A Chair with Wings - Design and Innovation in South Africa



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"Trust your creativity. Go into the fourth room and wait".

This article is both a response to, and a musing on a previous article in Focus in November 2010, by Malegapuru William Makgoba (Vice Chancellor and Principal of the University of KwaZulu-Natal, South Africa), entitled "Living the true meaning of the National System of Innovation (NSI): S.A.'s challenge in Science and Technology Innovation."

The article reflects on why we South Africans have not become a nation of innovators but "a nation of copy cats rather than original thinkers..."

The author goes a long way in his article in identifying the malaise. Where then are the solutions? These musings are an attempt to push the ideas along a bit, explore some of the reasons we are such "a nation of copy cats" and to present some approaches that could be considered for changing our bad old ways.

I first encountered the chair with wings at a South African Trade and Industry stand in Johannesburg. The next time I saw it was in Cape Town. It had just been voted, at this year's Design Indaba, the most beautiful object on the show. It was an old chair but with the addition of wings, somehow incorporating into their shape, the shape of the African continent and by adding much further glorious and exuberant embellishment, it was a work of art . The competition was fierce but I agreed, it was the most beautiful object.

Accompanying the chair was a book documenting the many places it had travelled to, and the many people, both great and humble, who had sat on it. Desmond Tutu, a sports hero, a township mama to name a few. A seat with wings of imagination for all.

What if we could have a Chair with Wings, affiliated to some of our educational institutions? What would such a faculty look like? What would it do? Who would "chair" it? How would it interact with the Chair of Engineering or the Chair of Creative Writing? I discovered in the course of writing this article that I was not the first to think of these ideas.

A tale of two houses What is Design?

"In one sense every single thing that has been made by man or by woman, has been designed. This is a fundamental truth, but it is one that many people find difficult to grasp, perhaps because it is so obvious¹.

One of the greatest barriers to any discussion about design and innovation is that design, as a concept, and its inseparable relationship to innovation, is so elusive and hard to grasp.

Possibly my favourite definition of design is that "design is the twinkle in God's eye". It suggests our ability to be Great Designers too, to shape ourselves and our environment, to be co-creators of our destiny in a conscious way. It also hints at the sense of playfulness so essential to the creative process.

However for the purposes of this article I will define design as the ability to innovate, and as the application of ideas to life. I would like to add one further thought to this that it is the nature of the design discipline to bridge both the arts and the sciences. It is a cross cutting and interdisciplinary activity.

My starting point therefore is that:

- Design is the ability to innovate; and
- Design bridges both the arts and the sciences.

South African policy makers have always had a problem with these two simple premises, and the consequence of this has been our peculiar failure to understand design and innovation in a contemporary way, or to develop a design and innovation culture.

Why should we design?

"It won't take very long for Eastern design to catch up and surpass the West they won't be copying for long! The art schools in the UK are stuffed full of Korean, Chinese and Malaysian designers"².

Design or die might well become a maxim for new successful nations. Design is essentially a tool to problem solving and South Africa has many problems that would benefit from design thinking. Housing, transport systems, toothbrushes, all benefit from design thinking approaches to problem solving. Increasingly design is building economies such as Korea, or contributing significantly to GDP, as in the UK.

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If, for instance, designers had been brought into the teams with engineers to work with South African RDP housing we would not be seeing the repetitive solutions to low cost housing that are currently being delivered to the poor in what can only become a downward cycle of poverty though impoverished thinking. Designers would have questioned, at the very least, the rigid placement of the houses dead centre on each site, whereas even small imaginative variations in placing would have allowed for house extensions, food gardens, communal public spaces, and so on, allowing the occupants of these housed to lead a more humane and flexible existence. These mistakes are expensive and create many further social, psychological and economic problems. This is one extremely simple example but illustrates the point of design. We cannot afford not to design.

Why is South Africa not a Design culture?

Concluding his article for *Focus*, Malegapuru Makgoba went on to say: "South Africa has a great opportunity to deploy science and technology to live to the true meaning of the NSI and make a great contribution to the exciting opportunity beckoning globally. However, we need to get our house in order first".

A house with four rooms

February 2011. I am back at the same Design Indaba that voted the chair with wings as the most beautiful object in the exhibition space. A large lecture theatre is packed with well over a thousand students. They are sitting on the steps, standing at the back, absorbed and eager, and they represent the rainbow nation in a strikingly integrated way.

It is actually their tea break time, but they have chosen to stay in their seats because one of the key note speakers from the UK, Michael Wolff, has come downstairs from the main event being held upstairs for the luminaries of SA design, to speak to them directly. They have until now been watching a simulcast of him. He is one of an astonishing range of leading world design thinkers that Ravi Naidoo puts together annually for this world class event at the Cape Town Convention Centre.

These students think with their feet. Last year when Martha Stuart, doyen and darling of American home and interior design, gave her presentation, to my fascination most of the students got up and walked out. It was not a mass protest or anything organised. They were just bored with the values of excessive greed and superficial consumerism, bored with a presentation that was not underpinned by the sense that design is a tool that can be used to make a better world

A few lines from the synopsis of his CV reveal that the UK takes design seriously. He has recently been appointed as the UK Government's Inclusive Design Champion (they have design champions?) and is a member of the government sponsored Design and Technology Alliance Against Crime!

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designers think for themselves. Unlike many of our politicians they are not seduced by superficial consumerism and have a serious and purposeful sense of what design should be doing.

They were paying close attention to our speaker. He talks about innovation. Like Makgoba he suggests that the first step to understanding the innovation process is to get our house in order. He describes the house as having four rooms.

The first room he calls The Room of Great Works. It is an important room but in this room there is the danger of imitation.

The second room is called The Room of Reason. This is also an important room but the danger here is the danger of mediocracy because in The Room of Reason you are probably going to ask the same questions as everybody else.

The third room is The Room of Precedent. "I did this before and it worked." Every bank and gas station and most modern cars are designed on this principle. Its danger, however, to innovation, is repetition.

Finally the fourth room is called The Room of Not Knowing. This is the only room you can create in. This is the only room where innovation will happen. It is the place where you find the power to imagine. His advice to the students was "Trust your creativity. Go into the fourth room and wait".

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The Art/Science Debate

Regrettably it is The Room of Not Knowing that is most neglected in everything we do to approach innovation in South Africa. We know we have an innovation problem. We throw a great deal of money at it. We do a great deal of talking about it. We are continually walking around the house, sensing there is something missing, but we have forgotten what it is.

What is missing is The Room of Not Knowing.

From The Room of Great Works and The Room of Precedent we have, as Makgoba says become a

"nation of copycats". From The Room of Reason we have acquired great faith in the sciences.

Science at the expense of Art

In our efforts to solve the innovation crisis we have made a rather fundamental conceptual error. We elevated science and technology at the expense of the humanities. Of course it goes without saying that this outcome was predetermined, as if you have a team of experts on science and technology they are bound to recommend outcomes that favour science and technology.

What used to be called the Department of Arts Culture Science and Technology has became two separate departments: The Department of Science and Technology and the Department of Arts and Culture. Predictably science and technology are now given a great deal of funding. Arts and Culture (with the exception of sport) is given virtually nothing.

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This is not an argument to take science less seriously but it is an argument to take both art and science seriously. For in the world of innovation, art and science, not the South African substitute of science and technology, must work together.

Another house with many rooms

What happens in the Room of Not Knowing needs some examining, but before I do so, I want to make a small detour to another house.

This house belongs to the Department of Public Works. Shortly after the Design Indaba took place a tender was put into the public domain. "PRESIDENTIAL SHOPPING LIST FOR STATE(LY) HOME" was the headline on the front page of the *Cape Times* on the 8th of March 2011. A list was issued for Bryntirion Estate in Pretoria, which we are told, houses the official residences of the President, his ministers and the state guest house. The list included 48 "Persian carpets, executive style artworks and household items for a "VIP residence" of "presidential standard". The budget was 60 million rands.

At more or less the same time, the budget speech in Parliament emphasised the need for job creation and the government's renewed commitment to it. It also emphasised the need to encourage a culture of innovation linked to entrepreneurship as an approach to creating jobs.

There is something wrong here.

There is a missed opportunity, and the values that informed the tender will repeat this missed opportunity again and again.

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Visitors to the VIP guest house or banqueting with the President himself might, if they are South African, want to be surrounded by things proudly South African. If they are foreign dignitaries we might want to impress them with a sense of what we as South African can do, and who we are. Forty eight finely woven carpets would keep a South African weaving studio with many hands busy until the next budget speech. It is a missed job creation opportunity. It is a missed opportunity to express cultural confidence in our own ability to make fine things. There is an absurd sense of snobbishness about 48 Persian carpets, underpinned by insecurity.

Will the cut glass crystal be locally procured or will it be from Italy?

What are we to make of "executive style artworks". Is this a description of very expensive wall paper, made to measure? Does this acknowledge the many very fine artists we have? The Constitutional Court with its arts and crafts collection bears testimony to what can be achieved with some informed patronage of the arts. Such patronage keeps good artists making good art.

The students at the Design Indaba who walked out of Martha Stuart would not be fooled by the poor taste and poor values of the Presidential brief. That is a very heartening thought.

What is disheartening, in this instance, is that Government rhetoric is not backed up by any coherent policy or delivery that will result in encouraging SA innovation and job creation.

Lack of real commitment to job creation may be one of the problems. Not understanding properly how to catalyze innovation is another.

How does design an innovation happen?

"Trust your creativity. Go into the fourth room and wait".

Taking a look in the Room of Not Knowing provides some useful insight, that if understood, could lead to better innovation strategies.

Michael Wolff suggests there are three conditions necessary for entering the Room of Not Knowing curiosity, appreciation and imagination.

The suburb of Sea Point on the Atlantic seaboard in Cape Town is seeing something of an urban renewal process. Famously known as a spot that pimps and prostitutes strutted, there is now a different set of characters walking the strip between the land and the sea. They articulate the space in a surprising way that is both lighthearted and profound.

Daniel H. Pink in A Whole New Mind. Why Right-Brainers will rule the

Future argues that we are no longer in the Information Age, we are now in the Conceptual Age and with this comes a new set of sensibilities, if we are to prosper. He says "Anyone can master the six Conceptual Age senses. But those who master them first will have a huge advantage." These characters are a series of about a dozen sculpture installations of a life size young girl in a red and white stripped bathing suit and her interaction with a dragonfly. The installation is entitled *Walking the Road*. It is both a captivating art installation and a successful design intervention to a public space giving it new energy and charm. Good for the locals, good for the tourists. As you walk between one installation and the next, a little story unfolds. It is the charming story of dreaming and seeing, curiosity and empathy, connection and appreciation, imagination and play.

As it turns out these are the qualities we are after, and so beneath this little story is another story. It is the story of the innovation process and how it happens.

Daniel H. Pink in *A Whole New Mind. Why Right-Brainers will rule the Future*³ argues that we are no longer in the Information Age, we are now in the Conceptual Age and with this comes a new set of sensibilities, if we are to prosper. He says "Anyone can master the six Conceptual Age senses. But those who master them first will have a huge advantage."

First among these six senses is design:

 Sense of Design. Not just function but also design. "It is no longer sufficient to create a product, a service, an experience, or a lifestyle that is merely functional. Today it's economically crucial and personally rewarding to create something that is also beautiful, whimsical, or emotionally engaging." Separate but also integral to successful innovation and design are the other senses.

- Sense of Story. By this he means the ability not just to create an argument but also a compelling story.
- Sense of Symphony. Not just focus but also symphony. i.e. Synthesis rather than
 analysis "seeing the big picture, crossing boundaries, and being able to combine
 disparate pieces into an arresting new whole"
- Sense of Empathy. Not just logic but also empathy i.e. what computers can't do is what designers must be good at doing.
- Sense of Play. Not just seriousness but also play. Play apart from being fun it is also good for innovation.
- Sense of Meaning. Not just accumulation but also meaning

These 6 sensibilities, are akin to Michael Wolff's three conditions necessary for entering the Room of Not Knowing curiosity, appreciation and imagination and D. H Pink predicts they will increasingly guide our lives and give shape to our world.

"to some of you this vision might seem dreadful a hostile takeover ... fear not... our cave ancestors weren't taking SAT's or plugging numbers into spreadsheets. But they were telling stories, demonstrating empathy, and designing innovations. These abilities have always comprised what it means to be human. But after a few generations in the Information Age, these muscles have atrophied. The challenge is to work them back into shape" (Page 67, A Whole New Mind. Why Right-Brainers will rule the Future.)

Could South Africa become a design culture?

If these are the qualities we need to develop for a successful innovation culture, what would happen if our innovation strategy, moved from its narrow science and technology focus and deliberately created spaces and place, where such conditions that facilitated these qualities could exist?

What would these spaces and places look like? Where would they be? Who would use them? Unsurprisingly some other countries are a little ahead of us. The USA, France, the UK and Japan are already embracing an idea called the Art Science Centre.

Transitional zones allow different types of interactions to take place. There is greater complexity. You make surprising connections. Art Science Centres are transitional zones too. Scientists tend to talk to scientists. At an Art Science Centre they could be collaborating with or talking to anybody even an artist or an actor.

What is an Art Science Centre?

It is no coincidence that part of the reason the public space sculptures in Sea Point work so well is that they are in a transitional zone between land and sea and sky.

Transitional zones allow different types of interactions to take place. There is greater complexity. You make surprising connections. Art Science Centres are transitional zones too. Scientists tend to talk to scientists. At an Art Science Centre they could be collaborating with or talking to anybody even an artist or an actor. The unexpected is more likely to happen. New applications of knowledge are more likely to come to fruition, and in a form that is more likely to have commercial appeal.

David Edwards who teaches at Harvard University in the School of Engineering and Applied Sciences has developed a blueprint for encouraging the design and innovation process. He calls them Art Science Labs. He is firmly committed to

the idea that art and science, when they co-exist, create the sparks from which innovation happens more fruitfully. He has helped facilitate a network of these Art Science Labs over continents, collaborating with each other from Harvard to Trinity College Dublin, to Paris and Cape Town. Some of these networks are attached to prestigious educational institutions, some to industry and some to foundations and cultural institutions. Some intriguing lessons around innovation are being learnt and some extraordinary results are emerging. Projects range from contemporary art installations that explore the neuroscience of fear to lighting African villages with micro-biotic lamps or cleaning the air with plant based filters.

The Art Science Lab idea, if embraced by our tertiary education system, could become chairs with wings. Spaces in the heart of our institutions where ideas are given a chance to be applied to life in environments that are cross cutting and interdisciplinary. They would provide a fresh solution to Makgoba's description of our the current situation where:

"a level of disjuncture lies in the failure to translate ideas, to translate products and intellectual property in the interest and for the benefit of the country and its people. Our science and technology remains arrested at the academic level. It remains a problem solving venture rather than a solution and translation venture"

The City of Cape Town is making a bid to be the World Design Capital in 2014. Its motto is Live Design. Transform life. This would be an excellent motto too for a Chair with Wings.

NOTES

- 1 Interview with Terrance Conrad by Ravi Naidoo, All Stars, A Better Future by Design page 71
- 2 Interview with Tom Dixon celebrated UK designer born in Africa: page 249. Ravi Naidoo, All Stars, A Better Future by Design
- 3 Riverhead Books, Penguin Group (USA) Inc. 2006
- 4 page 67. A Whole New Mind. Why Right-Brainers will rule the Future.
- 5 page 65. A Whole New Mind. Why Right-Brainers will rule the Future.
- 6 page 66 A Whole New Mind. Why Right-Brainers will rule the Future.

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