

# sydney designers

# unplugged

people process product

5 August – 9 October 2005



## Introduction

This exhibition showcases seven Sydney product design studios. These local designers create everything from toasters to trains for use in Australia and around the world. While the designers are not household names, their products almost certainly are.

Months or sometimes years of development are needed for each new product before it reaches the market. *Sydney designers unplugged* offers an insight into the people, processes and challenges involved.

Independent design consultants are featured along with the in-house designers for Sunbeam, Electrolux and Housewares International (incorporating Breville and Alex Liddy products).

## Recommended for

- Years 7–10 Design and Technology
- Years 11–12 Senior Science; Technology and Applied Studies

The exhibition will help your students gain a knowledge and understanding of the processes involved in product design, the issues facing designers and studios, and what is involved in a career in design.

## Design studios featured

- Nielsen Design Associates
- BlueSky Creative
- Breville and Alex Liddy (part of Housewares International)
- Design Resource
- Design+Industry
- Sunbeam
- Electrolux

Sponsored by

**Arab Bank Australia**

Supported by



**Australian Government**  
**Austrade**

## Section 1

### Nielsen Design Associates

Nielsen Design Associates, established by Carl Nielsen in 1961, was one of the first industrial design consulting businesses in Sydney. In 1985 David Wood, who has been with the company since its early days, became a director of the group along with senior designers Sandy McNeil and Adam Laws. David and Sandy are the group's current directors.

From a studio in Hunters Hill, Nielsen's ten designers develop products for a broad range of industries from telecommunications to medical devices. About half their work is for clients outside Australia, mainly in Europe and Asia.

#### Ideas to reality: manufacturing design

Product designers like Nielsen Design Associates can contribute to all aspects of product development. This could involve coming up with the initial concept and look, testing the product and even overseeing the production process. Part of the design process often includes simplifying products so they are easier to make. Sometimes Nielsen Design even develops entirely new manufacturing processes for new products.

#### Key themes

- Design is a process
- Facing challenges
- Everything is in the detail
- Everything is designed

#### Things you will see

- Urban sports bike: designed by Nielsen Design Associates for EP Manufacturing Group, Malaysia, 1998
- Scale model of bicycle frame: hand-sculpted
- Annotated drawing of bicycle frame
- Telstra rental phone: designed for Thompson Telecom Australia, 2003
- Betachek blood glucose meter: designed for National Diagnostic Products, 2003



The Telstra rental phone, 2003. Photo courtesy Australian Design Awards.

## Section 2

### BlueSky Creative

BlueSky Creative, the company that made headlines when it was selected to design the Sydney 2000 Olympic torch, was founded by Mark Armstrong in 1984. The group consists of industrial, graphic and environmental designers with offices in Sydney and Melbourne.

The 12 designers in the Sydney studio create domestic appliances for local and international companies including Victa, Sunbeam, Electrolux, and Philips, Mark's former employer and part-owner of BlueSky until 2003. Recently the group worked with a Chinese motorcycle manufacturer on a new scooter design.

#### Before you begin: researching design

Design consultants like BlueSky can't be an expert in every type of product. For this reason, extensive research is an essential part of the design process. BlueSky designers work with the client and other experts to research both the product and user requirements. They also analyse and plot design trends to understand the market. This research process is repeated for each new product they design.

#### Key themes

- Research
- Understanding the customer
- Modelling
- Testing
- Collaboration

#### Things you will see

- Victa Tornado: designed by BlueSky Creative and Victa Lawncare, 2004
- Concept sketch for the mower
- The mower's mulching plug
- Prototypes for the mower's deck
- Sydney 2000 Olympic torch



Detail of the Sydney 2000 Olympic torch. Part of the Sydney 2000 Olympic Games Collection, gift of the NSW government, 2001.

### Section 3

#### **Breville and Alex Liddy (part of Housewares International)**

The Breville and Alex Liddy brands are owned by the Australian company Housewares International. Breville was founded in Melbourne in 1932 and has been researching and developing new appliances for over 40 years. The homewares design studio was launched in 2003 and creates over 3000 new products a year for a range of brands including Alex Liddy, Arcosteel and Baccarat.

Designers in two studios in Botany work with local marketing, sales and engineering staff to create electrical appliances and homewares that are manufactured in Europe and China and sold all over the world.

#### **Virtual products: speeding up design**

The days of a drawing board in a design studio are long gone. Products are designed in 3-D on computer, and the data sent to a prototyping machine or a manufacturer to create the real thing. Designers at Housewares International create all their products this way. 3-D computer files are used to quickly generate prototypes, and sent to manufacturers in Asia for testing and production.

#### **Key themes**

- Modelling
- Testing
- Starting a trend
- 'Affordable luxury'

#### **Things you will see**

- Breville 800 Class Citrus Press
- Breville Juice Fountain
- Early concept sketch for the citrus press
- Early design model for the citrus press
- Prototypes of the juicing cone made using a rapid prototyping machine
- Alex Liddy Atria serving utensils
- Alex Liddy Beveda mugs



The Breville 800 Class Citrus Press. Photo courtesy Breville Design – Housewares International

### Section 4

#### **Design+Industry**

Design+Industry was founded in 1987 by Murray Hunter. With a team of over 35 designers and engineers, it is the largest industrial design consulting group in Australia.

From studios in Sydney and Melbourne, this group works on complex design and engineering projects, such as electronic funds transfer machines and betting terminals. Around 60% of its business is for clients outside Australia. Recently the group has begun to expand into designing furniture and homewares.

#### **International connections: designing across the globe**

Product designers like Design+Industry often work with manufacturers and clients in other countries. This can mean travelling to Europe or the USA to meet with clients, or to Asia to meet with manufacturers. Advances in communications technology have made this process much easier. Design+Industry uses email and the internet to send files and information, and teleconferences for instant feedback from clients.

#### **Key themes**

- Global collaboration
- Designing for durability
- Being multi-focused

#### **Things you will see**

- Ingenico mobile Bluetooth electronic payment terminal (NPT2): designed by Design+Industry for Ingenico International, 2003
- Prototype components: for design of NPT2; made using a rapid prototyping machine, 2003



Ingenico electronic payment terminals. Photo courtesy Design+Industry.

## Section 5 Design Resource

Design Resource, founded by John Brown in 1980, designs products for a variety of industries, from small electronic consumer goods to rail transport.

Based in Crows Nest, Design Resource works jointly with other companies in the USA, UK, Asia, and New Zealand to research and develop their products. The group has also formed a joint venture, known as Transport Design International (TDI), with a UK company to specialise in the design and styling of trains.

### Non-stop design: design around the clock

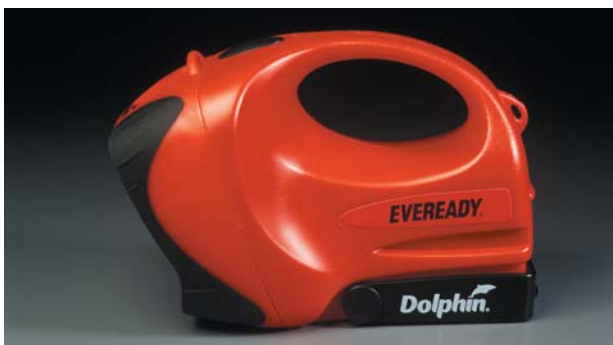
The global time differences between Australia, the USA and Europe mean Australian designers are at work while many international clients are asleep. Design Resource works with international design partners to take advantage of these time zone differences and design 'around the clock.' In this way the group can produce faster results for their clients, giving Design Resource a competitive edge in the market.

### Key themes

- Design in a global market
- Prototyping technology
- Strict design criteria
- Standing out in the market

### Things you will see

- 5th generation Dolphin torch: designed by Design Resource, 2003
- Blow mould test: torch case for 5th generation torch
- 5th generation torch prototype
- 4th generation 'Millennium' train: design concept model
- Reproduction of concept rendering for Millennium train



The 5th generation Dolphin torch. Gift of Design Resource Australia, 2003. Photo by Sotha Bourn.

## Section 6 Sunbeam

Founded in America, Sunbeam has been operating in Australia for about 90 years and has been Australian owned since 1987. The first Sunbeam appliance to be made in Australia was the Mixmaster, an American design that was to become famous all over the world.

Sunbeam began designing domestic appliances in Australia in the 1970s, and now develops about 25 new products a year from its Botany studio. These designs are manufactured in China and sold by Sunbeam and other companies around the world.

### Refreshed by design: revisiting the past

It is often the task of a designer to update or 'refresh' a product from the past. This might be to keep up with changes in technology or fashion trends. Sunbeam recently redesigned the classic Mixmaster. This product has been through a number of redesigns since it became the foundation of Sunbeam's success in the late 1940s.

### Key themes

- Design longevity
- Designing for different markets

### Things you will see

- Mixmaster Professional
- Mixmaster Compact
- Mixmaster MX001
- 'Mikey the martian' milkshake maker
- 'Cornelius' popcorn maker
- Café Series juice extractor
- Café Series 4 slice toaster



The Café Series juice extractor. Photo courtesy Sunbeam Australia.

## Section 7 Electrolux

The Electrolux Design and Innovation Centre opened in Pyrmont in 2003. As well as designing for the Electrolux brand, this team of 14 create Australian-made appliances for brands such as Westinghouse, Simpson, Hoover, Dishlex and Kelvinator. Products with these brand names have been designed and made in Australia for decades.

The Sydney group is part of a network of 150 designers in seven Electrolux design and innovation centres around the world. As part of a large global company, this design group has access to a network of resources allowing it to develop 'concept products' and rethink the way we might use appliances in the future.

### Connecting with consumers: emotion and design

Designers are becoming increasingly concerned that their products contribute to the consumer's sense of well-being. In a competitive market this emotional connection with the consumer helps to distinguish it in the marketplace.

The designers at Electrolux want the 'emotional value' or appeal of a product to make the price a minor consideration. They hope customers will view their products as interior decoration rather than as traditional household appliances.

### Key themes

- Emotional connections
- Testing ideas
- Experimenting with light

### Things you will see

- Electrolux illuminated oven prototype
- Electrolux illuminated fridge prototype



A Westinghouse Virtuoso refrigerator with internal blue feature lighting developed by Electrolux to enhance the emotional value of the product. Photo courtesy Electrolux.

For more information on the exhibition  
*Sydney designers unplugged*,  
visit the Powerhouse Museum's website  
<http://www.powerhousemuseum.com>

For more information about education support  
or your booking, contact Education and Visitor Services at  
the Powerhouse Museum:  
Telephone — (02) 9217 0222  
Fax — (02) 9217 0441  
Email — [edserv@phm.gov.au](mailto:edserv@phm.gov.au)

Subscribe to the free email newsletter *Powerhouse  
Museum Education News* by sending a blank  
email with 'SUBSCRIBE' in the subject line to  
[edserv-announce-request@listserver.phm.gov.au](mailto:edserv-announce-request@listserver.phm.gov.au)



500 Harris Street Ultimo  
PO Box K346 Haymarket 1238  
[www.powerhousemuseum.com](http://www.powerhousemuseum.com)