fjmt

architecture
interiors
urban
landscape
community

Architecture and the Culture of Globalisation

Richard Francis-Jones

Presented at Critical Visions CV08, RAIA National Conference, Sydney, NSW, April 10, 2008

The intensity of contemporary global architectural production is extreme and without precedent.

The seemingly endless formal inventiveness and expressive possibilities of architecture are reaching new dimensions, together with the technology, will, and capital to realise these spectacular explorations, particularly in the fast-growing or oil-rich centres of the globe.

And yet these exciting expressions of apparent optimism and faith in economic growth are taking place at a time of distressing social inequality, cultural conflict and impending environmental crisis.

This is, indeed, an extraordinary moment in the history of architecture. Over the last decades we have witnessed growth and intense industry production across the globe at hard-to-imagine levels. Now, for the first time, more than half of the earth's population lives in cities. The number of city-dwellers is expected to top five billion before 2030, and remarkably China is building a city the size of Brisbane every month.[1,2]

It is hardly surprising then that global architectural practice/culture has become a reality. But what is its nature, and what shared values and social aspirations does it reflect?

During this period, economic growth has been extreme and this vast wealth and prosperity seems reflected in the extraordinary formal expressionism that is coming to identify this architectural moment.

What new, inventive, twisted and distorted form will rise high into the clear skies above Dubai, or into the amber fog over Shanghai, or for that matter, given the equalising nature of globalised development, into the overcast skies above St Petersburg or La Defence?

When we momentarily lift our heads from the multiple forms of global interconnected media washing over us, it does feel a little like we are bathing in a pool of unparalleled excess and formal architectural indulgence—reflecting perhaps an almost religious faith in economic growth and enamour with technology.

Within this culture of globalisation, architecture is exported and imported often as primarily a designer brand to give identity and market value. But what is the nature of the culture behind the commercial imperatives that drive this will to difference and identity?

Most disturbingly, at the same time as we seem to experiment and indulge in this free, inventive and exciting architectural expressionism, all around us is burning.

As Ian McEwen observed, “The sheer pressure of our numbers, the abundance of our inventions, the blind forces of our desires and needs, appear unstoppable and are generating a heat—the hot breath of our civilisation–whose effects we are now beginning to comprehend…”[3]

We are beginning to burn.

Almost every day we read new and more disturbing data on the effects of climate change and the inevitable consequences of our twentieth century complacency.

Our ice is melting; it may already be too late to save the Arctic sea ice and the Greenland ice sheet. By some estimates there will not be any sea ice in the summer months within 25 years from now. Only a few weeks ago the
Wilkins Ice Shelf in Antarctica began to collapse and while the winter will seem to hold it for now it is expected to disappear early 2009.[4]

The reduced rainfall in the Amazonian rainforest threatens to claim large areas that will be unable to re-establish themselves. The El Niño climate system will become much more intense with profound effect on weather from
Africa to North America.

To avoid an increase in global temperature of more than two Celsius degrees would require rich countries to cut emissions by at least 80 per cent by 2050, with a cut of 30 per cent by 2020. Emissions from developing countries would need to peak around 2020, with cuts of 20 per cent by 2050.
This is a truly daunting task.

The United Nations 2007-08 Annual Human Development Report suggests the international community will need to invest two thirds on what is currently spent globally on arms to prevent this temperature rise of two Celcius.[5]

According to the Intergovernmental Panel on Climate Change the world will have to end its high output of carbon emissions within seven years and become mostly free of carbon-emitting technologies in about four decades to
avoid killing as many as a quarter of the planets species
from global warming.[6]

Another aspect of this disturbing backdrop to our formal architectural propositions is that despite the great wealth and economic growth of recent decades there has been significant increases in social and economic inequity.

More tragic is that the effects of climate change
will only reinforce this inequity, as it is the poorer countries that are most vulnerable, although the least responsible.
One person in 19 living in the world's poorest countries
is at risk from climate dangers compared with
one in 1,500 in the rich West.[7]

And yet it is the West that is primarily responsible for this mess: Texas has higher carbon emissions than the whole of sub-Saharan Africa; the average air conditioning unit in Florida emits more carbon dioxide in a year than a person in Afghanistan or Cambodia does in their lifetime; and the average dishwasher emits as much carbon dioxide in a year as three Ethiopians do.

If we consider equality of aspiration to the Western way of life, and turn this the other way a little, imagine for a moment that car ownership in China was equal to the per-capital rate of, say, Japan. There would be 575 million cars in China. This is only 70 million short of the

total number of cars in the world today. It certainly does not make the carbon-dioxide reduction targets look any easier.[8]

This great period of economic growth and wealth creation, of progress and development, has not only failed in relation to climate and what it should have delivered in terms of social equity, it has put generous amounts of petrol on the fire.

According to Professor Rod Smith in a recent lecture at the Royal Academy of Engineering, a growth rate of three per cent means economic activity doubles in 23 years, he demonstrates that each successive doubling period consumes as much resources as all the previous doubling periods combined. Put another way: if our economy grows at three per cent between now and 2040, we will consume in that period economic resources equivalent to all those consumed to date.[9]

This is the scale of the challenge we confront.

There is no doubt about the benefits of economic growth. Although the spoils may not be equitably distributed, growth has brought massive improvements in human welfare, housing, nutrition, medicine and sanitation.

But at what point should it stop?

It is somewhat ironic that it was a former governor of the US Federal Reserve, Henry Wallich who, in defence of our current inequitable economic model, observed, "Growth is a substitute for equality of income. So long as there is growth there is hope, and that makes large income differences tolerable."[10]

Growth is like a false promise of something better that allows an unequal, unjust, and unsustainable economic structure to lead us to our demise.

However, there are the signs of change, with the governor of our own Reserve Bank explained the sacrifices we will need to start making, "One of the things the community will have to accept is that there is a reduction in living standards insofar as our purchasing power over energy-intensive
things is concerned."[11]

And perhaps there is a ghost in this economic machine.
A financial system based on only free-market principles actually destabilises the health and stability of the
capitalism that is its heart.

The current US Bank lead financial crisis will be according to Alan Greenspan be “the most wrenching since the end of the second world war.”[12] The US economy is going to be largely trashed through the irresponsibly and greed of its bankers. How big is this, how big is the gap between the debt and the actual, estimate seem to vary between $2–3 trillion, how many banks will go bust? The global economy may wobble. Growth may curtail, slow; the resources consumption doubling delayed, irrespective of our own action or non-action.

All the predictions and disturbing data on climate change are regularly in the newspapers, and, if we can avoid the possible fatigue all this doom and gloom can induce and realise the scale of what we are up against, perhaps we can change.

However, the respected English scientist, James Lovelock–who, in 1962, warned that the greatest problem humanity would face in 2000 would be the environment–believes
it is now just too late.

In his latest book The Revenge of Gaia he predicts that by 2020 extreme weather will be the norm, causing global devastation; that by 2040 much of Europe will be desert and parts of London underwater. Our only chance, according to Lovelock, is nuclear power and technology, but our greatest challenge will be food production. Maybe we can synthesise food, maybe, but he thinks not quickly enough and expects about 80 per cent of the world's population to be
wiped out by 2100.[13]

So there is something disturbing, although undeniably poetic, in the beautiful, sparkling, attention-seeking architectural forms that rise fast out of the irrigated affluence of the Arabian Desert, all paid for, no doubt, with the oil that is fuelling our global demise.

But it is also this same drive to invent, innovate and create that can possibly shift paradigms and through some kind of lateral move enable us to step around this gaping
void at our feet.

It is not just our consumption of resources
that grows exponentially.

The pace of advances in technology means that the rate of progress will be 30 times faster in the next half century, opening up the prospects of innovation across all fields.

A think tank of 18 esteemed scientists convened by the US National Academy of Engineering is confident the sun is the tantalising source of all our energy needs: "We only need to capture one part in 10,000. of the sunlight that falls on the Earth to meet 100 per cent of our energy needs." They believe this will become feasible with nano-engineered solar panels and nano-engineered fuel cells.[14]

Already, mass-produced, wafer-thin solar cells printed on aluminium film are rolling off the production line in California by the Nanosolar company. They aim to produce the panels for 99 cents a watt, which is comparable to the price of electricity generated from coal (currently solar is three times as expensive). There is also our own Sliver solar technology, produced by the Australian National University, that is almost on the commercial market. An important advantage with solar is that the energy plants can also be deployed very quickly when compared with coal and nuclear.

The potential of nano-technology is far reaching and offers as significant a transformation as the Industrial Revolution. For example, carbon nanotubes, one hundred times stronger than steel and eight times lighter and capable of being woven into sheets and mixed with composites, alone are likely to revolutionise our construction industry.

Artificial intelligence will also provide enormous future possibilities as "once non-biological intelligence matches the range and subtlety of human intelligence, it will necessarily soar past it because of the continuing acceleration of information-based technologies, as well as the ability of machines to instantly share there knowledge."[15]

It may well be that it is this spirit of global technological embrace, invention and creativity that lies within the exciting formal free expressionism and digital investigations of our contemporary architecture.

However the group of scientists in this think tank also point out that while there may be technological solutions none of the challenges can be met without the economic and political will.

The great challenges of climate change, mass urbanisation and the related social and economic inequity that form a back drop to the architecture of our time are shared, and

global in nature. They will require a global multilateral response despite the religious, economic, social and cultural conflicts that hinder such cooperation.

It may be the strength of our emerging global culture that could assist in overcoming the great divides that prevent a unified and essential response to the great challenges that confront us. A global culture of shared values and aspirations possibly united and induced through, as history has illustrated, a great external and mutual threat.

Are we witnessing the beginnings of a new global culture independent of the nation state and the international corporation; a horizontal culture interconnected in social depth through media and free access information technology?

If so, what are the values and aspirations of this nascent globalised culture? And what form could it take beyond a self-referential formalism?

Is a hybridised, plural and specific global culture possible, one that embodies and represents a deeper architecture instead of the mere importation of designer curiosities?

What is the form of a sustainable architecture beyond some accounting of ‘green’ points? What is the form of an architecture of equity? And when are we going beyond the superficial allure of form and technology to deep and substantial investigations of our field?

At this time of great challenge and opportunity
within our increasingly globalised culture,
what critical visions can we offer?