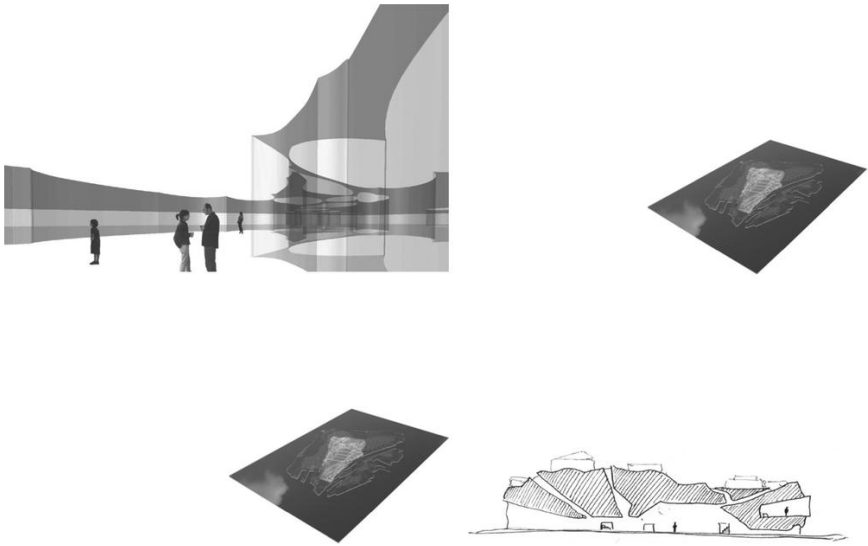
To address this, the studio explored ideas of self-similarity and transitive relationships as a means to generate architectural systems that span across the scales of built space to landscape. A self similar object is exactly or approximately similar to a part of itself. Self similar forms can be found at all scales in the natural world, are visible and invisible, and are often self-organizing. They range from cellular structures to sound waves to coastlines. These systems are inherently sophisticated as they not only follow their own internal logics, but are also adaptable to external forces. In our case, these external forces are tied to program, site, and larger phenomenal effects. The question for the studio was how self similarity can be employed to address multiple scales of occupation, and therefore made mutable to the variable constraints of both the local and larger urban conditions.

In particular, this studio focused on a strategy for developing a negative space that could evolve to the scale of landscape infrastructure. The students investigated subtractive spacemaking strategies - a tactic formed as a direct re-

sponse to the large plateau that physically dominates Cockatoo Island and is an integral part of its built history. Dealing directly with the plateau allowed students to focus on spatial relationships rather than romanticize the existing buildings. Historically, erasures of the city fabric have had mixed results, such as during the urban renewal movement in the 60's. Rather than the broad strokes that defined this previous era, the studio looked at the creation of subtractive networks to form links to near and distant site phenomena.

### [ POROELASTICITY ]

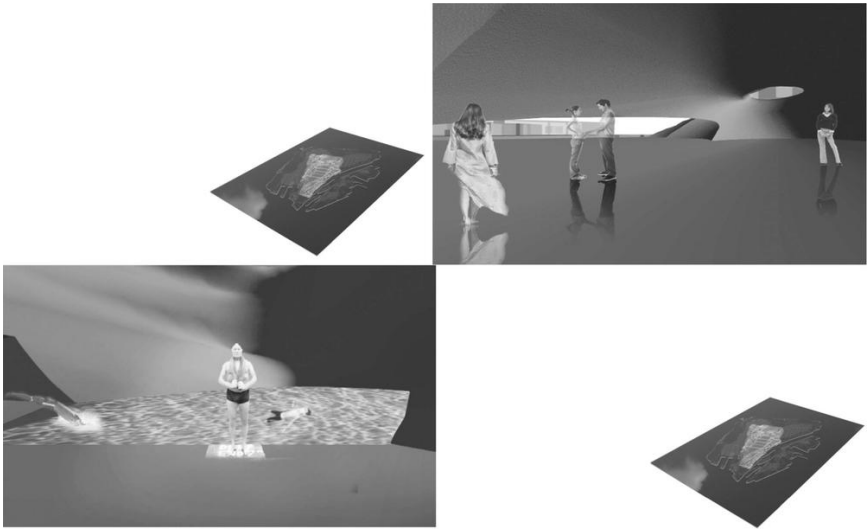
PETER CHRISTENSEN | SHUI KWAN | JONATHAN SPICER



A gradual yet brutal process of cutting and filling has, over the last two centuries, moulded Cockatoo Island into a landscape that is at once highly artificial but also filled with poignant fragments of 'nature'. Like a palimpsest in stone, steel and timber, the island's topography and architecture tell the story of its past and point the way to its future.

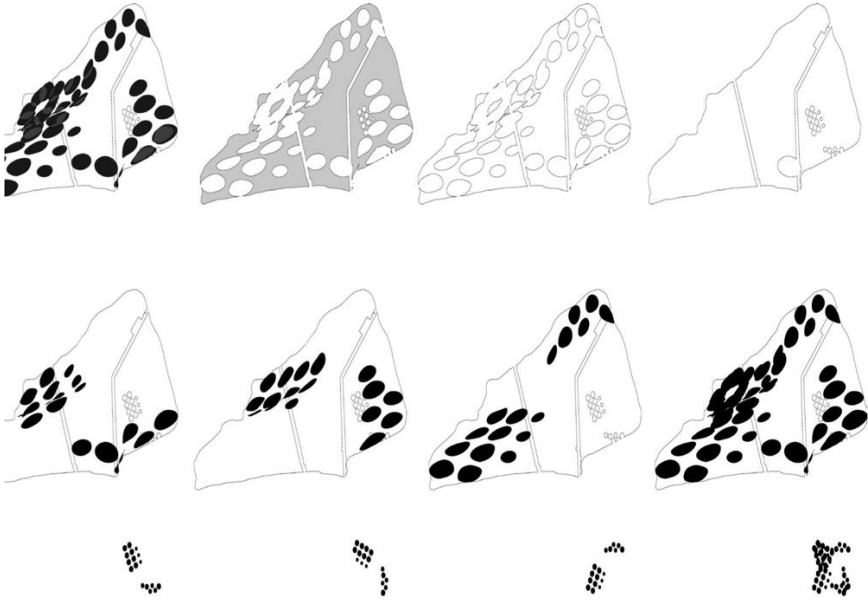
New challenges face the island - how to adapt the resources of its penal and industrial past to serve a new role as a vibrant cultural centre at the heart of one of the world's great harbours. Inspired by the convict era grain silos carved out of the island's sandstone plateau, the project explores the use of voids within the rock to house these new functions. Using digital transformation techniques, the motif of the silos has been warped and twisted in plan and section to create a network of caverns and passages that will host spaces for exhibition, performance and entertainment. The island is surrounded by water, yet is not self-sufficient in this resource. The porosity of the sandstone plateau enables it to function as a

giant sponge, storing and filtering rainwater. The voids serve as a water storage network, fed by a catchment terrain that mediates between voids, paths and buildings on the surface of the plateau.



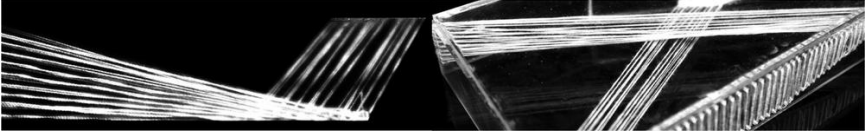
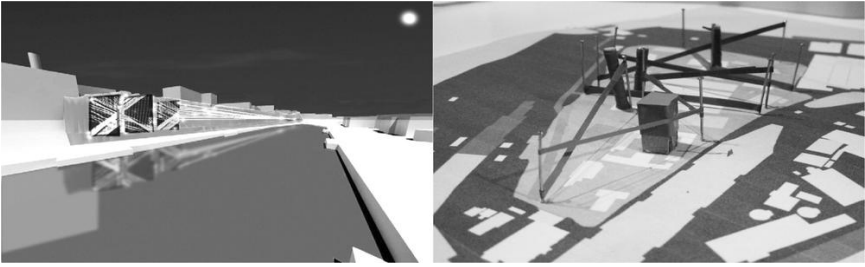
By looking within itself, Cockatoo Island can adapt to changing times. In the past, voids in the rock have served as passageways and storage. The next step is to build on this tradition of creating space within the rock. The new voids are fluid in space and time. A daily rhythm governs the flow of people from the outside during day-light to within after dark. The island 'breathes'; the rock is a beautiful place both inside and out.

## CUTTINGS

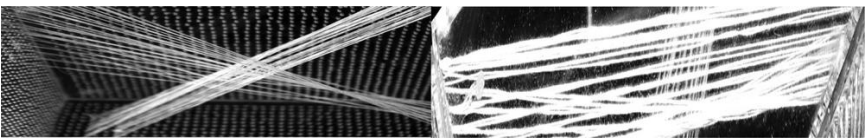
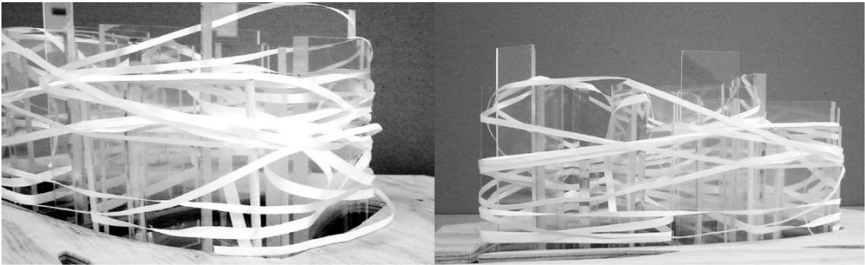


### [ FIBRE OPTIC PATH ]

SUFIAN SUPA'AT | CHAUNTELLE TRINH | DANIEL WONG



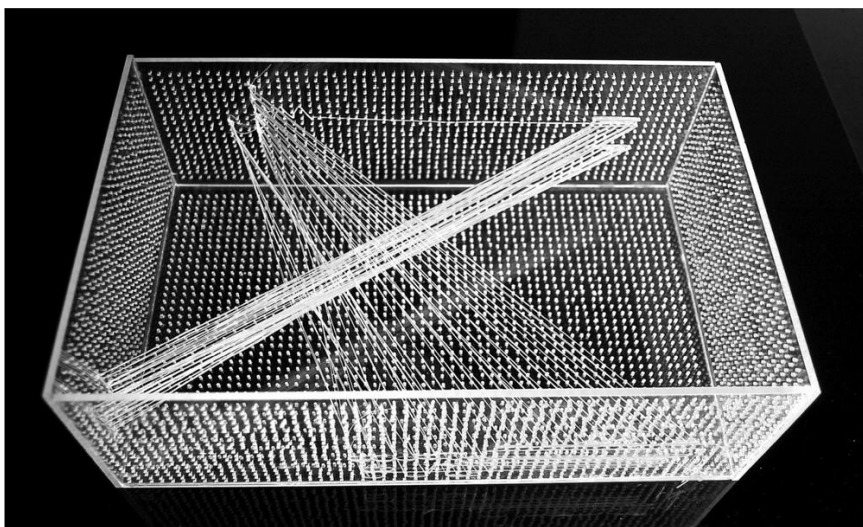
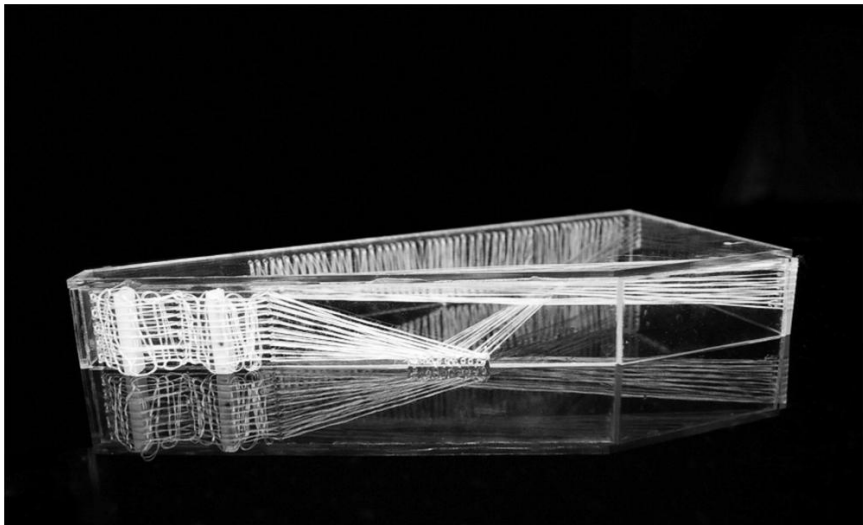
The striking topography of Cockatoo Island, originally a mass of naturally formed sandstone gradually subtracted away to resemble more a giant solid mass atop of a large plateau. The remaining sandstone solid bears great presence. There is much history in the tunnels, silos and surfaces alone, all of them cut and carved over time. The negative space created by excavation offers a unique internal experience that contrasts with the external exaggerated spatiality and sense of scale.



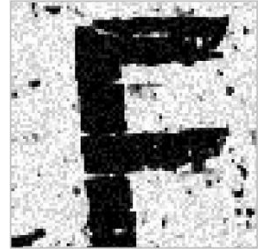
We proposed an experiential scheme of hollowing out two new tunnels running East-West and North-South. The internal volume of each tunnel lofts from a vertical to a horizontal plane as walls turn clockwise to form floor and ceiling.

This composition focuses on the rising and setting sun and the variations of light and colour within the tunnels throughout the day. Fibre optic cables connect and direct the tunnels internally and externally. Sunlight is channelled inwards to

indicate an impression of sky to the interior.







23

# AMBIENT LOOP STUDIO

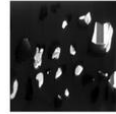
TUTORS : *HENRI PRAEGER* + *CHRIS ABEL*

[GERMANY/AUSTRALIA]

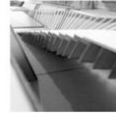
[ TWINKLING ]



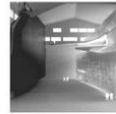
[ THE JUNGLE SHEDS  
HER SKIN ]

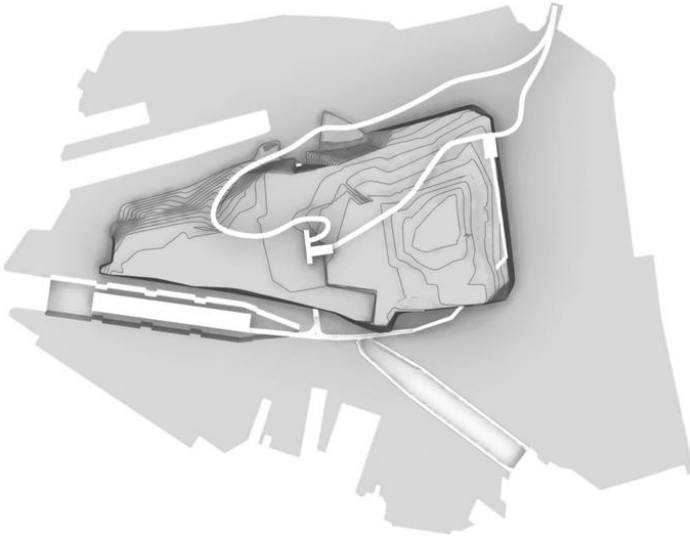


[ DOCKS DEPTHS ]

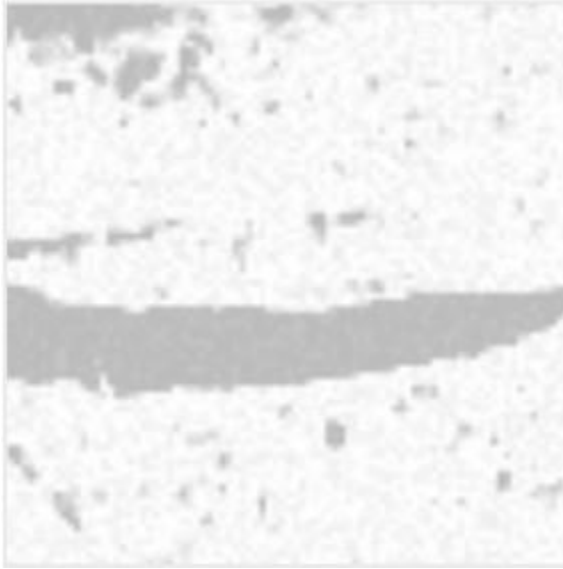


[ SENSORY  
COUNTERPOINT ]





Ambient Loop is a compilation of student projects that interweaves the evolving legacy of urban territories. As the name implies, ambient loop both draws from the richness of the endless connected walk path and creates a incredible new layer to the island by forwarding the idea, that the spatial path as a tourist destination shifts expectations and allows to occupy the island in a diverse way. It is the chance to incorporate the historic impact of Cockatoo Island to occurring issues like tourism, leisure and outdoor activities and new cultural and economic questions. Instead of having historic preservation plans to create a tourist destination as a place that is meaningful organized, as in european traditions, the students added the ambient loop as an oppositional strategy. This strategy is much more powerful and sensitises us to suppressed conflicts and reveals fracture points of Australian history on Cockatoo Island.



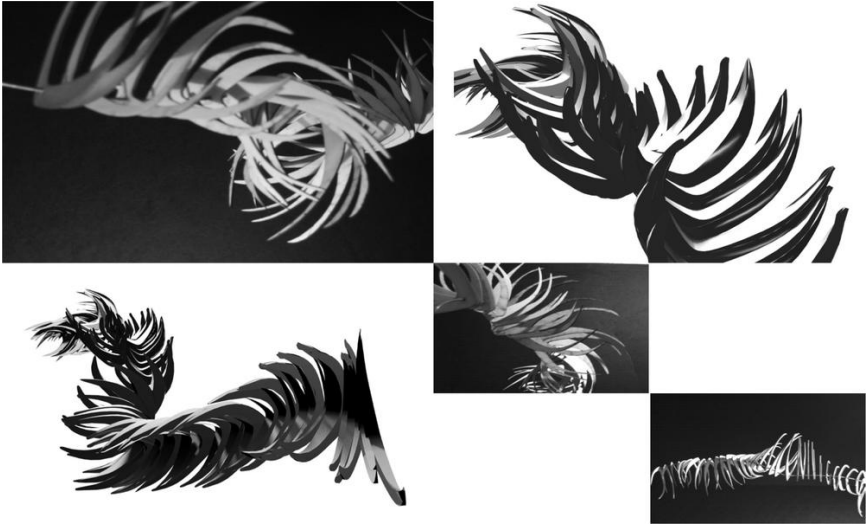
The ambient loop is a composition based on an intuitive sense of topology, achieved through the interconnected parts into the loop circulation. It's more than a elementary platonic geometry of single objects. It's the use of context through the programmatic device of the loop. By prioritizing circulation, students formed the islands historic impact. In other words, circulation typically peripheral to architectural program, becomes program itself. Circulation, elevated to the status of program, absorbs this amorphous void that is carved out and wrapped on to the island, to become its own identity. It functions like a piranesian space, the loop interior is distinctly urban: generating public traffic through its multidimensional qualities, like caves, bridges, ramps and other ambient spaces. Therefore the ambient loop also derives its intensity from the island itself. The visitors' diverse experience offers a wide range of spaces with quite different atmospheric qualities. Visitors wander through the loop space like strollers in the city. The different spatial configurations have different effects on the role played by the visitors themselves. The loop allows the visitors to constantly find new modes of access, but at the same time compels them to relate to the configuration of the island.

Unlike the usual tourist experience, the visitors do not disappear in the neutral mass of the tourist cloud. They remain individuals. Personal spatial preferences emerge and visitors start to develop their own manoeuvring in their desire to understand the Cockatoo Island. They follow the loops shifts from inside (the rock, the industry buildings, the dock etc..) to outside (top of the rock, the gaps...), from intimate to open. In this sense the ambient loop develops effective-

ness. This effectiveness lies in making the dynamics, beneath the surface of the usual conventions of contemporary lifestyles, perceptible for a magic moment. This various sensibility stimulates the ambient loop as open, curious, sceptical, ease and electrifying.

[ TWINKLING ]

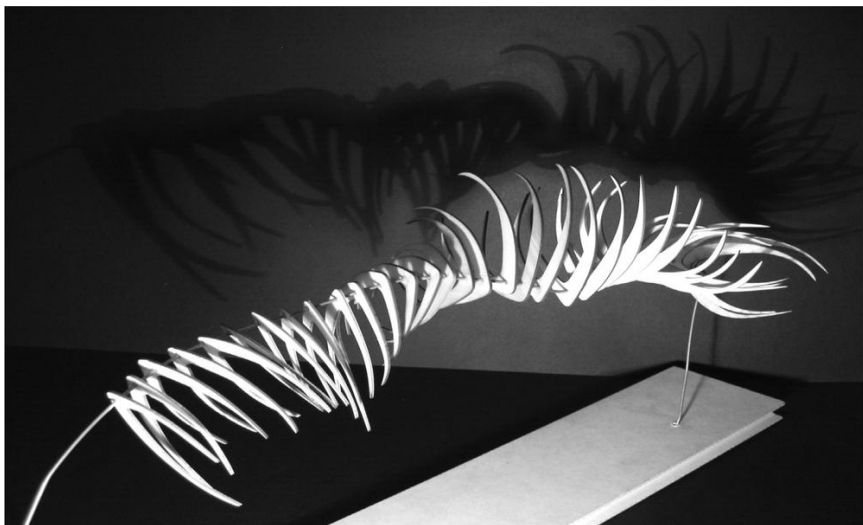
NATALIE MINASIAN



This project responds to a work by performance artist Rebecca Horn in which the artist and cockatoo communicate via an exchange of motions gestures and sounds which are characteristic of the bird. The dialogue continues in a cycle where the artist imitates the bird and then inversely the bird imitates the artist, leaving you to wonder which member was leading the other.

The initial prototype draws on the idea of communication and imitation which were compelling themes revealed in the performance. The structure is based on a relationship between density and lightness in a seemingly transformative cycle. Formally, the areas of density and lightness twist create shifting openings and enclosures which transform the quality of the spaces,

At Cockatoo Island the site chosen was deliberately an 'in between' space where the dialogue between lightness and density could be most strongly expressed. The structure forms part of the walk path throughout the island which reveals aspects of the site in an intuitive sense. At this point one is confronted by the relationship between the towering sandstone cliff and turbine hall, the narrow void between these masses naturally addressing the idea of density and openness.



Emerging from the sandstone, the structure leads visitors through the historic silos which were carved into the cliff, through the chasm in between, to finally enter powerfully into the turbine hall. Throughout ones journey, the areas of openness and enclosure morph from wall to ground to ceiling, wrapping around throughout one's progression through the space. The form and positioning of density responds to the nature of the void and nature of the built and natural volumes. A clear form of communication and imitation exists during the journey through the structure as openings in the structure twist and turn revealing different aspects of the site and surrounds.

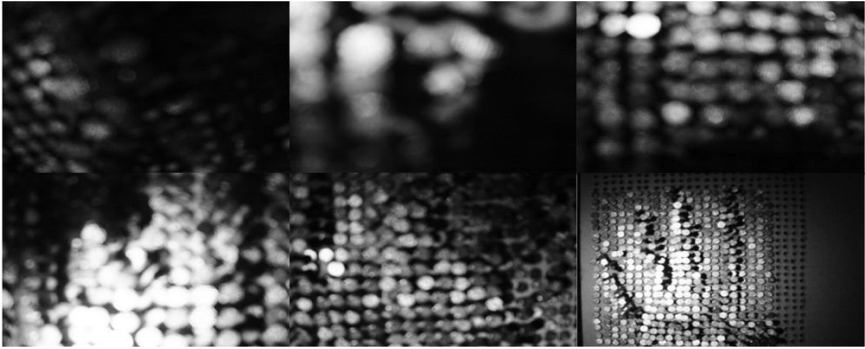
**[ THE JUNGLE SHEDS HER SKIN ]**

ALINA MCCONNOCHIE



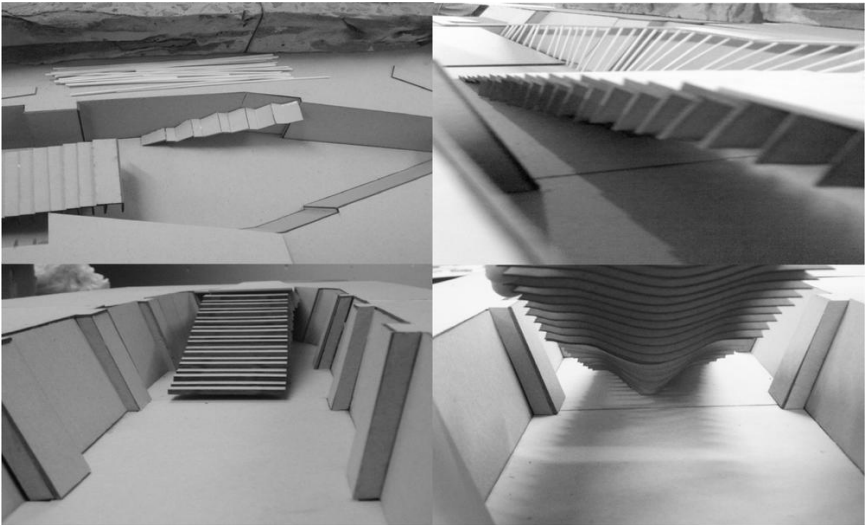
Before visiting the site, some independent research was done, concentrating on space, movement and body, we looked at different performance artworks by Rebecca Horn, defining elements and ideas in the artwork which we wanted to explore architecturally. I concentrated on the artwork “the jungle sheds her skin”, this explores light and dark playing on the skin, revealing certain things about the body at different times. At some moments features are discernable, at other times the texture of the skin is all that can be understood.

To translate this into an architectural idea, I considered how the body can interact with light and dark to create shadow, ambiguity, distortion and pixilation of surface, and hence alter understanding of place. Essentially interplay between light, body, filter and surface. In applying this idea within the brief of an interpretive walk path on site, I chose to carve my walk path through portions of the sandstone cliff face – using the sandstone itself as the filter and the surface, revealing the layers of sandstone which have been pierced and marked throughout the history of the place, and henceforth allowing a new layer of history to be added, or carved away. What were also interesting to me were the differing conditions that are created by day and by night. By day light coming from outside creates an intrinsic experience that allows close examination of the space immediately around the body. By night, light from an internal source cast shadows of the body on the filter and out to the city beyond.



# [ DOCKSDEPTHS ]

WENDY WANG | GABRIEL ULACCO



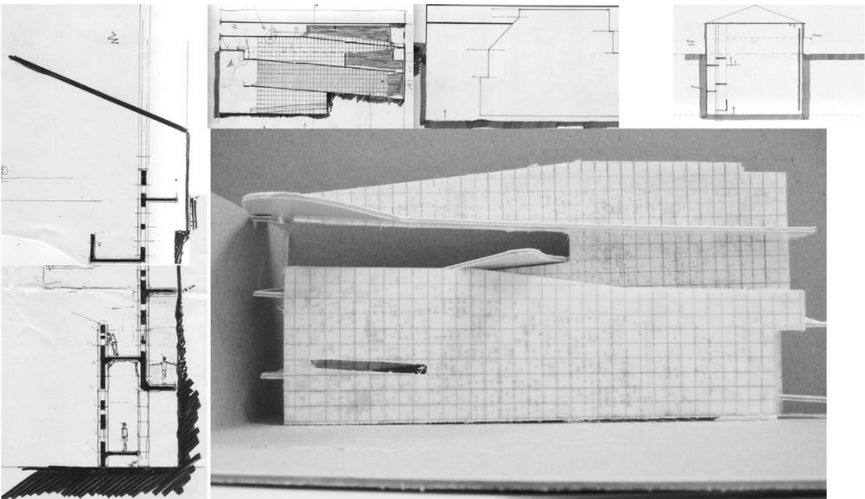
Concept: a foreign object berthed at the dry dock forms a series of discreet spatial experiences along a continuous narrative path. This path begins at the edge of the dock and descends down into its damp depths, where walls of water reach up above the body into the sky. From the lowest point movement east leads under the route taken in and the smooth echo of a ships hull sweeps up and away to form enclosure and enable inhabitation. The massive scale of the space is revealed in this moment when this element is simultaneously roof, high above and wall, a tactile possibility at arms reach. Westward, out beyond this element is sunlight, cascading down into the space through water and transparent dam walls. A ramp rises to a contemplative space at a level half way up the full height of the dock.



Water surrounds a floating platform; the body now isolated from solid earth is enveloped by water, dock walls and the sky.

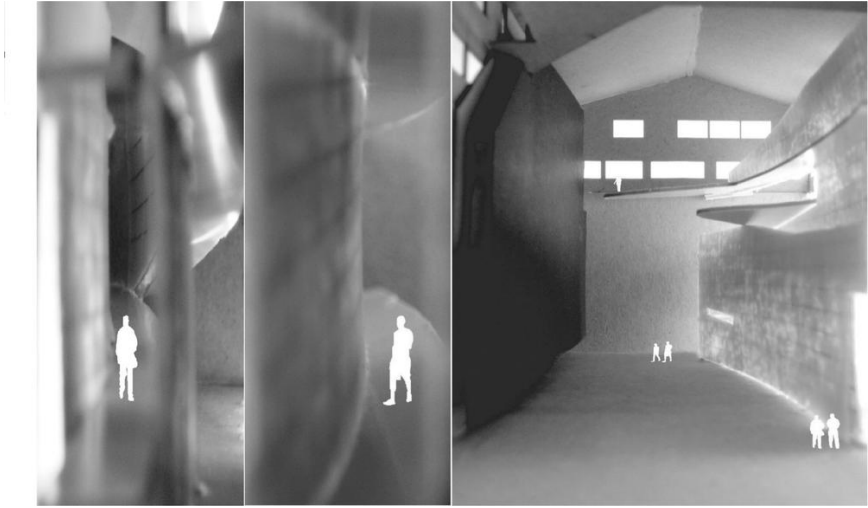


[ SENSORY COUNTERPOINT ]  
CHRISTOPHER BICKERTON



This project emphasises ones experience of a space by impeding one or more of the senses.

The sense to be emphasised is focused through the insertion of an unusual object into the space.



In order to make the sense to be experienced stand out, the experiences are ordered so that they work in counterpoint, and contrast each other.

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Lisa Iwamoto  
Henri Praeger  
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Chris Abel

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Ingo Kunic: Organiser

## *Symposium Guests:*

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Stephanie Donald  
Nick Hollo  
Martin Kornberger  
Roderick Simpson

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Geoff Bailey commenced setting up the Sydney Harbour Federation Trust in August 1999 and is the Executive Director. The Trust has the task of planning, conserving, managing and opening to the public eight unique sites around Sydney Harbour which embody a range of complex issues, in particular sensitive heritage sites and high levels of contamination. Prior to working for the Trust, Geoff was an Associate Director of Allen Jack and Cottier, Architects. Before that he worked for 9 years in the Rocks in Sydney and was responsible for all heritage conservation and planning matters. Geoff has also worked as a heritage architect

on Albert Namitjira's cottage and other heritage buildings in Central Australia and has worked for the NSW Heritage Council and the NSW Planning Department. He was a Board member of the National Trust of Australia (NSW) from 1998 to 2004. Geoff Bailey holds a degree in Architecture from the University of New South Wales and has worked for over 20 years in a variety of roles in planning and architecture, dealing with sensitive heritage sites. He is a Trustee of the Point Nepean Community Trust.

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Dr. Kirsty Beilharz is an interaction designer, composer and researcher. Her orchestral and electronic compositions have been performed by Nouvel Ensemble Moderne (Canada), Ensemble Recherche (Freiburg), in the Cite Internationale des Arts (Paris), and by the Sydney, Melbourne, Tasmanian and Western Australian Symphony Orchestras. She is a recipient of the Sir Charles Mackerras British Council Music Scholarship and a Churchill Fellowship and was awarded the Jury and Public prize of the Nouvel Ensemble Moderne Forum. She was a Young Australian of the Year Award finalist and Australian representative to the Paris Rostrum and the Gaudeamus World Music Festival. In 2005 she attended the IRCAM Summer Course for electronic sound and music in Paris. Beilharz is a Senior Lecturer and Digital Media Graduate Program Coordinator at the University of Sydney. Her interests integrate artificial intelligence, generative algorithmic processes, real time gestural interaction, hyper-instruments and information sonification to develop informative, responsive and aesthetic social spaces.

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Liz Bowra graduated with a Bachelor of Architecture from the University of Sydney with First Class Honours in 2004. While in her final year at University she was a Design Mentor for third year students. Her Honours Study, which is a continuing interest for her, investigates the relationship between the architectural surface and the mask, where the mask institutionalises perception and spatial relationships. She won the Board of Architects of NSW Prize for her final year and was nominated by the University of Sydney to enter the RIBA President's Medals Students Awards in 2005. She is currently working in Sydney.



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Matias Echanove graduated with a Bachelor of Science in Government and Economics from the London School of Economics and a Masters in Urban Planning from Columbia University. He is currently pursuing a project-orientated PhD at the University of Tokyo and is a Japan Ministry for Education Scholarship holder. His main research interests are urban development and the role of urban information systems for participatory planning, urban networks, and informal settlement. Current case study cities are New York, Tokyo, Bogotá, and Mumbai.

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Professor Tom Heneghan graduated from the Architectural Association, where he taught as Unit Master from 1976 until 1990 when at the invitation of Arata Isozaki he established his practice, The Architecture Factory, in Tokyo. In 1991 the government of Toyama Prefecture appointed Heneghan ‘Master Architect’ for the ‘Machi no Kao’ (‘Face of the Town’) programme, which included buildings by Enric Miralles, Daniel Liebeskind, Torres and Lapena and Ron Herron. For his first built work in Japan, Heneghan was awarded the 1994 *Gakkai Shoh*, the most prestigious award of the Architectural Institute of Japan. In 2002 he received the *Kokyo Kenchiku Shoh* – the Japanese Government’s principal award for public architecture. Since 1976, Heneghan has won twenty-seven architectural awards in Europe and Japan, and his works have been published and exhibited internationally, including in the Japanese pavilion at the 1996 Milan Triennale. He is Chair of Architecture at the University of Sydney.

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Jin Hidaka is an architect and principal of ‘Slowmedia’. He also teaches at the Graduate School of Frontier Sciences at the University of Tokyo. In addition to his architectural and academic work, he is a key member of the award winning new media art group Responsive Environment who have exhibited throughout Asia and Europe. Responsive Environment describes itself as a collective en-

gaged in spatial expression through collaboration, crossing over diverse boundaries drawn between architecture, image, music, dance and design. Jin Hidaka and Satoru Yamashiro are founders of the Urban Dynamics Laboratory, which focuses on the new possibilities of urban design using new media technology. [www.slowmedia.net](http://www.slowmedia.net), [www.responsiveenvironment.com](http://www.responsiveenvironment.com), [www.urban-dynamics.com](http://www.urban-dynamics.com)

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Olivia Hyde was educated in Sydney and London and is a graduate of the Bartlett School of Architecture at University College London and the National Art School, Sydney. She is an associate at the Sydney office of Bligh Voller Nield Architecture and teaches final year design at both the University of Sydney and the University of New South Wales. Olivia has worked in Hong Kong and London with Sir Norman Foster and Partners, and in Spain, Malaysia and the US where she was awarded a teaching fellowship by the University of Michigan. Her design studios focus on the architectural potential of art practice, with a particular interest in full scale and installation based explorations. She is a founding member of Altogether Elsewhere and co-coordinator of the Urban Islands program.

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Lisa Iwamoto is a principal of Iwamoto Scott Architecture based in San Francisco. She received her Masters degree with Distinction from Harvard University and is currently an Assistant Professor of Architecture at the University of California, Berkeley. Her academic research focuses on digital fabrication and materials research for architecture. IwamotoScott describe their work as an attempt to “balance exploration in digital processes and media modelling of prototypes and hands-on material research with investigations into perceptual and experimental phenomena.” Recent projects include a theoretical proposal, Jellyfish House, for the Vitra Design Museum and Art Center College of Design, which uses ambient technology in the design of an infrastructural skin for water filtering on Treasure Island, a de-commissioned naval base and island in the San Francisco bay. [www.iwamotoscott.com](http://www.iwamotoscott.com)

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Joanne Jakovich is an experimental architect and researcher. Her work builds a thesis of engagement in which human and synthetic (computational) participation shape the development of sustainable systems for inhabitation (urban, architectural, online). Creative outcomes include interactive soundspaces, online urban planning simulations, and urban development frameworks. She has exhibited in Japan, Australia and the Netherlands and produced international projects integrating urbanism, architecture and interactive art. She graduated from the University of Tokyo on a Japan Ministry for Education Scholarship and is pursuing a PhD in Architecture at the University of Sydney. She holds a CRC (Co-operative Research Centre) for Construction Innovation Scholarship and University of Sydney Postgraduate Award. [www.jakovich.net](http://www.jakovich.net)

***MARTIN KORNBERGER [ SYDNEY ]***

**SCHOOL OF MANAGEMENT AND SCHOOL OF DESIGN,  
UNIVERSITY OF TECHNOLOGY, SYDNEY & SCHOOL OF  
MANAGEMENT UNIVERSITY OF ST ANDREWS, SCOTLAND**

Martin Kornberger received his PhD from the University of Vienna. He is currently senior lecturer at the University of Technology Sydney Faculty of Business and Faculty of Design and lecturer in marketing at St Andrew's School of Management in Scotland. He has taught in the areas of strategic management, branding, design and consulting on three continents. Kornberger co-authored the best selling management textbook *Managing and Organizations* that is used to teach the principles of management around the world including at the Harvard Business School. His current research focus is on issues of managing creativity. In order to perform periodic reality checks, he co-founded PLAY, a consultancy which works with a range of different clients on branding, marketing and management projects. Amongst many projects, PLAY is the producer of Sydney Esquisse.

***INGO KUMIC [ SYDNEY ]***

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UNIVERSITY OF SYDNEY**

Ingo Kumic is a strategist with 16 years experience in urban strategy, policy, communications and governance. He has worked with the European Commis-

sion, the International Energy Agency, the Greater London Authority, the London Development Agency, and the French Ministry for Housing and Infrastructure. He was formerly Director of Special Projects, NSW Department of Planning and CRP Manager of Partnerships and Policy for the London South Central region. He has taught and been a guest critic at the Bartlett School of Architecture University College London and the Architectural Association School of Architecture London. He is currently a member of the NSW Policy Committee of the Planning Institute of Australia and formerly the co-chair of its NSW Urban Design Chapter. He holds Degrees in Landscape Architecture and Urban Design and is currently undertaking a PhD in Architecture examining the spatial political economy of urban brands and their role in making competitive cities.

***HENRI PRAEGER / BERLIN /***

**FACULTY OF ARCHITECTURE, UNIVERSITY OF COTTBUS &  
FACULTY OF ARCHITECTURE, DESIGN & PLANNING ,  
UNIVERSITY OF SYDNEY**

Henri Praeger is an architect and principal of Prarchitekten, based in Berlin. He received his postgraduate master degree from the Staedelschule (University of Fine Arts), Frankfurt. He is currently assistant professor of architecture at the University of Cottbus. His academic research focuses on the creation of form through programmatic explorations. This more inclusive definition of architectural program encompasses ecological concerns, cross disciplinary, new technologies, variations of the temporal and seasonal, and any number of combinations, juxtapositions, manipulations and reinventions. He is one of the founders of Saft, an architectural paper emphasizing the interdependence of technology, art, theory, and history. Praeger also edited Architects Talk, in which the joy of thinking and exploring new intellectual territory is rendered in interviews with well known contemporary architects.

***DAGMAR REINHARDT / FRANKFURT /***

**& FACULTY OF ARCHITECTURE, DESIGN & PLANNING,  
UNIVERSITY OF SYDNEY**

Dagmar Reinhardt is an architect and principal of reinhardt\_jung architecture, based in Frankfurt/ Main. Reinhardt is the Studio Leader of the Master of Architectural Design at the Faculty of Architecture, University of Sydney. She has lectured and taught internationally, her work covers exhibitions, installations and curatorial work, publications, academic research and architectural projects. Reinhardt received a postgraduate degree of Conceptual Design from the

Staedelschule Frankfurt (University of Fine Arts, with Enric Miralles, Mark Wigley and Peter Cook). Her PhD research investigates surface organisations in contemporary fashion and focuses on dynamic processes and spatial strategies, with an IPA/IPRS scholarship by the University of Sydney. [www.reinhardt-jung.de](http://www.reinhardt-jung.de)

***THOMAS RIVARD [ SYDNEY ]***

**FACULTY OF ARCHITECTURE, DESIGN & PLANNING,  
UNIVERSITY OF SYDNEY**

Thomas Rivard is an architect, artist, educator and performer, and director of Lean Productions, a multi-disciplinary practice making buildings, objects and fables, and dedicated to bringing together all manner of collaborators in the common (and uncommon) pursuit of the fantastic, the impossible and the improbable. He received a Bachelors Degree in Art History and Design from Dartmouth College and a masters of architecture from the University of Pennsylvania. He has taught architecture and design at the University of New South Wales and the University of Sydney, as well as co-coordinating the Urban Islands program. He is a founding member of Altogether Elsewhere, a collective of artists and producers dedicated to re-imagining the potential links between provocative cultural acts and the urban environments in which they thrive. As such, he is currently working to bring a calendar of events, performances and installations to Cockatoo Island. He divides his time. [www.leanproductions.com.au](http://www.leanproductions.com.au)

***JAIME ROUILLON [ SAN JOSE, COSTA RICA ]***

**JAIME ROUILLON ARQUITECTURA, COSTA RICA &  
FACULTY OF ARCHITECTURE, DESIGN & PLANNING,  
UNIVERSITY OF SYDNEY**

Jaime Rouillon is one of Latin America's most significant emerging architects. Born in Peru, and now based in Costa Rica, he received his Masters in Architecture from University of Pennsylvania, forming Jaime Rouillon Arquitectura in 1994. His firm's work includes urban, rural and coastal residences, offices, office buildings and hotels, all expressed via an architecture of celebration, of both the region and the rational. JRA's work derives its conceptual strength from site and climate, a persistent personal search for expressionist freedom and a rigorous pursuit of craftsmanship in the built works. He received the 1st prize at the 1996, 2002 and 2006 Costa Rican Biennale of Architecture and Urbanism and the III Triennial Panama, 2005. He has taught at Universidad Veritas and Universidad del Diseño in San Jose, and is also a permanent collaborator at Museo de Arte y

Diseño Contemporáneo de Costa Rica.

***MARC AUREL SCHNABEL [ SYDNEY ]***

**FACULTY OF ARCHITECTURE, DESIGN & PLANNING,  
UNIVERSITY OF SYDNEY**

Dr. Marc Aurel Schnabel is lecturer in digital architecture at the Faculty of Architecture, University of Sydney. He teaches and researches in the field of virtual architectural design. Educated in Germany and Australia, Marc Aurel worked at international architectural practices in Berlin winning several competitions and awards. He researched in Hong Kong for over ten years in the fields of digital architectural design, virtual environments, design thinking and generative architecture. Marc Aurel is engaged in design and architecture within the Data Modelling Research Network and publishes extensively in international journals. He is a passionate educator who encourages emerging architects to communicate three-dimensional space using unconventional methods of design creation.

***CRAIG SCOTT [ BERKELEY ]***

**CALIFORNIA COLLEGE OF THE ARTS & FACULTY OF  
ARCHITECTURE, DESIGN & PLANNING, UNIVERSITY OF  
SYDNEY**

Craig Scott is a principal of Iwamoto Scott Architecture (IS.Ar) based in San Francisco. He received his Masters of Architecture with Distinction from Harvard University and is currently an Associate Professor at the California College of the Arts (CCA). In addition to studio teaching at all levels, he teaches a course in design tactics. IS.Ar describe their work as an attempt to “balance exploration in digital processes and media modelling of prototypes and hands-on material research with investigations into perceptual and experimental phenomena.” Recent projects include a theoretical proposal, Jellyfish House, for the Vitra Design Museum and Art Center College of Design, which uses ambient technology in the design of an infrastructural skin for water filtering on Treasure Island, a de-commissioned naval base and island in the San Francisco bay. [www.iwamotoscott.com](http://www.iwamotoscott.com)

***NGUYEN KHANG TRAN (SAM) [ SYDNEY ]***

**FACULTY OF ARCHITECTURE, DESIGN & PLANNING,  
UNIVERSITY OF SYDNEY**

Sam Tran is a senior student of the Bachelor of Architecture program at the University of Sydney. He was a member of the Responsive Environment group in the Urban Islands Studio, and has since found a new fascination and motivation for all kinds of things architectural. Sam enjoys skydiving and chocolate, and has excellent computing skills, which he has generously employed in the design of this volume. His favourite architect is Tadao Ando and he hopes to work in Japan in the future.

***CHRIS WALSH [ SYDNEY ]***

**FACULTY OF THE BUILT ENVIRONMENT, UNIVERSITY OF  
NEW SOUTH WALES**

Chris Walsh graduated with first class honours in Landscape Architecture from the University of New South Wales. Fascinated with representation, he drifted toward graphics and design communication through various media. Chris has been instrumental in organising and running several international conferences and urban design competitions. After working on the Millennium Parklands project with HASSEL he joined the RAIA as Competitions and Exhibitions Manager working on competition programs and exhibitions both in Sydney and London. Since 1997 he has been teaching design and communication subjects at UNSW. In 2001 he managed and designed the content for the Parramatta Road urban design competition and the Pattern Book case studies. In 2000 he set up Movement, a graphic design and special projects unit – through which he recently completed the Australian War Memorial in London with Tonkin Zulaikha Greer and Janet Laurence. He is also responsible for the design and management of a web site for the same project.

***SATORU YAMASHIRO [ TOKYO ]***

**FACULTY OF ENGINEERING, UNIVERSITY OF TOKYO &  
FACULTY OF ARCHITECTURE, DESIGN & PLANNING,  
UNIVERSITY OF SYDNEY**

Satoru Yamashiro is an architect and principal of the designers' network 'building landscape'. He also teaches at the Faculty of Architecture at the University of Tokyo. In addition to his architectural and academic work, he is a key member of the award winning new media art group Responsive Environment (RE) which

has exhibited throughout Asia and Europe. RE describes itself as a collective engaged in spatial expression through collaboration, crossing over diverse boundaries between architecture, image, music, dance and design. Since its formation in 1993, RE has undertaken a wide range of performances, installations and projects. The work attempts to bring together many factors to trigger settings ('responsive environments') that undergo continuous transfiguration. [www.buildinglandscape.com](http://www.buildinglandscape.com), [www.responsiveenvironment.com](http://www.responsiveenvironment.com)