

02: Mastering architecture and creative innovation

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This paper describes twenty years of my work on “Mastering Architecture”. At this stage, I can look back over a series of interactions with about sixty practices that have engaged in what is called research training in Australia, and who have made their practices the basis of research in the medium of design at both Masters and, increasingly, at PhD level.

I am going to give an insight into why I became interested in working with architectural practices in this way, and I am also going to look through those practices at several instances of what people have discovered by examining at their own work. In this way, I will introduce you to some of the fairly general principles that all of them have discovered they share, even though their research questions and their interests are fundamentally different – and very often in conflict. An early question put to me by some of these architects was: “How can you like my architecture if you are talking to those architects?” and I think I am going to be able to explain to you how I can like a lot of different architecture.

It all starts, or comes to a culminating point, in 1970, when I made this diagram at the Architectural Association (illustration 1).

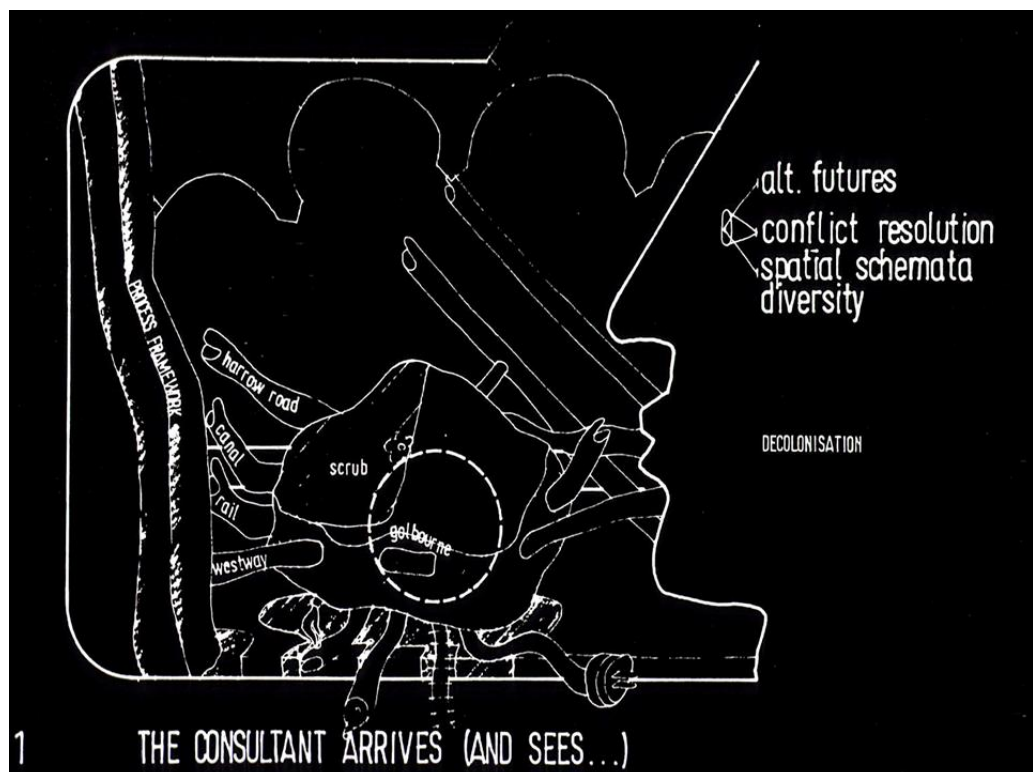


Illustration 1: *The consultant arrives*

I was under the tutorship of Peter Cook and Colin Fournier, and this ideogram captures my rather sudden realisation that there was no way in which I was an abstract entity, an “architect,” who was looking in an objective way at a site when observing it, but in fact I was an observer observing myself observing a site. This was my moment of “second order” or meta-modernity if you like. If you take the profile in the

ideogram to be a representation of mine and then look to what clusters around the eye, you will see I started to try and map the ideas that we were preoccupied with at the time – ideas through which we were actually looking at sites. It occurred to me that it was our responsibility to begin to do both of these things: accurately record what we were looking at, but also accurately record what we were looking through. Part of that came to me because I had a childhood in a dramatic landscape, and up until about the age of about 14 when my parents, who were political radicals, got booted out of South Africa, this is where all our summers and Easters and winters were spent. I have to say that the impact of this landscape on my eidetic memory was profound, but I always thought that there was a city lurking in there somewhere.

How we build our own mental space, and every one of us does this, is a fascination of mine. One of the things about architecture which is less celebrated than it should be is that it builds on the capability in every human being which is known as spatial intelligence, a capability which has evolved over millennia and which unfolds in particular places and creates particular mental spaces which we also carry around with us and through which we see the world. I first discovered the truth of that when coming to England and discovering that, although I had thought I had been brought up in England, in the far south, in fact it was rather a different country that I was now inhabiting, and all sorts of things that were hard-wired inside me could no longer be relied upon.

Sometimes people have argued with me that this is a very personal thing, but I later discovered that every family in a self-help housing scheme had designed their own mental space into the houses that they built, and looking back over a thousand such designs I could find no two that were the same. Of course, I have to acknowledge that these mental spaces can lead us into terrible traps, and one of those we inhabit is the kind of eco-catastrophes that faces Australia today. When early settlers arrived there they looked at the discontinuous channels of the rivers and could not believe that they were “rivers” in the European sense. They did not look like what rivers were supposed to look like, and with the help of a lot of dynamite and a bit of engineering colonists began to turn these braids of ox-bow lakes and ponds into something that resembled a European river, making them navigable. As a consequence we have a river system which cannot cope with the extremes of flood and drought that it evolved to accommodate, and the river systems of the continent are in dramatic decline. So there are dangers in being unaware of one’s mental space.

I have spent a lot of time trying to understand, therefore, how each of us builds up our mental space and views the world through that. I was very much attracted to the vision of the new world that Richard Hamilton was promulgating and after cycling around Europe I headed north to Newcastle and embroiled myself in what might be described as the emergence of an exciting new world in which the difference between low and high culture was blurred. I was also then attracted to the Architectural Association and to Archigram’s hidden political agenda – an assertion that all the good things of the world should be accessible to everyone.

With those things rattling around inside my make-up, after some adventures which it is not appropriate to talk about today, I ended up in Melbourne in 1986-7. I discovered myself to be in a city with a very distinguished architectural history but one in which, architecturally, the local culture was in the doldrums. There were no works by local architects being commissioned in the centre of the city; however there were interesting, little, speculative and experimental pieces of work going along in the boundaries of a city which at that time covered 6500 km². To see a good building

then you had to get in the car and drive for three hours, and then drive for another three hours and then another and then, having seen three buildings, return exhausted to somewhere near the centre.

I also discovered that the local profession was in thrall to a wave of the “cultural cringe” and would willingly pay a lot of money to go and sit in a hall in their thousands and listen to, for example, Richard Rogers giving a lecture that was so old that the slides had turned magenta; not ask any questions of him at all but walk out enthused. I discovered that as the new Head of Architecture I was expected to fund this so-called “International Series”, but after observing the series at work, I said no. I asked the local architects, “Have any of you ever been asked to go anywhere else and give a lecture about your work?” and they said, rather shamefacedly, that they had not. I said,

“I wonder why that is; maybe it is that you have not actually examined what you are doing well enough to be able to talk about it. Maybe what we should do is begin to set up a research programme where you, who admire each other’s work because you take me to see it – it takes a day to see three pieces, but we all go and look at it and we can see that it is interesting – let us get several of you together and begin to look at the work you have done and really surface the evidence about what you have mastered, how you have mastered it and what drives that mastery.”

I had two things to do. I had to convince the university that this was a programme that could operate within a higher degrees framework, and that took a couple of years, and it also took me about two years of talking to architects in this way to get them to begin to think well, maybe there is something in this. I said,

“Right, you owe it to your profession. This is a city which has had – and it last peaked in the Sixties – a very distinguished architectural history. It’s your turn to provide the evidence about what you have mastered.”

Finally, twelve intrepid architects signed on and started to work. Some of them were very nervous; some of them believed that if they actually looked carefully at what they did all of the magic that they invested in it would disappear and that they would not any longer be able to do what they did. Nonetheless, we began to do the research. I worked out that the only way we could do this was not through a dialogue simply between each of them and me, but that we would meet. I thought initially three times a year, but it soon boiled down to once every six months, and everyone would show what they had done to everybody else. We would do this in open forum and we would fly in a critic from outside, one from overseas, and someone from interstate, and we would all go through the work together. In the early stages, I asked them to simply map everything they had already done, and that was quite a surprise to all of them. The most recent example of that surprise was when a firm called Iredale Pedersen Hook started to examine their body of work saying “We have done about one hundred projects”. I went to visit them in their office in Perth (WA) and they closed the laneway outside the office in the evening and brought all the models they had ever made out into the laneway. There were 350 projects that they had worked on, so even just discovering the size of what they had done was a breakthrough.

Those first architects (and all the subsequent ones too) have mapped their work in all sorts of different ways. I started by asking people to map it in terms of what had succeeded, what had not succeeded, how it related to the work of their peers, mentors and challengers how it related to the work of people who they admired, people who they detested. I asked them how they positioned their work, what drove it. After a

period of investigation they would come together and present their findings as I have described above.

After two presentations of looking back on their existing bodies of work, I asked them to say: “Okay, we have looked back, now let us just look at what is going on in the office for the next two six-month periods, through the lens of what we have discovered by looking at our past practice.” And for two or more further sessions they came and they presented these findings at what we now call the Graduate Research Conferences, to each other. There was a ferment of debate and interest, cross-questioning and challenging that went on about this, and the much of this was documented and fed back to them in reports. When they had reached a certain plateau in that investigation I would say:

“Okay, now we will conclude this research by looking back over everything you have done so far in the first two phases and you will speculate about where you are going to take your future practice. We are going to demonstrate that thinking through the design of an exhibition, which is not simply pinning up work on the wall but a speculative construction about what you want your future practice to be about. That exhibition will have a certain size, you will also design a catalogue of twenty-four to forty-eight pages and you can do this together (if you are design partners) or you can do it separately.”

And they did this and it was presented in public forum to a panel of their peers for a finishing assessment of their research into the nature of their mastery, past, present and future.

That little bubble has grown into the largest collection of research on design in Australia and it covers many fields, including Fashion, Interior and Industrial Design, Landscape Architecture and Communications, and it is a process of investigating practice which has become enormously attractive.

After a period of time of doing this research with architects from all around Australasia, South-East Asia and a sprinkling from Europe, about fifty of them at that stage, I summarised what we had learnt in the book *Mastering Architecture*,ⁱ capturing certain commonalities that came out through the stories that people were telling. One theme was about the individual in mastery: the shared “natural history” of the creative practitioner. I could show how consistently that included a sense of being on the margins; how many emerged from a provincial situation to engage in a period of obsessive involvement in their chosen terrain, how they developed in this an abiding interest and then became isolated by a sense of breakthrough. And then there was this business of craving recognition but maintaining marginality. So many people, seeing this stuff written down, got a sense of recognition, and said, “My goodness, do other people feel like this? I thought I was the only one who was like this, I thought I was peculiar.” Howard Raggatt, for example, who is now a very well established practitioner in Australia, thought he was the only person on the edge, he thought he was on the edge of the edge, being at the bottom end of Australia. He thought that all the information that came to him was distorted by its transmission through corrupt communication channels and then he started turning that idea into an excuse for creating an architecture in which in one instance the Vanna Venturi House manifests via a faulty fax machine as a much-stretched clinic.

Then the participants started to understand better how nobody operates alone, everybody operates in a public order, even though creative people try to maintain their marginality. Everybody is enchained into small groups of people we admire, people

we are trying to argue with, people who are our mentors, our peers, people who are challengers. We all sit in a field of information and personalities and the field clusters (in good times) into about three different groups. There is a lot of research in different fields about this, as the book describes. These groups are not simply divided by technical issues, they are divided by substantive argument, they hold very different ideas about what architecture might be about, what you should put first in architecture; and in that lay the ability that I had to be able to admire what everyone I was (and am) working with was (and is) doing. They are all ambitious for Architecture in their own ways, they thrive on competition; they are motivated by idea, not by gain.

I put a little exhibition together after fifteen years in which fifteen of the first practices that went through, the Melbourne practices, came together under the somewhat jokey title of “Melbourne Masters Architecture”, and that was the first time we got nearly all of those people in the same photograph; it is an historical document. What the exhibition revealed was the emergent tri-polarity in the discourse in the local architectural culture (illustration 2).



Illustration 2: Melbourne Masters Architecture

In understanding the role of our peers in our work, we got to think about the ritualised social activities that architecture is filled with - many of which have an ancient history. If you look at the competition for San Salute in Venice, it had exactly the same issues and problems of current day competitions, as Andrew Hopkins has shown. Enchainments go back through history and we need to know that. We also have all sorts of things that we do that we are not aware of – just as mathematicians cannot think without chalk in their fingers, so it appears quite often that we cannot think without a model in our hands. If you watch architects on one side of the table trying to talk to a bunch of scientists on the other who are referring to graphs, the architects are always referring to their models.

We also looked at the things that thwart mastery, and you can disagree with me on what these are, but the principles are common throughout: technical over-refinement; overshadowing by dominating figures; forgetting cultural capital – which is more usually destroying it or hiding it, confusing the knowledge base; not really understanding what the fundamental basis of what we do for society is; failing to elevate to metropolitan discourse, which is lapsing into a tribal special pleading.

The whole aim of the process as I see it now is that we all end up being self-curators and are not simply at the mercy of the weather of practice. By actually understanding the individual behaviours, we can better support the public behaviours and enable what we want to do. We move away from the notion of the architect as the abstract entity “architect” and move much more into architects as research question-driven practitioners.

It is not only the direct participants who benefit. Observers and invited panel members pick up much from being associated with the programme. Martine de Maesenaar from Brussels added to our understanding by revealing her fascination with the way English, French and Flemish slip past each other in the spoken and read part of her culture and how she tries to get that same kind of slipperiness into her architecture. Regular panellist Kevin Alter shows work that is trying to move a Harvard/Bennington modernism into the sub-tropical situation of Austin Texas. There are similar kinds of investigations going on in Brisbane where Donovan Hill have worked to find a contemporary way of re-creating the under-croft comfort of the early stilt houses and also imbue them with the ideas of cultural richness derived in part from their admiration for Schinkel.

These are just brief moments. There is so much that could be told. Leigh Woolley was doing derivatives of Sea Ranches until he began to connect his understanding of the urban morphology of Hobart to his architecture and began to strike out with a very different approach (illustrations 3 & 4).

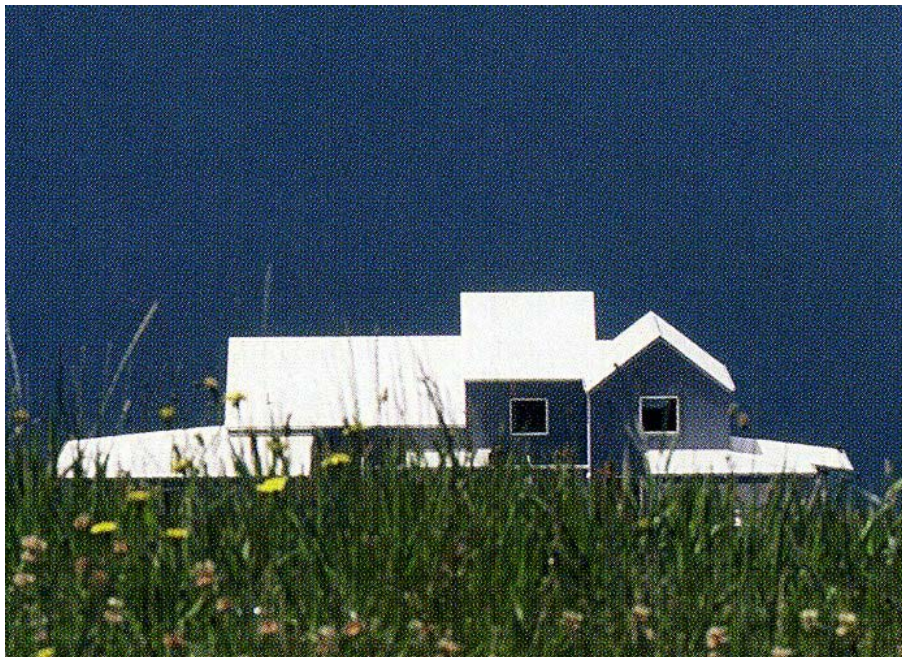


Illustration 3: Leigh Woolley



Illustration 4: Leigh Woolley

In Kuala Lumpur, Frank Ling and his partner Pilar Gonzales Herreiz started doing houses which do not need air conditioning and which are based on Frank's childhood understanding of the stilt houses of the kampongs. These unashamedly contemporary interpretations sit in suburbs which are full of houses which were designed as if they were in Boston (illustration 5).

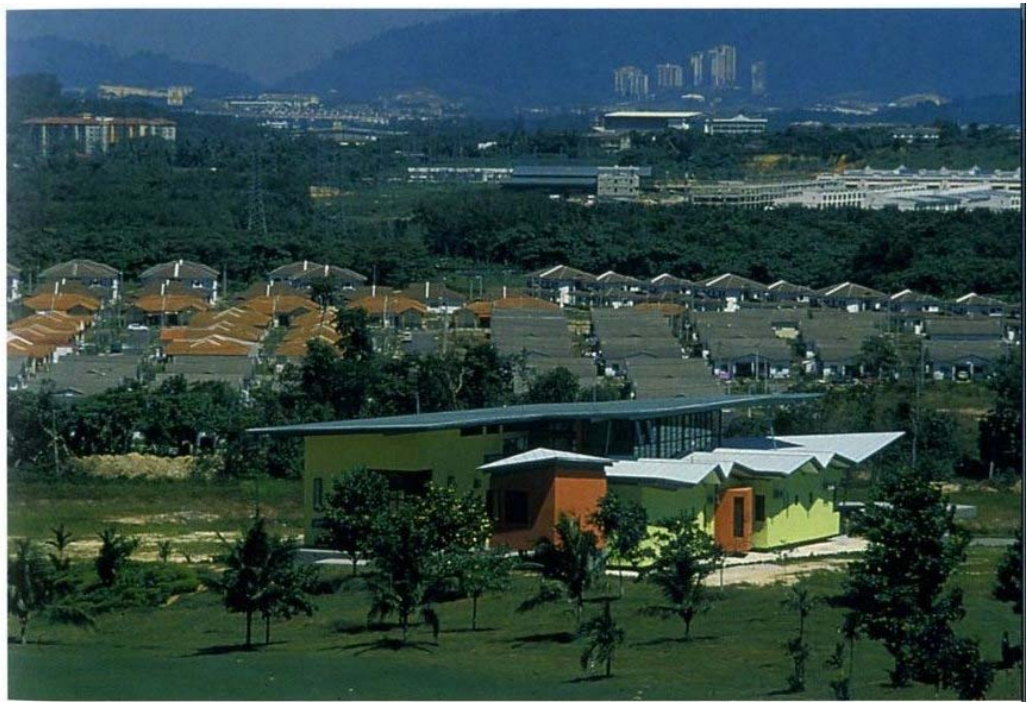


Illustration 5: housing in Kuala Lumpur

Michael Sorkin was a crucial player in the early stage of the programme, coming as a panellist. His work on “local codes” fits very naturally into what we are trying to do. I could go on. And there is a wonderful house for an artist by Jane Wetherall and Geoff Warne demonstrating their fascination with that laconic, laid-back vernacular of Australian vernacular construction.

In the book, I describe how it has become increasingly apparent to me that mastery is something which is very much recognised locally but can get lost when looked at from overseas. In the early days in Singapore, for example, William Lim and others, as has been acknowledged by Rem Koolhaas, had the opportunity to build much of what people had been drawing. However, when that nation state decided to go “international”, it pulled the rug out from underneath the local culture of architecture and the next major building of any size and consequence that William did was just before retiring a few years ago, as a consequence of that state’s failure to support a local culture of architecture. Also in Singapore, the work of Look Boon Gee – which in our process horrified Ignasi de Solà Morales as “a pornography of modernism” – came to be understood as a necessary response to the diasporic situation of Singapore. In this, you have to show your clients that you know everything that is going on, you cannot rely – as you might in Barcelona – on shifting a window by millimetres to shock people who are aware of a tradition over a long period of time. So the investigations get very specific to the mental space in which the work is carried out.

On the other hand, we have looked a lot at the way in which people work by linking different contexts. Here sometimes being conscious of mentorship is really crucial, you start getting people to fully understand who their hidden mentors are: how Aalto infects the work of architects Edmond & Corrigan even though this was not particularly remarked at the time; how Ken Yeang’s awareness of Le Corbusier’s book on aeroplanes seems to have infected the look of his work ever since. Many people, in the process of uncovering their enchainments, find mentors whom they really want to admire and they generate a new architecture out of that. Sean Godsell studied the work of Zumthor and is now winning awards all over the place. Michael Trudgeon constantly comes back to Archigram for inspiration.

Consciously using ritual behaviours to redesign the way their office works is what Donovan Hill did in Brisbane, working out how to make their colleagues aware of their mode of mastery without turning it into a sterile formula. Kerstin Thompson on the other hand pursued her fascination with the thin skin of Australia, looking for architecture where the contours peel up into architectonic form, and idea drawn in the speculative phase of her masters and realised in the Black Swan House (illustration 6). Allan Powell on the other hand found in the peer review process the courage to admit to his fascination with the poetics of decay in the seaside suburb of his youth, and the language to formulate a position in which those poetics are at the forefront of an approach to architecture.



Illustration 6: Black Swan House

As I describe in the book *Design City Melbourne*,ⁱⁱ I have looked at many ways of encouraging local cultures of architecture in the places where I work. Ways of curating cultural capital, ways of procuring of innovative architecture, and ways of integrating practice and research. At the fore today, however, is research in the medium of design practice itself. Bringing all of this together, I realised that what we were validating was the fact that in the local culture in Melbourne it was not until there were three positions about architecture being strongly argued for that the whole thing started to take off, and today if you go to Melbourne you can walk up and down the central street of the city and find many amazing buildings by these architects reachable from that civic spine. This reflects a complete transformation of the commissioning culture in the city as a consequence of these architects becoming able to look at what they do, articulate what they do, describe it, and find new clients who are attracted by their research questions. All of them say that as a consequence of this process they have a very much more targeted and directed practice and they are actually working with people who understand what they are doing and want what they do. A lot of this is to do with my belief that we have to build from the local cultures of cities up, and I am fascinated by a comment that Sean Griffiths made when thinking about this when it was put to him for the first time last year. He wondered how this could be the case in a city as big as London, and then later he said “I know we did not do our early work in London, but it is because we have built a local culture of architecture in London that we do get work somewhere else.”

In Melbourne, we are beginning to learn the processes of curating the city itself. It is a fascinating city and there are all sorts of interesting things about it that I could tell you – 40% of the people with higher degrees in Australia live in the inner suburbs, it is a very educated city, and it is a city which for a long time has had a fascination with architecture. The civic spine runs from the Shrine of Remembrance up to the cemetery, through the core of the city, past the imperial domain, the city government, the commercial heart and all the universities. It is on the civic spine that the culture validates intellectual change and Melbourne's experimental work from around the edge gets finally built there.

Geoffrey London has seen this at work and explains that our process transforms the way architects talk about their work, making them better able to present it, and influences the way in which clients commission architects. These works first began to appear along the civic spine; commissioned by universities, then endorsed by banks. The biggest developer in the city is now working with architects who have been through these processes in order to deliver “remarkable architecture” on major sites in which the experiments of these architects are exposed to the public and become part of the culture of the city. I was able to contribute to this early on by getting hold of the commissioning process of my own university which started this all off, and we have quite a history in that regard. We have not just been involved in one of the most significant buildings in Australia of the late 20th century, Storey Hall (illustration 7). We have helped achieve possibly the first built use of the new mathematics. Whether that is the case or not, it is a delightful building and it is part of a tradition which goes back and forth along the civic spine in time and space, it is not just something that came out of the blue.



Illustration 7: Storey Hall

Way back in 1924, Burley Griffin and Mahoney did the Capitol Theatre with an interior based on their vision of the atomic structure of the universe, and Storey Hall flows from that. The fractals of Federation Square also flow through a culture which

has established that particular path. Counter to this sits the Platonic Geometries tradition in the city, with a string of fine domed buildings along the spine. So there are all of these stories, getting people to be aware of them and to build on them, getting the public aware of them, all of this is a part of the process that we have been through.

A major part of what we have been able to do is to get architects and clients to understand the cultural capital of their city and their role in growing that capital. Economic sustainability is important, too. Some of these architects have produced the first “Six Star” green building in Australia at Swan Bay south of Melbourne. Five Star is international best practice; Six Star is breaking through into new practice. These are the things we are trying to do, make sure that architects do not beat up on each other in a belief that there is one true path in architecture or that there are two. There is no spurious duality but we have a tri-polarity of intellectual discourse in architecture which immediately means people are not threatened, but start looking at what each other is doing and learning from each other.

ⁱ Leon van Schaik, *Mastering architecture*, Chichester, Wiley, 2005

ⁱⁱ Leon van Schaik, *Design city Melbourne*, Chichester, Wiley, 2006