

f|b|e

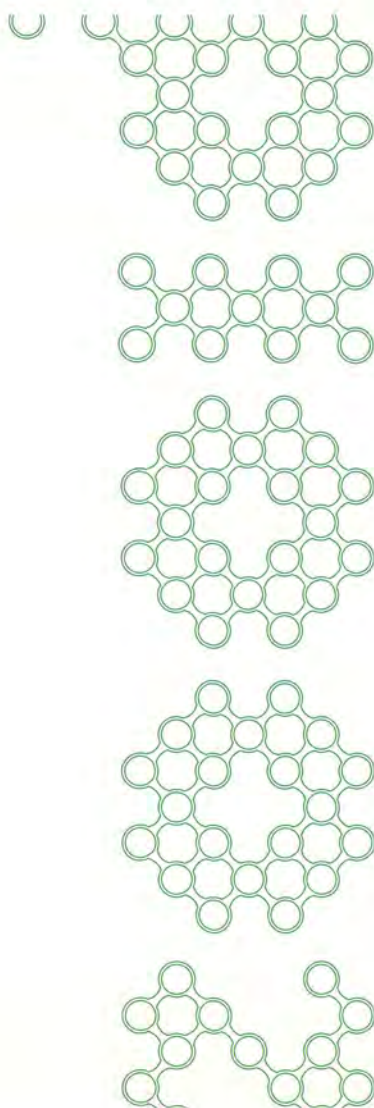
FACULTY OF THE
BUILT ENVIRONMENT

UNSW

THE UNIVERSITY OF NEW SOUTH WALES

THE INDUSTRIAL DESIGN GRADUAND EXHIBITION 2001





zo·oid (zō'oid')

n.

1. (a) An organic cell or organized body that has independent movement within a living organism, especially a motile gamete such as a spermatozoon.

1. (b) An independent animallike organism produced asexually, as by budding or fission.

2. One of the distinct individuals forming a colonial animal such as a bryozoan or hydrozoan.

WHAT IS A ZOOID?

catalogue design

Catalogue design by Soumali Chitdamrong and Lukasz Klenner with thanks to Byron Ross for his organisational efforts and to the class of 2001 for their work in supplying photos and text to us on time despite the pressure of preparing for end of year presentations. Special thanks go out to Peter, bog, Photoshop and sandpaper, in that order! ○





PROFESSOR TONG WU

dean of the faculty of the built environment



Industrial design affects the quality of our daily life. When the items are well designed, we tend to take them for granted, but when they fail, we curse the 'designers'. In the Faculty of the Built Environment we are keenly aware that we are educating the next generation of custodians of the environment and excellence in industrial design is an integral part of that stewardship.

To provide additional exposure of our students' work, Interior Architecture and Industrial Design students successfully exhibited at this year's SaloneSatellite in Milan, Italy. UNSW represented one of only two Australian universities invited

to exhibit at one of the most prestigious and selective events in the international design calendar. Dr Oya Demirbilek from the Industrial Design Program was one of our two academics who coordinated the student program.

Our staff members continue to make relevant contribution to the industrial design profession. Mr Lance Green's election to Fellow is for his long and continued service in the Design Institute of Australia NSW Council, which includes holding the office of Vice President (Industrial Design), and for his outstanding contribution to Industrial Design education.

The work being exhibited in this catalogue is a culmination of four

years of study in the Program. On behalf of the Faculty, I want to thank the staff for their dedication. To the students, congratulations on your achievement and best wishes on your future endeavours. ☉



JONATHAN TALBOT

head of the bachelor of industrial design program

The final year students whose major projects appear in this catalogue have completed a unique program, which integrates industrial design with marketing, science and engineering, manufacturing and business planning. Their studies have given them an experience that spans these disciplines. This has allowed them develop their design capabilities in a context that recognises the contribution each discipline makes to successful design outcomes.

In 2001, we have had a large group pursuing a diverse range of projects. It has been very exciting to work with the students as they explore new ideas about products

and systems which touch on such a wide range of human activities. The final design presented by each of the graduands is underpinned by a major investigation including research into socio-cultural issues, marketing requirements, ergonomics, state-of-the-art technology, materials and production processes. The design work has included extensive conceptual studies, evaluation and testing, detail design development, production planning and business evaluation.

This journey through research, design and development has demanded effective networking across a broad range of disciplines

and industries. Through their efforts, the graduands have forged links with many organisations and individuals. I admire the professional manner in which their work has been conducted and I am grateful for the support that has been offered by staff at UNSW and the many people in Australian industry who recognise the importance of design and have been willing to contribute to the graduands' experience and to the UNSW Industrial Design Program.

On behalf of all those teaching in Industrial Design at UNSW, I would like to congratulate the graduands on their efforts throughout the program and

particularly on their achievements in successfully completing their final projects and staging this exhibition. We look forward to their future successes and to the fine contributions they are sure to make in their chosen field of endeavour. ○

YEAR ONE

session one

- Design Fundamentals
- Computers & Information Technology
- Workshop Technology
- General Mathematics 1B
- Geometrical & Mechanical Drawing A

session two

- Industrial Design Studio 1
- Engineering Design Mechanics
- Geometrical & Mechanical Drawing B
- General Mathematics 1C
- Physics (Industrial Design)

YEAR TWO

session one

- Industrial Design Studio 2A
- Introduction to Accounting Principles
- History of Industrial Design
- Ergonomics
- Perspective & Rendering Techniques

session two

- Industrial Design Studio 2B
- Computer Aided Design
- Materials & Manufacturing Processes for Industrial Design A
- Statistics SM
- Marketing Fundamentals

YEAR THREE

session one

- Industrial Design Studio 3A
- Materials & Manufacturing Processes for Industrial Design B
- Computer Graphic Applications
- Consumer Behavior
- Design Methodology

session two

- Industrial Design Studio 3B
- Electrical Engineering for Industrial Design
- Production Design and Technology for Industrial Design
- Graphic Design
- General Education

YEAR FOUR

session one

- Industrial Design Studio 4
- Project Research
- New Product and New Service Development
- General Education

session two

- Project
- Design Management for Industrial Design
- Environmental and Interior Design
- Elective

SPONSORS

CREDITS

Project Management:
Byron Ross

Catalogue Design:
Soumali Chitdamrong
Lukasz Klenner

Sponsorship:
Bronwyn Sutton
Andrew Babbage
Daniel Mueller
Shimi Barr

Guest Relations:
Gemma De Plater

Many thanks to:
Kylie Legge
Jose Romagnoli
4th Year ID Students
ID Lecturers
Peter Kolasinski

*the year 2001 graduating class would like to thank
the following sponsors for making the exhibition &
this catalogue possible...*

GOLD

Neoz Lighting
UNSW Bookshop
UNSW, Faculty of the Built Environment

SILVER

Sebel
Tiller & Tiller
Geoff Sumner

BRONZE

Carrera Lighting
Box & Dice
Tetier

SUPPORTERS

Sunbeam
Davies Davies

REEM ABDALLA Contour <i>male athletes hair removal device</i> JESSICA ARIASUBRATA Bubby <i>indoor modular play system</i> HELEN AU-YEUNG <i>children's lunch packing system</i> ANDREW BABBAGE FLiP <i>garden kneeler & seat</i> MICHAEL BALDIVIA <i>adaptable pram</i> SHIMI BARR oxygenation EMILY CHAN Nippy <i>portable canine carrier</i>	WADE COGLE Scion <i>extreme personal surfcraft</i> ARLENE CHEUNG Posture Corrector Belt CHRISTOPHER CAMERON Snow Fall <i>rescue toboggan</i>	SOPHIE ELLIS Rock-a-bye <i>indoor/outdoor seating</i> CLAIRE DRAKES Beat GEMMA DE PLATER Libertas <i>in-home therapy device</i> OSCAR HORKY Archidome Recovery Shelter SOUMALI CHITDAMRONG break-up <i>adaptable furniture system</i> JOHNNY KUO FOLDSTER <i>motor vehicle</i>	DEBBIE FAN INTRACE <i>Learning Chinese Characters educational product</i> JESUS FLORES Terra Nullius <i>apartment bed</i> MICHAEL HA MODE:M <i>interactive entertainment</i> SIOBHAN HARGROVES O-chair GEORGE ISSA REVolution <i>one-man portable recreational aircraft</i> NIKI KAPSIS <i>modular kitchen</i> LUKASZ KLENNER Kushy <i>folding apartment chair</i> PAOLO LAM Blue <i>aircraft seating</i> JOANNE KWOK StudyBuddy <i>primary childrens workstation</i>
--	--	--	---

KAH WEE LEE ALPS <i>Avalanche "Lung" Protective System</i>	ANTHONY RODIER Fin <i>personal beach shelter</i>	JOSE ROMAGNOLI SNOWCOM <i>communication & navigation system for snowboarders</i>	RAYMOND SHAM Roll-up Mah-Jong Table
MIJIN LEE Q-Bik <i>dual-functional domestic furniture</i>	JAMES PRICE AERO <i>office lighting system</i>	BYRON ROSS Wingsail	BRONWYN SUTTON Omni <i>educational device</i>
MISUN LEE Bushelter	PHILLIP PANOS Jelibed	JO PHILIPPSOHN Medusa <i>interior lighting</i>	AIDEN TAO PSYCLE <i>recumbent human powered vehicle</i>
TRUNG LIEN COUTURIZE 3.01 <i>personal communications hub for teenagers</i>	TIM OFFICER SEISMIC <i>bicycle seat system</i>	KIM TANG Transtibia <i>prosthesis for lower limb amputees</i>	AARON THOMPSON Travis <i>traveller's information system</i>
CHING WEI LU Buzz <i>telecommunication device</i>	MICHAEL O'BRIEN Sidestem <i>bicycle storage</i>	JOHN TORPEY BoBo <i>modular bed system</i>	NATHAN TINDALL Pop Eye <i>wearable communicator</i>
CRAIG NORMAN PIP <i>Public Infotainment Portal</i>	DANIEL MUELLER Tortoise <i>portable storage for homeless people</i>	JENNY VAY CLEANSE <i>auditory cleansing unit</i>	RORY WILLIAMS motorcycle
IVANKA MRVUNAC Merlin <i>children's packaging line</i>	KATHERINE TRACEY		





REEM ABDALLA

Contour

male athletes' hair removal device

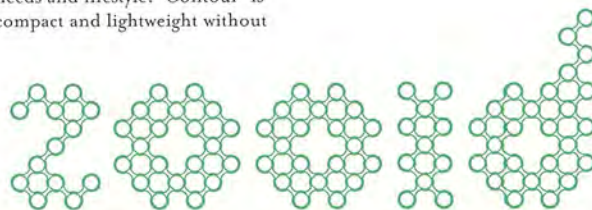


Athletes of various sports prepare themselves in different ways to be the best they can in their field. Yet they all have a common thread between them – hair removal. Hair removal enhances athletic performance either by increasing speed by a millisecond, by adding comfort to injuries and reducing friction between constant physical contact with other players. Although athletes are not bombarded by beauty standards, sporting officials have created their own. In some

sports, athletes are obliged to conform to these standards or the results can be damaging to a potential career. An example in such a situation is in the field of bodybuilding where competitors are not taken seriously if they have visible body hair.

As there are many hair removal products for women, male athletes have been left in the dark. The 'Contour' has been designed to suit the professional male athletes' needs and lifestyle. 'Contour' is compact and lightweight without

the need for a power supply, hence allowing it to be completely portable. The 'Contour' guarantees effective results without the hassles and mess of available techniques. The innovation is derived from its unique mechanism, which uses a piece of thread to remove the hair completely from the follicle. The symmetry of the design allows for the use by either hand. ◉







JESSICA ARIASUBRATA

Bubby

modular indoor play system



Childcare for children not attending some type of formal care is often the responsibility of parents, relatives, or babysitters (and often in an indoor setting). As parents are becoming more eager to give their children a head start in education, many families simply cannot afford formal care on a daily basis.

Bubby is a modular play system developed in response to these factors. It consists of simple joints and rods, which can connect into many configurations - allowing for more than one child to play at a time. Since literacy is becoming more of an issue, Bubby also incorporates a number of activities such as the alphabet, numbers, colours and shapes through attachable panels. These

panels can then be changed to more complex activities as the child learns more. With the 2-3 year old in mind, an important focus is on developing motor skills. The activities and even the construction of the play system provide many opportunities for children to explore physical capabilities, for example hand-eye coordination.

Bubby allows carers in an informal, indoor environment to become a more integral part in a

child's learning progress through interaction, whilst allowing children the freedom of their imagination through free-flow play. Designed for fun, bubby can be used for story telling, role-play, and games - a few elements of education. With the parent/guardian also in mind, bubby is easily packed away, cleaned and transported and does not require any batteries. 



*Opposite (from l to r):
The inside compartments, the
menu wheel.*





HELEN AU-YEUNG



In our present society, children are starting to have less fruit and vegetables, and more junk food and fast takeaway food products. The aim of this project is to encourage a healthy eating habit at school. This can not only stop the poor eating habits from passing onto the next generation, but also can decrease the chances of experiencing health problems and possibly psychological problems.

The healthy children lunch packing system is specifically targeted primary school children. The system is designed as a learning aid in teaching the importance of healthy eating pattern and encourages performing on what they have learned.

children's lunch packing system

This system includes a lunch box targeted at 6 - 8 year old children, and one for 9 - 12 years old. Each lunch box contains a snack box or boxes, a main meal container and a drink bottle. Packaged food products are also designed to accommodate parents who have insufficient time to prepare food for their children. Children can learn about food nutrition through the menu wheels and practices in reading food labels from the food packaging. The menu wheel contains information

on the food for lunch on that day and can be changed daily.

In promoting group learning at school, the lunch boxes with the same shape can form an interesting pattern when placed together. This can provide an opportunity for children to share information on the food while they are eating and learn more about healthy eating together. Moreover, the products are fun to use and can encourage children to improve their eating habits at school. ◉





*Left: The FLiP as a Kneeler
Inset (top): FLiP as a Stool
Inset (bottom): Folded FLiP
Opposite top (l to r): FLiP is
easily transformed from a kneeler
to a stool and back again.*



ANDREW BABBAGE



SPECIAL THANKS TO:

- Rebecca
- Charles & Dianne Mallam
- Precision Foam Manufacturing
- Alba Plastics
- Barron & Rawson
- Box & Dice
- Horticultural Therapy Society, NSW
- Independent Living Centre, Ryde
- Matraville Bate & Tackle
- UNSW Open Reserve Library Staff
- All UNSW IDES Lecturing Staff

Exercise is important for health and well being at any age but particularly during older age. Gardening is an excellent form of load bearing exercise. However, as people get older they are less able to bend joints and become less steady on their feet. As a result they are less willing to tend garden beds.

Despite the need for assistance in some activities, older people are still style conscious. Any product aimed at older target

demographics needs to be attractive and should not patronise or alienate older people.

The FLiP seeks to assist older people get down to a garden bed and then stand back up again. As it is uncomfortable to kneel or sit for long periods the FLiP has been specifically designed to 'flip' over so it can be used as a stool or a kneeler. This is particularly important for older people whose joint condition does not allow them to kneel.

FLiP

garden kneeler & seat

The FLiP also has the following features:-

- Light weight
- Easy to use
- Collapsible, for easy storage
- Stable
- Easy to clean
- Holds garden tools
- Made from durable Nylon
- Cost effective, RRP ~\$70
- Minimal retail packaging





*This page: Adaptable pram
Inset: pram sideview
Opposite top (l to r): Pram
lifecycle progression*



MICHAEL BALDIVIA

Adaptable Pram

pram system



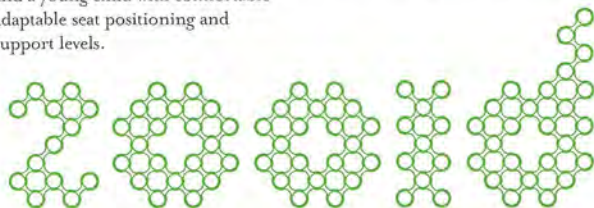
The first few years of a child's life encompasses the most significant and most rapid developments in a life-span. As a newborn child goes through one developmental stage to another, a new child transportation product is needed to accommodate the physical changes of the child. This has prompted the development of a child transportation product that was adaptive to the physical needs of the child, as well as addressing the functional and safety requirements that is fundamental with any child product.

Currently, existing products are restricted to short periods and specific tasks. The different types of prams are suited for certain developmental stages. The task of

transporting a child involves other parallel tasks that can be difficult to perform with the existing products. Safety in this product area is a major concern due to the voluntary standards in Australia that allows for many hazardous products' availability in the market.

The design aims to facilitate mobility and provide a comfortable and safe environment for all stages. The different modes conform to the distinct needs of a newborn, toddler and a young child with comfortable adaptable seat positioning and support levels.

The design allows the pram to retract to a compact package and open up to a comfortable and safe child transportation equipment. Safety has been enhanced through preventative features. The performance of parallel tasks will be easier with smarter storage solutions. The functional design is serviceable through the use of new materials. The overall design is to facilitate both the mobility of the child, but also to assist in the upbringing of the child. ◉





Left: Portable breathing device for Oxygen-enriched air.

Inset: Using the Oxy-Gene product.

Opposite page (l to r): The design incorporates a variety of oxy-flavours, the mouthpiece opens by a one-hand operation, a view of the components involved in the design.



SHIMI BARR

oxygenation portable breathing device



Oxygen makes up 21% of the world's atmosphere. As worldwide air pollution increases, the quality of the air decreases. This has reduced the amount of oxygen that is present in our atmosphere.

Due to this increase in pollution, oxygen bars have become extremely popular throughout the world. These bars offer patrons the facility to breathe pure oxygen for a short period of time leading to many physiological and psychological effects.

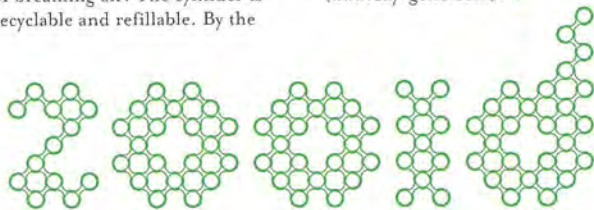
In past times people would never have imagined paying for the world's natural resources, but similar to the way bottled water has been a success, oxygen now has the potential to do the same. This product is a portable breathing device that contains a mixture of

filtered air enriched with 50% oxygen concentrate. It enables the user to breathe clean air in the midst of polluted air. There is a need for supplemental oxygen for commuters in large polluted cities, sports people needing higher levels of oxygen for performance, and for nightclubbers in the midst of hot and smoky nightclubs.

The design incorporates a highly pressurized small cylinder, which supplies the user with 10 minutes of breathing air. The cylinder is recyclable and refillable. By the

use of one hand, the user can hold the unit, press the button once to release the flip-up mouthpiece, hold up to their face and then press the button again to release the air to breathe.

The device is smaller than a water bottle, and weighs half the amount of a full water bottle. The design incorporates the availability of different flavours of oxygen enriched air. This product has been designed for Oxy-Gene (www.oxy-gene.com). 





CHRIS CAMERON

Snow Fall

rescue toboggan

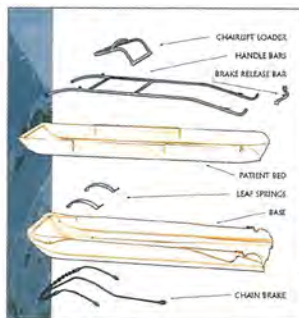
A love of the outdoors and a desire for human safety led to the development of the Snow Fall Rescue Toboggan. The toboggan is designed to be pulled by a single Ski Patroller across all ski field conditions.

Existing toboggan models provide a robust solution to patient transport, yet neglect the comfort needs of the injured skier. This often leads to further aggravation of injuries as the toboggan jolts over every mogul, rock (as in Australian conditions) and bump in the snow. Snow Fall provides the patient with a more comfortable ride by employing a hinged bed suspended on light weight, carbon fibre leaf springs. This bed is then able to be easily lifted from the base to carry the patient to the medical centre, ambulance etc.

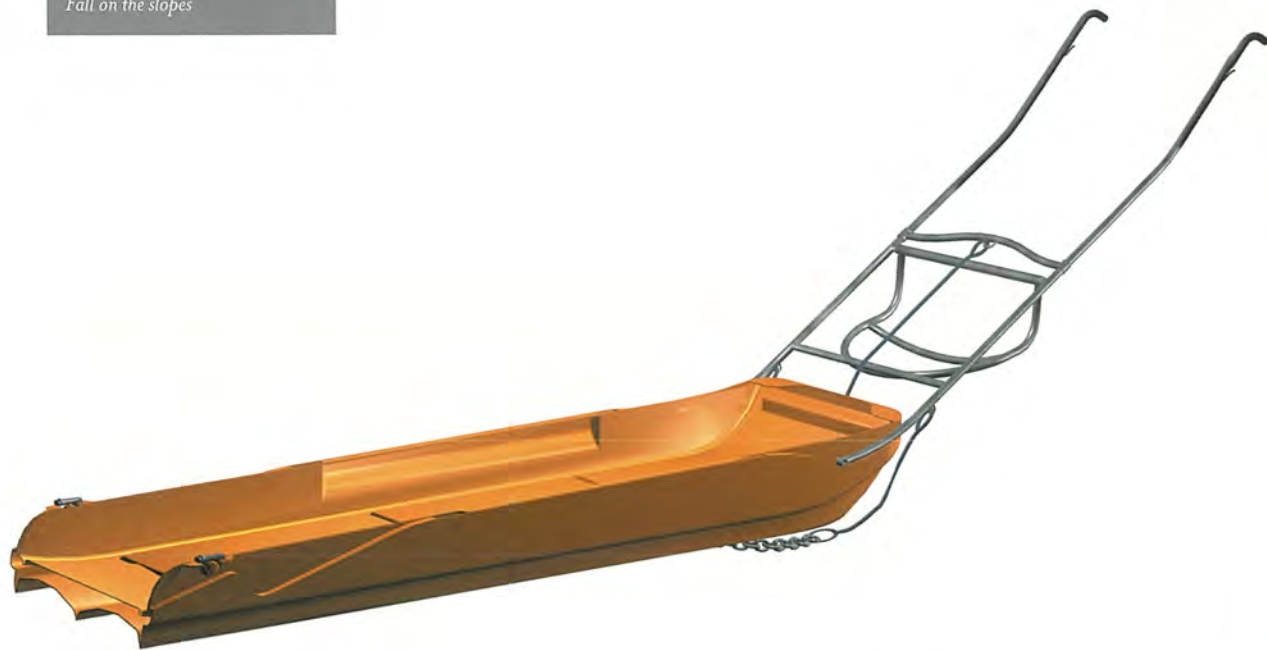
Unlike it's fibreglass predecessors, Snow Fall is manufactured in polyethylene using rotation moulding. This

means that the system is inexpensive and durable and is also lightweight which is important for the patroller's sake.

Other innovations include the aluminium handle bars which fold back neatly onto the base for storage. Located on these is a chairlift loader, for carrying the empty toboggan up the slope; a chain brake, to assist the patroller in slowing the laden toboggan down the slope; and a brake release bar to disengage the chain brake. The base is designed to plane out over rough snow, yet has sharp tracks at the rear to dig into the slope and hold the toboggan to the hill when traversing. ◉



*This page: Snow Fall Rescue
Toboggan
Opp page top: Chairlift Loader
Opp page bottom left: Exploded
view
Opp page bottom right: Snow
Fall on the slopes*



nippy



This page: Towing enables mobility for medium to large sized dogs.

Oppp page from left:

Img 1, The gate opens by sliding up into the lid.

Img 2, Pram configuration

Img 3, Dog bed configuration.

Image 4, Two storage compartments on the lid and base.



EMILY CHAN



Nippy offers a solution to travelling with dogs by providing comfort and security for the pet, as well as portability, easy maintenance and peace of mind for the owner.

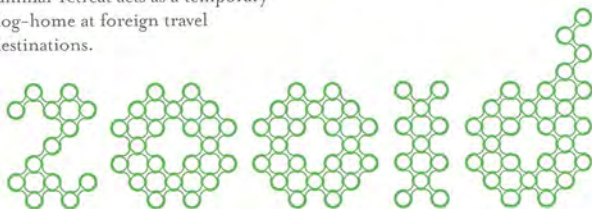
It is becoming increasingly popular and easy for owners to travel with their pets. International programs such as the "Pet Travel Scheme" enables quarantine-free travel for pet animals, offering convenience when travelling within qualified countries, including Australia. There is also a growing trend for places of accommodation in rural and suburban areas that welcome pets to stay with their owners. Nippy aims to meet these occasional travelling needs, as well as the day-to-day requirements of

home usage. It meets the standards provided by the International Animal Travel Association, allowing its usage on aircrafts. For added safety on shorter trips, it acts as a means of containment whilst transporting the dog inside the car. Nippy converts into a dog bed when the lid is removed, used by the dog daily to rest and sleep in. Through a simple rearrangement it changes into a pram configuration, offering an added sense of security when this familiar retreat acts as a temporary dog-home at foreign travel destinations.

Nippy

portable canine carrier

Nippy is available in three different sizes small, medium and large. Each size provides adequate space for the dog to stand up, sit, lie down and turn around and sufficient ventilation and UV protection. Nippy also comes with a nylon covered foam mat adding an extra layer of comfort and insulation, food and water containers, storage compartments and handles for easy lifting and towing. ◉





ARLENE CHEUNG

PCB

posture corrector belt

Posture Corrector Belt (PCB) has been developed to physically guide, correct and maintain a healthy spine while standing, walking and sitting.

According to Australian Physiotherapist Association and many other medical institute around the globe have said one of the best method to prevent back pain is to pay serious attention to our posture. Individuals who have poor posture such as slouching while sitting in front of the computer for prolonged periods of time would increase their chance of developing an irreversible back disorder if no action was taken to improve the situation.

PCB uses a selection of light weight materials. The moulded EVA foam padding is relatively soft yet firm enough to give the support to the lumbar (lower back) area. The wave-like surface of the padding is specifically designed to sit firmly to the small

concavity of the spine. PCB users are free to perform general tasks and other activities simply because the function of PCB is not to restrict movements but to stop the user from bending their spine to an unhealthy 'C' curve instead of the natural 'S' curve.

The product comes in different colours; styles of fabrics, sizes of the belt would be available. PCB provide an easy and practical option for individuals who suffer from poor posture. ○



*This page: The Posture correction
belt*

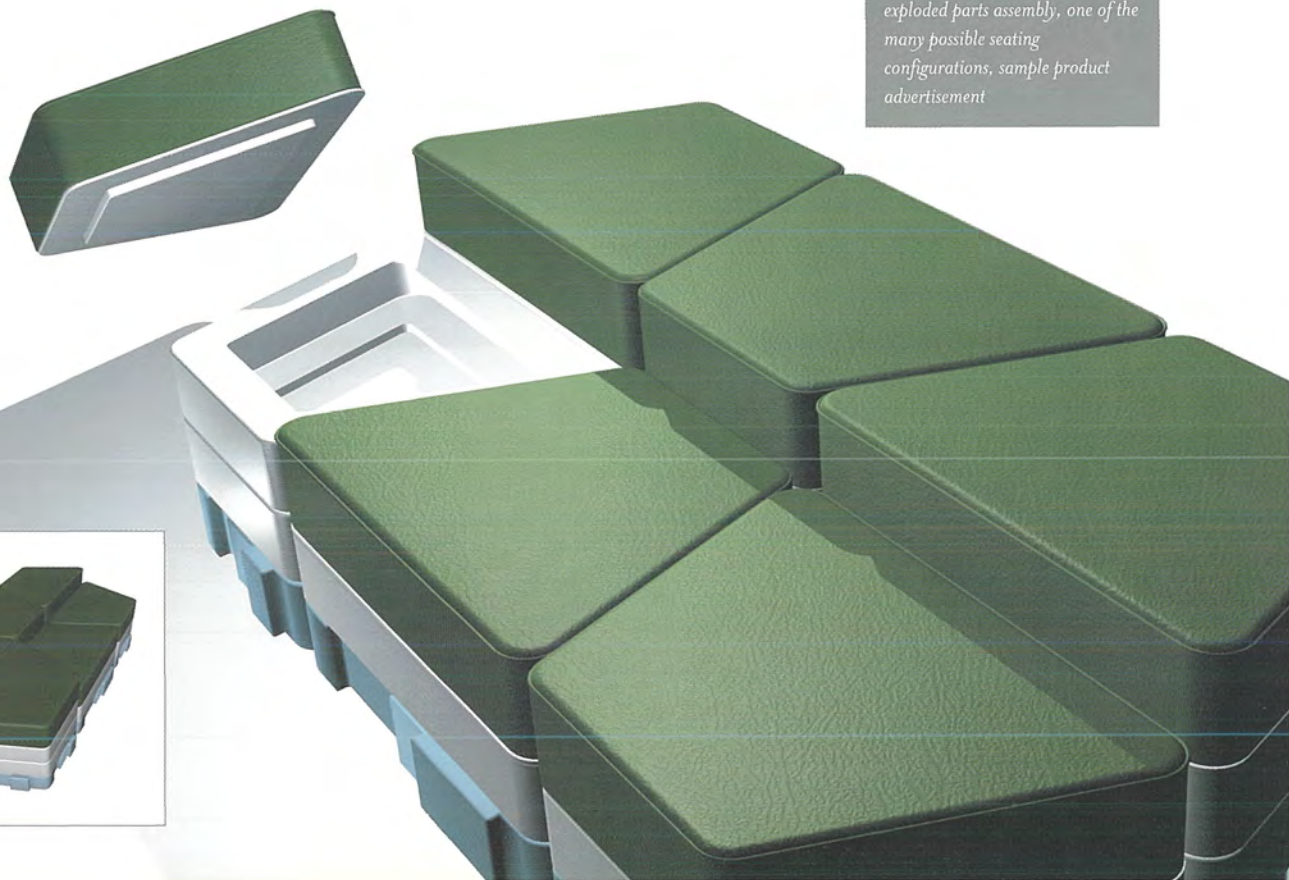
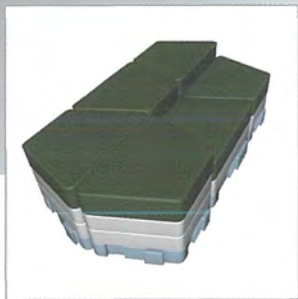


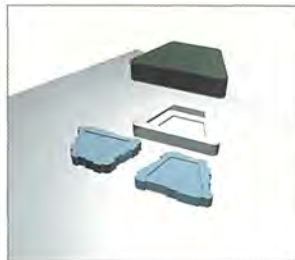
break_up

This page: Storage compartments underneath cushions

Inset: Basic couch formation

Opposite page (l to r): Three base blocks stacked to form a side table, exploded parts assembly, one of the many possible seating configurations, sample product advertisement





SOUMALI CHITDAMRONG

break_up

adaptable furniture system



Never before has a generation been so spoilt for choice. A new autonomy of lifestyle where the user is king. A combination of technological innovation, consumerism and social change have brought about a world where almost anything is possible anywhere at any time. The domestic living space is one of the many areas which faces increasing demands to evolve to our ever-changing needs.

The definition of the home is also evolving. Not only are there physically different home environments, but demographic shifts are creating different types of households. The home is also more likely to be used for a wider range of activities than ever before. These factors call for a

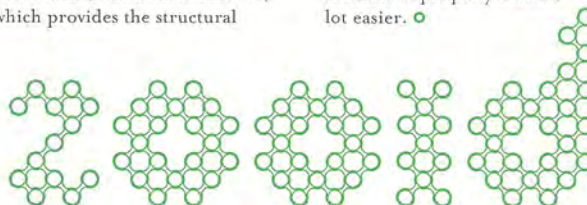
more dynamic use of space, furniture which adapts to suit the user, the activity and the environment.

break_up is an adaptable furniture system which looks at reducing one of the largest and most inflexible items in a living room, the couch, down to smaller parts which are useable on their own and together in a number of configurations.

There are three basic parts, a base block (rotomoulded HDPE) which provides the structural

cohesion of the unit, a building/storage block (also HDPE) which gives flexibility in the height and shape of the unit, and a cushion block, which provides the seating function.

break_up is space-efficient, portable, low cost and lightweight, and has the ability to change form and/or grow to suit changing needs. And in a society facing higher divorce rates than ever before, it promises to make the division of property a whole lot easier. ○





WADE COGLE



Scion

extreme personal surfcraft

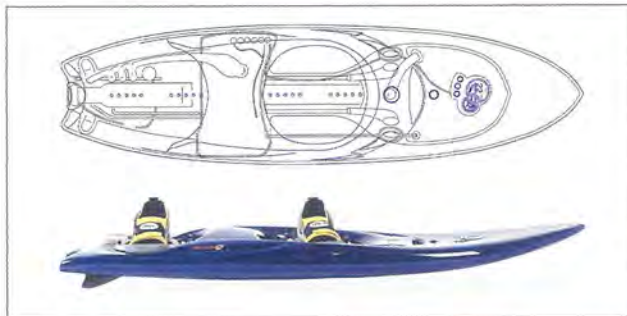
Through growing popularity and diversification, board sports such as surfing, skateboarding, wakeboarding, snowboarding, kitesurfing and windsurfing have evolved into hugely successful industries. The progression of these sports into the 21st Century and the continual redefining of their limitations has spawned the design of Scion.

Scion is a hybrid personal watercraft designed to advance and enhance the riders experience and capabilities. Borrowing from the principles of surfing, wakeboarding and jet skiing, the new sport meets the needs of extreme sports enthusiasts. Scion offers many styles allowing anything from simple carve style riding on flat water, to complex aerial manoeuvres within a surf environment. Primarily it offers surfers and jet-skiers new alternatives to their sports, while also appealing to wake/snow/skate/kite boarders.

Traction to the board is by the use

of wakeboard style bindings, however grip pads or foot straps may be substituted depending on rider style. Scion is propelled by an axial flow jet pump system that is powered by a light weight Al Alloy two-stroke combustion engine. A cordless hand control is worn by the rider that transmits operational signals to the motor, while steering is controlled by simple heel-to-toe weight transfer.

Scion's lightweight construction is a rotationally moulded polyurethane shell supported by polyetherthane foam sections within. The 175cm (5'9 ft) board is of minimal length and weight to optimise manoeuvrability. Aided by a vertically variable jet nozzle, the correct angle of thrust range may be used for varying riders. The net center of gravity of the board and rider is positioned in a specified area beneath the rider enabling optimal control and maximum planing capabilities. ◻



SCION
neosurf



2006



GEMMA DE PLATER

Libertas

in-home therapy device

Libertas is an in-home therapy device developed to relieve spasticity and contractures in people with cerebral palsy.

The financial implications of living with a disability have been identified in many government studies, however, even with government assistance, people with disabilities bear added financial costs. Adults with cerebral palsy are no exception, and with the focus being on the rehabilitation of children, the long-term therapy needs of adults are often overlooked. *Libertas* has been developed to ease financial concerns by replacing lengthy and extensive physiotherapy with a continuous home-based therapy program.

Prescribed and monitored by a physiotherapist, *Libertas* is the first device to incorporate electrical stimulation of the antagonist muscles to improve strength, passive stretching to enable the slow release of non-fixed contractures, and movement

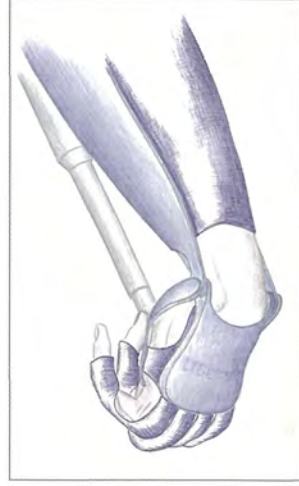
to facilitate wrist rotation. The parameters of frequency and duration of stimulation, speed of movement, and force applied, are used by the physiotherapist to design an appropriate range of home-based isometric exercises.

This battery-powered product is fully portable and rechargeable with options available in a range of sizes to suit the left or right hand.

Although developed primarily for people with cerebral palsy, *Libertas* will be beneficial for those who have suffered a stroke, traumatic brain or spinal cord injury or have multiple sclerosis, all of whom can be affected by spasticity and contractures. This wider range of users generates broader marketing opportunities and production efficiencies, thus substantially reducing costs.

Adults with hemiplegic spastic cerebral palsy will find *Libertas* convenient to use, while developing self-reliance and increasing quality of life. ○





2024



STUDENT PROJECTS



CLAIRE DRAKES

Beat

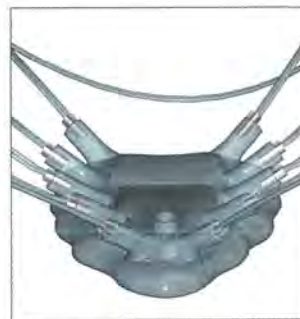
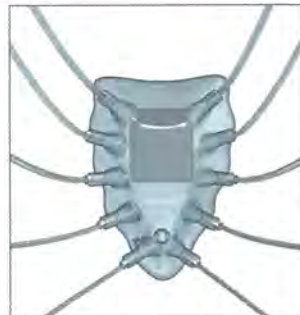
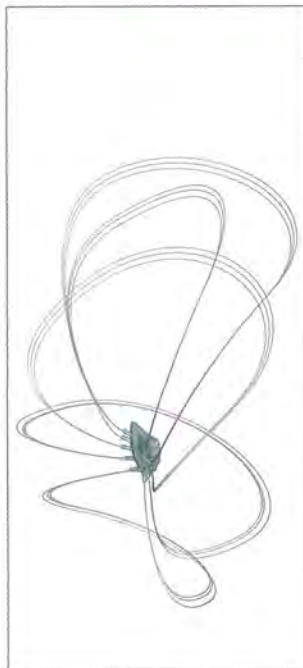
Light is a constant in our world. We are eternally surrounded by its multi-faceted manifestations. We have sought to understand the nature of it throughout the ages, but still are left in the dark by our attempts. Our relationship with light began as a spiritual reverence in the days of Plato and Aristotle, and has distanced to an objective study of its habits and forms. In recent decades however, even our most respected minds have been left unsatisfied by the obscure answers arrived at through mathematics. We are now beginning to realise that such an objective approach to light will not answer the questions that have tormented us through history, and that an understanding of 'reality' may actually require subjectivity.

Beat challenges the idea of remaining objective towards light. It is a synthesis of question and suggestion.

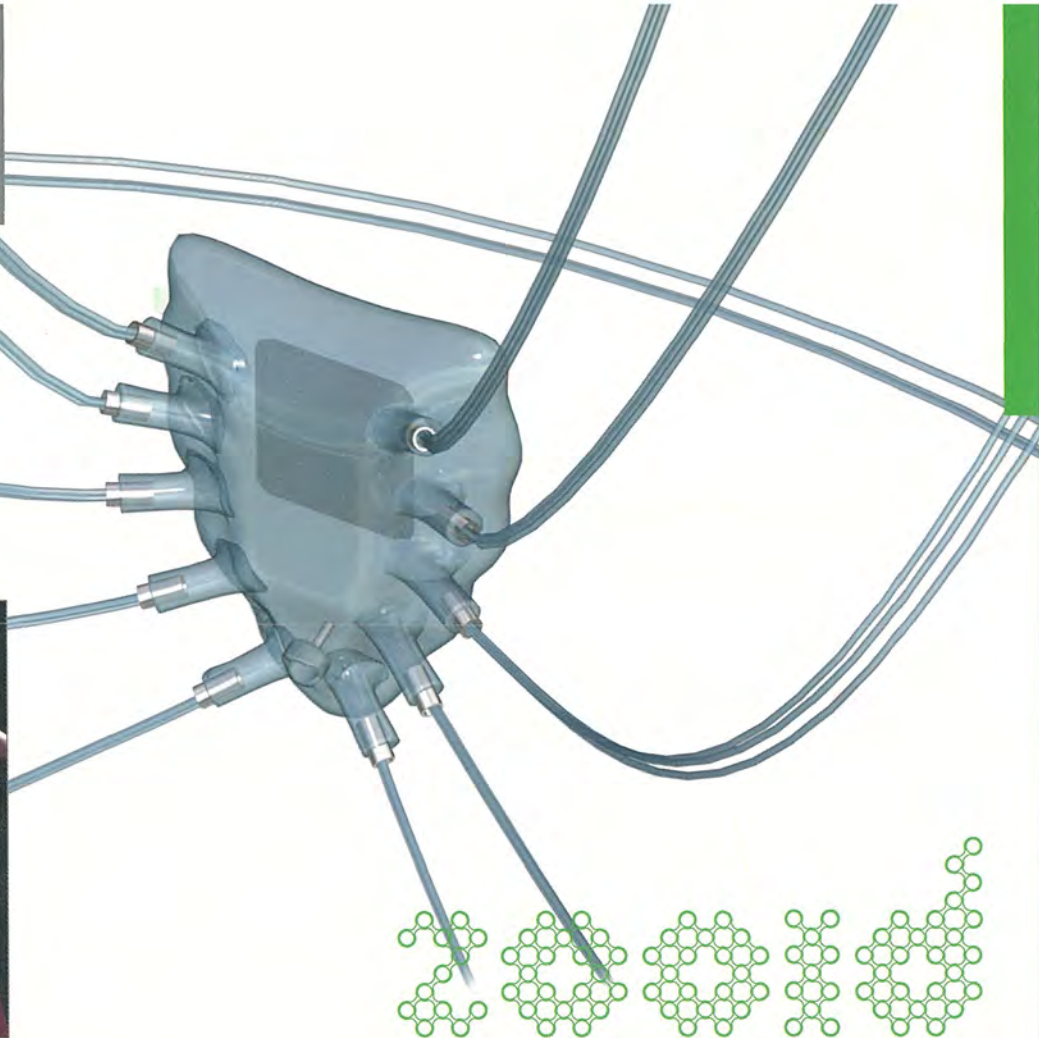
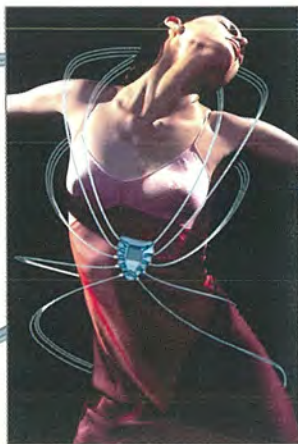
Beat entwines the user in light.

It reflects the energy of the environment, allowing rhythm and movement to be seen. We wear it as an extension of self-expression and as adornment to remind us of our affinity with light. Beat translates sound in our environment into a visual form. It connects colour with music, and allows us to project to others, the rhythms we are listening to.

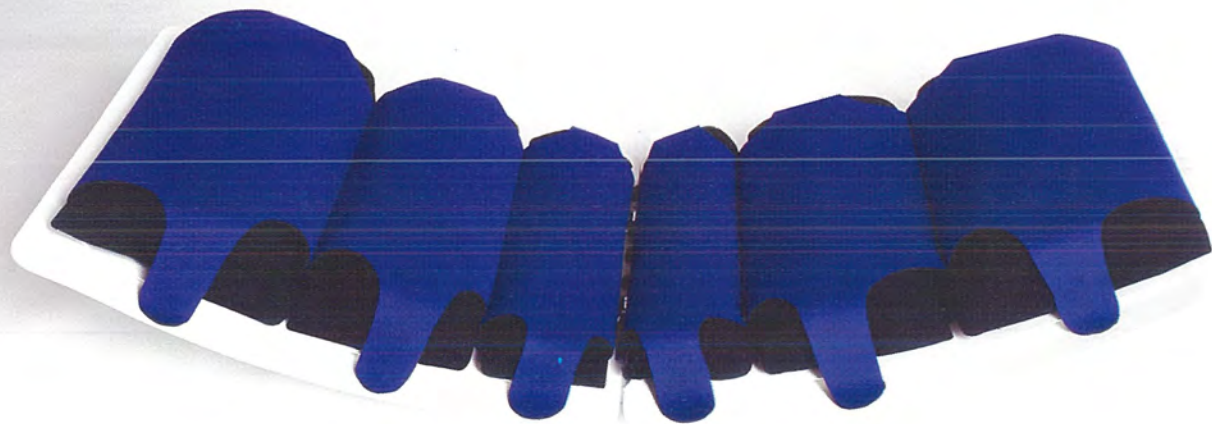
Whether it be life, purity, perception or divinity, light holds either cultural or spiritual meaning for every person in the world. This is not a product through which we can distance ourselves from the phenomenon of light. ☉



*This page: "Beat" perspective
Inset: Beat, as worn by the user
Opp page: close up views of
"Beat"*



*Rock-a-bye - A versatile seat for
a contemporary Australian urban
lifestyle.*





SOPHIE ELLIS

Rock-a-bye

indoor/outdoor seating



Rock-a-bye is an indoor/outdoor seat which has been designed to bring elements of comfort, relaxation and convenience to contemporary Australian city life.

This product is based on sociological, product and environmental research and is designed to fill an identified need for outdoor furniture specifically suited to the Australian lifestyle and environment.

Rock-a-bye combines 3 concepts which were identified in this research:

1. *Transitory seating* - a product that can be used indoors, outdoors, at home and away from home - catering to the mobile nature of Australian lifestyle.
2. *Beneficial seating* - a product that combines the comfort of indoors

and the relaxing elements of the outdoors combating the growing stress levels associated modern life.

3. *Versatile seating* - a product that is convenient to use and which adapts to the varying living spaces found in the city and throughout the user's lifecycle.

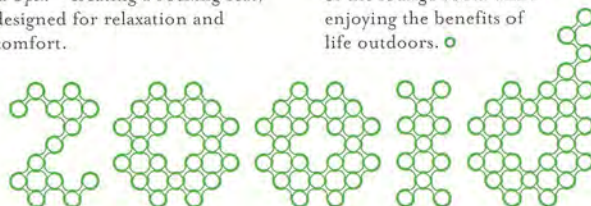
To meet these 3 requirements, Rock-a-bye features three main configurations:

1. *Folded* - designed for easy transport, storage and protection.
2. *Open* - creating a rocking seat, designed for relaxation and comfort.

3. *Detached* - creating two seats catering to varying spaces and social situations.

The seat cushions are self-inflating (PVC air-tight covers enclosing a foam core), and are secured to the seat by a neoprene cover. These materials not only create outdoor durability but also add interest to the product concept.

Rock-a-bye is stylish and fun, lightweight and portable and is designed to offer the comfort of the lounge room while enjoying the benefits of life outdoors. ☉





This page: Intrace being used
Inset: Different character cards

*Oppp page top: Different views of
 Intrace*



DEBBIE FAN



Most Oversea Born Chinese (OBC) children have problems with Chinese character recognition and writing Chinese characters in the right strokes order. They pay more attention to learning English rather than their native language because they are residing in a native English-speaking country. They generally have less opportunity to learn Chinese characters. Existing educational products concentrate more on English learning with very few aimed at teaching Chinese characters. OBC children and foreign children have limited learning tools to learn or improve their Chinese characters recognition, recall, and writing Chinese characters in right stroke order.

"INTRACE" is an electronic educational product to learn simple

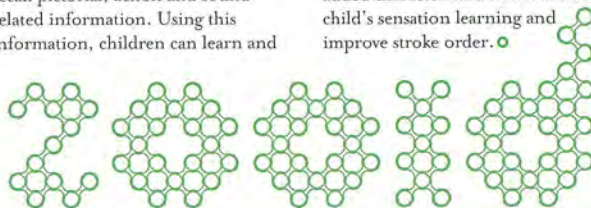
Intrace

learning chinese characters educational product

Chinese Characters for preschoolers (age 4-5). INTRACE enables OBC/foreign children to learn and improve simple Chinese character recognition and recall of Chinese characters, and correct stroke order. Fun learning will also be a focus of the "INTRACE" that allows children to learn Chinese characters in a totally pressure-free and relaxed manner and increase Chinese learning interest.

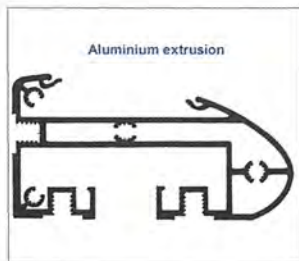
Preschoolers (aged 4-5) tend to recall pictorial, action and sound-related information. Using this information, children can learn and

remember information more efficiently and improve their memory ability. The features of "INTRACE" provide special sound, visual and motion effects that stimulate a child's sensory skills and increases interest in learning Chinese characters. Children just insert a programmed character card, a matrix LED light panel will show and guide difference strokes types in order. Children follow the matrix LED light panel and trace with tactile added character card that stimulate a child's sensation learning and improve stroke order. ●





*This page: Terra Nullius
Opp page: (l to r): Aluminium
extrusion detail, Terra Nullius in
use, gear system*



JESUS FLORES

Terra Nullius

apartment bed



Acknowledgements

My sincere appreciation is expressed to the following for their contribution to my project

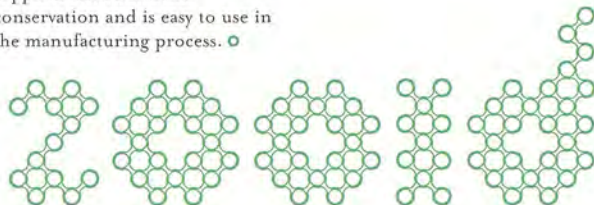
- Simon Hasleton, for his enthusiasm and support.
- Nielsen Design Associates for their logistical support.
- Victoria Jeffrey, for her technical support.

The impact of modern life styles is shaping the future of urban living. Inner city apartments' are a desirable commodity. The trend of apartment living is continuing to grow. People are more conscious of aesthetics and space is becoming an important issue in living.

Terra Nullius has been designed with the idea of meeting this new demand and changing life style. It is a piece of furniture that extends and enhances the usefulness of a small space by gaining more space. Terra Nullius will provide the consumer with the freedom to

utilize space available for a variety of activities such as; working from home, entertainment and conversion into a relaxation or exercise area. The choice will be the consumers.

This modern piece of furniture is designed to please with built in storage, a electrical powered lifting system to elevate the bed, and a built in lighting system. Extruded aluminium is the chosen material as it reflects modernism, supports environmental conservation and is easy to use in the manufacturing process. ◉





MICHAEL HA

MODE:M

interactive entertainment

The arcade game industry is currently facing its worst financial period in the last thirty-five years. Competition from the rapidly growing home video game industry has been the major reason for the decline.

Traditionally, the arcade industry relied on the superior performance of computer processor technology to separate itself from the home gaming market. Today, the power of home systems has blurred the line between the two industries. To remain competitive the arcade industry needs to differentiate itself from its competitors. A major advantage of the arcade environment is the freedom that is available in the design of the human-machine interface.

The Mode:m arcade game system capitalises on this opportunity with a hardware interface that explores issues of interaction and communication. The system immerses the user

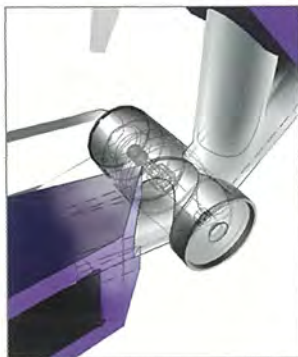
within the body of a mecha / robot both physically and virtually.

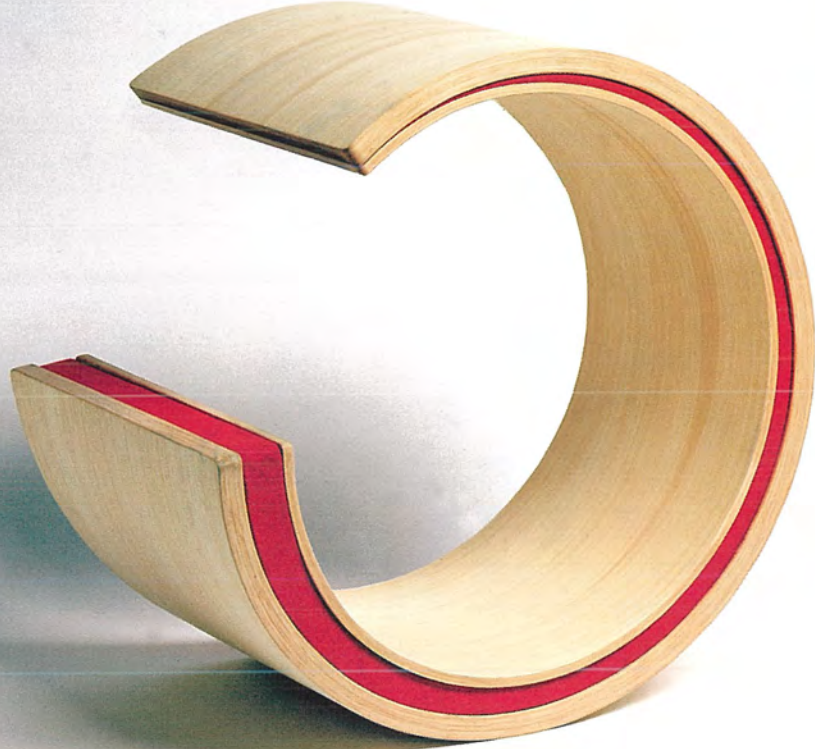
By mapping the motions of the machine to the body the interface becomes intuitive and accessible to a wider market. Research indicated that many players can be overwhelmed by a joystick and multi button interface, where pushing a button may be translated to a punch being thrown by a virtual character.

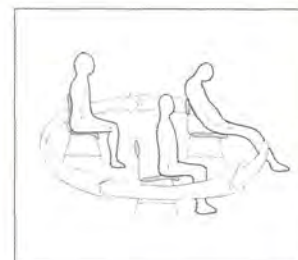
The design also allows the player to invest part of their personality into the game and with an Internet link up, it will allow players from all over world to communicate with simple movements of the body: displaying states such as fear, aggression and even boast after a victory. It may be even possible to recognise a particular player from within the virtual world just by seeing the way they move. ○



*This page: MODE:M perspective
Inset: elbow hinge detail
Opp page bottom left: motion
tracking and force feedback seat
Opp page bottom right:
interaction*







STUDENT PROJECTS

STUDENT PROJECTS

O chair



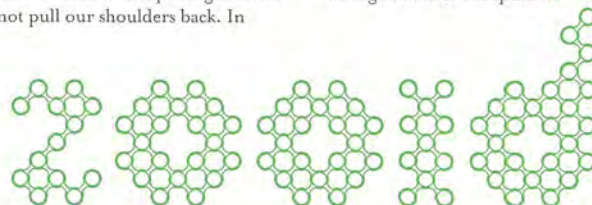
"Our [modern] chair habit was created, modified and nurtured, reformed and democratised in response to social - not genetic, anatomical, or even physiological - forces" (CRANZ, 1998)

The body is dynamic and therefore requires movement for life and good mental and physical health. Ergonomic research has long based its focus on discovering the definitive seating position. However, the seated position is inherently unstable and therefore the 'perfect position' eludes discovery. The traditional 90° seated position is not a natural position for the body and therefore becomes strenuous to maintain. A cycle begins where the body tires and leans back to take advantage the back support. This instigates a downward force resulting

in the spine slumping into a C-shape slouch. Both congestion of the lungs and lower back strain ensues. The hip joint exerts pressure on the diaphragm and all natural functions of the internal organs in and around the stomach are restricted. Blood circulation is reduced and the oxygen supply to the head is decreased.

The O-chair works with the body's natural inclination towards constant movement. Contrary to popular belief, when we sit up straight we do not pull our shoulders back. In

actuality, we tilt our pelvis forward. O-chair works with this principle and allows the body to engage in a constant rocking motion, which tilts the pelvis back and forward allowing the body to find comfort and stability. Where other chair designs view gravity as the enemy and therefore provide support for the body against it, O-chair uses gravity as a counter-force to the movement of the chair, which assists the body in maintaining a healthy S-shaped configuration of the spine. ○





OSCAR HORKY

ARS

Archidome Recovery Shelter

The prevailing incident of home-wrecking global disasters both natural and man-made warrants concerted attention towards temporary shelter design. Imported temporary housing designs are frequently the least favoured option taken by broken communities, when the principles of these designs have been modelled on broad assumptions. Aspects of local environments covering the physical, cultural, political and social threads need to be scrutinized. It has been a useful approach to recognise shelter provision not as a product, but as a process which fits significantly into the wider scheme of recovery.

The Archidome Recovery Shelter (ARS) has derived from a study on the geographically volatile region of Turkey. Turkey suffers recurrent destructive earthquakes in heavily populated zones. The respective criterion outlined the need for a lightweight structure that could accommodate a family of six for a

minimum of three months in the critical stages following an earthquake. The shelter should be easily transportable, able to be simply and quickly assembled by untrained people and have the potential to be stockpiled for long periods in the host country. A good solution would utilise indigenous material resources and provide local employment opportunities.

ARS design features

- Heavy-duty, rip-stop, mildew resistant canvas that is highly breathable & 100% water proof
- Width adjustable socket collars accommodate irregular structural supports such as bamboo
- High comfortable living space allowing good draft & ventilation
- Internal webbing allow food and perishables to be stored up from the ground
- Water filter/collection units can be fitted to a channel running in the canopy ☉



SPECIAL THANKS TO:

- Arup Facade Engineering
- Design Ability
- Venus Specialist Outdoor Gear Repairs

Internal Floor space: 21m²

Dimensions:

Max. Height - 3.0m

Max. Width - 4.8m

Max. Length - 5.8m





This page : One-man portable recreational aircraft

Inset : Gluhareff G8-2-20 Jet engine

Opp page (l to r) : Internal power mechanisms, Rear view



ISSA GEORGE



Since the dawn of time man has dreamt of flying like a bird. Forever searching for greater freedom, excitement and adrenaline. Now man has wings, for the largest playground on earth, the sky!

The REvolution is a one-man portable recreational aircraft with the flying speed of an airplane, the maneuverability of a helicopter and the safety of a parachute. Aeronautically categorized as a V.T.O.L. Gyrocopter, it achieves its

lift through a 24 ft free spinning (centrally unpowered) rotorblade, spun from oncoming wind. Two PRD K-100cc NO₂ enhanced petrol engines power the rear propeller, thrusting the aircraft forward.

For vertical take off, spin is

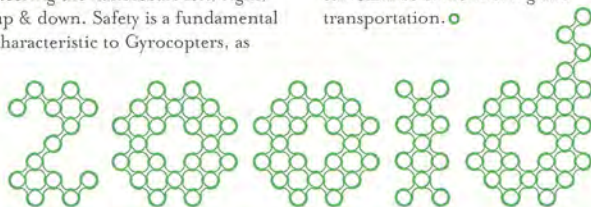
achieved by two GLUHAREFF G8-2-20 propane jet engines mounted on each rotorblade tip

A free spinning rotorblade eliminates the problems of torque (aircraft wanting to spin in the opposite direction to the rotorblades), dramatically reducing aircraft complexity, cost, dangers, maintenance, size & weight.

The REvolution is fun to fly due to its simple piloting. Maneuverability is controlled by steering the handlebars left, right, up & down. Safety is a fundamental characteristic to Gyrocopters, as

rotorblades will continue to spin as long as air passes through them, even in complete engine failure. The aircraft will hover gently to earth like a maple leaf from a tree.

Costing under \$10,000 it is currently aimed at the powered recreational markets, competing against products such as hovercrafts, motorcycles, sprint-carts & jets skis. Potential for other markets is endless. Such as agriculture, search & rescue, courier, tourism, surveillance & monitoring and transportation. ◉



REvolution

personal recreational aircraft



NIKI KAPSIS

modular kitchen

The sudden increase of smaller exclusive apartments in inner city areas, has paved the way for the redesign of the kitchen as we see it. In modern day apartments, the setting is an open plan living space, which embodies the living, dining and kitchen areas as one.

The consumer research indicates the need for efficient work areas. Today's fast paced society leaves little time for cooking. Microwave meals and take away food are the norm.

It has been established that more people want a kitchen they can use when cooking is necessary, as well as being strongly connected to the living area.

The modular kitchen has been designed specifically for functionality and compactness. An exploration of the kitchen and its role in open plan living discovered the need for compactness, but a want for some degree of versatility.

The design consists of three

modules: cooking, washing and storage.

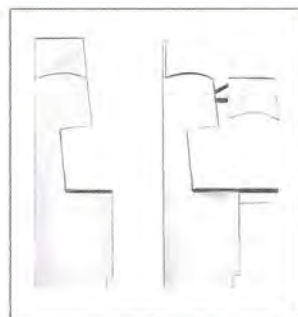
The cooking module provides space for either a microwave or oven. It also has an integrated pullout cooktop, which becomes an extension of the module.

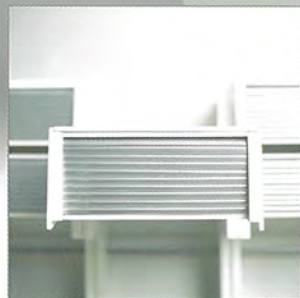
The sink module consists of two sink basins, one covered by a strainer, and the other covered by a chopping board. The benchtop surface is uniform with the surfaces of the other modules.

The storage unit consists of either drawers, or a cavity for a dishwasher or small refrigeration unit. All three units have upper storage, which have one pull down cabinet designed for space effectiveness and ease of use.

The layout and number of modules purchased is dependant on the individual's needs, and the spatial limits of their apartment.

The modular kitchen is a space saving and innovative solution to the needs of small apartment inhabitants. ○





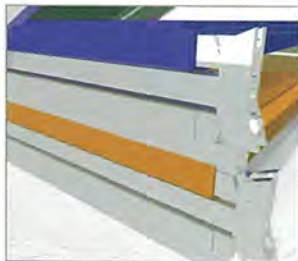
Opposite page (clockwise from top left): Side view, from compact state to 'pull down' cabinet and 'pull out' cooktop and oven, front view of top cabinets with aluminium shutters





*This page: a group of Kushy chairs
Inset: detail view of hinge
mechanism*

*Opp page: various views of the
Kushy chair both folded and
unfolded*



LUKASZ KLENNER

Kushy

folding apartment chair



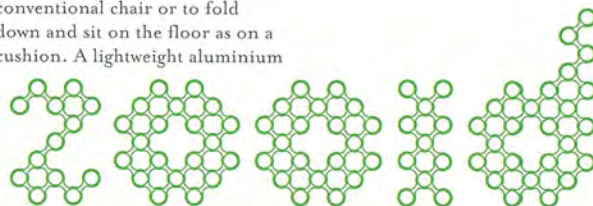
Everywhere you look young people are on the move. Our cities provide some of the most interesting environments in which to live, and the children of the baby-boomers are taking advantage of their large disposable incomes to secure themselves a place called home. That is, until they get bored or decide to start a family and move to the suburbs.

Apartments in the city are very popular with younger more affluent people who chose to rent close to where the action is. Constant movement from apartment to apartment is

common and often several moves will be undertaken before settling down to one place. While variety is the spice of life, constant movement impinges on our sense of home. Kushy aims to address the issue of how our living spaces are used when we are constantly moving and changing.

With our homes being used for a greater variety of purposes our furniture must bend and adapt to these uses. Kushy allows the user to choose to sit as in a conventional chair or to fold down and sit on the floor as on a cushion. A lightweight aluminium

construction and a compact size make Kushy the ideal chair for people who need to transport and store their furniture effectively and don't want to compromise on quality or comfort. ○







ANDY KUO

Cytech

call centre bluetooth headset



Why do customers leave?

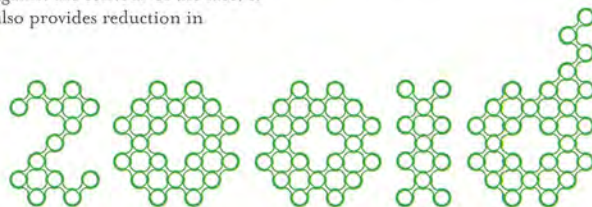
Primarily because they don't get what they want. But it has less to do with price than attention. Therefore, call centre plays an important role in business to provide good customer service, in order to retain their value customers.

Call centre is a fast growing industry with huge market potential for office type products. Operators are employed to answer large volumes of telephone traffic: responding to queries, updating information databases and/or providing further written information or products through the post, fax, as required. Besides handling traditional voice call, some needs to handle e-mail, live web chat or video interactions.

Cytech is a wireless headset, which allows a call centre operator to handle various tasks, or control other Bluetooth enable devices through voice recognition and Bluetooth technology. Weighs only 25 grams, it has a adjustable ear loop and speaker which are made with elastomer, it can be wear comfortably on either ear through the simple swivel hinge mechanism. The built in boom microphone is ergonomically designed to fit against the contour of the face, it also provides reduction in

background noise and excellent voice clarity. The people around a user will be able to know the state of the Cytech is, as it has an indicator light showing whether the headset is active or not. For the user, there are a series of audible tones that indicate various conditions such as incoming call, mute, low battery or out of range.

In short, Cytech assists operators to work efficiently and effectively in a busy call centre environment. 





JOHNNY KUO HSUAN-CHI

Foldster

personal folding car

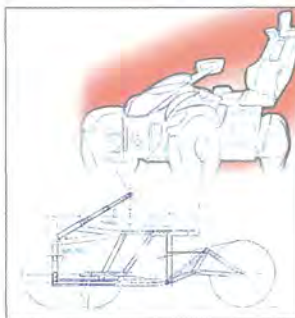
Motor vehicle provide flexible, safe and adaptable transport virtually everywhere in the region on a 24-hour basis. Personal transport had dominated the way of travel, giving most people very high levels of personal mobility and safety.

With all sorts environmentally issue, restrained and wipe out the current transport vehicles are not possible. Because of it's impacts on the quality of life and transport efficiency and equity in the world. The existing road can be use more efficiently with better design on the transporters.

The FOLDSTER was design for this type of purpose, using aluminum tubing frame structure with body panel of recyclable polyethylene to insure the ridge ness and the lightweight with innovate design of the folding mechanism allow the vehicle to reduce it size when it is not in use, allow the owner of the vehicle to carry to the place where they

can see it and felt it, to insure the security of they own property.

To integrate with large secure car parks at suburb around the city where the occupants of the FOLDSTER can be fit in the back of their own car boots. Once they found a parking space in the car park provided outside the city then they can take out and expend the personal vehicle and use it to drive into the city to work. As well people can take public transport into city central where they are able to register and rent the FOLDSTER for the day. ●



This page: The Foldster
Inset: Folded down





JOANNE KWOK

StudyBuddy

primary children workstation

Children are spending a majority of their time sitting at school, mostly in postures that are harmful to their young developing bodies. Research has shown that the most beneficial way of sitting and working at a desk is for the desk to have an inclining desktop and the chair to have a forward inclining seat. Both of these combine to help reduce discomfort in the neck and back thus bringing about a more enjoyable learning environment.

The new StudyBuddy is guaranteed to make learning a more enjoyable experience! It is especially designed to cater for the psychological, physiological and intellectual needs of 21st century Australian primary school children aged 8-12.

The StudyBuddy Desk's main feature is the desktop, which can be positioned in three different ways: Closed position - workable surface; Up position - bookstand; Down position - to reveal the

notebook computer workspace.

Another prominent feature of the StudyBuddy Desk is its adjustability. It can be adjusted to three different heights to suit individual needs. This mechanism is only accessible by a special key held by the teacher.

The Desk also comes with an optional lock-up mechanism to prevent theft.

The StudyBuddy Chair is designed to have a slightly forward inclining seat to promote better sitting posture. It comes with an optional storage drawer, located under the seat, which provides extra storage space for the children.

As a whole, StudyBuddy has been ergonomically and aesthetically designed to guarantee appeal to 8-12 year-old children, resulting in better learning in the classroom. ○





(StudyBuddy:)





*This page: The "Blue" chair
Inset: Armrest detail
Opposite top: Back views of
"Blue"*



PAOLO LAM



Deep Vein Thrombosis (DVT) is the formation of a blood clot in the deep vein of the calf or thigh caused by prolonged immobility is also known as Economy Class Syndrome.

This potentially fatal condition has been readily linked to Air Travel and the cramped, pressurized, dehydrated environment that is seen as a perfect 'incubator' for DVT. Therefore there is a need for the Airline Industry to take greater measures in ensuring that safety and comfort are the main two priorities to gain back passenger confidence.

The 'Blue' is a complete economy class passenger seat that

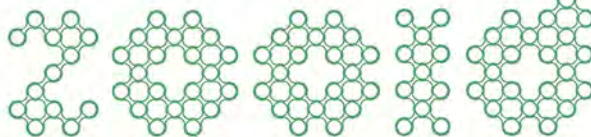
helps prevent DVT through function whilst increasing legroom through form that offers an all round individual experience.

'Blue' incorporates a vibration massage in the lower seat pan to stimulate the vein pump and increase circulation to the lower limbs. 'Blue' also features density zones within the cushioning, a drop down reclining system that reduces the intrusion into the backward space, a personalised table takes away the reliance on the seat in front and a virtual wrap

around headrest that gives your head a resting place when it is time to go to sleep.

The form of the cushioning is the outcome of comfort through correct ergonomics in that it imitates the natural curve of the spine to promote correct posture. The plastic shell is formed to increase forward legroom.

These innovations all contribute to the overall experience that is both comfortable and unique to the passenger and is the future of flying with confidence. ◉



Blue

passenger seat





KAH WEE LEE



"Men play at tragedy because they do not believe in the reality of the tragedy which is being staged in the civilized world."

-Jose Ortega y Gasset

Avalanche has always been one of the main threat and the worst fear for alpine mountaineer and snow seeker. Though ski patrols have tried and most of the time, succeeded in stopping avalanche around popular ski resorts, they have never guaranteed safe passages for serious fun seeker & extremist in remote regions.

My main focus will be on breathing systems for alpine seekers in an avalanche prone region. ALPS is a respiratory mask, design to block and steer snow away from the trapped

ALPS

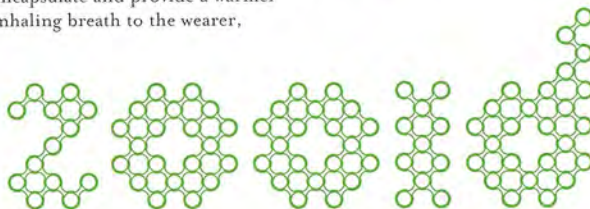
Avalanche "Lung" Protective System

victims' breathing systems while enable them to extract pockets of precious air through snow. Concurrently, the expelled air will be transfer to the back of the body along the mask strap, thus preventing suffocation, asphyxiation and reducing the trauma while waiting to be rescued.

Furthermore, a simple heat exchanging system within the enclosed mask is proposed to encapsulate and provide a warmer inhaling breath to the wearer,

utilizing warm exhale air as a heat source stored in the system.

It is also essential for ALPS to become an all-day wearable gear so that it could compliment with the goggles and snow apparels. Most importantly, it would make the wearers feel safer without any discredit of adrenaline and yet would not give them any reason to propel them to take drastic and dangerous courses beyond their limit. ◉





MIJIN LEE

"Beauty comes from simplicity"

Q-Bik is compact dual-purpose furniture designed for modern apartment, studio, and loft living environment. Nowadays, the idea of customising, flexibility and furniture that does more than one function are growing in demands for people living in these types of environments. As a result, Q-Bik aims to satisfy today's changing needs in furniture.

Q-Bik can be utilised as a coffee table, storage unit, and seat depending on the user's need.

Q-Bik is designed to use as a coffee table and a small storage unit for books and magazines when whole system is closed. When it opens up, there is a seat cleverly fitted inside of the shelving unit. Seat can be taken out to use it as a seat for a guest, or as an Ottoman. Q-Bik is a very compact piece of furniture because seat can be simply stored back into the shelf when not in

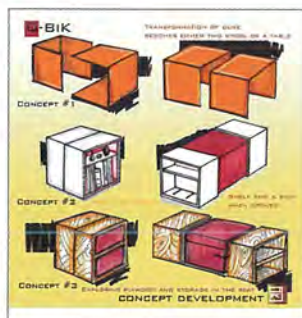
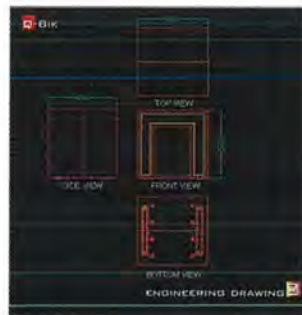
use to save space. Shelves open and close smoothly due to uniquely designed Acetal glide. It has castors to provide mobility so that it can move around easily to suit different occasions and reconfigure the living space.

Q-Bik uses combination of hard and soft materials to add contrast to the design. Shelves are made from American Walnut veneers to create the feeling of hard and rigidity yet it is still warm and inviting. Seat is upholstered in wool to give soft sensation and for its durability.

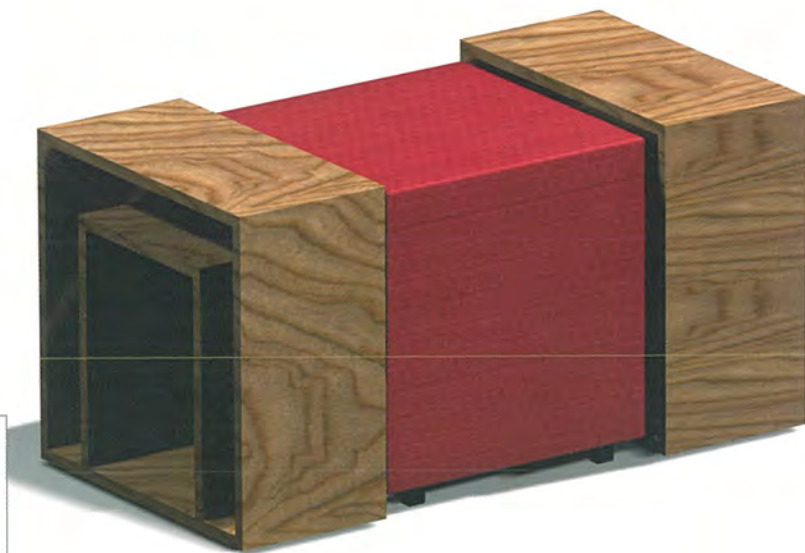
Overall shape of Q-Bik is a very simple geometrical shape. Repetition in shapes created distinctive design feature. ○

Q-Bik

dual - functional domestic furniture



*This page: Perspective view
Inset: Closed Q-Bik
Opp page: Development sketches
and CAD drawing*





MISUN LEE

Sydney has recently undergone a considerable change in street furniture culture. We have never seen a better quality bus-shelter. Yet the commuters are not completely comfortable with the new furniture. It is due to the unfiltered adoption of something that is not ours. Large advertising spaces on the new street furniture makes the commuters wonder what the primary function of the furniture is.

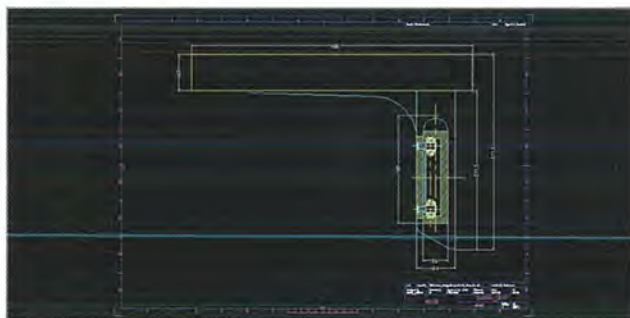
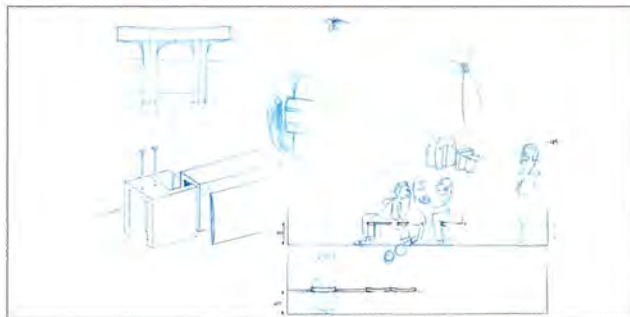
Bushelter is a public place where the individuals and the organisations can interact with the others in the community. The LCD screen is connected to the local council web site and displays community based information such as 'event of the week', 'garbage day' and different announcements from the council and other public organisations. It also displays the bus timetable and bus route effectively. The revenue currently generated by advertising panels would be substituted by the

ads by local businesses which is again connected to the local newspapers and the council web site.

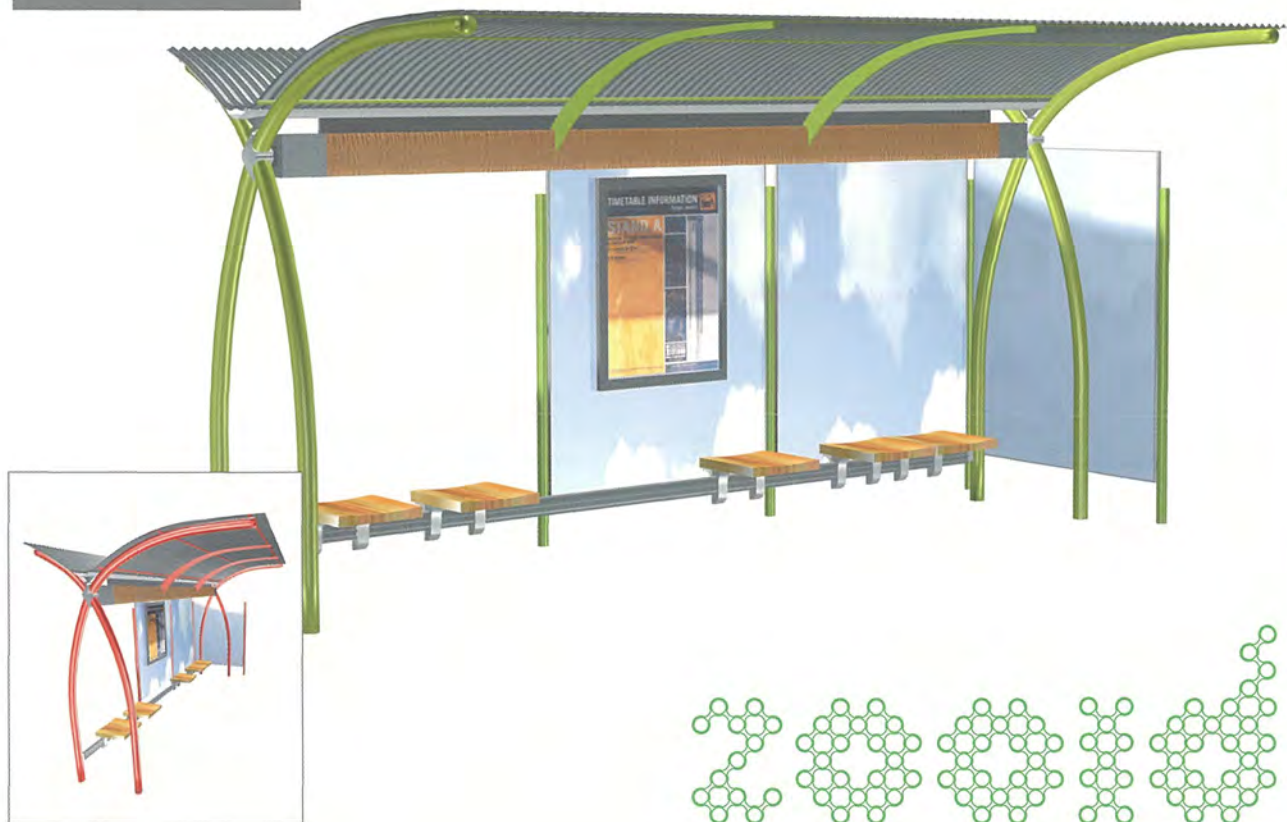
The sliding seats offer the freedom of a personal space in a public space. The commuters are free to be spaced out from the rest or to form a group with the others. The sliding seats have focused on the 'fun ness' in using a public space in hoping that the furniture would be enjoyed and appreciated by the users. One bus shelter, even if it's an excellent design, cannot be successfully adapted to different environments. For Bushelter, each council can decide whether to install the glass panel, flag bearer or the planter as thus making the bus shelter as personal and adaptable as possible to their environment. ○

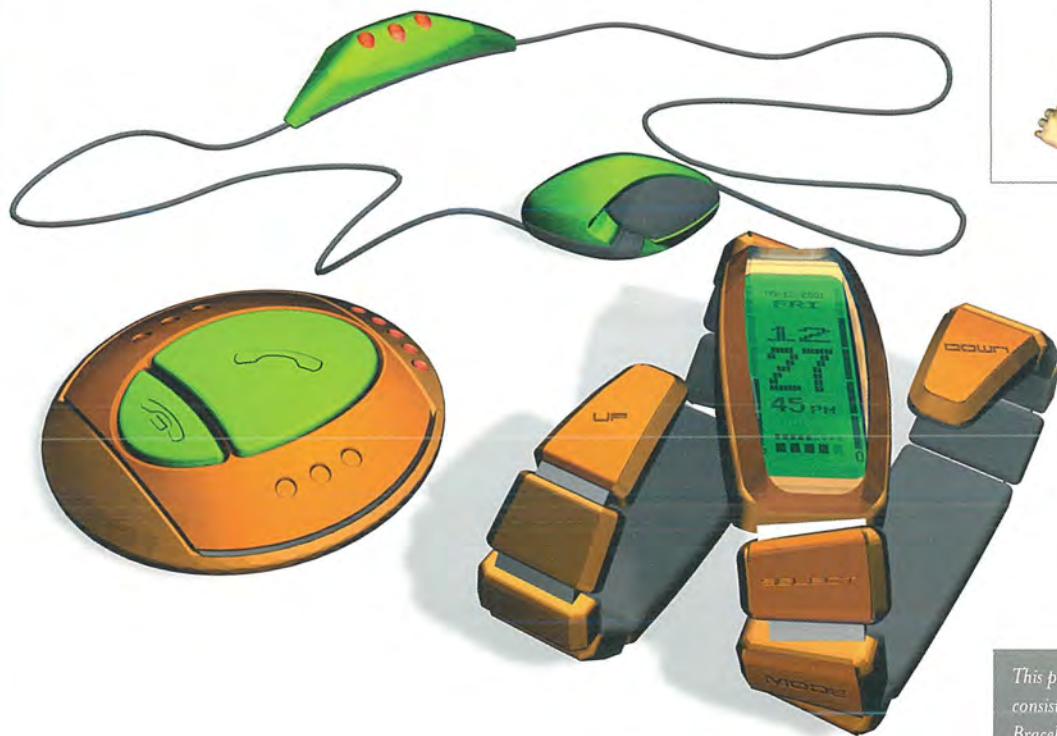
Bushelter

modern bus-shelter



*This page: Bushelter perspective
Inset: Bushelter alternative
Opp page CAD drawing and
concept sketches*



COUTURIZE_{3.01}

This page: COUTURIZE_3.01' consists of the Personal Identity Bracelet (front right), the Data-Input Badge (front left) and the Necklace Audio-Output units.



TRUNG LIEN

COUTURIZE_3.01

personal communications hub for teenagers



'COUTURIZE_3.01' attempts to redefine the role of personal communications devices. Designed on the backbone of Third Generation wireless communication networks, it is aimed at the teenage market and appeals to their intrinsic yearning to be 'always connected'.

Current personal communications devices, however, are largely incompatible with the teenage lifestyle. COUTURIZE_3.01 addresses this issue by repackaging the technology to seamlessly blend into their dynamic lifestyle. Carefully considering ergonomic factors, it adopts the ultimate 'user-centric' approach by transforming the user's body into a natural communications 'hub'.

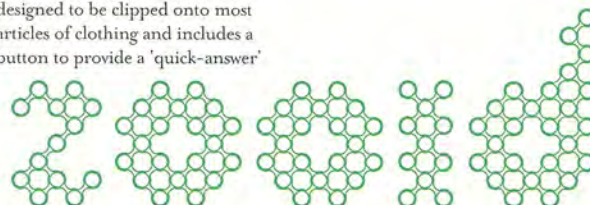
The Personal Identity Bracelet (PIB), housing the SIM card and the

main circuitry, is the heart of the system. Its bands contain numerous spring-coiled joints to allow it to wrap snugly around the user's wrist. Buttons are embedded onto the links around the PIB to allow quick-access to functions. The Necklace Audio-Output (NAO) unit provides crisp, stereo audio when listening to music or conversing, while snapping the earphones together forms an ornamental piece of jewellery when not in use.

The Data-Input Badge (DIB) is designed to be clipped onto most articles of clothing and includes a button to provide a 'quick-answer'

interface. It utilises new electronic fabric technology to enable the user to input characters simply by rubbing the characters on the pad with his or her fingertip.

Dubbed 'Generation Text', teenagers have readily embraced SMS for a number of reasons, ranging from temporary escapism to playful distraction. The DIB unit in particular appeals to this desire for fun by allowing them to input characters in a more interactive way. ●







CHING WEI LU



Buzz is a telecommunication device, aiming to overcome certain limitation of current mobile phone. As we know most of the current mobile device only able to relay verbal communication (vocal and non-vocal). However Buzz will not only relay verbal communication but it is able to relay non-verbal cues (facial expression and body language) where emotional content of the message is best expressed.

Target market for Buzz will be young people such as university students and those that feel young at heart. These groups of people typically like to keep in touch with

friends and families and live an active lifestyle. The reason why this product going targeted to this group of people is because they have need to connect with people especially friend and families where to then the emotional that is establish is important. They also aware and more willingly accept new product especially those that are technology related.

Buzz will fit targeted people active lifestyle where they constantly moving between

Buzz

telecommunication device

different environments due to Bluetooth chip implanted in the device are able to receive information from the surrounding and set the device to the appropriate mode. With 3G technology user are able to have video conference where non-verbal cues and verbal communication will be relayed together and this going to enrich the conversation between both parties. ◻







IVANKA MRAVUNAC



This children's packaging line has been designed for children in the age group of 5 to 10 years of age - directed specifically at girls in this target market. The packaging line consists of a perfume bottle, body lotion, soap and lip-gloss that are the most commonly used products by children.

All of the products have certain aspects that have been met for the children's market. Each product is designed to be refillable, creating an ecological value for this product range. In addition, the packaging for each product is appropriate to hold its contents.

Furthermore, every product has an added incentive for the child, with parts that the child can remove and wear as jewellery. For instance the soap packaging comes apart to release a bangle that can be worn, the perfume bottle has an attached charm that can be put on as a bracelet or a chain, and the lip-gloss is worn as a pendant. The body lotion once used up, can be kept and used as a jewellery box.

Moreover, the family of products is aesthetically kept to a

Merlin

children's packaging line

story based around magic. There are three key magical wizards that are represented in the products:

Kell - represents the Sun and can be seen in the form of the body lotion

Blaise - represents the Moon that can be seen in the lid of the lip-gloss

Merlin - represents Saturn that can be seen in the soap form.

Merlin's wand ties these three magical entities together. ☉





This page: The Tortoise

Inset: With lid open

Opp page (l to r): In use, on location



DANIEL MUELLER



Very often industrial design work is concerned with providing for the needs of the rich. However, it is equally important to design for the less fortunate in our society. Homelessness affects approximately 150,000 Australians and is a complex design challenge, as homeless people have needs in almost every area.

The Tortoise concentrates on the need for secure storage. For homeless people, holding onto possessions can mean the difference between rejoining the community or sliding further into despair.

At the same time, the homeless situation makes it very difficult to retain possessions. It is a highly mobile lifestyle; robbery and stealing are rife, and the environment can very quickly destroy a person's

possessions.

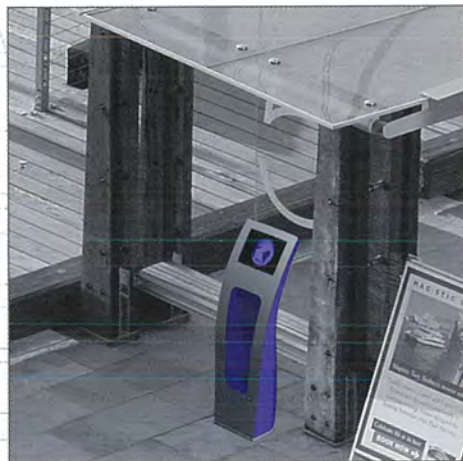
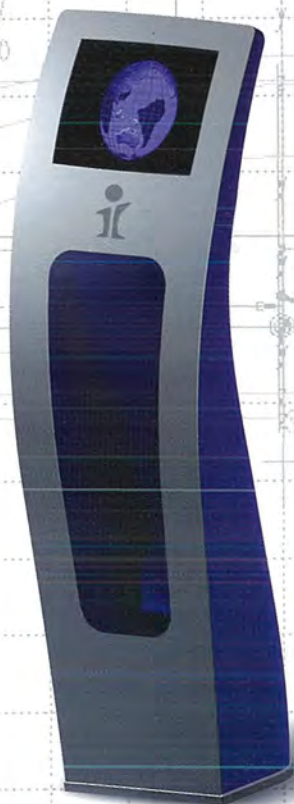
The Tortoise can be described as a low-cost portable locker. Made from rotationally moulded polyethylene, it is designed to be secure, durable, water resistant and cheap.

It is fastened to object by means of a bicycle chain. It can be carried on the back or pulled along on its wheels. It has a interior capacity of 50 litres, though this can be extended by attaching items onto the back. It has been designed to resemble a piece of luggage to appear unobtrusive both when being carried and when locked up (homeless

people do not like to stand out). The Tortoise can be useful, whether a person is living in a hostel or on the street.

The project would rely on a sponsorship, and would be provided to homeless people at a nominal cost (\$5). However, if the Tortoise could be sold to other markets, such as travellers, at a higher price, the project could be financed without external assistance. ◻





PIP
Public Infotainment Portal



CRAIG NORMAN



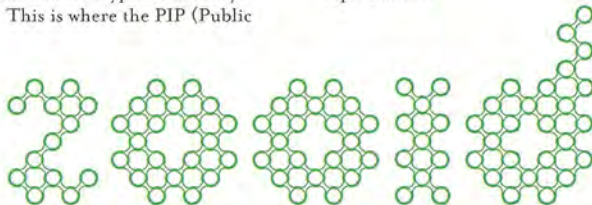
The early 21st century promises the convergence of the mobile phone and the Internet. This convergence is producing devices that fall under the third generation of mobile devices (3G), the Mobile Internet and wireless-to-wireline broadband Internet access convergence. This will be a multi-billion dollar market highly populated by new handheld mobile devices, applications and services, which will change the way people communicate, access information, engage in commerce, advertise and be entertained.

Rather than attempting to

design a mobile handset, the scope of this project has been to investigate a way to enhance this new form of communication, facilitating successful integration of web content with the mobile device, creating a media feed into the wireless world. The project research has recognised that many of the applications identified, such as Email and searching, are not ergonomically suited to the "inch scale" of miniature screens and mobile keypad data entry.

This is where the PIP (Public

Infotainment Portal) system will function, a portal to the World Wide Web tailored to the needs of the mobile user. PIP facilitates a user oriented, ergonomic method of wireless to wireline convergence, utilising broadband Internet technologies and 3G mobile technologies such as Ericsson's BLIP (Bluetooth Local Infotainment Point) to create a user interface that will add value to the overall mobile user-experience. 





This page: Sidestem perspective

Inset: releasing the stem for storage

Opp page (l to r): quick release lever action, locating ring assures alignment and height, rotating the handlebars reduces the bicycle's width



MIKE O'BRIEN



As the urban population increases, storage space is at a premium. Cyclists living in medium to high density dwellings often store their bicycles inside, where they are more secure, kept clean and dry, easy to access and less likely to be damaged. A bicycle can, however, be a nuisance to move and negotiate around, particularly in passageways and other limited spaces.

Sidestem addresses the problem of bicycles taking up so much interior space. It also creates a safer situation by increasing the bicycle's stability.

A quick release lever releases the clamping of the stem from the bicycle frame, so the stem and handlebars can be raised, rotated

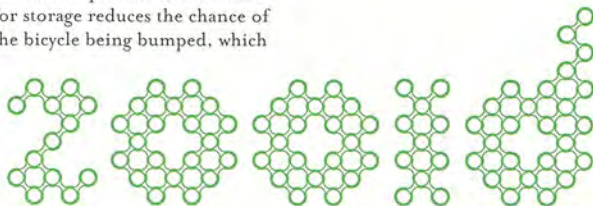
Sidestem

improving bicycle storage in limited spaces

90 degrees and lowered. The lever then clamps the stem back into place, reducing the overall width of the bicycle by about 200mm. The 90 degree angle is achieved with a locating component attached to the frame. This component also assures that when returned to the riding position, the handlebars are precisely perpendicular to the frame, and always return to the desired height. Fixing the handlebars parallel to the frame for storage reduces the chance of the bicycle being bumped, which

could destabilise it or the person, and cause damage or injury.

Made of an aluminium/titanium alloy, Sidestem can easily retro-fit to most bicycles. The bold, strong form houses the lever, which cannot be accidentally opened, but is simple to access when desired. When folded, the bicycle can simply be leaned against a wall or hung up on a wall hook and can also be transported with ease. ◻





TIM OFFICER

Seismic

bicycle seat system

For many years now the cycling industry has recognised the fact that regular and prolonged use of traditional bicycle saddles can have detrimental affects upon the male reproductive region. Issues of diminished perineal circulation and excessive vibration have resulted in many cases of temporary impotence, scrotal abnormalities and soft-tissue trauma.

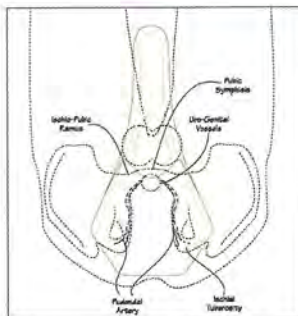
With the comparatively new advent of Mountain Biking, issues stemming from off-road vibrations have become all the more prevalent. Hence this design is aimed at minimising the amplitude of vibrations transferred through the system whilst enhancing perineal circulation. This is achieved through a process of isolation via the use of elastomer bushings and suspension components, to separate the rider from the harsh terrain.

A two-piece stepped saddle design is used to transfer rider weight further onto the ischial tuberosities (sit bones) and the raised rear

section creates a "free zone" that removes the perineum from all surface contact. The rails that support the saddle are coupled with soft elastomer bushings and the "Z" shaped curve is designed to promote suspension of the two dependant halves.

The frame is also a significant component responsible for transferring vibration to the rider. The quintessential component in the design of the frame is the soft elastomer clasp that supports a specially laid carbon fibre tube. Both the suspension of the carbon shaft coupled with the thick elastomer contact points reduces the transmission of micro vibration to the rider.

The recent increase in market awareness of the dangers faced by Mountain Biking has significantly amplified the demand for a product that is both visually appealing and ergonomic in nature, an opportunity that SEISMIC aims to satisfy. ○



*This page: The "Seismic" system
Inset: Seat detail
Opp page bottom: Mechanism
details
Opp page top: Anatomical
diagram*





PHILIP PANOS

Jelibed

compact apartment bed solution

With the strong demand for individual living, combined with high land and property prices, 'compact living' in high density households has become a global residential trend. Consequently, restrictions to living space have facilitated the need for clever product solutions.

Jelibed is an innovative bed designed to efficiently utilize floor space in the bedroom/living areas.

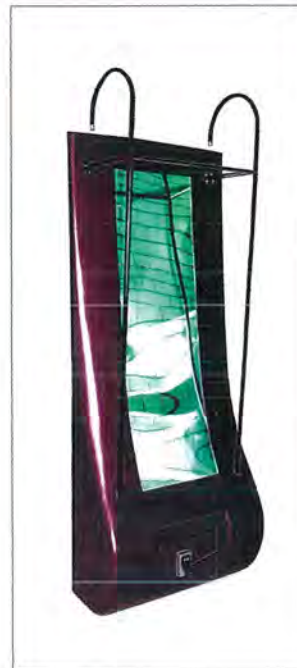
The bed is cantilevered from its vertical position to its horizontal position via a metal weight boulder, which is secured inside the inner wall ribbings of a Glass Reinforced Polyester base. Unlike wall beds, which require installation to the wall or floor, this product is free standing, requiring only a kickstand for safe handling.

It is a single bed that can be used as either a main bed or a spare bed, depending on your spatial and user needs. The mattress is detachable from the

bed base using Velcro strips that are glued at a set distance inward from the bed's frame, to allow for the tucking of bedding. The bed is finished in a variety of colours using Polyester Gelcoat with pigment. The Gelcoat skin also forms a non-abrasive protective surface.

When the bed is positioned upright, other product features include an inbuilt Perspex mirror and temporary hanging space for items like bath towels/robes, jackets, shirts, hats, e.t.c.

Jelibed's mobility within the living environment allows for a multitude of furniture settings to be easily achieved. Together with its bio-morphic form, the user is left empowered to experience greater levels of self-expression and individuality with the product, and in their own lives. ○



This page: The Jelibed ready for use

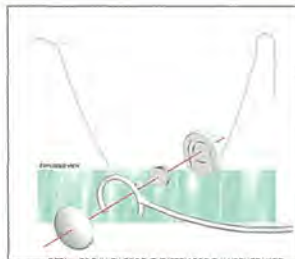
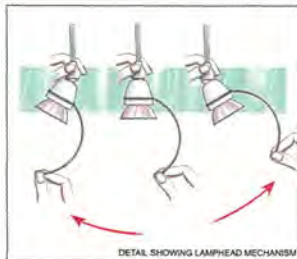
Inset: Upright Jelibed

Opp page: Jelibed upright and detail of Jelibed mattress





*This page: Medusa lighting system
Inset: Medusa with lights extended
Opp page: Detail views of the
Medusa light mechanisms*



JO PHILIPPSOHN

medusa

interior lighting product



"At a time when so many aspects of contemporary life – occupation, residency, personal relationships – seem more transient than permanent, a changeable interior might be as much a metaphoric statement as a functional one" (Riley, T., *The Un-Private House*, Museum of Modern Art, New York, 1999, p.28)

The concept of home is continually redefined in accordance with changing lifestyle patterns. The current rise of apartment living, the rise of open plan interiors and the increasing tendency to work at home result in smaller, less defined domestic living spaces in which a multitude of tasks are performed.

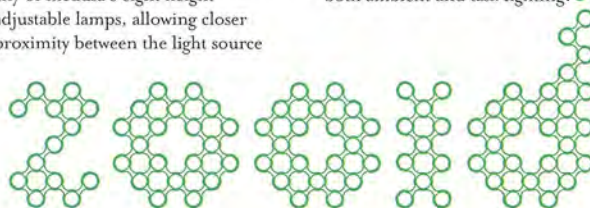
Seeking to instil a sense of time, space and task in the home environment, medusa combines

adjustable ambient and task lighting to accommodate both the working and living activities in the home.

As the primary function of the dining area shifts away from its traditionally social roots to that of a workplace, medusa's chandelier-like form reminds the user of the leisure and opulence once associated with dining. Functionally, medusa provides full table illumination in its retracted chandelier form. The task lighting requirements can be met by any of medusa's eight height adjustable lamps, allowing closer proximity between the light source

and the horizontal working plane. As the lights are adjusted for task lighting, the drooping wires of the chandelier form recede, creating both a literal and metaphoric transition from the luxurious, social dining setting, to the more focused, task based function. In addition to adjustable lamp location, each lamphead is designed to allow for adjustability of the beam direction.

Through both form and function, medusa meets the needs and wants of both ambient and task lighting.





JAMES PRICE

AERO

office lighting system

For many years architects and designers alike have been trying to find ways to optimise the energy efficiency of office buildings. Lighting alone consumes between 35% and 50% of the electrical energy in office buildings. The impact of lighting on the environment is very significant; it is estimated that globally, electric lighting accounts for more than 2.9 billion metric tonnes of Carbon Dioxide emissions every year. Energy-efficient lighting can dramatically reduce this environmental burden. Another issue that is beginning to receive much due attention is the impact of lighting on building occupants. There are a number of benefits that energy-efficient lighting systems can have in terms of occupant comfort and general well being.

AERO is a modular task/ambient office lighting system that is both energy-efficient, and helps to create a comfortable visual environment for building

occupants. AERO has been designed with the computerised office in mind. Eyestrain caused by glare from overhead lighting and computer screen reflections is the most common complaint in computerised offices. The AERO system minimises glare through the use of indirect fluorescent uplighting and diffuse task lighting via LED WaveGuides. AERO can be readily fitted to any workstation and is DALI (Digital Addressable Lighting Interface) compatible. A major benefit of the AERO system is personal control. Every employee has control of the lighting levels in their workspace via easy-to-use computer software. The modular nature of the AERO system allows it to be used in many office lighting configurations including workstation mounted task/ambient lighting, suspended direct/indirect lighting, and wall mounted uplighting/wall washing. ○



SPECIAL THANKS TO:
JSB Lighting – for
inspiration, knowledge,
and supplying the
aluminium extrusions and
electrical components so
vital to the design.



This page: AERO is a modular office lighting system that endeavours to address some of the main problems created by current lighting systems in





ANTHONY RODIER

Fin

personal beach shelter

'Fin' is a beach shelter for personal use that will comfortably protect 1-2 persons from the harmful ultra violet radiation of the sun's rays.

Fin is intuitive to set up and quick to pack away avoiding the need for detailed instructions and clumsy tent like construction procedures. When collapsed, Fin can be carried as an over the shoulder unit weighing approximately 5kg.

Market research and functional analysis highlighted opportunities to address several aspects of beach shelter design. These include improved form, improved internal lighting, simple straight forward set-up and pack away procedures, adjustable shelter angles/positions and temperature control facilities for the ever changing conditions at the beach.

Also considered was the need to provide protection from the sun/wind while minimising the loss of beach views and ambiance.

The goal was to produce a design, which realised one possible evolution of this product genre. A relevant and complementing form and aesthetic to the beach environment was required, together with resolutions of the issues mentioned above.

In hot and still conditions, Fin can be rotated off the sand to induce airflow and maximise views of the beach.

In windy conditions Fin can be manipulated to offer increased shielding and has been designed to cope with those onshore gusty days.

Fins' structural elements and manufacturing methods were adapted from the sail making industry. A marine creature inspired louvre system along with 'sand pegs' are features that provide the user with ultimate control over his environment. ◉



*This page: 'Fin' at the beach
Opposite page (clockwise from
top): Diagram of x-hinge
collapsing, sand peg, gill louvre.*





Left: Front view of system components

Inset: Close up of base unit

Opposite top (l to r): Retractable module in action, module with keypad attachment, product in use.



JOSE ROMAGNOLI

SNOWCOM

communication & navigation system for snowboarders



The SNOWCOM™ is a communication and navigation system designed to satisfy the need for a quicker & easier method of hands free operation for the active snowboarder.

This nifty little system has come from months of in depth analysis & hands-on research into the snowboarding market and lifestyle as well as the latest technologies out around the world.

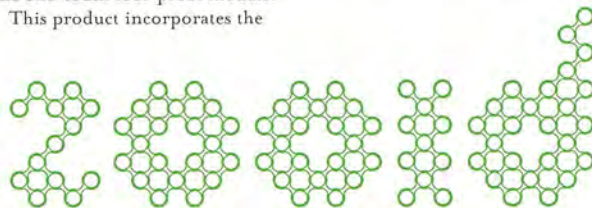
Current methods of communication & navigation such as two-way radios, mobile phones and GPS are too complex (i.e. feature-packed) for the general public and not targeted well to this huge market gap. Most are not easily accessible, not designed specifically for the snow and most of all, not integrated in the one product.

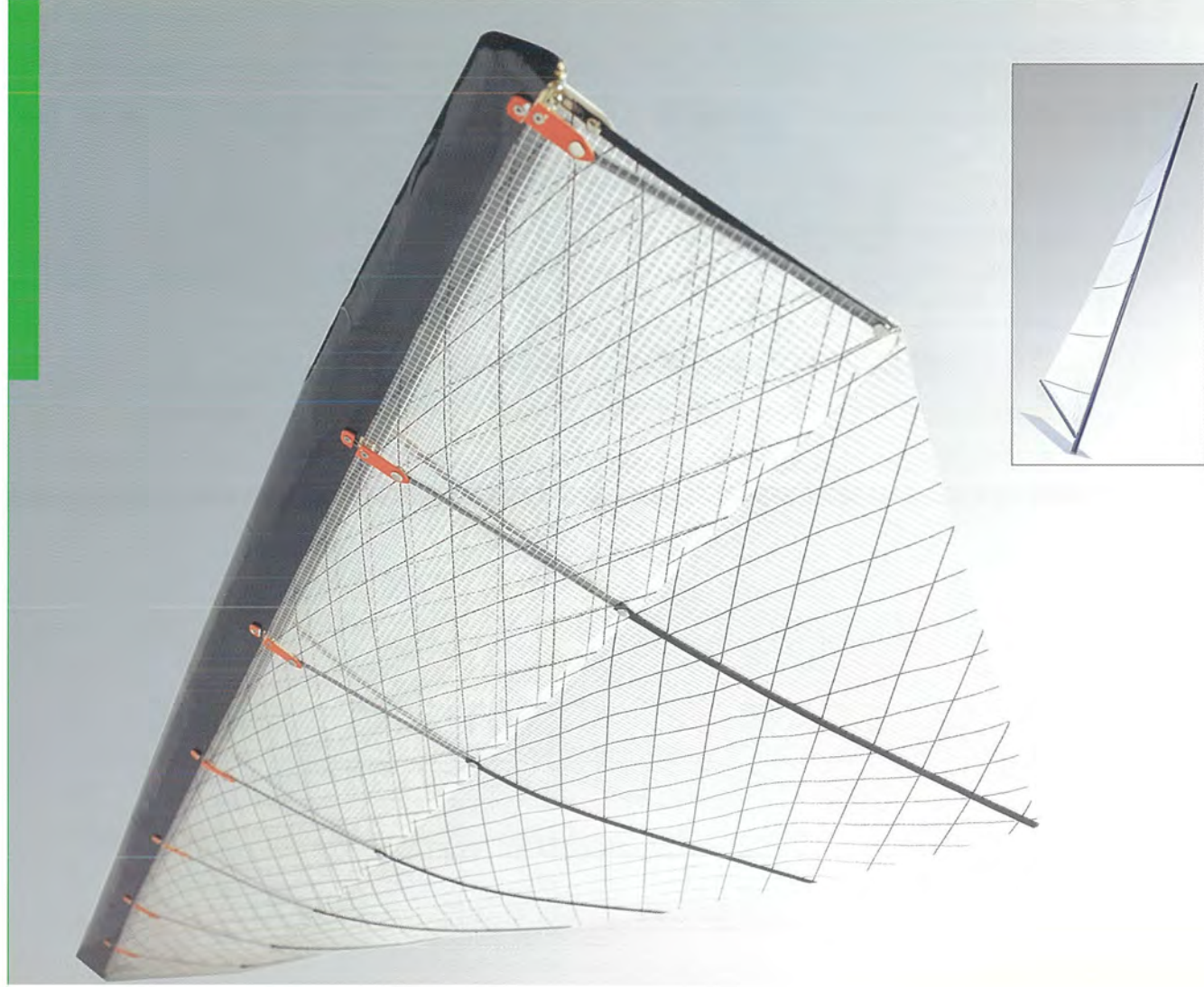
Snowcom provides more freedom for the boarder to enjoy the sport through its unique blend of a simplified three-button + scroll-wheel interface and collapsible tri-mode menu structure. Product use is made extremely quick and hassle-free with its revolutionary spring-loaded pull-out control module that rests outside the body for quick access, can be operated hands-free via the wireless voice activated head unit or controlled directly through the one-touch fool-proof module.

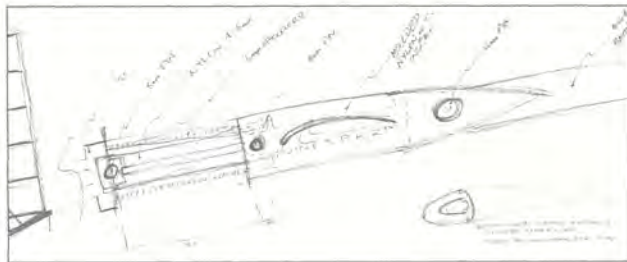
This product incorporates the

next generation in technology, from the 3G Communication standard (GPRS) to Bluetooth wireless connectivity, to the latest in ultra low-power hardware such as OLED displays so as to be innovative and stay competitive in our dynamic market.

Further more Snowcom has the ability to expand into a variety of other outdoor dry & wet activities that could benefit from this type of communication system. ◉







BYRON ROSS

Wingsail



Less Heel. More control.
More speed. More fun.

The search for efficiency lies at the heart of yacht racing. Any small increase in aerodynamic efficiency is considered. Large amounts of money are paid by the market for incremental gains.

Full airfoil sections have great efficiency gains over conventional mast and sail combinations. They have traditionally been too difficult and impractical to use and/or too expensive. The 'Wingsail' is a semi-rigid, asymmetrical airfoil for use on sports boats of seven to ten metres in length.

All normal sail functions are conventionally controlled. The mast rotation becomes the major trim control for the yacht (enabling it to adjust to the constant variations in

wind and sea state).

The 'Wingsail' permits infinitely variable (within its limits) twist control, an area which falls short in solid wings for yachts at the present. This enables the sail to achieve the optimum angle of attack to the wind at different heights above the water.

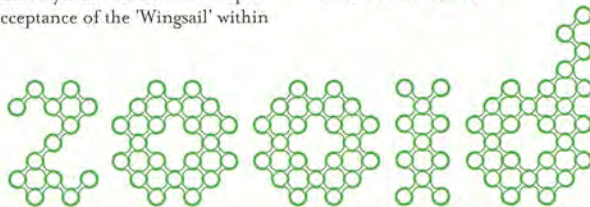
Incorporating realistic and available technologies, manufacturing cost, lead time and investment dollars to market are minimised. The readily identifiable visual style will enable more rapid acceptance of the 'Wingsail' within

the marketplace.

Utilising the newly available 'Cuben Fibre' material, the sail itself can be made lighter, stronger and longer lasting than before.

The 'Wingsail' is raised and lowered by a conventional halyard (rope) system. Reefing points can be installed as an option (they enable the sail area to be reduced if necessary).

The 'Wingsail' will provide the competitive advantage that racing sailors strive for. ◻





RAYMOND SHAM

"Mah-Jong" is a traditional Chinese tile game that is believed to have existed for over a thousand years. It involves four players and is a game that has maintained its distinct cultural character despite series of changes to its accessory products.

The Mah-Jong table is one of the most crucial components of Mah-Jong that has undergone excessive evolutionary changes, from a traditional wooden antique table to today's plastic folding table. However, the quality of the tables today does not conform to a deserved standard, both aesthetically and ergonomic-wise.

The development of the "Roll-up table" aims to create a new definition for a portable table incorporated with a Mah-Jong table. The essence of the table is its roll-up mechanism that relates back to the cultural significance of the traditional Chinese scroll. The table also offers two positions for playing Mah-Jong: a kneeling

position and a sitting position.

The table has two components: the roll-up table and the Mah-Jong mat. The tabletop is predominantly comprised of bamboo strips and uses a traditional Chinese scroll stringing method to form the tabletop. The combined material use of bamboo, wood and aluminium reflect the evolving nature between East and West. The Mah-Jong mat is made of vinyl and functions to provide a flat surface for playing. The other product features include four raised edges for stacking tiles, four soft cushions for comfort of the lower arm, and four pockets that act as token-holding trays. Both the table and the mat can be packed into a roll for ease of transportation. ○

Roll-up Mah-Jong table

portable games table



This page: Full height table
Inset: Detail view of table
Opp page top: Lowered
configuration
Opp page bottom: Rolled up





Omni

This page: The Omni
 Inset: The Omni device when
 stored in a student folder
 Opp page: The joys of using the
 Omni



BRONWYN SUTTON



The **Omni (omnibus)** is aimed at high school users and fits into a binder along with the rest of the students' papers and notes. It weighs less than half a kilo and can store up to 20 textbooks with diagrams - ample for a school term or year. The textbook information is loaded onto the device using Bluetooth technology, which transmits data on a non-commercial radio frequency. The student interacts with the Omni via a flexible, low power touch screen.

A significant part of the pack load is made up of printed text information, which can easily be transferred to an electronic format. Text is also among the

least memory hungry of all media, and ideal for storage in a low cost electronic device.

The 'Omni' would be marketed directly to the Education Department, the idea being that they would purchase or subsidise an 'Omni' for each student as well as licenses to use the textbook content. There are savings to be had in avoiding the print process - one third of the cost of a textbook is in raw materials and transport alone.

Omni was created out of a desire to improve an everyday experience,

that of carrying a bag loaded with books through high school or university. Rather than focus on the design and ergonomics of the actual pack, ways of reducing the load carried were investigated. This approach, in combination with a well designed pack, could help reduce the incidence and severity of back problems such as scoliosis amongst high school children. ◉





KIM TANG

Transtibia

prosthesis for lower limb amputees

The development of prosthetic technology, research and rehabilitation has been growing steadily for the past few decades. This project identifies issues involving human factors of psychological needs, effects of mobility and stability, ergonomics, materials selection, product technology, manufacturing processes, modular systems, ecological ideals, social concerns and marketing in relation to lower limb extremity prostheses. For this project a transtibial (below the knee) prosthetic limb was developed.

The future of successful prosthetic design is in choosing the correct methods and resources to develop a new artificial limb. Opportunities for product development lie in various areas such as in the third world and underdeveloped countries. The key points of this investigation revealed there is a need for a cheap alternative for a

transtibial prosthesis that encompassed the values of the aforementioned issues.

This design allows for a degree of adjustability when fitting the prosthesis to the user. This creates a cheaper product than individually tailoring the prosthesis to the person. The socket comes in a number of standard sizes using velcro strapping and a polyurethane lining to accommodate for different shaped stumps. The system is modular thus allowing the user to only fit the parts that are required saving time and cost in both materials and the expertise required in fitting a prosthetic limb. The prosthetic limb is provided in a kit where the parts can be assembled when needed. This especially effective when the need for a prosthesis occurs in third world countries for amputees such as land mine victims. ◉

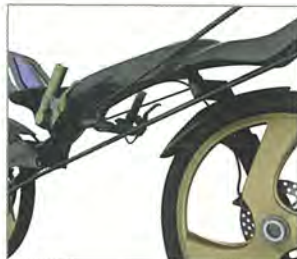






PSYCLE

*This page: Psyche perspective
Inset: Adjustable sliding seat
Opp page (l to r): Semi-enclosed
rear chain drive, Adjustable
under-seat steering, Padded
bucket-style seat for comfort and
support*



AIDEN TAO



There exists a huge potential for innovation in cycle design with emerging technologies and a growing need and awareness of human powered vehicles. The Psycle Project is an investigation into alternative and innovative cycle designs with a focus on recumbent cycles. The aim is to broaden the appeal of recumbent cycles by improving on the functions, performance and aesthetics of currently available bicycles.

The Psycle recumbent is designed around an ergonomic seating position where the rider sits in a supported seat in a reclined position, with the pedals located out in front. It is the most comfortable riding position of all cycles, being much kinder on

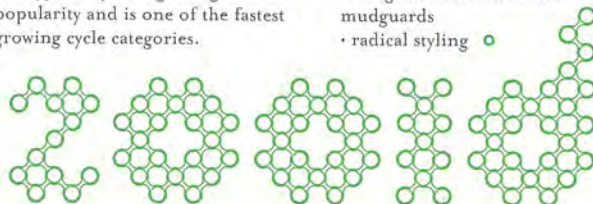
backs, buttocks, necks and wrists than the traditional upright cycling position. The reclined position also lowers the centre of gravity, which improves handling, allows more powerful braking and is much safer in collisions than conventional upright bicycles. Recumbents are also more aerodynamic than conventional upright bicycles, which means they are capable of higher speeds with less effort. Although different, this type of cycle is gaining popularity and is one of the fastest growing cycle categories.

The Psycle

recumbent human powered vehicle

The Psycle is a short wheelbase recumbent with rear drive and front steer. The majority of components are standard bicycle parts to reduce the cost and time of designing and building a new vehicle. Special features include:

- carbon fibre monocoque body
- removable quick-adjusting sliding seat
- adjustable under-seat steering
- front monoblade suspension
- rear pivot suspension system
- integrated front and rear mudguards
- radical styling







AARON THOMPSON



Travis is a system that gives backpackers access to specific, relevant and up-to-date information that is always on-hand. Travellers become part of an information and social network where they can find out when the next bus arrives, learn about the history of a town, receive details about the latest events, never lose track of where they are and share their experiences with others.

The system consists of the Travis hand-held and wireless information-nodes where the user

can update their information. These nodes are located at various places around travel destinations including bars, hotels, cafés, airports and train stations. Information that frequently changes such as events, weather, traffic and timetables is provided for by advertising or government services.

A multi-mode display or scroll allows Travis to cater to the different needs and situations faced by the backpacker. The user can also rotate the information on

Travis

traveller's information system

the display to suit each mode and their handedness. A small profile is gained when the display is only pulled to the edge of the hand-held. This provides quick access to timetables and other fact-based information but also provides a discreet way of reading when the traveller would prefer to remain unnoticed. When the scroll is extended to its limit, maps and other graphical information come to life. ○







NATHAN TINDALL

Pop Eye

wearable communicator

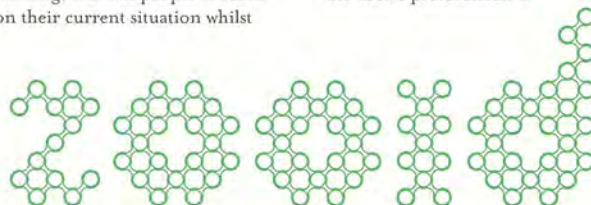


Pop Eye is a wearable communicator with the capability of sending and receiving still images, video, and sound in messages or as a two way transmission via the 3G network. These functions are broken up into separate pods that click into any piece of clothing with the pop ring and can be placed in any position on the body. The interface is driven by voice commands but can be bypassed through physical inputs on the face of each pod. A network is created as the components communicate between themselves and with other units in the local environment through Bluetooth. It learns from usage patterns and is able to react and engage, making the interaction more human in its nature.

Many wearable concepts crowd the user with input and output devices located directly next to the eyes, mouth, and ears, in turn bombarding the senses and over augmenting the technology. Due to the intimate nature of the design, the device becomes an extension of the user and creates a more fluid stream of communication through the constant connection capabilities of 3G. By moving it from around the head and placing it into clothing, it allows people to focus on their current situation whilst

happily corresponding to another. The communication will be more personal due to the technology and therefore the design of the interface reflects this, creating a more natural conversation style of interaction.

Pop Eye can be used in many situations to facilitate the process of sharing experiences between a network of users, the flexible system allows for extra pods to be incorporated within the modular design and can be customised by the user's preferences. ●





JOHN TORPEY

BoBo

the modular bed system

Considering we spend a third of our life sleeping, the bed must be the most functionally important piece of furniture in any home. Yet there is a lack of sleep alternatives on the retail market.

BoBo aims to create an alternative, by customising the bed through the use of modules. The bed is specifically designed for independent adults who live in some form of small apartment. Market research indicated the market desired a bed that adjusted into an array of positions for relaxing, entertaining and sexual activity, but without affecting the ergonomic integrity of the bed.

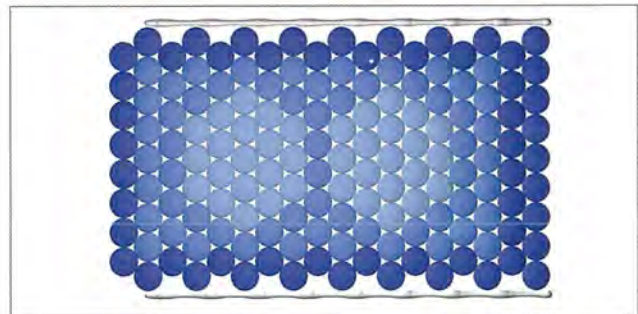
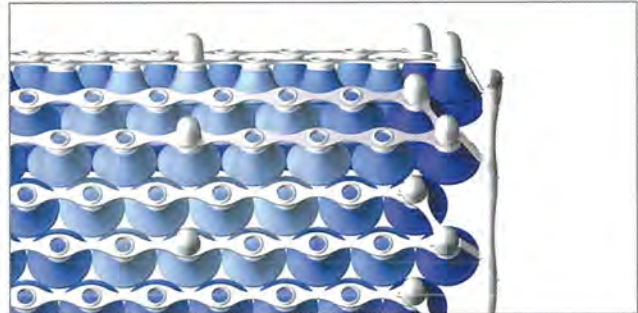
BoBo achieves this through its modular design. The Modular sections are connected by lockable ratchet mechanism. That has the ability to lock in seven positions. The ratchets allow the bed to bend into multiple positions that compliment multiple activities in the bedroom. Whilst also allowing the bed to be easily dismantled for

transportation when required.

BoBo allows the user to customise the firmness of the bed, due to its unique snap fit 'bubble modules'. Each module consists of a natural latex cushion that sits in an injection moulded plastic spring. The spring is made from

DuPonts thermoplastic polyester Hytrell and comes in three flexural grades that allow the firmness to be customised. The modules are then finished with a colour-coded fabric for identification.

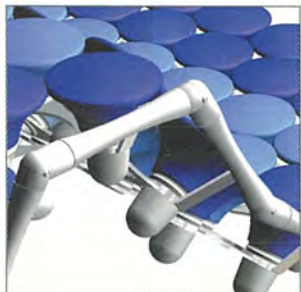
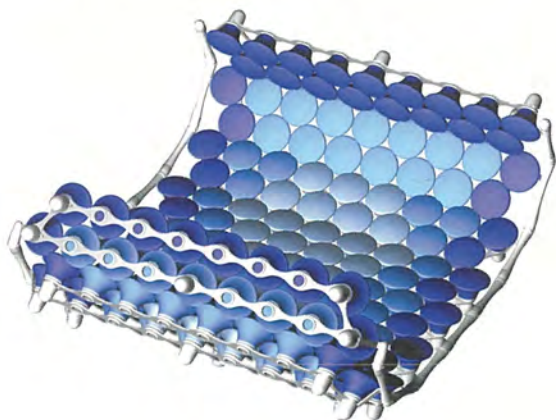
The fabric comes in range of natural stretch fibres and colours so you can customise the look and feel of the bed. An additional cushioning sheet clips around the bubble modules, allowing bed linen to be tucked neatly into the bed. ◻



This page: BoBo bed perspective view

Inset: Hinge detail

Opp page (t to b): Underside detail view, customised fabric pattern







KATHERINE TRACEY

" "



Products surround us in our daily lives, we use them to fulfill functions, and increasingly to attain status feel good about ourselves in the way that our possessions portray an image of us to others.

Whereas once furniture was handed down through generations and held meanings to us such as security and familiarity, increasingly we own and choose products that have no such values and simply act to fill a space.

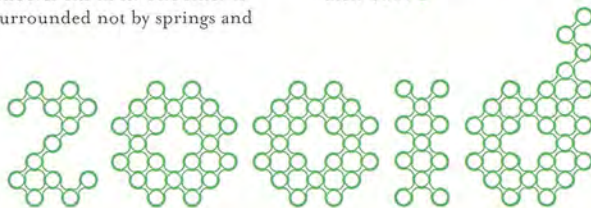
We no longer have meaningful

relationships with our world or the objects that we surround ourselves with. Designers cannot fully meet the needs of the individual. Instead the user needs to become involved in the way that they interact with their own belongings, the way they use or relate to products must be left up to the user to enable products and furniture to become more valuable to the individual.

" " envelopes and cradles whoever sits in it. The sitter is surrounded not by springs and

plastic but by a soft quilt that hangs in a simple wooden frame. The sitter is able to wrap him or herself into the chair, to plump up the pillows and use the pockets for whatever they wish. They can sit up straight or snuggle right into the chair until they are almost lying down.

The chair is designed for the individual who wants nothing more than to come home and feel that they have a space and place of their own. ◉







JENNY VAY

CLEANSE

auditory cleansing kit



CLEANSE is a medical product used in-surgery to perform the ear cleansing procedure. Designed for medical professionals for the purpose of cerumen and foreign body removal. **CLEANSE** is made up of four main components each with an individual function.

Reservoir - A plastic film bag contains the volume of water required for the entire procedure without having to be refilled. Once filled the bag is placed inside the compressor unit.

Compressor - A stationary unit, which is mechanically driven to apply a constant pressure on the bag to force water up to the hand piece. The compressor closes as water level decreases.

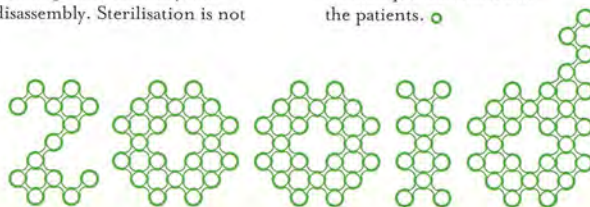
Hand Piece - The actual cleaning instrument releases the

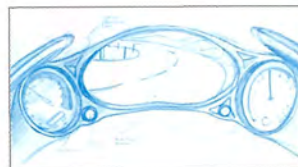
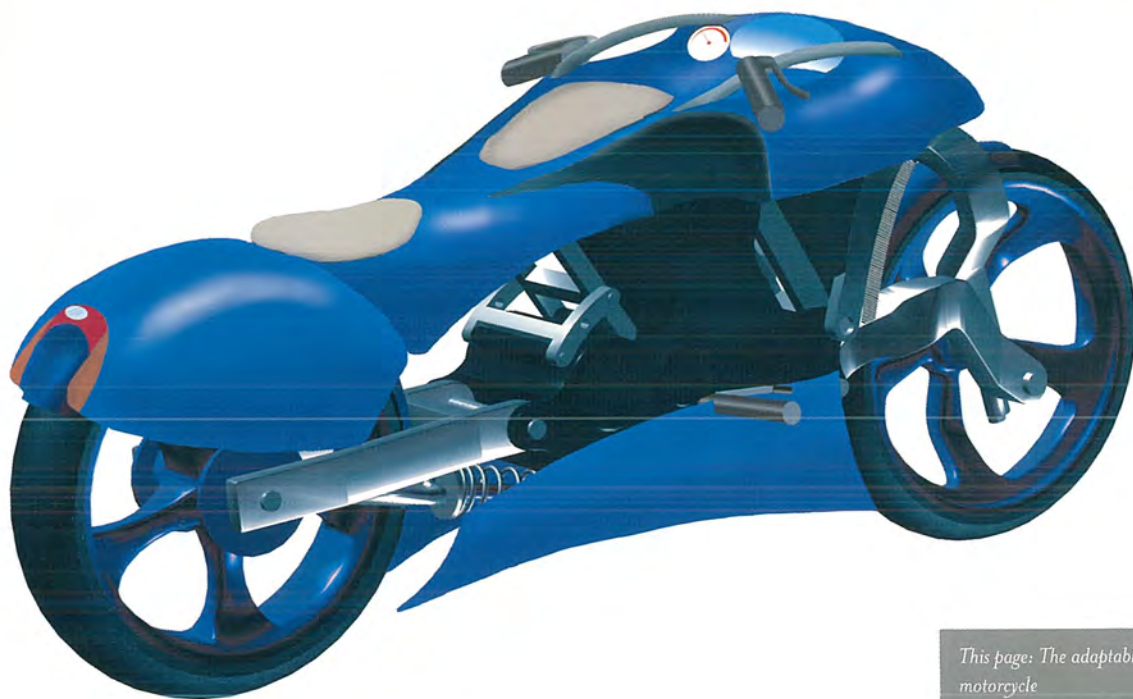
water to the ear at a more controlled pressure. It is designed to give the user more control over the cleaning procedure through better handling of the hand piece and better visualisation of the ear.

Catchment - A universal water catchment is elastically held around the patient's ear to direct the irrigated water to the wash basin. This will also aid in keeping the patient clean and dry.

Overall **CLEANSE** minimises cleaning tasks, assembly and disassembly. Sterilisation is not

required with only two minor disposable parts, the nozzle attachment and the latex backing on the water catchment. The complete unit will not take up any bench space, as it will be hanging on the wall. The rack has incorporated notches that will secure each component. The product aims to create a safe, effective and efficient ear cleansing procedure with a friendly appeal so to encourage the treatment for both the medical professionals and the patients. ◉

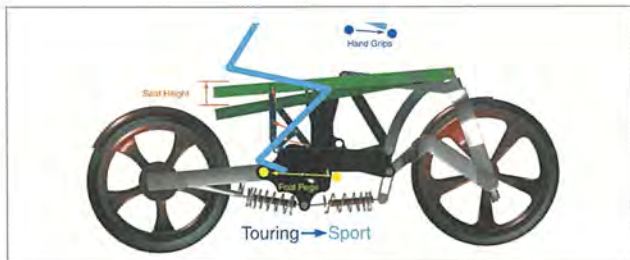




*This page: The adaptable
motorcycle*

Inset: Concept sketches

*Opp page top (l to r): Mechanism
details, motorcycle frame*



RORY WILLIAMS

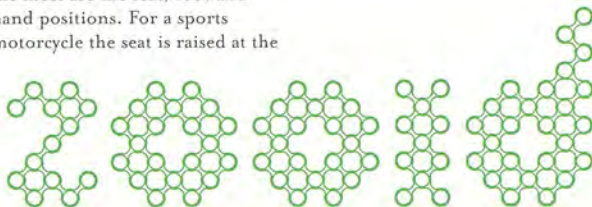


Motorcycles today are many and varied, including styles such as sports, standard, cruiser, touring and scooters and mopeds. Unfortunately each of the styles is designed with specific purposes in mind, which may be great on Sunday morning when racing through empty winding roads, but come Monday and the daily commute, a sports bike soon becomes uncomfortable and often painful. Each of the genres not only places the rider in a particular position but the form is also designed to reflect its intended purpose, so to simply put taller handle bars a forward foot pegs on a racing bike is a practical but highly undesirable

alternative to discomfort. There are the lucky few who can afford to own more than one machine but for the majority it is simply buy one that fits most of the time.

This is a concept motorcycle that allows the rider to adapt the setup of the bike to suit the purpose, from an intense ride on a winding road, to a relaxed cruise on an open plain, or through the manic streets at peak hour. The three points that effect the motorcyclist the most are the seat, foot and hand positions. For a sports motorcycle the seat is raised at the

rear with the rider reaching forward for the handgrips, creating a more aggressive style compared to the relaxed riding position and lower form of the cruiser. Essentially conforming ergonomically and also visually to its intended purpose. ◉



Motorcycle

adaptable motorcycle system

Reem Abdalla

69 Mintaro Ave, Strathfield 2135
(02) 9642 1904
0421 348 788
reem_abdalla@hotmail.com

Jessica Ariasubrata

133/22 Tunbridge St. Mascot 2020
(02) 9317 2657
0403 221 623
eclectie@ihug.com.au

Helen Au-Yeung

19 Featherwood Ave.
Cherrybrook 2126
(02) 9481 0192
0414 639 879
aueyung@accsoft.com.au

Andrew Babbage

1/9 Adams Ave, Malabar 2036
(02) 9311 1957
0402 078 405
z2228413@hotmail.com

Michael Baldivia

59 Wehlow Street,
Mount Druitt 2770
(02) 9864 6472
0400 806 888
bal16@optusnet.com.au

Shimi Barr

1/186 Old South Head Road,
Bellevue Hill 2023
(02) 9365 1352
0409 879 107
shimib@hotmail.com

Chris Cameron

39 Congewoi Road, Mosman 2088
(02) 9969 5260
0404 105 310
mr_christopher_is@hotmail.com

Emily Chan

5/8 Cambridge Mews,
Dine Street, Randwick, 2031
0403 380 721

Arlene Cheung

15 Curra Close, Frenchs Forest 2086
(02) 9451 9651
anycheung@hotmail.com

Soumali Chitdamrong

90 Henderson Road,
Alexandria 2015
(02) 9319 1903
soumali@zip.com.au

Wade Cogle

PO Box 26, Newport 2106
(02) 9918 0628
0414 575 604
proteus_wc@hotmail.com

Gemma de Plater

c/o- 7 Becker Rd,
Forster NSW 2428
(02) 6554 7789
gemmadeplater@hotmail.com

Claire Drake

32 Smalls Road, Arcadia 2159
(02) 9653 3117
cyb_air79@hotmail.com

Sophie Ellis

33/1-3 Dudley St Randwick 2031
(02) 9398 1067
0149 146 636
sophellis@hotmail.com

Debbie Fan

Unit 1/35 Lidbury Street,
Berala 2141
(02) 9643 9829
0411 721 283
baebae50@hotmail.com

Jesus Flores

9/4 Howard St. Canterbury 2193
0418 968 376
z2232339@student.unsw.edu.au

Michael Ha

237/303-307 Castlereagh Street,
Sydney 2000
(02) 9211 7398
tenxia@doraimail.com

Siobhan Hargroves

PO Box 192, Paddington 2021
(02) 9380 5770
0402 338 253
siobhanto@bigpond.com

Oscar Horky

305 Edgecliff Rd, Woollahra 2025
(02) 9328 6526
0419 206 483
amorphicedesign@hotmail.com

George Issa

35 McClelland Street,
Willoughby 2068
(02) 9958 7618
0401 412 022
georgeissa@operamail.com

Niki Kapsis

130 Marion Street, Bankstown 2200
(02) 9785 7281
0400 011 633
niki_kapsis@hotmail.com

Lukasz Klenner

82 Phoenix Street, Lane Cove 2066
(02) 9420 4221
0403 067 691
lukasz@geekyfish.com

Andy Kuo

28 Wye Street, Blacktown 2148
(02) 9676 7638
0413 099 309
u2173072@hotmail.com

Hsuan-Chi Johnny Kuo

36 Lyndon Way, Beecroft 2119
(02) 9980 6096
0404 040 136
johnny@kuo.com.au

Joanne Kwok

4 Kenyon Road, Bexley 2207
(02) 9586 2346
0416 205 659
gijo@iprimus.com.au

Paolo Lam

7 Phoenix Cres, Casula 2170
(02) 9602 3941
0404 491 192
pvulam@yahoo.com

Kah Wee Lee

1/62 Rainbow Street,
Kingsford 2032
(02) 9314 7723
clouds69@hotmail.com

Mijin Lee

55 Lynwood Avenue, Dee Why 2099
(02) 9981 4858
0414 422 688
mijin27@hotmail.com

Misun Lee

2/45 Stanley Road, Lidcombe 2141
(02) 9749 9588
0416 246 030
misun@decoria.com

Trung Lien

18/9-11 George St,
Bardwell Valley 2207
(02) 9597 3406
0413 026 267
xsf27@yahoo.com.au

Ching Wei Lu

14 Waratah Avenue, Randwick 2031
(02) 9398 8705
0412 154 495
romulus8@yahoo.com

Ivanka Mravunac

86 Gardenia Ave, Bankstown 2200
(02) 9796 8245
0410 474 345
ivy@optusnet.com.au

Daniel Mueller

6 Bristol Avenue, Pymble 2073
(02) 9488 7817
0412 793 083
cmueller@bigpond.net.au

Craig Norman

(02) 9299 0173
craig@hyperdyne.com.au

Mike O'Brien

118 Todman Avenue,
Kensington 2033
(02) 9341 2469
0404 076 453
mobrien76@hotmail.com

Timothy Officer

Unit 5/4 Clanville Road,
Roseville 2069
(02) 9416 4152
0409 811 965
tim_oms@hotmail.com

Jo Philippsohn

41C New South Head Rd,
Vaucluse 2030
(02) 9337 4011
0414 562 055
jophilippsohn@hotmail.com

James Price

118 Todman Ave, Kensington 2033
(02) 9313 6993
0410 575 316
james@jsblighting.com.au

Anthony Rodier

32 Smalls Road, Arcadia 2159
(02) 9653 1477
0410 634 309
rodierdesign@start.com.au

Jose Romagnoli

22/777 South Dowling Street,
East Redfern 2016
(02) 9698 9152
0412 164 435
romanjr@hotmail.com

Byron Ross

119 Queen Street, Woollahra 2025

Bronwyn Sutton

19 Frogmore Street, Mascot 2020
(02) 8338 8835
0411 989 038
bronsoir@hotmail.com

Kim Tang

130/2 Artramon Rd,
Willoughby 2068
(02) 9958 2626
0411 481 972
kimtang@optusnet.com.au

Aiden Tao

attao@optushome.com.au
0403 053 623

Aaron Thompson

2/24 Oberon Street, Randwick 2031
(02) 9326 5683
0419 612 166
a.thompson@student.unsw.edu.au

Nathan Tindall

PO Box 1017, Mona Vale 2103
(02) 9913 7161
0409 500 249
ideoms@hotmail.com

John Torpey

55 Wyong Rd Mosman 2088
(02) 99699244

Katherine Tracey

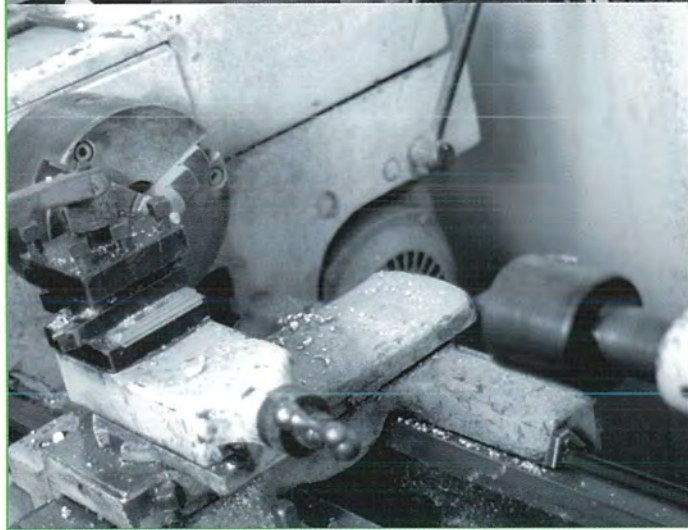
3/18 Harrington Street,
Enmore 2042
(02) 9572 6286
0412 612 656
kal115@hotmail.com

Jenny Vay

3 Gurney Road, Chester Hill 2162
(02) 9644 3248
Vay_1001@hotmail.com

Rory Williams

6/1A Stanley Street, Randwick 2031
(02) 9326 3808
rorywill@yahoo.com.au



PETER KOLASINSKI

thank you Peter

The class of 2001 would like to thank Peter Kolasinski for his tireless efforts at helping us through this very busy year. Many of us have relied on Peter's knowledge and help in getting our models and projects ready for our final presentations. He has been patient with us when he has had a million other things to do, and has given us invaluable advice on how best to achieve what we want.

I think it would be fair to say that many of us would not have finished on time had it not been for Peter's help and guidance and for this we are very grateful. Thank you Peter for helping us along this year, we wish you all the best for the future and hope that you have some peace after we have all left for the year, at least before

the next wave comes through to ask you the same questions all over again.

Best wishes
The class of 2001

**for more information on programs and courses visit: www.fbe.unsw.edu.au*

THE INDUSTRIAL DESIGN GRADUAND EXHIBITION 2001

