

SRD
Society for
Responsible
Design

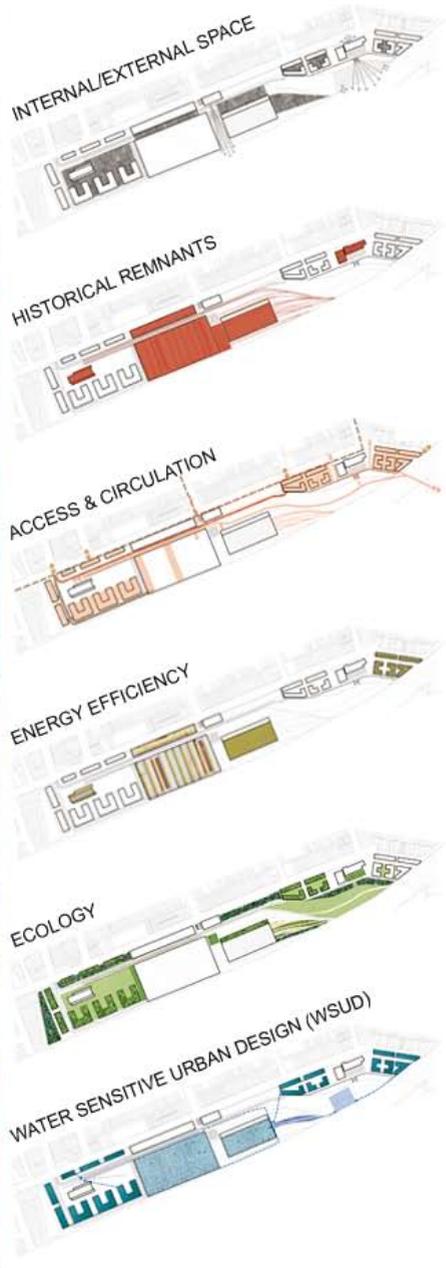
Change

GRADUATE SUSTAINABLE DESIGN EXHIBITION

"New designs inspiring change"

Change
Change
Change

2007



Eveleigh Evolution concept explores the potential for North Eveleigh, a post industrial landscape, to enhance sustainability both on site and on a regional basis.

Following on from a group design project that explored the potential for landscape ecology in Sydney's dense urbanised environment, North Eveleigh is proposed to form part of an ecological network of connected patches, stepping stones and corridors, that together, demonstrate the potential for landscape ecology throughout the city of Sydney.

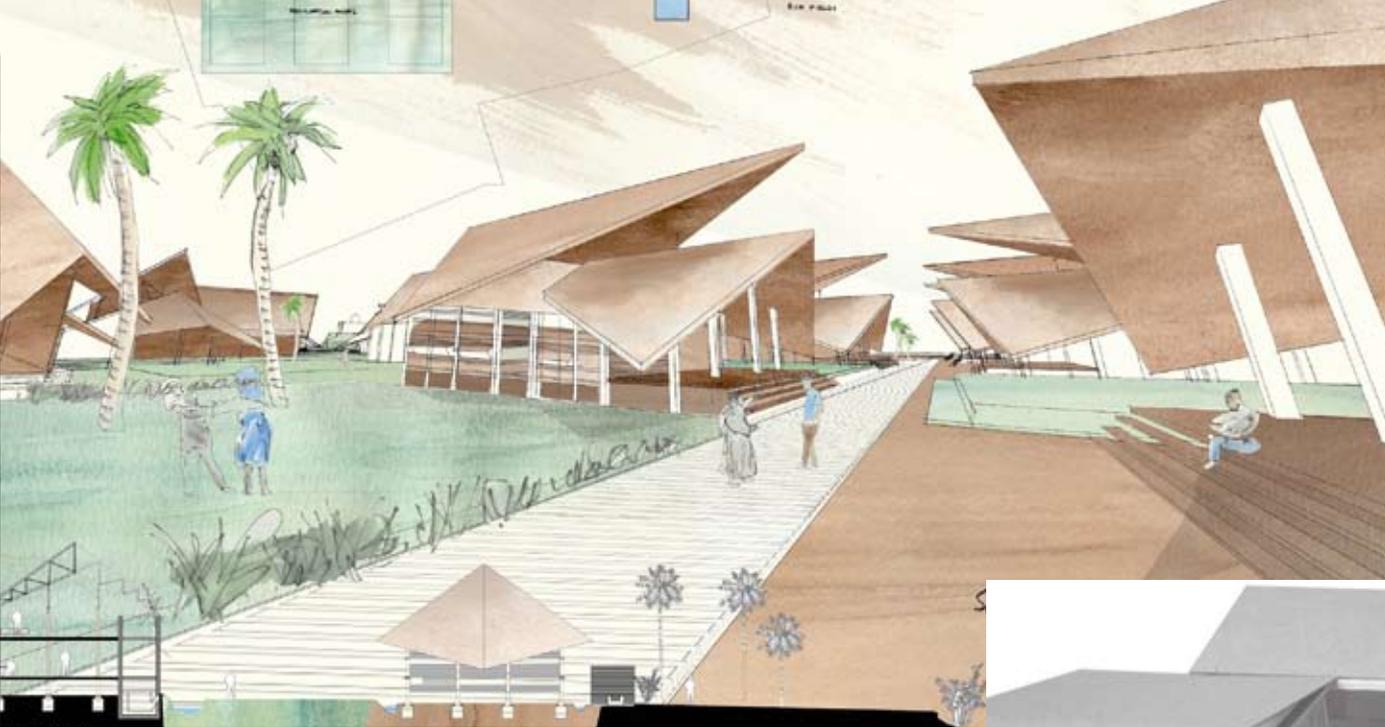
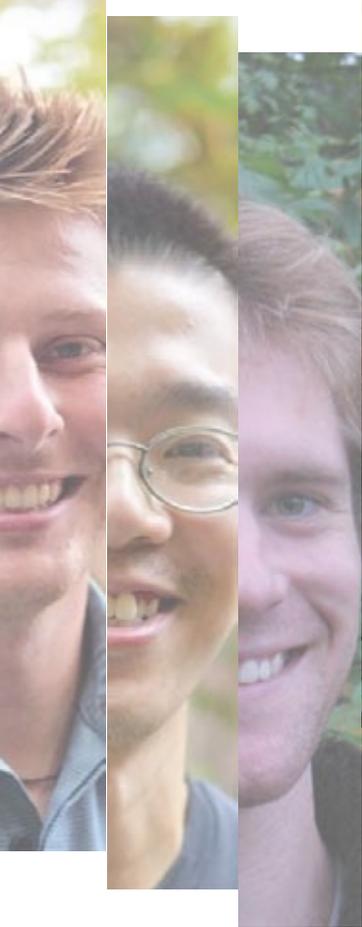
At a site specific scale, this design focuses on providing these ecological benefits such as the provision of habitat as well as exploring other sustainable measures including energy efficiency through the use of solar power and natural lighting, as well as water management solutions such as capture and reuse options. The integration of these sustainable measures has been carefully planned to respect the existing character of this post industrial site.

The brief proposes new dwellings, a state performing arts centre, railway museum and a variety of restaurants to aid in providing a successful social network. This concept demonstrates the potential of an inner city, post industrial landscape to accommodate for the growth demands of Sydney while improving the level of sustainability the site currently offers.

Melanie Sallis

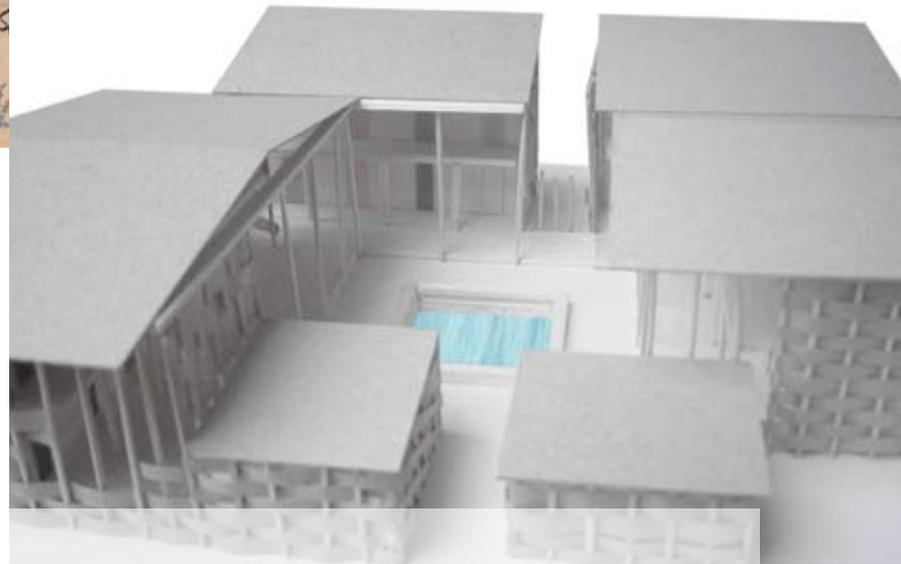
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Eveleigh Evolution



The 2004 Boxing Day tsunami devastated Banda Aceh. People lost family, friends as well as their homes and community infrastructure. Rotary International was granted land within the city to develop facilities to service the community through and beyond the rebuilding period. Rotary in turn approached Faculty of Architecture at the University of Sydney to help in this process. A design studio was set up to identify and examine architectural considerations in Banda Aceh and propose individual design schemes. These projects are three examples from this studio which looked at sustainability in varied ways.

The brief called for a large compound with facilities for Banda Aceh's youth, orphans and the community. In particular, it outlined the need for community buildings including a health centre, library and worship space as well as teaching areas and living spaces for both students and orphans. Rotary's early proposals focused on the need for environmental sensitivity throughout the scheme and



involved large, visually dominating and Western styles of Architecture. Although we also recognised the importance of environmental sensitivity, our group experience highlighted the need for an expanded viewpoint that considered both the cultural and social needs of the Acehenese people if the project was to be ultimately successful.

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Banda Aceh

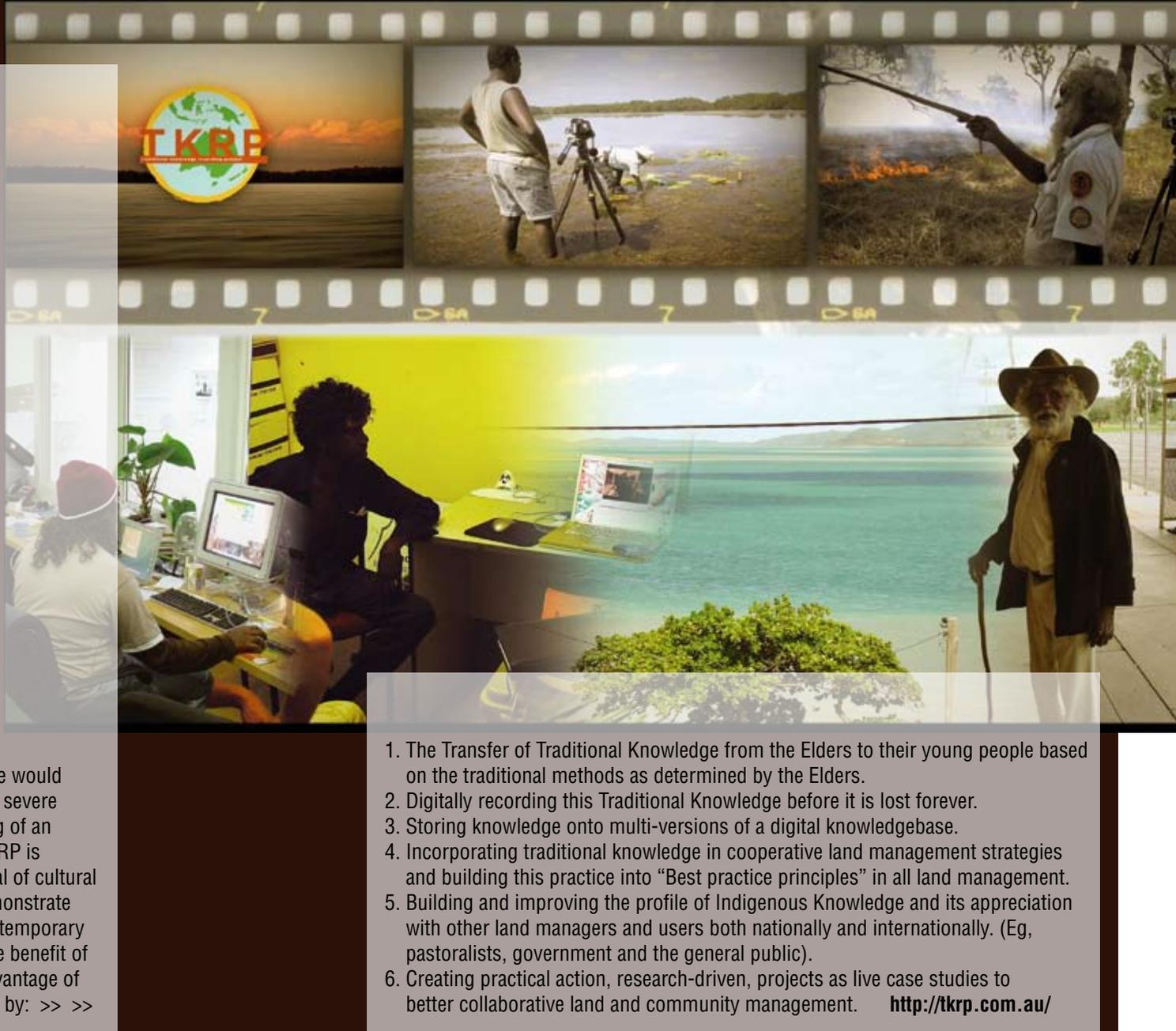
Banda Aceh Rotary Youth Centre
International collaborative project for tsunami victims



TKRP This project was produced in aid of a community driven project based in Cape York. The Traditional Knowledge Recording Project (recently renamed **Traditional Knowledge Revival Pathways**) has been pioneering the development of a methodology for capturing traditional knowledge, utilising modern technologies to record, edit, translate, and store vast quantities of shared knowledge in a secure and intuitive multimedia database.

TKRP relies on the support of funding bodies, volunteers and Indigenous communities to maintain and develop the project's infrastructure. Regular introduction for funding and new volunteers is essential. Therefore the project required a media piece that communicated the catalytic social and cultural motivations quickly, powerfully and emotively, while outlining the multi-layered methodology.

This project work is a component part of the larger TKRP project which was developed from the aspirations of Indigenous Elders, to preserve and recognise Traditional Indigenous Knowledge. Loss of this knowledge would result in a decline of Indigenous Identity and a severe reduction in the recognition and understanding of an invaluable Sustainable Knowledge System. TKRP is endeavouring to rescue and ensure the survival of cultural knowledge and provide the opportunity to demonstrate practices that have the ability to 'innovate' contemporary management and community outcomes for the benefit of all generations to come and for the greater advantage of Community and Country. This will be achieved by: >> >>



1. The Transfer of Traditional Knowledge from the Elders to their young people based on the traditional methods as determined by the Elders.
2. Digitally recording this Traditional Knowledge before it is lost forever.
3. Storing knowledge onto multi-versions of a digital knowledgebase.
4. Incorporating traditional knowledge in cooperative land management strategies and building this practice into "Best practice principles" in all land management.
5. Building and improving the profile of Indigenous Knowledge and its appreciation with other land managers and users both nationally and internationally. (Eg, pastoralists, government and the general public).
6. Creating practical action, research-driven, projects as live case studies to better collaborative land and community management. <http://tkrp.com.au/>

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Indigenous Traditional Knowledge

Collaborative Australian project featuring
Community / Social / Cultural benefits



'A more sustainable choice' sets about informing and educating consumers about products that are more environmentally sustainable, based on the developed criteria.

The information booklet and exhibition design adheres to the same criteria and has been planted into the highly visual centre of WBJ (a major shopping complex). It appears to be altering the rigidity of the space, illustrating a change in consumer habits, which will grow to consider the sustainability of the environment when shopping.

The Design Solution

- A Strong visual identity; branding system and logo.
- The development of 'a more sustainable choice' Product Criteria.



Products branded with the logo comply with 4 or more **criteria points**:

- Can be efficiently recycled.
- Is made from renewable materials.
- Has a long useful life.
- Is made from environmentally friendly materials.
- Reduces consumption of resources.
- Encourages sustainable practice.

The introduction of 'a more sustainable choice' provides a clear and attractive step in the right direction towards a more sustainable future.



SRD ChangeX 07 is the culmination of a collaborative process, uniting the wisdom and knowledge of tertiary educators, the practical working expertise of design professionals and the new creative enthusiasm of final year graduate project research and exploratory designs elements, that promote fresh ways in which society can be made more aware and sustainably responsible.

A project of the Society for Responsible Design, ChangeX 07 is our fourth annual exhibition showcasing examples of sustainable and responsible design that inspire and challenge convention. Selected from design disciplines across Sydney's leading tertiary institutions, the Graduate projects address issues of sustainability, social equity and community.

Sustainable thinking in our SRD ChangeX projects, highlights how responsible design can significantly contribute to more sustainable practices across all design streams from architecture, planning, engineering and industrial design, fashion, visual communication, interiors to landscaping and more. Our insightful, exciting exhibitions confirm the importance of higher education as an integral element to enabling change.

ChangeX is staged in the 1st half of the year to exhibit graduate projects completed the year before, as well as sitr up ideas for candidates in the upcoming years of study.

In 2007, for the first time we are exhibiting our show in full at GREX, the 2nd Australian International Green Build & Renewable Energy Exhibition and Conference and acknowledge the support given by GREX and WSB Media Group.

SRD ChangeX 07 invites you to be provoked, be inspired, and make a difference.

See: www.changex.org
www.changedesign.org and www.srd.org.au

Society for Responsible Design = SRD

Since the industrial revolution we have all become architects of our own future to an astounding degree. Stunning technological achievements have been mirrored by many undesirable environmental changes, the repercussions and full consequences of which we are now beginning to discover.

It has been shown that most of these issues relate to bad habits and practices rather than things we cannot change. It would then seem pretty counter-productive if we don't pursue better environmental thinking, habits and best practice as a global imperative. But exactly what are these? Many are not yet fully defined and require significant research and development. Collectively, advances or new knowledge in these areas especially relating to economic, environmental and social equity, are now referred to as sustainable or Responsible Design. Quite simply, a lot of small changes and improvements, when applied together and in a continuous stream, can add up to significant change. It will only be through our collective effort to develop and employ such thinking that we will find viable solutions to issues of global warming, diminishing water supplies and the excessive pollution in our environment.

Since 1989 the SRD, a not-for-profit volunteer-based organisation, has explored the relationship between design, the environment and social responsibility. A major objective of the SRD is to support and promote the collaboration between educators of all design streams, designers using sustainable responsible design practices, manufacturers and the public. By doing so we advance information, research and education for significantly better built and living environments, products, services and resource management, while working towards a sustainable future for all. The SRD is unique as a community-based group focusing on the critical role design must play in resolving environmental issues in a sustainable way.

The SRD's activities are largely funded by membership subscription. Membership is open to all individuals and businesses with an interest in responsible design. Members include businesses, design practices, individual designers, design students, educators, and environmentally aware members of the public. We're also developing our international links. For membership details and benefits see www.srd.org.au/memberf.htm Your interest in the SRD and your commitment to better design practices is welcome.

Greg Campbell_SRD Convenor



Many other great projects nearly made it to our exhibition and are worth a special mention:

CHARLOTTE PASS EDUCATION CENTRE
by Lian Wong : B.Arch UNSW An Alpine learning centre featuring many sustainable principles

'AQUA-TECH' NEW CISTERN DESIGN
by Anna Maloney-Reisch : B. IndDes UTS
New or retro-fittable water conservation via easy seal maintenance, built-in spares & clever design

SUSTAINABLE INTEGRATION
by Michelle Parkin : B.L.Arch UNSW Focusing on redeveloping historical precincts whilst maintaining balance of important responsible design criteria

GREENER PRINT PROCUREMENT GUIDE
by Greg Campbell_DesignOz with input from Austin Bucholz : for his major research project in Graphic Arts at Billy Blue, plus SRD / GECA and AGDA NSW. Combined with the REAP guide, for enviro paper choices, promotes greener commercial printing. www.srd.org.au/gppg.htm
www.srd.org.au/reap.htm

Each year a ChangeX GRADUATE PROJECT WORKSHOP is also held for final year students, from all design and architecture related disciplines. Our 2007 workshop featured a 'green dream team' panel of academics and professionals, Dr Peter Armstrong, Dr Cameron Tonkinwise, Ms Selena Griffith, Dr. Abby Mellick Lopes, Peter Graham, Nan Chen & Greg Campbell.

This workshop provided students with the ideal opportunity to discuss and fine tune their final year project ideas with our eminently qualified panel, in accord with "SRD green/TBL principles".
www.srd.org.au/changex/event_item.php?id=1



A low power lighting system design for use in pedestrian areas. Through the use of the latest LED lighting technology the design has the ability to be easily adapted to existing lighting applications. As well as the ability to operate off a stand alone power system.

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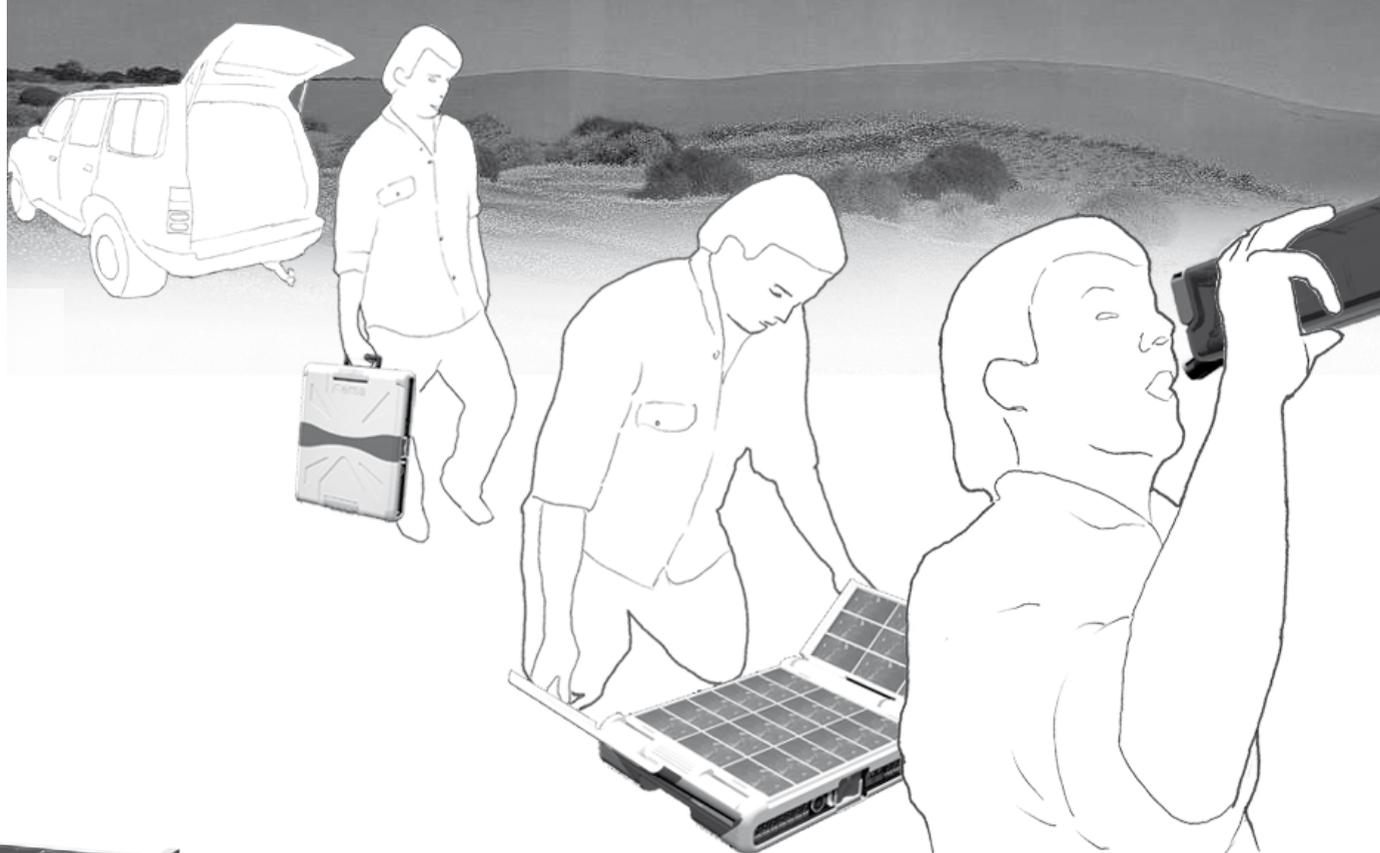
Illuminating the future

Efficient Alternative Energy usage / LED lighting
Solar or grid powered / Long life / exceeds Au standards
for pedestrian areas / low maintenance

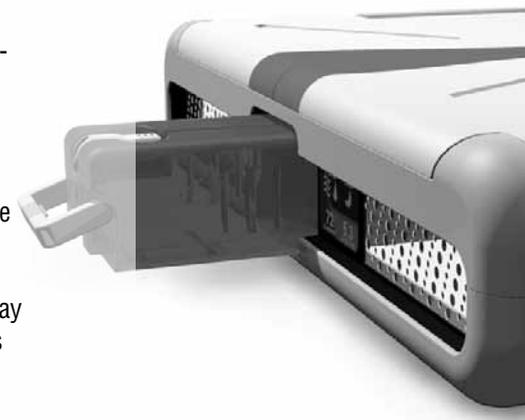


The harshness of arid, remote and isolated areas can easily take a toll on human life. Unprepared travellers, ill-conceived plans, misguided adventure, automotive breakdowns can all intensify the strain of isolation. In these environments, a lack of water can lead to severe dehydration and even death.

Ersa is a transportable, renewable source of power and water for the remote traveller. So versatile it deserves to be standard equipment for every 4WD. The product is easily stored within any vehicle and deployed as required to generate water from the air for survival purposes.



In the event of an emergency in arid or desert areas, Ersa is placed in full sunlight (with fold-out solar array open) to charge the onboard lithium battery. Soon after sundown, when relative humidity is higher, the thermoelectric module acts to condense water from the surrounding air which is stored in a removable canteen. Overnight this can produce around 800ml of water, enough to be a potential life-saver. When no emergency exists, this unit may be used to power a variety of portable devices such as GPS or Mobile phones and can even charge the vehicle's battery.



Scott Norrie

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Emergency energy & water creator
Portable / Alternate Energy Usage
Power for a range of small devices

Ersa



'Rachael Cassar' is a high-end women-wear sustainable fashion label. Rachael Cassar uses the process of deconstruction to create garments that are 'one offs' comprised of 90% recycled materials. Rachael carefully chooses quality re-claimed fabrics to create a cohesive 'sustainable range' without compromising style and design for 'environmental friendliness'

Rachael Cassar

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Boutique fashion range with hi-recycled content and sustainable focus

Re-Fashion garments



Ozmosis is the redevelopment of Wentworth Park to help improve water quality for an increasing population within the Blackwattle Creek catchment by treating the water at the final stage before entering the harbour. The design maintains connection through and around the park while dividing it up into less exposed spaces to enhance the experience of the park for its users, while educating people of the importance of water quality.

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Ozmosis

Ozmosis : Urban Waterholes
Improve local stormwater quality /
natural processes / community spaces



This paper was undertaken in order to investigate current sustainable design initiatives in the hair salon industry. The beauty industry is experiencing rapid growth and the design of the salons that support this industry need to be analysed to assess the level of integration of sustainable design initiatives. By using key case studies the paper establishes an argument for how integration of sustainable design into all salon environments can occur. Analysis also includes the barriers for adopting this process and looks at ways at how this can be overcome.

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Greening Beauty Salons thesis
Environs / resource use / Air quality
local and international study



As a result of increased greenhouse gas emissions we are about to enter an era of unprecedented climate change. Sea level rise is regarded as the most certain of all impacts brought about by climate change with rises of one to six metres expected by the year 2100. This thesis investigates the impacts of this sea level rise, the NSW Government's current response to sea level rise through planning legislation and policy and provides recommendations for protecting our natural and built environment against the expected devastating impacts of this phenomenon.

Planning for Sea Level Rise
Thesis on understanding how to reduce
negative effects of Climate Change

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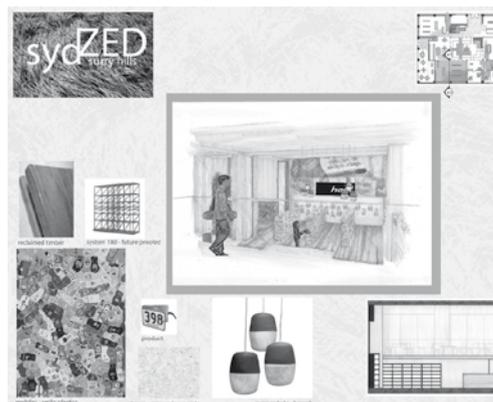
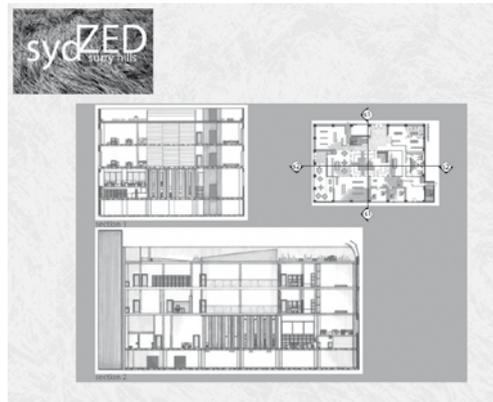


sydZED Surry Hills' (Sydney Zero Emissions Development, Surry Hills) conceptual idea was to develop a design that works towards zero emissions by applying "The 10 Principles of One Planet Living" (a joint initiative of WWF & Bio Regional). Aimed at reducing ecological footprints, sydZED Surry Hills hopes to shift the paradigm of living to make sustainable responsibility easier.

One Planet Living (OPL) is a concept developed by the WWF organisation in partnership with Bio-Regional Development Group, UK. Its aim is to build a world-wide network of communities that are based on their "10 Principles of One Planet Living" thus promoting sustainable development in aid of reducing ecological footprints.

The 10 Principles are:

1. Zero Carbon
2. Zero Waste
3. Sustainable Transport
4. Local and Sustainable Materials
5. Local and Sustainable Food
6. Sustainable Water
7. Natural Habitats and Wildlife
8. Culture and Heritage
9. Equity and Fairtrade
10. Health and Happiness



BEDZED (Beddington Zero Emissions Development- ZEDfactory.LTD) is one of OPL's first urban eco-neighbourhoods in the UK. With a mission for international expansion they are currently working with a number of international locations including Australia with support from Sydney's Lord Mayor. Currently four sites are being assessed for possible development.

This project proposes that as most developments are created from scratch on large sites, that the Australian site to be selected is the Surry Hills "Old Print Factory" site. This could then be a demonstration of successful adaptive reuse, that not only reduces environmental impact, but presents itself as an example for future urban developments.

The site is named SydZED, or Sydney Zero Emissions Development, to link the branding with existing BEDZED. It is a mixed development of residential and retail space, with systems built-in to address the use of energy, water, ventilation, permaculture, daylight and materials. Retailers are selected based on their sustainable practices, showcasing new and exciting products available.



Rebecca Fussell

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SydZED: One Planet Living interiors
Interior design and products to significantly reduce ecological footprint





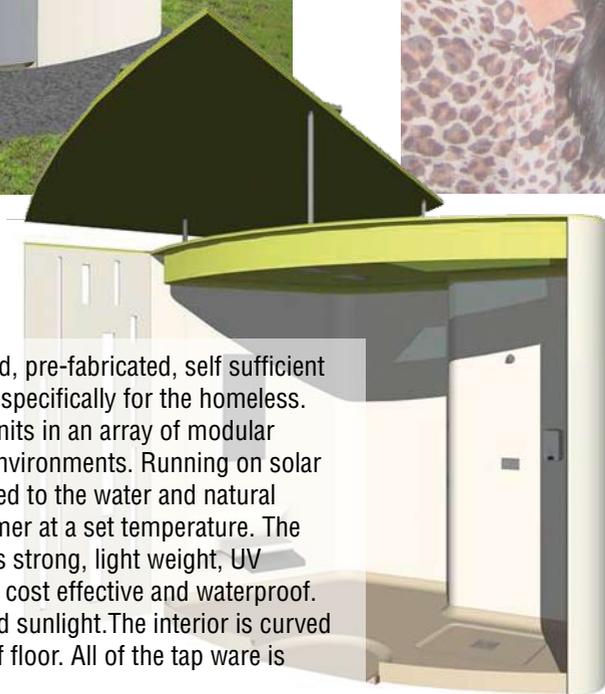
(pron. Up-Mo-Ro) **Apmere** is a central Arrente word meaning country, land, camp, home or direction. Located 25 km West of Alice Springs in the heart of the MacDonnell Ranges. The park is owned and managed by Traditional Owners of the Iwupataka Land Trust, a central Arrente community of 70 people. A park where self-sufficient travellers in 2WD and 4WDs from around the world can camp and gain an understanding of the fragile ancient landscape that surrounds them. Accommodation ranges from swags on the ground to minimal huts, a visitor centre, ablution blocks, reception, a shop, and bush kitchen areas.

Traditional owners wanted to create an ecotourism park that is sustainable in three ways: Economically through employment opportunities; Socially through a reduction in welfare dependency; and Environmentally by protecting the country to which they are connected. Apmere aims for the best-practice performance standard in Green Globe 21, an international ecotourism rating tool that uses seven indicators such as energy and potable water consumption, solid waste production, social commitment and resource conservation to benchmark similar projects from around the world with the aim of encouraging the adoption of sustainable principles.

Naturally such principles have guided the design, construction and operation of the park. Materials are based on passive thermal performance, durability, low embodied energy, local availability and potential for creating employment opportunities. Construction methods and techniques utilise various community skills and allow the building to change over time with minimal waste. Services are exposed, giving travellers an understanding of the preciousness of rainwater in an arid zone and the energy they are using. The approach to building and the framing of views on the site gives travellers a better understanding of nature and of the Central Arrente way of seeing country.

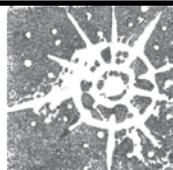


K.I.S.S. is an environmentally sound, pre-fabricated, self sufficient shower unit that has been designed specifically for the homeless. KISS can be connected with other units in an array of modular forms that will suit many different environments. Running on solar energy KISS only has to be connected to the water and natural gas mains. The shower runs on a timer at a set temperature. The fiberglass design means that KISS is strong, light weight, UV resistant, long lasting, vandal proof, cost effective and waterproof. KISS provides natural ventilation and sunlight. The interior is curved preventing dirt and grime. Slip proof floor. All of the tap ware is vandal proof.



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'Apmere Desert
travelling place'



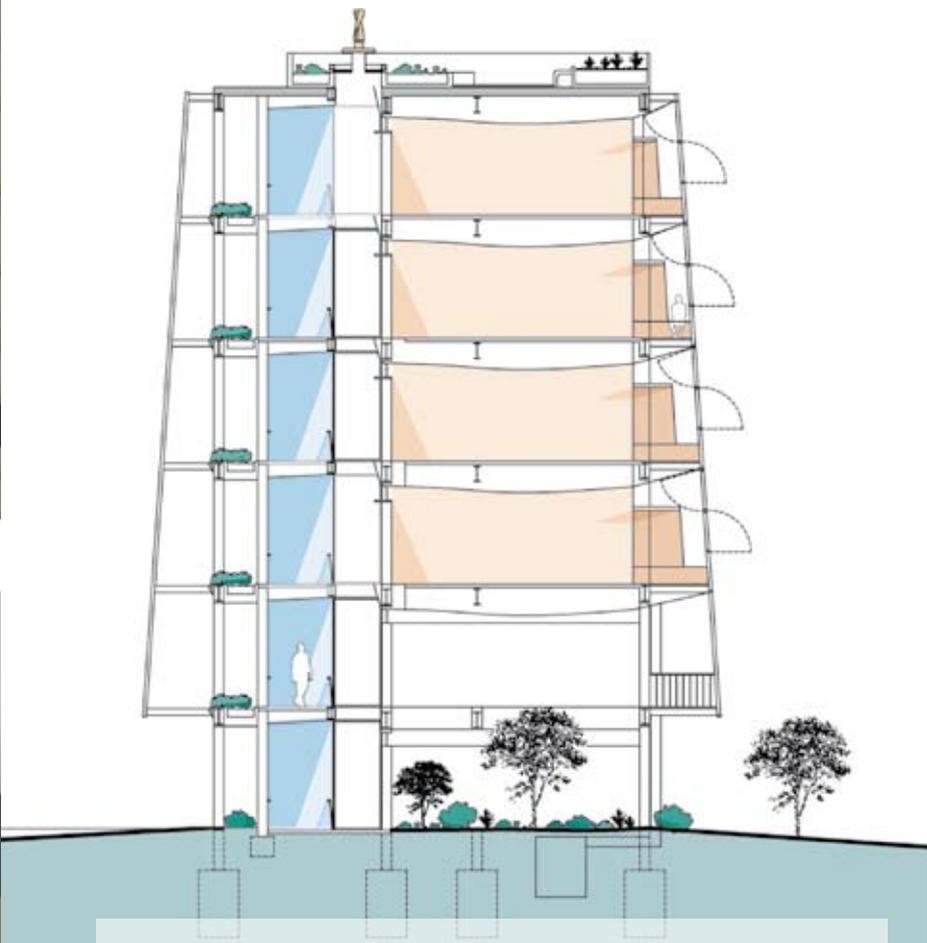
Sally Bourne
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'KISS'



Adaptive re-use at mona vale hospital explores the notion of how healing environments can improve people’s physical wellbeing and recovery, while simultaneously enhancing their psychological condition as they move towards ultimate health. The design demonstrates how the symbiotic relationship between natural and built environments can be environmentally sustainable as well as sustainable for the people within it. The concept of healing thus extends to the patients, the landscape and the existing buildings.

In the next five years, moving Mona Vale Hospital's acute care facilities to the new Frenchs Forest Hospital provides opportunity for an ambulatory care centre on the Mona Vale site and the brief for this project. This centre will take the form of an outpatient service for those requiring one-off or ongoing treatment, from chemotherapy and physiotherapy through to yoga.



With refurbishment of Mona Vale Hospital this project shows, through the use of healing environment design principles such as positive distraction and scale, that a health facility can respond to an individual’s psychological and physical needs in addition to being functional.

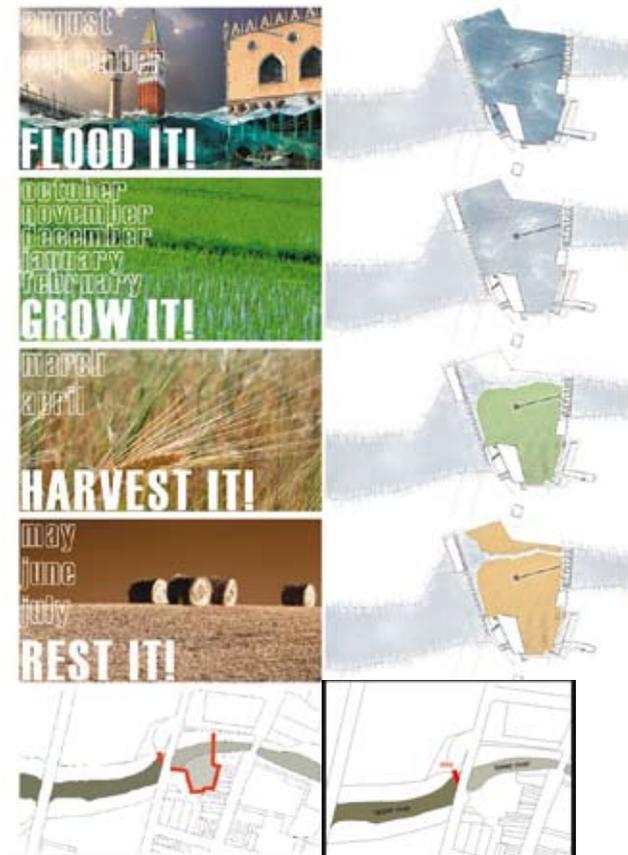
This new healing environment addresses the issue of sustainability with adaptive re-use of the central building’s existing structure and shows passive design can lower health facilities’ dependence on mechanical ventilation and lighting at distinct levels of care.

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Healing a Hospital
Health and Community Caring including
alternative medical practice and methods

ADAPTIVE RE-USE AT MONA VALE HOSPITAL



Twice is a system which recycles greywater from the shower and laundry for the targeted reuse in residential homes. Using various filtration media, specific components of greywater are treated, allowing the average household to save up to 60% of its daily water use. The system not only dramatically reduces household demand on potable water supplies, but allows water to be used twice.

The site is an existing car park along Parramatta River. While most schemes chose to possess the land by building over it, this project lets the water in and builds around it. The buildings thus harness the life of this quiet river that flows through the city. When the dams are shut, it manifests itself in sheer volume. When the gates are opened and the land drains, it manifests itself in the lushness of the greens. An architecture that captures the seasonal properties of tides and green.

Isobel Scanlon

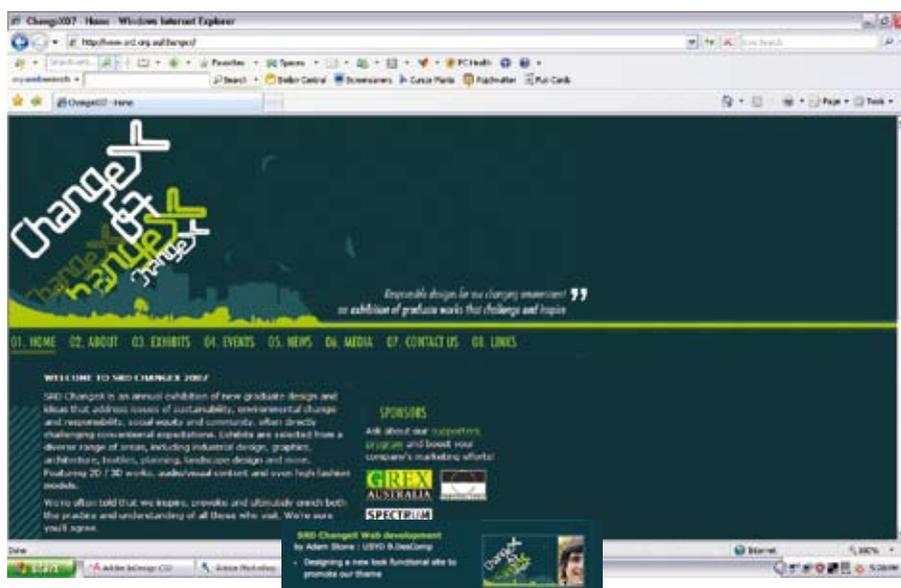
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“TWICE”

Domestic greywater recycling system
Monitor Water saving and efficiencies

Qui Wenhao

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Governing organisations around the world are now beginning to recognise the impact humans have on the environment. In my opinion, incorporating sustainability techniques into every aspect of our lives is necessary to neutralise and possibly reverse the damages dealt so far. I feel ChangeX is a very important project within the design community as it pushes the younger generation to tackle existing social and environmental problems. When I was given the opportunity to be a part of such a selfless and meaningful project, I could not refuse.

The brief, to develop an online identity for ChangeX in order to help promote the event and the student's individual projects. The two themes I tried to visualise were, "contemporary design" and of course, "sustainability". The layout featured a dominant green palette portraying a harmonious relationship between the environment and man. Fluorescent green highlights were used to subtly depict the energy of the young designers and their pursuit of sustainability.

Modern web standards (Web 2.0) were built into the website to strengthen the contemporary design theme. The true definition of Web 2.0 is a highly debated topic. It is mainly a strategy for revising traditional web standard by improving usability and enhancing experience and engagement with the user.

The online result combines "tech" and teamwork in developing viable solutions.

Adam Stone

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ChangeX web developer



1 SRD ChangeX 2007

- 2,3 Melanie Sallis
- 4,5 Luke Gerzina
- 4,5 Shu Fun Kwan
- 4,5 Jesse Mowbray
- 6,7 Luke Sandford
- 8,9 Sarah Estens

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- 13 Stuart King
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- 16,17 Rachael Cassar
- 18,19 Heidi Carlyle
- 20 Jennifer Lawley
- 21 Westley Owers
- 22,23 Rebecca Fussell
- 24 Larissa Johnson

- 25 Sally Bourne
- 26,27 Nicole Robinson
- 28 Isobel Scanlon
- 29 Qiu Wenhao
- 30 Adam Stone
- 31 Contents / Credits
- 32 Sponsors / supporters



CREDITS

Many thanks for those who recognise we all need to contribute in order to reach more significant and sustainable solutions ... note: many roles crossed-over
Web: Adam Stone, Karl Logge, Frank Maguire **Catalogue:** Jennifer Lawley, Sarah Estens
Graphic style: the whole ChangeX 07 team **Coordination:** Rebecca Fussell, Luke Gerzina, Shu Fun Kwan **Venue:** Mick Turner, WSB media, GREX, Isobel Scanlon, Scott Norrie
Sponsorship: Sally Bourne, Wez Owers **Exhibition:** SRD from MADE accountable 1995 and **Exhibition plinths** by Natacha Brochard, COFA. All Concepts + content © 2007 SRD + creators
 Many Lecturers and departments across Sydney Universities for exhibition input and support and University of Sydney for use of their venue for the graduate project workshop in March
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Project support: Cheryl Campbell, the full SRD exec. committee and past SRD / ChangeX leaders and members **ChangeX 07 Project manager / curator:** Greg Campbell_DesignOz

Our much appreciated supporters



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