LIMERICK CIVIC TRUST ON THE RIM OF REASON: THE PULSE FROM EDGE TO THE CENTRE AND OUT AGAIN 12 OCTOBER 2017

IAN RITCHIE

Film of Leipzig Glass Hall

I came to architecture from the edge, somewhere between the edge of medicine and the edge of art, wanting to help people and to express myself.

Both my humanity and my art were intuitive.

I think I was lucky with my DNA and the access I had to nature's wonders.

I lived on the edge of architecture yet the actions were central.
I thought, I drew, and I built.
But I thought about society as much as form, I drew with a rapidograph but also a brush.
I tried connecting architecture schools, and investigating free-time space, and speculating on where urbanism was going.

I realised architecture in East Anglia, and saw egos and business competitiveness. I built real buildings with my own hands, then taught architecture, but not really. I had insufficient knowledge, but I nurtured the students and shared building buildings with them.

Then I began to explore engineering, while exploring an partnership, and working and learning at Arup. I worked with industry, I researched, and I dirtied my hands in the workshop. And the boundaries of architecture that had begun to appear began to dissolve and I saw that I was out on the edge.

I began an open partnership in France, no boundaries other than the sensual nature of buildings and streets, and materials, light, landscape and technique. I remained on the edge but in the centre of French political ambition. Seminal exposés of public performance and technical innovation.

A knowledge and feel for glass that brought me to the centre, because the image was potent and sought after throughout Europe, and later in the US, but I had cracked glass, and wanted to move outward again, to weave and deploy new materials that would evoke new ideas and spaces. I had knowledge, I become an 'uncle',

maybe even wise, as I began giving back to society. I am moving to the edge again, happy.

And now I write as much as I draw,
my imagination is still on the rim of reason
and I do not know my next architecture,
but my responsibility is still towards humanity
and my memories give me strength
for future work, play and life I share.

THE PERIPHERY

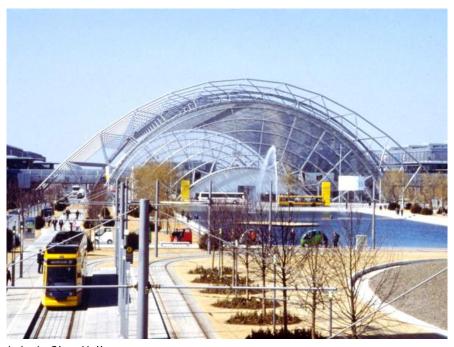
For me both personally and professionally the periphery is a fertile place. It's an edge, a boundary zone, a frontier.

The Wall came down - East met West. In Leipzig the Sky is brought down to the Earth.

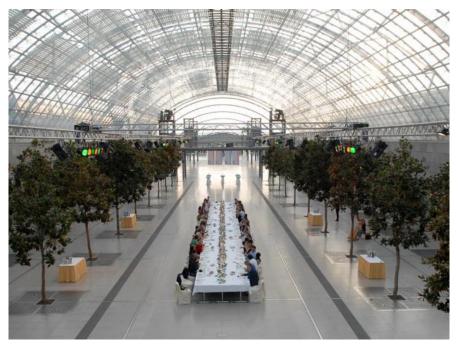
When we speak of a frontier, we speak of a challenge. When we say something is 'cutting edge', we're talking of the most daring and creative manifestation of any field of knowledge or research.

In the natural world, boundary zones are the peripheries where two ecosystems meet, and are often the richest and most ecologically diverse.

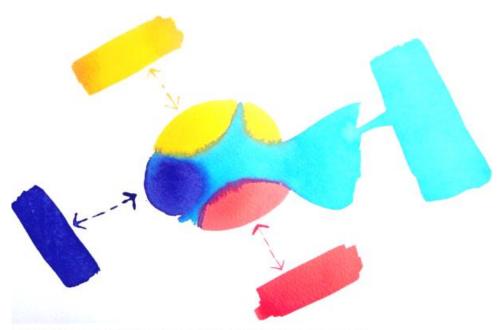
The same goes for when two intellectual ecosystems meet!



Leipzig Glass Hall



Leipzig Glass Hall



Sainsbury Wellcome Centre for Neural Networks and Behaviour at UCL





Sainsbury Wellcome Centre



Sainsbury Wellcome Centre



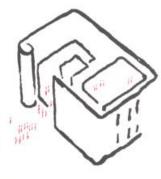
Sainsbury Wellcome Centre



RSC Courtyard Theatre







RSC Courtyard Theatre shell transformed into the The Other Place (TOP)

THE CENTRE

In 1999, for the new millennium, I wrote an essay for the Irish Times titled Zero the Hero, describing some of the public architecture 'Zero' has given birth to and playing with some ideas of what it might stand for in relation to where we are headed as a society.

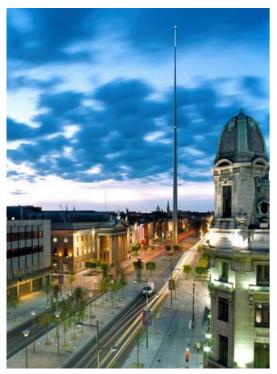
In it I described how around 628 AD the astronomer Brahmagupta in India conceived of Zero as part of a system of abstract mathematics. This opened up the possibility of negative numbers, and a continuous number line stretching to infinity in both positive and negative directions with the symbol 0 - śūnya the nothingness - sitting at the boundary between positive and negative. It enables our entire system of mathematics to be at the very core of computer logic.

Zero symbolises the nothing, the void. It also symbolises the beginning, the centre, the pause, the central point of balance between two forces, the symbol of unity, the trace of the infinite point.

I suggest it also symbolises the creative centre - where synthesis replaces duality between subject and object, and where the creativity fed by the periphery takes form.

In order to enter the creative space, architects - or artists, or scientists - must breach the borders of the rational. They must relinquish control, and the security of their psychological and intellectual limits. They must ask the right questions; question what is self-evident in order to create something genuinely new, essential, and potentially meaningful.

THE CENTRE - MONUMENT & VOID



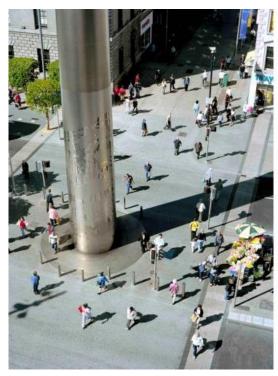
The Spire of Dublin

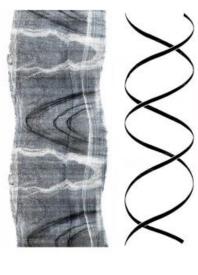
In 1999 Ian Ritchie Architects won the international competition for a monument in Dublin to replace Nelson's Pillar, destroyed by the IRA in 1996. We were, in essence, tasked to create a monument marking the heart of Ireland's capital city - its centre - and the beginning of its renaissance.

Monuments have been much in the news lately. Their historical meaning is often part of a narrative which is not always remembered or is no longer socially or ethically acceptable. Most monuments are didactic - which is why when their overt symbolism becomes unacceptable they are torn down or, as in the case of Nelson's Column in Dublin, removed with more vigour. (astronaut!)

Thinking about the notion of what is quintessentially Irish: menhirs - standing stones, ever-changing skies and light, and the emotions of a people who have probably produced more poets per capita than any other, I drew a line from earth to 'heaven'. It was submitted as the Monument of Light but renamed as The Spire - in Gaelic 'Túr Solais'.

The form traces its lineage back to one of the most ancient, deliberate, statements marking man's presence in the landscape: standing stones, in the city - Egyptian obelisks, Trajan's column. The Spire is 3 metres in diameter at its base and rises 120 metres, tapering, above O'Connell Street, with as slender and elegant a movement as is technically possible.





SCANNED STONE CORE SAMPLE FROM SITE

DOUBLE HELIX

The Spire of Dublin

The pattern at the base of the Spire is derived from the double helix of DNA, overlaid with a scanned image of granite from beneath the site. It represents the Irish Diaspora - which at the time of the project was ebbing and flowing — the fertility of humankind and the bedrock of the city, its aspirations and hopes.

As the ambient light reflects or is absorbed by its surfaces, it is ever-shifting in appearance; it both incorporates and reflects its surroundings as it engages in a dialogue of meaning with passersby.

Although it is a monument, we designed the Spire to leave a space - a void - to be filled with the public's own hopes, aspirations and meanings. The absence of overt symbolism permits a personal interpretation and identification by the viewer. The competition jury recognised it as a 'primary element, a free point in the urban dynamic'.

The Spire of Dublin is a magnet, a place where there is nothing other than a notion of marking the centre. A physical centre which people can identify with. Nobody owns the spire, not even Dubliners. It is for everyone to relate to, to be inspired by, perhaps to find their own centrality.



The Spire of Dublin

I received a letter from a Mother Superior, writing on behalf of a nun who was dying. The nun wanted to write but could not, to thank me for giving her a beautiful reference to her god, her light - a votive candle. And despite its form, a symbol of peace for her. The Mother Superior also thanked me but with no explanation. I smiled inside.

The gift of giving is a central aspect in all of us. We know what joy it gives, just to give. The giving up of power, of control.

CONTROL

Relinquishing control in the creative and interpersonal sense can open us to the thrill of creativity and the richness of cooperation and mutuality.

The inadvertent or unwilling loss of control in the personal, professional or cultural sense is another matter. That is when the void becomes the emptiness - like that at the centre of our consumer culture, designed never to be filled - and the periphery becomes the neglected, the forgotten, the ignored and the discounted - a zone of danger rather than richness.

CENTRES/CITIES

We're social animals. Even as nomadic peoples we converged periodically, often in special locations, to exchange news, trade goods (and genes!) celebrate or engage in spiritual rituals - to connect.

Settlements, villages, towns and cities evolved and grew to fulfil the human need for centres of connexity.

We soon also realised that certain human activities can be conducted more easily when clustered together rather than dispersed: port cities and their associated crafts and trades; market towns, where foodstuffs from the surrounding periphery were brought to sell; the great centres of Mediterranean-Asian trade along the Silk Route; towns that grew up around universities like Karlsruhe, Oxford and Cambridge, where research centres now thrive; financial centres, like London; fashion centres, like Paris and Milan.

Cities have always been rich centres of connectivity and diversity because they are dense - in population, variety, races, cultures and wealth. Even poverty in cities has power, because the poor help make the city function. Their density/complexity/connexity is one reason the great cities have absorbed invasions and outlived many and diverse systems of government: empires, monarchies, dictatorships.

But cities are more than centres of density. They are complicated organisms with lives of their own, many-layered and culturally specific. They evolved in response to the surrounding environment and the unwritten, but sensed needs and values of the communities which built them and were in turn shaped by them. There was a direct correspondence between the architecture of a city and its people.

We now plan our city centres, rather than letting them grow, and urban design is an extraordinarily complex endeavour and implementing planning messy and difficult.

Not only reason, but also knowledge and theory are needed if we are to understand how buildings fit together to form civilized environments where communities can live in harmony and grace. Memory, imagination and emotion are also needed, and we are slowly coming to the realisation that in the rush to progress, we have left some of these behind - not only in architecture, but in our ways of relating to each other.

HUMANS DE-CENTRED

The needs and values of those who drive the development of our cities have changed. The communities whose needs formed the urban fabric of cities have become marginalised, and market forces - Capital - exert the primary influence on planning policy. The result is cities in which the powerless and poor, those who live in the periphery and who are unable or can't afford to benefit from what the centre can provide, often survive in a state of resentment which needs only a spark to become violent.

The disparity between centre and periphery applies across the scale:

wealthy corporate CEOs and their underpaid staff; wealthy cities surrounded by countryside with poor connexity; wealthy 1st world countries at the centres of the global economy, supplied with goods and slave labour by poorer 3rd world countries at the economic periphery.

Capitalism's appeal has rested in its promise of individual control: that we would all be able make our own choices and shape our own futures, within a competitive system that would produce the greatest benefits for all. The philosophy is that the "I" is self-contained and self-sufficient - that we are distinguished and isolated from other individuals and things of nature in an age of individualism, not community.

Initially, capitalism delivered many advantages. The last few hundred years have given us breathtaking advancements. Vast wealth has been fuelled by a revolution in science and mathematics, medicine and technology, as has our understanding of the structure of our universe. Standards of living have risen, political liberalism has dominated.

But the capitalist system grew into one dominated by vast corporations and global banks. An Oxfam analysis of 2016 data found that the poorest 50% of the world population own about \$410 billion in total wealth. As of June 8, 2017, the world's richest five men owned over \$400 billion in wealth. Thus, on average, each one of them owns nearly as much as 750 million people.

Moreover, today's super-rich owe little or no loyalty to any nation or community. In previous eras, the wealthy were grounded within their own societies. This constrained their wealth and power within the bounds of reason, which is no longer the case. The power disparity inherent in such inequality is unequalled in history.

In comparison Shelly's Ozymandias (the Pharaoh Ramesses II) was an amateur.

The global economy that fuels this wealth is interconnected but the benefits of such connections are not reciprocal. They are primarily financial and competitive, with grossly unequal rewards. Histories, cultures and fates are not shared.

The human beings that produce and buy the goods that maintain the global economy are central to the equation only insofar as they are able to continue being consumers. Our demands are no longer organic once our basic needs have been satisfied. The void of community life abandoned in an age of dynamic urbanism is filled with manufactured needs created by advertisers, in service to an economic machine that creates consumer demand in order to benefit from increased consumer spending. In the words of J.K. Galbraith:

"...[our] wants are increasingly created by the process by which they are satisfied".

We now live to produce, to consume and to waste, and the 'attention economy' on social media, shaped by the demands of advertising, is depriving us even of the space and time and freedom to pause - pause, when we stop, reflect, open ourselves to the moment and remember that the immeasurable is more important than what can be quantified.



Our feeling of control over ourselves and our future is showing itself to be ever more illusory. The media - social and otherwise - has changed our societies in ways we are only now beginning to understand.

Much of the information we get has been deliberately shaped to control our perceptions and opinions. Control of our emotions and thoughts by means of information gathered about us by for-profit social media - which is designed to be psychologically addictive - has become so precise that Facebook was able to target individuals with tailored posts designed to influence their Presidential - and Brexit - votes.

When human beings are centred, they are able to live in a dynamic balance of all the interrelated physical and spiritual systems that are part of their lives. They communicate their sense of balance in the way they manifest their physicality, in the realisation of themselves, and in their relationships with all beings and their environment.

We have become de-centred. We are recognised by our habits, what we look like and what we have. Our centres have become peripheral and of no consequence. Our sense that there is more, that our souls need feeding, our longing for a greater meaning and connection, is unfulfilled. Luckily, in an age where everything - even our existential distress - has become commodified, we can buy mindfulness apps for that - several, in fact.

Perhaps it is a hopeful sign that many people in their thirties and younger are restricting their use of social media, and withholding it from their young children. Complaints about privacy issues, fake news, advertising, and the impact it is having on real life and relationships might be a sign that that the Pavlovian system of constant feedback being offered us is not as emotionally satisfying as what is trying to replace.

SOCIETY DE-CENTRED from ARCHITECTURE

We may not be the only animal that creates its environment, but we are the only animal which deliberately creates environments which are dysfunctional.

Architecture creates urban environments in the image of the philosophy on which it is based. Today's philosophy? Capitalism first and with it the ubiquitous high rise skyline.

For some time now, the rich and powerful have shaped our world more than they did in the past. The glass towers sprouting in cities worldwide - and I helped invent the technology that makes them possible! - are monuments to wealth and might.

Profit-driven development and ego-driven architecture are the manifestations of urban planning and architecture which no longer put society and cultural continuity at their centre. The effect upon the buildings and public spaces and upon the global environment generally, has been devastating. As cities lose their complex urban fabric of mutual influence and adaptation, they dehumanise the humanity that inhabits them and nature itself.

Western capitalism has exported this phenomenon worldwide.

An advertisement by a well-known wealth management company neatly articulates this kind of development:

Our waterfront has grown to include some of the country's most impressive buildings, which has serendipitously created the perfect backdrop for wealth managers to entertain their clients. Ultra-high net-worth individuals are no doubt enticed by the aesthetics of the Albert Dock area, and what has previously been known as a back office hub for many wealth managers is now expanding to include a distribution and investments function.

These 'impressive buildings' express and evoke the least attractive aspects of the human psyche. Selfish and egocentric, they stand alone and isolated. They do not share walls or face each other; they rarely make places welcoming to the multifarious street life which makes a city alive. They are urban spaces deliberately designed not to be lived in but moved through, perhaps with a pause to buy a cappuccino.

Corporate acquisition of large chunks of public urban space is further transforming the urban fabric, with implications for social structures and the richness of the urban fabric. In the 1970s

the spread of pseudo-public space in cities worldwide began. Ever more squares, urban complexes, parks and thoroughfares which seem to be public are actually owned and controlled by developers and their private backers. The arbitrary restrictions these entities impose on citizens that prevent them from exercising the rights to which they would be entitled on genuinely public land are frequently kept secret until they are unwittingly violated.

On larger urban scale, the answer to these problems is very much a matter of restricting the ability of private wealth to affect the development of the urban fabric.

The free market approach of London makes this difficult, but even there control - for good or bad - can be exercised by individuals with the power to influence the planning system.

As the present Deputy Mayor of Paris, Jean-Louis Missika, who is responsible for architecture, urbanism and economic development in the French capital, explained recently:

"We don't accept to give the management of public space to the private sector,"

"The question of how you manage the design of the city, of the streets, and who has the right to be in the streets, and how you share the rights of the different users of the public streets, is very decisive in future,"

"You also have the question of social mixing; a city where the poor and the rich can be in the same spaces because segregation is the worst problem for cities. You see it in Paris, you see in it London... The city that accepts segregation is a dying city."

And in the words of Pasqual Maragall i Mira, the Mayor of Barcelona during that city's development for the 1992 Olympics:

"The exteriors of your buildings are the walls of our public rooms, so we will have a say about what they look like because we have to live with them."

Even as an individual architect you can remain aware that you're answering to the needs of the public as well as your client.

The ability to discuss the design with the public is vital. In the case of the SWC, iRAL consulted local interest groups and statutory authorities early and extensively during the design process to make sure the way the building 'speaks' with its immediate neighbours and the public is appropriate.

Paris from the air

This kind of control isn't a utopian fantasy. In fact, it has been done very successfully in the past; in Paris, and it is an example of what can be achieved when during the process of city planning the right questions are asked to produce a coherent philosophy for city planning.

In 1981 I had a conversation with Paul Delouvrier when he was President of the Etablissement Publique du Parc de La Villette (1979-84). The first building in the project was the new Cité des Sciences et de l'Industrie for which Rice Francis Ritchie (my firm - known as RFR) was commissioned to develop the bioclimatic facades and central roof.

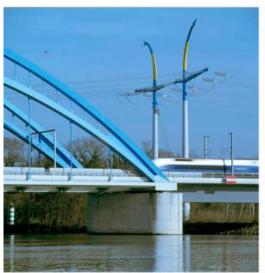
By the mid-50's it had become became evident that the future of Paris - one of Europe's greatest cities - would have to be planned if it weren't to lose its character as its population increased. Charles De Gaulle, being a busy man, asked his secretary to find him someone who would create more than a development plan but a philosophy for Paris.

A young man then, Delouvrier volunteered to deliver it. After several months of frequent round-table discussions by a multi-disciplinary group, of leading French figures: artists - including writers, philosophers and theatre directors; economists, scientists, planners and geographers, a raft of papers was produced.

This was systematically reduced and finally edited down to one piece of paper, of which de Gaulle allegedly read only the first line: 'Paris risks falling into the Atlantic Ocean!'

The group had identified the emergence of a powerful 'economic banana belt' lying along the Rhine, and Paris was too far west.

Initially this led <u>not</u> to a philosophy for Paris, but to one for France, with, of course, Paris at its centre: The government under de Gaulle initiated the development of a high-speed rail service which culminated in the TGV; drew up a national motorway construction programme to link Paris with the rest of France and with the rest of Europe; founded the French Atomic Energy Commission and the project to launch the first all-French commercial nuclear reactor in 1956 with the aim of becoming the major electricity supplier to European countries; via a European grid of transmission lines, and finally, the idea of supersonic air travel to connect Paris to the world (Concorde) which in turn led to the joint Anglo-French Concorde agreement in the early 1960s and a new airport at Roissy.



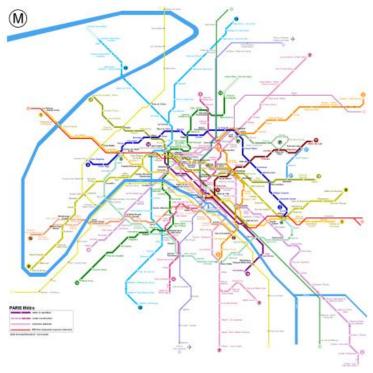


EdF 'Fougere' HV Pylons designed by Rice Francis Ritchie + Kathryn Gustafson

(note: Ian Ritchie Architects with RFR and Kathryn Gustafson won the EdF competition in 1994 for a new HV 'aesthetic pylon' as the EdF was being confronted with residents in a Pyrenees valley blocking them from supplying electricity to Spain, for which the EdF had a contractual obligation)

Following on from the overall philosophy, the approach to re-structuring Paris began to be implemented: West - East, North - South.

Paul Delouvrier was appointed Delegate General for the Paris Region, and between them he and de Gaulle defined the new strategic vision for Paris and the surrounding suburbs. Urban growth was to be accepted and planned for by creating five new suburban 'villes nouvelles'.



Metro map

To go alongside this a high speed commuter train network under RATP was planned in 1950s and an inter-ministerial committee decided to go ahead with the construction of an east-west line in 1960 - the RER (Réseau Express Régional) linking the 'Metropole' with and through the centre of Paris. The publication of this ambitious network was announced five years later, meanwhile construction had started in 1961.

The east-west RER Line A from Vincennes (E) to Saint-Germain (W) via La Défense was completed in 1977 as was the southern section of Line B, the north - south line from Orly to Roissy Airport. Roissy Airport was constructed from 1966 to 1974 and the line completed during the 1980s. RFR TGV and RER station were completed between 1988 and 1995. There are now 5 RER lines connecting the 5 'villes nouvelles' with over 250 stations, and 33 of them inside Paris. (Compare this with London and Crossrail 1!)

This allowed functions related to servicing Paris and the nation to be moved away from the inner city to a series of decentralised poles on the edge of built-up Paris with close access to the suburbs.

The first to benefit was the fast growth of La Défense as a business district (and identified with Spreckleson's l'Arche - on which RFR worked). Major government offices and ministries were moved to the east, while Bercy Sports Centre and the new National Library followed. Higher education and research institutes were moved and developed to the south.

The conversation with Paul Delouvrier in 1981 took place with his knowledge that La Villette was an integral part of the evolution of Paris which had begun with the philosophical investigation he had led into the future of Paris. So, more than a 25 years later, the logic of the role of La Villette became evident: the Parc de La Villette - with science, and the emerging music, performing arts venues and the park - providing a jewel along the RER Line B and contributing to the urban and social enhancement of this poor area of Paris with its high percentage of residents from N. Africa.

Notes:

Paul Andreu of Aéroports de Paris (ADP) took over responsibility for completing the l'Arche at La Défense after Spreckleson died in 1987. Andreu brought in RFR to design the 'Cloud' and subsequently RFR were commissioned by ADP to design Terminal 2f, and other structures. RFR became involved in nearly all of President Mitterrand's 'Grands Projets' between 1981 -90.

ARCHITECTS DE-CENTRED

The intellectual, design and technical territory of the architect has been slowly eroded. There is no doubt that architects themselves, and the way we are now educated, have contributed to this.

In current architectural teaching the stress is placed upon knowledge and theory - the periphery, while emotion, the heart of architecture - its centre — is constrained, considered immature when expressed strongly, and unsupported by either knowledge or theory or both.

Moreover the architect's full range of skills - which used to be taken for granted - has become diluted through specialisation and management. Few architects now design with a deep knowledge of structure, materials, environmental physics, cost of systems and construction, acoustics and lighting, combined with a really good understanding of politics, law, economics, social structures, urbanism, planning, construction and manufacturing industry.

Without these skills, an architect is not in a position to advise Municipal Authorities on healthy urban infrastructure or to administer and control the process of delivering the building he has designed. That has been taken over by management.

The result has been the subjugation of design to process and the separation of the two, with the power of management increasing at the expense of architecture.

As the management group grows, conformity and ownerless decisions inevitably become its allies. The growth of a risk-averse culture, of chains of responsibility so long that nobody knows who is accountable, have led to the marginalisation of genuine experimentation, research and innovation. It has also led to the marginalisation of architecture in its broadest and most social sense - its ethical stance - because the values of architects and managers are different.

Grenfell Tower

I think that most designers believe that they are essentially doing good. I think that the idea doesn't enter most managers' heads. The Grenfell disaster is a case in point.

SHIFT

The fundamental tragedy is that design - as is everything else - in our present society remains judged, both qualitatively and quantitatively by the question: does it attract the consumer?

Can we, as architects and engineers, initiate a change in this aspect of our collective culture?

The late American architect Philip Johnson - one of the most influential figures in 20th-century architecture - once said, "Whoever commissions buildings buys me. I'm for sale. I'm a whore." The statement raised hackles in the architectural profession, as arrows into the centre of a guilty conscience often do. Important social and political issues relating to planning, design and architecture often slip through the cognitive dissonance required to reconcile ethical issues and the actions of those paying the architect's fees. Very few architects take an ethical stand, or

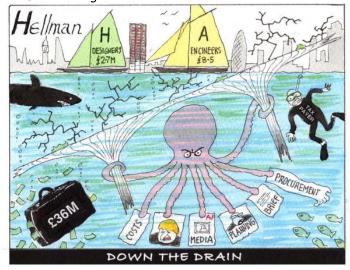
refuse to plan projects that perpetuate social inequality - and not everyone can afford to be righteous, especially financially.

But some can, and do. I remain hopeful that we can help make a change by going back to the fundamentals and, most important, standing firm on ethical issues and making our concerns public when we see unethical behaviour within our professions.





The Garden Bridge



SHIFT IN PERCEPTION

There is no incentive for the market to solve society's problems, especially if the solutions hurt the market in the short term by persuading us to buy less, not more.

The greatest financial rewards are still to be gained from not caring for others or our environment, and measuring progress and success by GDP is still totally embedded in our society's idea of civilisation, despite our laments about the state of our biosphere and the widening economic gap between the wealthy and the poor.

Decisions about what kind of cities and societies we want to live in, and how we are to relate to the natural world, are ones we have to make together. For those of us living in economically powerful post-industrial societies, it is about a fundamental change in the way we think, behave towards each other, design and make things.

It is less a matter of curtailing people's freedom than about gaining our freedom from the overriding influence of a consumer culture that appears to be making us and our environment very ill indeed.

Only recently has there been significant doubt as to the direction in which the developed world has been 'progressing'. Optimism about the progress of humanity has given way to an understanding - despair in some - about our limitations and the imperatives of our technologically based and driven, competitive socio-economic system.

Doubt is becoming alarm, as we learn centralised systems are unable to maintain order and coherence in societies linked by easy international travel and worldwide information networks subject to distortion by powers with hidden agendas. We are beginning to realise that 'progress' is not only a movement but also a direction, and that the direction we're taking has put us in peril. What we've thrown out in our rush to progress, we are now beginning to let back in.

We are beginning to ask ourselves different questions: From where we derive our meaning? Where do we place our meaning?

When we begin to recognise unbridled lust for wealth and power for what it is: a pathology which needs to be curbed, by legislation if necessary, like any of the other addictions we recognise as damaging, we will be on our way toward a solution to what plagues our cities and societies.

With luck, the compass will swing from 'due profit' to 'due cooperation' - toward a new paradigm predicated on the notion of sharing - a collective identity and empathy with our fellow beings and with our environment.

We have the ability to create competitive new industries and products that pose no health risk, which positively serve us and our entire biosphere - and are profitable. We have the ability to recreate social and economic structures that benefit us all without enriching only a few. Sometimes a small shift can have a great effect.



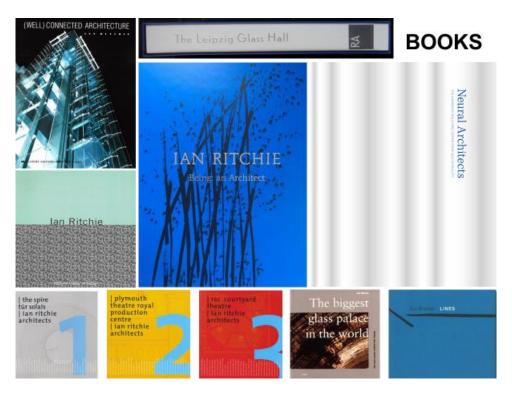


The bridges built by Toni Rüttimann are simple but life-changing

We see the fundamental altruism of humans every time there is a disaster, when the collaboration and cooperation that is part of our instinct for survival take precedence over the values imposed upon us by a competitive socioeconomic system. We sense that being in touch with the natural

world is crucial to our inner selves every time we take a walk through the woods, along a beach, in the mountains.

When you feel the pain of another, you behave differently.



END