

Excess of evil

Conducting a web-based distance learning course for practising architects on Environmental Architecture has prompted Lindsay Johnston to reflect on the current state of the world environment, urbanisation and technology. Here he recounts some of the discussion threads from the program and reconfirms that the main threat to environmental health of the planet is the governments of the developed world.



“Isn’t it amazing, when you think of it – here am I sitting typing on a laptop computer, smaller than a cornflake packet, using solar-powered electricity, conducting a classroom with people in Malaysia, Singapore, Kenya and across Australia. I will be communicating my tutorial by solar-powered radio telephone. I have only had to walk 30 metres from my house to my office. I have used virtually no non-renewable resources, I have demanded the minimum of infrastructure and I have produced virtually no greenhouse gas emissions!! Something must be changing in the world. This couldn’t have happened 10 years ago. Less than 25 years ago, I heard the word ‘silicone chip’ for the first time. I bought my first electronic calculator in 1975. Julius in Kenya has said, “this is a sustainable course” – no travelling time, no carbon emissions, no long distance phone calls and participants have the social advantage of still being around family and friends.” Lindsay Johnston

Steven (his real name), who helped me pull the course together, graduated about 10 years ago. He has worked in Australia and Singapore. Now he is back as an academic and is doing a PhD on architectural theory. Steven was an ‘eco-sceptic’, who felt all this green stuff was just a passing fad and needed to be convinced that the ‘green agenda’ was serious business. After helping me assemble all the texts that are included in the course, he was convinced that the ‘green agenda’ IS serious stuff and not just the latest ‘-ism’ of architecture. He felt that to get commitment from younger architects, they had to understand this world context.

Since the ‘Enlightenment’ at the end of the 18th century, which saw the arrival of the (first) industrial revolution with technology that could rearrange nature, humans have plundered the Earth’s natural resources, and dumped waste into the Earth’s natural systems, in a way never seen before. Up until that time architecture or building was fundamentally climatically responsive (bioclimatic) and rooted in its specific place. Two waves of colonisation changed all that. Today it is claimed that 40 percent of the world’s energy consumption is attributable to buildings.

The first wave, the spread of European dominance throughout the world, brought with it the hegemony of classical architecture that had grown from Greek and Roman times, through the Renaissance, to be embraced as the great ‘international style’ of the 19th century, and to be applied across the world with no regard to local climate, place or local culture. Classical concepts of ‘order’ and beauty have imposed western ideals on indigenous cultures – cleaning up all those untidy little villages with straight lines and grids!

The second, the 20th century ‘international style’ of modernism, similarly swept the globe, equally applying a ‘style’ developed in northern Europe without regard to other climates, places or cultures. This homogenisation was only made possible by the unbridled consumption of the Earth’s apparently unlimited natural resources of oil to create man-made environments encased in glass boxes across every

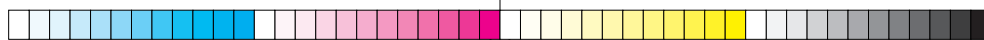
continent. In geological time, as Ray Anderson would say, it is only in the last few milliseconds of humans’ existence on the planet, that we have been able to ignore local climate and create our own internal comfort zones – but at a cost – the drawing down of the Earth’s natural capital of non-renewable resources created over millions of years and the pollution of the Earth’s natural systems threatening irreversible change.

Fred (not his real name), another member of staff at Newcastle University led the group of ‘eco-sceptics’ and was generally fond of accusing me of scaremongering. He gave a very well-researched lecture, at my request, which I called “Why Lindsay is Wrong”. He addressed two major issues – population growth and global warming.

On global warming, Fred argued that there was no convincing evidence that it was anything other than a natural occurrence, not being induced by human activity. From where I sit, he is wrong. Unprecedented ice collapses in the Antarctic, recurring ‘El Niño’ and other natural occurrences signify some kind of evidence that human-induced global warming is in progress and now even scientific experts in the US are declaring (finally) that it is happening. Many of the outer islands in the Pacific and other oceans face extinction if there is even a minor rise in sea levels and extreme weather patterns are threatening human settlements across the world.

On population growth, Fred presented compelling evidence that the escalation in world population would level off by the middle of the 21st century due to lower fertility rates brought about by increased living standards, double-income working patterns and, of course, the scourge of AIDS and other dreadful diseases. I agree with his evaluation, but it is not the numbers that are the main problem, rather the aspiration for greater affluence around the world and the associated rise in levels of consumption. In every poor country in the world, we can see TV sets and clothing that demonstrate the worship of the ‘multi-national’ consumer society. The driving demand for modern glass office blocks as a symbol of the modern world, every individual who watches TV and sees the movies aspires to have a Ferrari, Gucci clothes, a big house and a complete repertoire of consumer goods and, we must ask, “why shouldn’t they?”.

Increased consumption will drive ever-increasing resource utilisation, energy consumption and pollution, AND all this will further exacerbate the issues of greenhouse gas emissions, global warming and climate change. It is easy to be pessimistic. But the optimistic side of all this is that we are talking about it. In my lifetime already I have seen an enormous change in the general mind-set; when I was a kid in Ireland the local linen mill pumped dyes into the local rivers and nobody said anything! Not long ago I used to be able to smoke a pipe in the cinema! These things have all changed, and I am optimistic that humankind will learn to adjust its ways to find a balance with nature and achieve sustainability on this planet.





The depressing thing is how the governments of the world are failing to recognise and act on the problem. Politicians do not want to see beyond the next election. After the Rio Earth Summit it was said, "lots of heads of state, but no leaders".

After a dubious election process in the US, we have George W Bush, G W Bush, 'Global-Warming' Bush! Two articles by Richard Neville in the *Good Weekend Magazine* scrutinised the US' place in the world. The first was written before September 11 2001 and painted a picture of the US as big bully, taking an unfair share of the 'world cake' and suggesting that its military and strategic goals were more about securing resources and markets than any ideal of freedom and democracy. In the second article in April 2002, post September 11, Neville wrote, "I told you so" – the attack on the World Trade Centre, though despicable and tragic, was an inevitable outcome of US greed. Neville suggested that Americans are now beginning to ask themselves – "why are so many people out to get us?".

We should, of course, be thankful in Australia that we do have free and fair elections and freedom of the press. However, we are the worst carbon emitters per capita in the world, even worse than the US, and the government has cut expenditure on greenhouse mitigation initiatives. In my chapter on Australia in *AD Green Architecture* (Wiley-Academy, Brian Edwards, Ed., 2001), I wrote, "a recalcitrant Howard Government precludes a republic, an apology to indigenous people for the wrongs of the past and a serious attempt to take a responsible position on the environment".

Glenn Murcutt, in his interview with Elizabeth Farrelly in *Architecture Australia* (May/June 2002), is even more emphatic: "I think we now have the worst federal government ever. I am disgusted. I can't tell you how angry I feel about this. What embarrassment it causes me internationally. I was challenged and challenged in Denmark. I'm challenged in the US, I'm challenged in Italy, challenged in every country in the world. And I feel so disgusted by what are clearly lies and manipulations of the truth. I nearly go berserk. They've cut education, they have cut culture, they have cut everything that really matters in life. It has been an intellectually defunct government, barren to the core".

Here are a few 'throw away' bits of information which are always good to quote:

1. If everyone on the planet presently lived at the standard of the US or Australia, it would take three planets to support their resource needs.
2. Every year we are consuming resources (drawing down 'Natural Capital') that took one million years to be created.
3. The ecological footprint of London (i.e. the area of land needed to produce the resources to sustain the population of the city of London) is the whole area of Britain.
4. It is now projected that Australia's carbon emissions will be 30 percent more than 1990 levels, rather than eight percent under the Kyoto protocol that Australia has not signed.

At the beginning of the 21st century, we are surely living through a second industrial revolution – the Information Technology revolution. But hopefully we are also living in

the 'resource revolution' that will reverse the linear 'take and waste' processes of the 20th century in favour of cyclical processes and use of renewable energy.

I am currently reading the new book *Cradle to Cradle – remaking the way we make things*, by William McDonough and Michael Braungart. The book is printed on 'paper' that is not made from wood, but from plastic resins and inorganic fillers – what they call 'technical nutrients' – that, it is claimed, can be broken down and circulated infinitely in industrial cycles, beside biodegradable 'biological nutrients' in natural cycles. But more of this another time...

Sophia and Stefan Behling, *Crisis, What Crisis?, Sol Power – the evolution of Solar Architecture*, Munich, Prestel, 1996, pp 12-19

Ernst von Weizsacker, Amory and Hunter Lovins, *Factor Four – Doubling Wealth, Halving Resource Use*, London, Earthscan, 1998.

Amory and Hunter Lovins and Paul Hawken, *A Road map for Natural Capitalism*, Harvard Business Review, May/June 1999, pp 145-158.

Peter Graham, *Education for the Next Industrial Revolution*, BDP Environment Design Guide, Melbourne, RAI, GEN 31, 1999.

Ray Anderson, 'Lobal Change', *Architectural Review Australia* 69, Spring 1999, Melbourne, Niche Media, pp 100-104.

George Wilkenfeld, *Reducing Greenhouse Gas Emissions through Design of the Built Environment*, BDP Environment Design Guide, Melbourne, RAI, GEN 33, 2000.

Norbert Lechner, 'Sustainable Design', *Heating, Cooling, Lighting – Design Method for Architects*, New York, James Wiley, 2000, pp 11-36.

Lindsay Johnston, 'Green Limits in a Land of Plenty', *Architectural Design – Green Architecture*, Brian Edwards (Ed.), London, Wiley-Academy, 2001, pp 52-59.

Richard Neville, 'Oh say, can't they see?', *Sydney Morning Herald, Good Weekend*, 19 May 2001, pp 20-24.

Richard Neville, 'Beyond Good and Evil', *Sydney Morning Herald, Good Weekend*, 13 April 2002, pp 31-37.

Elizabeth Farrelly, 'Murcutt and the Architecture of Discovery', *Architecture Australia*, Melbourne, Architecture Media Australia, 91/3 May/June 2002, pp 76-83

William McDonough and Michael Braungart, *Cradle to Cradle*, New York, North Point Press, 2002.

Environmental Architecture, web-based distance learning course – details at <http://weblearn.newcastle.edu.au/web1620/index.html>

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