

Global issue. Personal impact.

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It is now well accepted that for the first time in human history more than half of the world's population lives in cities. As the globe experiences rapid climate change and issues of energy and resource conservation are paramount, the design industry faces an urgent challenge on how better buildings and cities can significantly reduce our impact on the environment.

“For decades environmentalists have been warning that human economic activity is exceeding the planet's limits. Of course we keep pushing those limits back with clever new technologies; yet living systems are undeniably in decline” (Hawken, Lovins & Lovins, 2000).

These trends need not be in conflict—in fact there is opportunity in reconciling them.

The idea has formed amongst academics and business visionaries that the next Industrial Revolution has arrived—where natural capital (natural resources and ecosystem services) will drive future business opportunity, simultaneously satisfying customer needs, increasing profits and resolving environmental issues.

Sustainability as a buzzword of the twenty-first century has already gained maturity, yet undoubtedly is still a broad umbrella term with a variety of definitions. To many, the term simply refers to the protection of the environment and reduction of energy consumption, yet to really address the issue a holistic approach is required incorporating economic, social and environmental factors. An approach centred on only one element will likely counteract any benefits gained by energy reduction gains.

The trend of a triple bottom line for measuring organisational and societal success seeks to expand the conventional financial focus of the 'bottom line' to capture an expanded spectrum of values and criteria, considering ultimately human wellbeing and optimum performance (Otto, 2006).

By entering the debate, Woods Bagot acknowledges that a problem of this magnitude has no single solution: policy, technology and behavioural change all have important roles to play in an arena that traverses the global crisis, impacting cities, industries, products and ultimately us as human beings.

Public #5: A human thing is one of the ways in which Woods Bagot is creating knowledge, sharing information and promoting discussion on this critical issue. Our objective is to bring sustainability to the forefront of our practice, rather than it acting as a selective add-on.



Globe

Environmental problems and economic development are closely connected. Since the Industrial Revolution and our concomitant massive and growing consumption of mineral and energy resources, human activities have sometimes exceeded the limit of the local ecosystems and are now threatening to overwhelm even the global ecosystem.

Economic development can be interpreted by utilising the concept of 'stage of development', with the development of one country sometimes taking an almost identical route as the earlier development of another country. If the developing countries of today are to avoid the severe pollution problems as witnessed in Japan, they may need to consider the introduction of appropriate technologies and environmental protection measures, even though that may mean a slight delay in economic development. Jason Marriott in 'Red to green' (p. 80) explores the current status quo in China and how the emerging super power is planning to balance economic prosperity with environmental regard for the planet.

The consumption of non-renewable mineral and fossil-fuel energy resources has been indispensable for economic development, but today we see the eventual depletion of those resources as a real possibility. The advanced countries, which are consuming several times more resources per capita than the world average, must acknowledge their responsibility and clarify their intentions to convert their economic systems to minimise resource and energy consumption. In fact, history provides several lessons for how we need to consider future developments, not only from an ecological perspective. The UK urban regeneration story (p. 40) can teach us about the way architecture and urban design can influence social and economic sustainability by reflecting on the elements that influence a city's success or failure.

Industry

Ultimately the purpose of sustainable design is to enhance people's lives and make their day-to-day existence better. This brings us closer to becoming united in the pursuit to affect serious environmental change. Architecture has always aimed to produce buildings and cities that uplift people's spirits but the dual focus is now tangible benefits of environmental consciousness. Historically it has been someone else's problem or left up to the next generation to resolve.

However, the tide is changing and our industry survey (p. 54) serves as an encouraging witness to this. The research explores where the industry currently stands: how they feel about sustainability, what actions they are taking now and what they might be prepared to do in the future. For economies as a whole, energy efficiency and reduction appear to be the priority.

Product

Both corporate and personal action to reduce energy consumption can not only lead to carbon emission reductions, it can also mean substantial cost savings for companies and better living for individuals. The preferred model for designing buildings should involve research-intensive design processes, which integrate sustainability within the overall building program rather than tacking on green features to score points or advertise environmentalism. Woods Bagot's consulting and research teams track the performance of key buildings to obtain valuable data to plug back into design methodology, research and development. By monitoring the building's performance and following its operation, we pinpoint the habits of users and how the features of a building can have dramatic effects on staff performance and motivation. A case study of the post-occupancy evaluation undertaken on City Central (p. 24), a 5 Star Green Star development in Australia, illustrates this approach.

Person

As well as minimising environmental impact, sustainable design also involves optimising performance and wellbeing, and the triple bottom line seeks to expand the conventional economic or financial focus of the 'bottom line' to include social and environmental calculations.

The past few decades have represented a period of accelerated economic and financial globalisation, with direct implications and impacts for many of the poorest and most vulnerable.

Over the last few decades the amount of water available to individuals has fallen dramatically; water pollution now kills 2.2 million annually; more than seventy-five per cent of the world's fish stocks are over-fished and rising sea levels brought on by global warming could displace tens of millions. All of these crises have their greatest impact on the impoverished people of developing countries and are among the many environmental problems that collectively present a significant barrier to reducing poverty.

The Task Force on Environmental Sustainability is one of ten UN Millennium Project Task Forces that together comprise some 265 experts from around the world, including members of parliament; researchers and scientists; policymakers; representatives of civil society; United Nations agencies; the World Bank; the International Monetary Fund; and the private sector. The UN Millennium Project Task Force teams were challenged with diagnosing the key constraints to meeting the Millennium Development Goals and providing recommendations in order to achieve these goals by 2015.

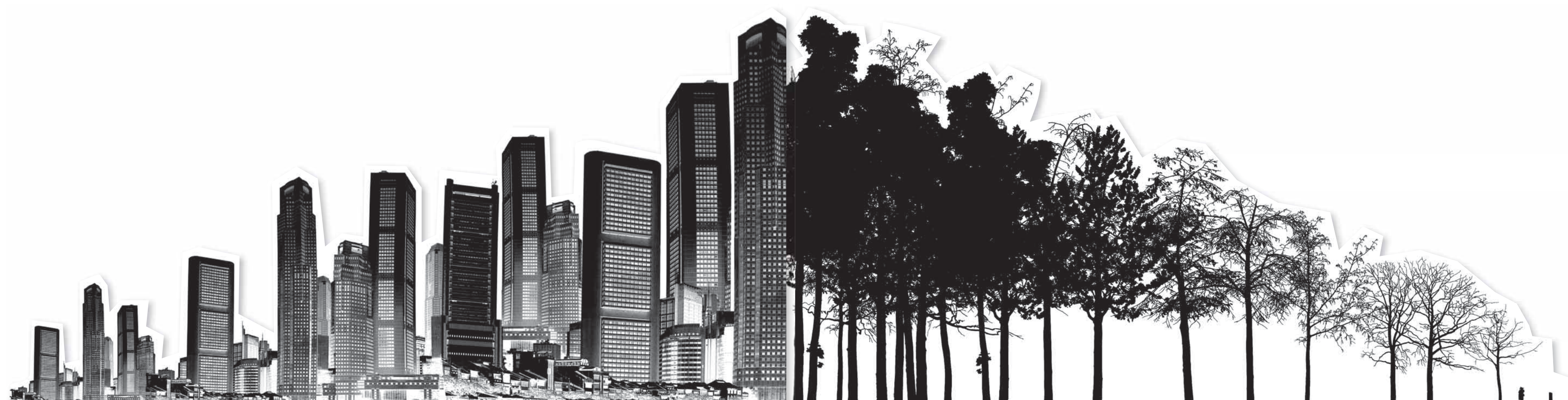
Design professionals have become involved through 'Global Studio' which began as an initiative of the UN Millennium Project's Task Force to 'Improve the lives of slum dwellers', and has been developed by the University of Sydney, Columbia University and the University of Rome.

One of the founding convenors of Global Studio is the University of Sydney's Dr Anna Rubbo, along with a network of academics from associated universities across the world. The work of the Global Studio looks at ways in which design professionals and a community-based action and research agenda might be part of the solution. We are at a historic tipping point and according to the United Nations it's likely that the one billion living in slums today could double by 2020. Global Studio hopes to contribute to improving people's lives, and through a 'globalisation from below' approach places people at the centre of environmental and planning decisions that affect their lives. Shelter, house and home are central to aspirations for a more sustainable and equitable environment.

This year Woods Bagot's Urban Design Scholarship was awarded to Mark Tyrrell for his Masters work on disadvantaged communities in South Africa. His research is one of the projects of Global Studio and this year the team returns to Johannesburg to follow up a number of development projects. Woods Bagot has invested in relationships with many academic institutions in our four regions. Supporting continuing education and the young talent of our industry is an integral part of our Public Scholarship program and was a part of our re-positioning in 2006.

At this time we also recognised that sustainability needed to be a core part of our business. We needed to get our own house in order before we could apply sustainability philosophies to our work. This meant reviewing and reducing the business' carbon emissions and creating environmental project reviews among many other initiatives. And we continue to support our beliefs by establishing an official Public Foundation of corporate responsibility.

Corporate values aside, sustainability starts at the personal level. It starts with the decisions you make, how you use resources, backed up with a sense that you can create a building or a piece of architecture or an architectural community that can be truly sustainable.



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References

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