

Design

Design has a primary role in the shaping and fashioning of the physical world for a human purpose. There are very few environments in which we live and work which have not been influenced by design and all human artefacts are in some way designed. Design is not an esoteric activity carried out on the fringes of society by a small group of artistic people but one which fundamentally affects all people. Design serves a multiplicity of human needs ranging from the practical and instrumental to the intuitive and emotional. Design applies to cities, environments, structures, spaces and objects.

Design plays an important part in the story of human occupation of the Australian continent beginning with the first arrival of Indigenous people over 40,000 years ago. The earliest stone tools, weapons and artefacts formed part of a hunter/gatherer design culture. Since then, other design cultures have developed. Today, our design culture is multi-layered, increasingly influenced by computer aided design. Unchanged, however, is the importance of design to human societies. Indeed, design matters more than ever because it permeates so many different facets of our lives.

Design is of great importance to the Australian economy. It has the potential to add value to our primary products and to increase our share of trade in elaborately transformed manufactures. It affects the functionality and liveability of our cities and all the structures and buildings within them. High quality design ensures that the environments in which we live and work and the artefacts that we use are efficient, sustainable and emotionally satisfying.

What are the key principles of design?

The four key principles that should inform design are: utility, social relevance, sustainability and aesthetic satisfaction. Associated with all of them are imagination and innovation.

Utility and practicality: There are a few circumstances where utility and practicality play a subsidiary role to other design principles. Examples are major architectural monuments and works of art. In all other situations, utility and practicality have, if not pride of place, a seat of honour at the high table of design. Cities must function effectively, transport systems and utilities must be efficient, buildings must be waterproof, heating systems must work, appliances, artefacts and goods must all function properly, and structures and artefacts must be safe to use. Even for architectural monuments, practicality and efficiency remain of paramount importance.

Social relevance: Design is often a commercial activity and so designers are frequently employed to serve the wishes of the rich and privileged. Designers, however, have a social obligation to make a contribution to the good of the whole society and to work to improve the lives of the young, the poor, the sick and the old. The aim of good design education should be to encourage students to become critical, reflective practitioners, seriously concerned about the social relevance of their work. Designers in the public service play a particularly important role in ensuring the social relevance of design.

Sustainability: Progressively over the last decades societies and their citizens around the world have been coming to recognise the extent of the environmental degradation of the planet caused by human activity. Recent reports of the world's leading climate scientists have underlined starkly what kind of catastrophes human civilisation will face if urgent and dramatic steps are not taken to reduce greenhouse gas emissions. Designers have a major role to play in helping to bring about the needed changes. Urban designers and landscape architects can design more eco-friendly cities and towns; architects can design green buildings with greatly reduced energy and water use; and industrial designers can develop new environmentally friendly products. It is difficult to overstate the importance of this new focus for design.

T H E A U S T R A L I A N C O L L A B O R A T I O N

Aesthetic satisfaction: Utility, social relevance and sustainability are design principles of great significance but design has failed to reach its full potential unless it is also able to provide aesthetic and emotional satisfaction. It is here that art needs to be married to functionality. Both are essential for the achievement of outstanding design.

Imagination and innovation. Technical and artistic imagination needs to be applied to all areas of design so that design is constantly finding new and better answers for societal and environmental problems. Design must also capture the essence of its time.

Major areas of design

Urban design: Urban design is the application of design to the form of our cities and towns. It has a fundamental influence on the liveability of urban environments and the quality of public space. The Danish urban designer, Jan Gehl, for example, separates the human experiences of public spaces into three categories:

- Necessary activities, such as walking to a bank, shop or office. For these activities the quality of the urban environment is of lesser significance. Nevertheless people will detour round unattractive or threatening areas to travel in more pleasing ones;
- Optional activities, where the quality of the urban environment is of critical importance. Cafes and restaurants will not open and people will not stop and sit and enjoy the urban space unless it is a pleasant and attractive one;
- Social interactions. It is in these environments that social interactions are most likely to occur. Places that attract people also provide natural surveillance and thus increase safety.

The best urban design in Australia such as that carried out by Rob Adams and his team at the City of Melbourne has drawn significantly on these principles.

Architectural and building design: Architectural design has a grand history stretching over millennia and spanning all countries of the world. Buildings give us daily experiences of design. They surround us; they give us our dominant urban visual experiences; they provide shelter; and we live and work in them.

Australia has had many famous architectural designers. They include Francis Greenway and John Verge in the

early development of Sydney; Robin Boyd, an international design critic and designer; and Glen Murcutt, winner of recent prestigious international awards. Today, Australian architects work all over the world. The Royal Australian Institute of Architects is the professional representative body for architects.

Engineers. Engineering design spans construction, mechanical, electrical and product design. It has a pervasive influence on all aspects of our lives. Australia boasts many outstanding engineering firms working all over the world. The best engineering structures can also be of great beauty. Engineers Australia is the national peak body for all engineering disciplines.

Landscape planning and design: There are great and long-standing traditions of landscape design in many countries including China, Persia and Moghul India and later Britain, European countries and the USA.

Australia has had distinguished landscape architects, notable among whom are William Guilfoyle, designer of the Royal Botanic Gardens in Melbourne; Edna Walling, designer of gardens in Victoria, New South Wales and Queensland; and later Bruce Mackenzie, designer of native parks in Sydney. It was not, however, until the 1970s that broader traditions of landscape planning and design came to be adopted in Australia, significantly prompted by the work of Steve Calhoun and Rodney Wulff in Tract Consultants. The Australian Institute of Landscape Architects is the profession's representative body.

Interior design: At the interface between architecture, product design and art, good interior design provides aesthetic and functional benefits for building inhabitants. While the practice of organising and configuring interiors is as old as buildings themselves, the modern interior design profession is relatively new. It encompasses many fields, from tactile soft furnishings to visual wall and floor coverings and other specific occupant requirements.

Leading interior designers practising in Australia today include Iain Halliday from Burley Katon Halliday in Sydney and Janne Faulkner from Nexus Designs in Melbourne.

Industrial and product design: There have been significant government initiatives in European countries supporting industrial and product design, especially its value in promoting economic benefits in post-industrial countries.

THE AUSTRALIAN COLLABORATION

Periodic reviews and taskforces in Australia have also identified the potential of design to improve the competitiveness of Australian industry. The decline of manufacturing in Australia does not mean that industrial design is no longer relevant. Good design is most likely to take place in a well-supported knowledge-based economy, and this does not have to be geographically close to points of mass production. The Design Institute of Australia (DIA) is Australia's professional membership body for product designers and design businesses and for the promotion of design as a means of generating commercial and cultural wealth.

Well known Australian industrial designers include furniture designers Fred Ward and Grant Featherston. Gordon Andrews, designer of the first decimal notes, had an international design practice. Today, Australian Mark Newsom is one of the world's leading industrial and interior designers. In 2005, he was selected as one of TIME magazine's 100 most influential people of the year.

Craft design: Arts and crafts are alive and vibrant in Australia. The crafts are, for example, particularly strong in Tasmania. Craft Australia is the national advocacy organisation representing Australian craft and design at a national and international level.

Fashion design: Australian fashion designers have also made their mark internationally. The work of Collette Dinnigan is an example. She now has a store in Los Angeles and displays her label twice yearly in Parisian fashion parades. Martin Grant is another Australian fashion designer with a studio in Paris and an international standing.

Graphic design: Graphic design is seen on packaging, printed material, newspapers and magazines and billboards. It is an essential part of the merchandising of products in the western world. The advent of the web has given an enormous boost to the role played by graphic design.

Garry Emery is one of Australia's most successful graphic designers. He has been honoured with a fellow award for his lifetime contribution to the discipline of environmental graphic design by the Society of Environmental Graphic Designers in the United States. He is the first Australian and the first non-USA based designer ever to win this prestigious award. Ken Cato is another example of an Australian graphic designer with an international reputation. The Australian Graphic Design Association is the professional body representing graphic designers in Australia.

Design of the moving image: Closely related to graphic design is design of the moving image in film, television and computer games. Each of these realms now constitutes a major industry in itself. The Australian Centre for the Moving Image in Melbourne is a world-leading centre for presentations of the moving image in all its forms.

Many design firms and many individual designers work across several of these design fields. Most of Australia's professional design bodies have annual awards programs for outstanding design work.

Issues related to design

As the previous section illustrates, many Australian designers are well recognised internationally. There has also been some increase in awareness of the importance of design to Australia. Nevertheless, there is significant untapped potential for design to deliver further economic, social and environmental benefits for Australia. To realise this potential, a range of problems affecting the wider use and uptake of design require serious attention.

A weak design culture: Virtually every major report on design in Australia has commented on the lack of a strong design culture. There are strong design cultures within the various design disciplines but this is not reflected in the general community. Governments have consistently failed to understand the importance of design to the economy. Industry is insufficiently aware of the role of design in enhancing competitive advantage. Planning ministers and agencies have been slow to recognise the importance of design to the public realm and to the quality of built and natural environment.

The lack of status for designers: The lack of a strong design culture leads inevitably to a lack of status for Australian designers. This lack of status particularly applies to the newer design disciplines.

The lack of cross-disciplinary education programmes: Design is inherently a cross-disciplinary exercise, yet there is often a lack of cross-disciplinary teaching in the vocational training and professional courses which relate to the design disciplines. Engineering and commerce students often get little, if any, exposure to the skills and concerns of architects and industrial or commercial designers. The designers in turn get inadequate training in the understanding of manufacturers' or developers' needs and concerns. It is hardly surprising that when these groups come together

in a work environment they are often poorly equipped to get the best from each other. Courses where problem-based and project-based learning allow complex and cross-disciplinary approaches are helping to deal with this problem.

The fragmented nature of support from government: Design can be seen as an art or as a technological science. It is all too often seen only as one or the other by governments. Support from government has accordingly oscillated between trade and industry departments and arts bodies. The Australia Council, Australia's premier arts organisation, at one time had a Design Board, and various different support programs have emanated from trade and industry departments, but these have often been short lived and relatively narrow in focus. Design is an 'interface' discipline, and so support must operate across its many domains.

The lack of a strong national design body: A strong, non-government national body which is able to speak out on behalf of all design groups would greatly benefit Australia. At one stage an Australian Academy of Design was established as a body that could sit alongside Australia's other prestigious national academies, the Australian Academy of Science, the Australian Academy of Technological Sciences and Engineering, the Australian Academy of Social Sciences, and the Australian Academy of Humanities. Unfortunately, the Academy was short-lived. There is a strong case for its reinstatement or for the establishment of a new national design body.

Design centres, media programs and design courses

There is a National Design Centre at Federation Square, Melbourne. Many of the craft bodies in Australia have showrooms and exhibitions. Examples are the Jam Factory in Adelaide, Form in Sydney and the Meat Market in Melbourne. Generally, however, Australia is poorly served with public design centres.

The Centre for Design at RMIT is Australia's leading centre for design research, with a particular emphasis on applied, sustainable design. The Centre has concentrated on issues such as environmental design; climate change; research, development and use of design decision support techniques; and industry-government linkage projects to support improved design outcomes.

The Australian Broadcasting Commission (ABC) has a valuable weekly program called By Design.

There are courses covering all areas of design in universities in every state and territory and research programs associated with them. High quality education and excellent research are essential for the development and maintenance of a strong design culture in Australia.

Encouragement of such a culture should be recognised as a key objective for Australia.

Useful sources

Australian Centre for the Moving Image (ACMI):

<http://www.acmi.net.au/about.htm>

The centre in Federation Square, Melbourne, is one world's leading centres for the display of the moving image.

Australian Design:

<http://www.cultureandrecreation.gov.au/articles/design/>

Australian Design is the Australian Government Culture and Recreation portal on design. It offers a national perspective on design.

Centre for Design at RMIT University:

<http://www.cfd.rmit.edu.au/>

The Centre conducts research into life cycle environmental design aspects of products, buildings and materials.

Holm, Ivar (2006). *Ideas and Beliefs in Architecture and Industrial design: How attitudes, orientations and underlying assumptions shape the built environment*. Oslo School of Architecture and Design.

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