

#0310



CONDITIONS

architecture and urbanism

CONDITION
INTERVIEWS

THE POLITICIAN

BARD FOLKE FREDRIKSEN,

THE PLANNER

JAN CHRISTIANSEN,

THE DEVELOPER AND

HAKAN DANIELSSON,

THE ARCHITECT

AND GERT WINGÅRDH.



glamorous compromise

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| Wu Think Tank | Jimenez Lai | Boris Brønner Jensen talks to Bjarke Ingels (or himself)

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“The very concept of sustainability has been colonised by big capital and turned into another huge marketing operation to guarantee the reproduction of corporate profits. The idea of sustainable design is locked into this paradigm, where solutions are constrained to areas where big business can make money, almost exclusively limited to technical fixes in the form of photovoltaic cells, solar energy hot water systems, double glazing panels, light rail systems and recycling materials of value. Unfortunately there is no technical fix to the problems we now confront in designing cities, which are primarily about sustainable value systems in the face of enormous problems of equity and environment worldwide.”

– Alexander Cuthbert
The Form of Cities



GERARD REINMUTH is a Founding Director of TERROIR, one of Australia's foremost critical and research-based practices. The practice emerged from a series of conversations between Gerard and his co-Directors Scott Balmforth and Richard Blythe in regard to the potential for architecture to open

up question of cultural consequence. Recently, Gerard has been made Visiting Professor at Arkitektiskolen Aarhus in Denmark, in parallel with TERROIR opening an office in Copenhagen.

The work of the practice encompasses projects, research and regular contributions to the culture of architecture and its practice. For example, Gerard has taught and lectured at schools of architecture in Australia and Europe and regularly writes and commentates on architectural issues, which has led to various forms of recognition inside and outside the profession. In 2004, Gerard featured in the *Bulletin* magazine's "Smart 100" list of key Australians tipped to influence the cultural landscape in that country. In terms of teaching, his recent appointment at Aarhus complements his role as Adjunct Professor of Architecture at UTS. Co-Director Richard Blythe is Head of School at RMIT - the most internationally prominent of Australian architecture schools and where a culture of research-by-design has evolved which is of international significance. In 2007 Gerard was invited to join a panel of eminent architects as a judge of the RAIA National Architecture Awards while last year Gerard and his co-Directors were selected as Creative Directors for the National RAIA Conference - a major event featuring Aaron Betsky, Slavoj Žižek and Alejandro Zaera-Polo as speakers.

Sustainability

as an aesthetic problem

GERARD REINMUTH

As I complete this essay in the week before the Copenhagen summit, I can hear the steady increase in focus on sustainability by the wider public reaching a crescendo. Copenhagen is the third key marker - after Kyoto in 1997 and Al Gore's film *An Inconvenient Truth* in 2004 - in a decade-long increase in focus on sustainable issues.

Accompanying this increased awareness in the public realm has been the more focused position on sustainability by governments worldwide. This is particularly the case in Scandinavia where almost no aspect of life has been spared the influx of new "sustainable" products and services, along with some form of corporate or marketing statement about lowering carbon outputs.

However, in the face of this frenzied re-branding of everything we use and eat as "sustainable", the views of Australian academic Alexander Cuthbert provide an important reminder that "sustainable consumption" is in itself something of an oxymoron. We should try to resist

the anesthetic power of the word "sustainability" when presented in regard to products and services. We should look deeper into the implications of changing consultation patterns rather than simply maintaining them with slightly altered offers.

In architecture, this would mean the application of a more critical eye over claims for sustainability made in corporate profiles and competition entries. We are now regularly seeing architectural projects with the most basic levels of thermal performance, cross ventilation and glass shading being presented as the "sustainability" package. These techniques – a traditional part of any adequate basic design capability from an architect – receive special mentions in competition citations and project presentations.

In Scandinavia, it seems that the situation has mutated to the extent that if you do not show some colored arrows and sun diagrams on your architectural drawings, it is considered that you probably did not address sustainability issues and are therefore penalized. As competition juries fall under the spell of simplistic environmental diagrams, why mention these techniques at all when they are part of basic practice anyway?

I worry that the sustainability industry, as it is currently constructed and practiced, may well become the most significant constraint upon the successful resolution of the environmental problems we now face. Armed with the tools of political-economic theory, the expanded passage from which Cuthbert's quote has been taken is an eloquent critique of the sustainability industry and in particular the corruption of it by capitalism. My argument here will focus directly on the practice of architecture, where in this age of green tools, green products and green consultancies, the view is rarely put forth that the problem of a sustainable future (one in which humanity might have the opportunity to participate) is not essentially technological, but is instead dependent on human desire. To this end, architecture should be more than mere armature for the paraphernalia of the sustainability industry, but should contribute to the production of critical work that fosters our desire to live poetically and more sustainably on the earth.

Al Gore's film, *An Inconvenient Truth*, is an exemplar of the poetic approach. By juxtaposing images of glacial formations in a "before and after" format, the impact of a changing climate was finally registered by a world population that had given little consideration to the issue en masse. As well as this arresting use of images, Gore displayed technical data to maximize graphic effect, creating a desire in those who watched the film to

fully grasp the current trend. The impact was immense. Within a single month in 2006, awareness of global warming increased incalculably among the general population. This in turn further increased the fizz of activity in the construction industry, as everyone rushed to get accredited, rated, certified, or in some cases even personally endorsed by "Big Al" himself, as one of his "ambassadors".



Gore's compare and contrast technique is in the tradition of wilderness campaigns, such as the seminal Gordon-below-Franklin Dam debate that took place in Tasmania (Australia) in the early 1980s. This battle is a major touchstone for our practice, and indeed, it was formative for an entire Tasmanian generation. As children, we were introduced to a form of politics based on clear conceptual and ethical frameworks (as opposed to detailed debates about data), the communication of which was enhanced through the power of images. A cornerstone of this campaign was the way in which the arguments of those protesting the dam were reinforced by a single image – "Rock Island Bend" by Tasmanian wilderness photographer Peter Dombrovskis – which harnessed compassion from a global audience for the plight of the river. While that campaign was successful, the Australian national Government was voted out of office and the dam was stopped. The response to the Gore film has been characterized by more consump-

tion. We are buying more solar panels, low energy light bulbs, low water-use showerheads, sustainable fabrics in fashion and organic food than ever before. We are buying more of anything with a "green" endorsement.

Green consumers are being encouraged to keep buy-



ing more products, not to consume less. Similarly, in architectural practice we are regularly asked to ensure projects are "sustainable," yet these requests are rarely accompanied by lifestyle changes beyond the consumption of more appropriate technology. This practice serves only to perpetuate consumption of this technology as the key to sustainable outcomes. Many of the architects reading this will have been faced with this hypocrisy. My favorite was a request to design a "sustainable house" in a remote location which the client accessed via a long drive in their Porsche Cayenne.

The problem we face is that this rationale – save the world by commissioning a new eco-home – exemplifies the current state of our consumer culture, a culture predicated upon the belief that personal betterment can be achieved via consumption. Disturbingly, this trend has been encouraged by many of the eco-practitioners within our profession, perhaps because they too remain blissfully unaware of the critical flaws in their position, as they are busy surfing the heady wave of liquidity that accompanies the distribution of ESD advice.

Sustainability practice

This paradoxical focus on consumption as our savior has contributed to the emergence of two mechanisms by which sustainability practice is often measured. The first is the idea that we can make a profound difference via compliance with green tools – in Denmark this includes BR08 and soon the DEA ratings that will apply across the EU; the second is the idea that where politically incorrect consumption occurs, we can absolve our sins by purchasing carbon credits. While both mechanisms are based on a genuine attempt to ease pressure

on the environment, the pressure of consumption is far greater. Exemplar projects lead the charge to consumption for more exemplar projects, rather than a change in the amount or type of projects being developed.

Sustainability tools are at the core of the idea that we can indulge in "sustainable practice" – a practice supported by accreditations and benchmarks designed to measure our performance and prove the extent of our "sustainability." Of course, these tools and measures do have a positive role to play as part of the solution, as they can achieve specific results in various forms of recurrent consumption. However, most tools currently being used do not address consumption with the aggression required to make substantive change within the timeframes suggested by climate change analysts. Disturbingly, awarding these accreditations to new, large buildings reinforces the idea that "sustainable development" is not an oxymoron.

Most of the tools we have used are subject to exclusions, generalizations and simplifications that arise because of the need for a simple, standardized measurement framework. Questions then arise as to the effectiveness of these tools in procuring a sustainably built environment. In addition to the question of their effectiveness, green or sustainable measurement and accreditation tools have acted as an intellectual anesthetic, convincing society that we are making great inroads when this is often not the case.

For example, last year we had a small house addition in Australia fail the thermal performance criteria of the green ratings system – which all houses in Sydney must pass to be approved for construction. By keeping an existing house (with its old window proportions and sizing), the crude mathematics of the software we had to use failed the development on the basis of "thermal performance." To make the project comply, a range of specialist materials (opaque glasses and motorized metal louvers) were added. Yes, we were required to increase consumption to pass the green rating tool.

In frustration, we ran an alternate certificate for the project, demolishing the existing building, replacing it with something larger, installing air conditioning in every room, building a larger pool, allocating a million lights, and clad the whole thing in plutonium. Lo and behold, it passed! Meanwhile another hillside in the Australian desert would be blown up to provide the raw materials for this "environmentally accredited" building. Thus we see how these ratings tools have become the carbon credits of our profession, rewarding a culture that pays to pollute in preference to making substantive

conceptual changes.

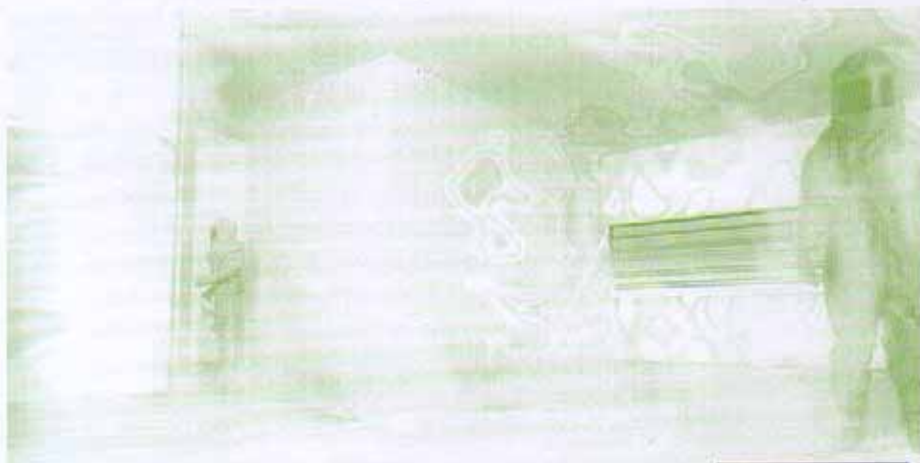
The danger in these tools, and in the similarly flawed logic that permeates the practice of many sustainability experts, is that they allow for a sense of personal, emotional resolution to the problems of sustainability, while in practice the tools not only have limited effect, they actually serve to delay substantive action. The impression is created that global warming is being addressed via modified and targeted consumption, not by changing our consumption habits more dramatically.

THE CASE FOR BUILDING LESS

In this context, it is worth reviewing research that compares the impact of new "sustainable" buildings, with the re-use of existing buildings without green cre-

entials. This data is particularly important in Europe where the cities are "completed" such that more opportunities exist to re-use or augment existing buildings, as compared to the developing world which is struggling with massive population and city growth.

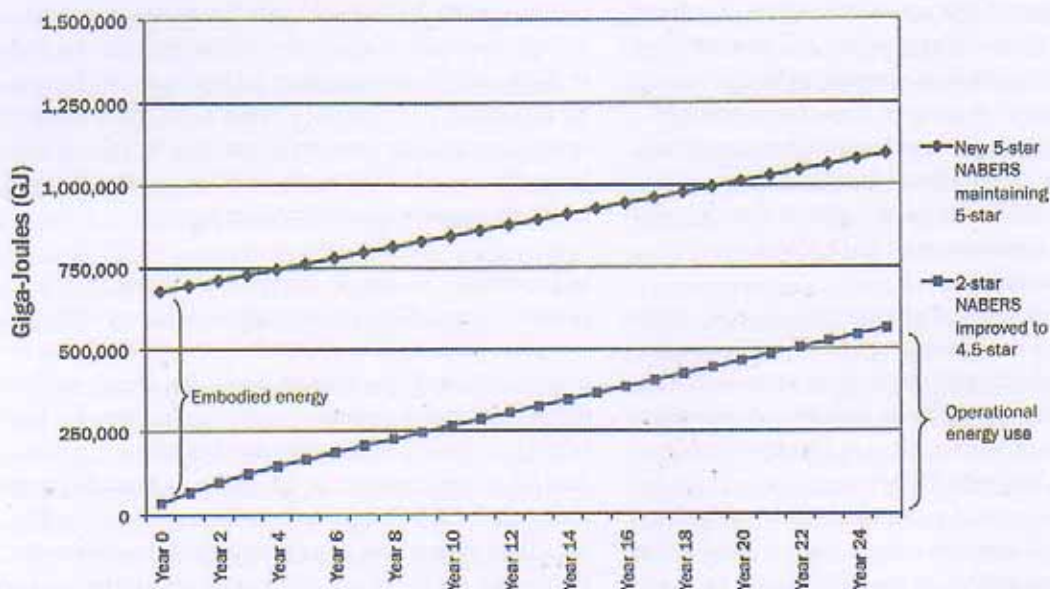
Australian sustainability expert Craig Roussac has developed simple tabulations that show the difference between re-use and replacement. Roussac notes that "a building's operating energy is only a fraction of the energy required to build it in the first place"¹. His Investa Sustainability Institute estimates this ratio as 1:24 – that is, it takes a typical medium-sized office building 24 years to use more energy through operating than was required to build it.



In this context, the concept of a new building paying back its embodied energy over its lifetime is highly suspect. When the construction of a new building requires demolition of an existing one, the situation is even more unbalanced. To make this point, Roussac shows the graph reproduced here. An existing building is upgraded to best practice, using less energy than it did before, while another building is demol-

¹ Roussac, Craig, "Old Star, green star", *Bulletin*, Sept/Oct 2009, Australian Institute of Architects, Sydney, 2009.

Scenario 2



ished and a new green building put in its place. In its first 25 years of operation this new green building will use double the total energy of the refit. If one waited until the new building would finally pay back its carbon debt, we would be waiting 190 years, which is beyond the life cycle of most contemporary buildings.



At TERROIR we have been working through a series of exemplar projects to make a claim – in a built work – for this approach. Our Maitland City Bowls is one such example.

An existing lawn bowling club required the demolition of its existing premises and a new building put in place, with the goal of rebranding the club and providing new facilities to members. This was a dream project, with a 5000sq.m. public-use facility situated in the picturesque context of the bowling green. We elected however to keep the existing building, despite its very low quality and poor architecture. A new roof was added – a giant “sustainability rucksack” which covers the 5000sq.m. area of the building below. This rucksack captures water for use on the bowling greens, shades the existing building and provides a place for new skylights and air handling equipment. The form of the roof is a negotiation between the pragmatic requirements, the form of the existing building and a response to the mountains seen in the distance beyond which “place” the community and project. The result is a strange hybrid, with the existing (ugly) building topped by a parasite which keeps its host alive. This is a long way from what we know as Scandinavian design.

DEATH OF THE LANDMARK BUILDING?

One Danish architectural practice has noted on its website that “we design landmarks.” While this may be true, the question is whether this is a sustainable business model if we are to make real inroads into sustainability practice for the future. The war of statistics sustaining the debate around the merits of the various tools and carbon-trading measures necessitates a conceptual “cutting through” in the interest of stimulating discus-

sion and affecting greater change. I suggest that we may have to dismantle the “images of green” which we hold so dear (such as new, “sustainable” buildings), and replace them with more accurate models. In architecture, this means shifting our focus from the creation of landmark projects, to the creation of a desire for alternative visions.

Consuming less, in architectural terms, presents challenges for the profession, both in terms of the sustainability of the business of architecture as it is currently structured, and in terms of the aesthetic orthodoxies that govern practice. I suggest this is a particular challenge in a Scandinavian context where – from Jacobsen to BIG – clear organizational diagrams which result in elegant, precise objects are not only preferred, but culturally embedded as the “right” response. However, building less, and more sustainably, might be a messy business. This will require parasites attached to existing buildings, transplants emerging out of existing fabric and collages of new and old. Thus, the greatest contribution we make to the environment may be an aesthetic one, replacing the current preference for the clean lines which so typify Scandinavian design, with new spaces and places with a new aesthetic – one built upon the potential of the parasite. And in building less, there is a great role for architecture; it is then imperative that new work is of an even higher quality. Further, the difficulties of this surgical work will need considerable time from exemplary architects and should therefore lead to proportionally increased fees.

New benchmarks should be set to assist the potential for a more sustainable future – ones that go beyond the twirling propellers that dominate architectural competition entries at present. However, until we increase desire for a new aesthetic, it is unlikely we will build less. Rather than having a future practice built on messy surgical adjustments to old buildings, we will continue with the wholesale replacement of fabric that does not fit within a pre-existing aesthetic framework. But for every year that we continue to build more, a precious year has been wasted in the battle to redress environmental change.

The only way forward is vigorous debate – a debate that many are reluctant to have. I challenge the profession to explore building less, and to set the exploration and mastery of new aesthetic parameters as the key contribution we can make to the sustainability of our planet. If we seriously desire change, we need to propel architectural practice beyond faux sustainability before it is too late.