



one small seed



Call it art, technology or simply a tongue-in-cheek memorial. Ralph Borland's latest unveiling sets a new precedent in interactive public sculpture. And like so many of his ideas, this one sounds crazy enough to work...

I'm sitting at a bar on Jetty Square eavesdropping on a conversation that could either be about sharks or a time machine. Phrases like 'servo control rods', 'calibrated valves' and 'plastic wind-responsive gill chambers' are bandied about through gulps of draught beer as if nature and technology resolved their inherent differences a long time ago.

Moments later Ralph Borland enters the room, much to the bartender's satisfaction. 'Aha! Here's the artist himself,' he says. Ralph sits down and orders a beer, while I struggle to work out where to begin this particular line of questioning.

As a graduate of NYU's Interactive Telecommunications Program (ITP), Ralph Borland is at the forefront of a relatively new field of expertise known as physical computing, or 'pcomp', which makes use of sensors, microchips and circuitry to activate interactive systems in the physical world.



flying with the Sharks

by Dylan Culhane





'You mean like a burglar alarm?' I ask. 'That would be an aspect of physical computing, but when we talk about "pcomp" we're usually referring to the specific culture around the technology. It's a culture in which technology is employed to bring an initial idea to life, rather than the other way around.' I'm seized by the sensation of having learned something new.

Pcomp in public art is similarly one aspect of a far more holistic science. In New York, Ralph's ITP classmates included musicians, businessmen, social workers, VJs and engineers. A willingness to share ideas across and within different fields also seems to be a characteristic of the pcomp manifesto. At the moment Ralph is teaching and promoting the field through various courses he runs at Cape Town's Michaelis School of Art and Wits University.

'Pcomp has the potential to be democratising. It can create art that responds to human presence, thereby helping the viewer make the initial step towards engaging with the artwork.'

Ralph's latest installation on Jetty Square offers a positive vision for the synthesis of pcomp and fine art. Metallic skeletons of five life-sized sharks hover above swirl-patterned brickwork on the ground, revolving surreptitiously enough to generate a sense of being watched by these sharp-edged, gleaming monuments. The pcomp experience begins when an individual passes directly below any one of the sharks. A passive infrared sensor in the nose activates two servo motors and some basic circuitry which in turn transfer motion to two 'gill chambers' on either side of the head via push-pull rods. These chambers are then rotated to bring the active edge in line with the wind direction, liberating sound in much the same way as a whistle or flute works. In addition to this, large tail fins move the sharks randomly in accordance with wind currents that surge through the surrounding buildings on the foreshore.

But why sharks?

As many Capetonians will already be aware, the shoreline reached up to Strand Street in centuries gone by. Ralph often refers to the project as 'a haunting', referring to an act of reclamation on behalf of the sea; a message from the ocean's most venerable and primal warriors.

'During our preliminary scouting of this area we noticed weeds and grass pushing up through the broken tarmac, which seemed like another kind of natural resistance and fed into the overall visual style and theme.' The work speaks to the consequences of mankind's manipulation of nature, becoming a damning reminder of the ways in which humans continue to mutate the natural order. 'In light of global warming and the subsequent swelling of the oceans, perhaps these sharks are more of a reconnaissance party,' Ralph jokes.

Working in close collaboration with Diekie van Nieuwenhuizen of Earthworks Landscape Architects allowed Ralph to integrate his artistic vision into a framework of broader environmental composition. The end result is a well-conceived, harmonious and thought-provoking use of public space – interactive without being obtrusive. Ralph hopes that the city offers more opportunities for artists to work alongside landscape architects in the creation of public installations. 'It really is the way it ought to be. We've moved beyond the classical idea of art objects being stand-alone, unaffected and discreet.'

As I leave the bar, I notice that the bartender has hooked another patron into a discussion about robotic sharks and a time when water covered the earth. Their conversation turns to artistic rationale, which is when I realise I have the final line for my interview. People are talking about Ralph Borland.



Jetty Square – Cnr. Adderley Street and Hertzog Boulevard.
The installation is permanent and open to the general public at all times.
www.ralphborland.net www.physicalcomputing.co.za