

## At sea with the past: reflections on an artwork

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### Abstract

This paper offers reflections on an artwork entitled, *At Sea*, (2012). *At Sea* is a picture derived from a 3d laser scan of a wave, presented as a two dimensional digital image, and printed at variable scales. My conceptual interests in this artwork were concerned with disrupting perceptions of the ‘first world’ as being perceived as ‘the centre’ and the ‘third world’ as being perceived as marginal.

I have written this paper from the position of both the artist and commentator. I discuss my background research, working process, innovative use of technology, thoughts about ways of looking, methodology and results. Particularly noteworthy is my use of 3d laser scanning within a fine art context.

### Keywords

Colonisation, 3d laser scanning, mapping.

### Introduction

I made the artwork *At Sea* in 2012. It depicts a wave, rendered in small, light dots on a black, panoramic format background. This two dimensional image was made from source information collected by a 3d laser scanner. The artwork has been exhibited in a variety of ways: as an image on a billboard (Figure 1.), as a print on vinyl adhered to a gallery wall and as a conventional inkjet print.

*At Sea* was commissioned by Radar, a contemporary arts programme that develops new work linked to academic research, located at Loughborough University. The commission was associated with a conference, *Home/Land: Women, citizenship and Photographies* (2012) which in turn was generated by an international research project led by Marion Arnold and Marsha Meskimmon, academics from the Visual Art Department at Loughborough University, in the United Kingdom.

### The margins and the centre

The commission’s brief was closely aligned to the concerns of the aforementioned research project but also



Figure 1. *At Sea* exhibited as a publically sited artwork in Loughborough, U.K. 12 – 25 November 2012

highlighted the following areas for consideration: land and identity, gendered, virtual and imagined landscapes, contested lands/spaces, national identity and nationalism, (post)colonial lands, the globalisation of land, borders, cartography and the politics of land.

With this in mind I began to consider current global socio-economic and political structures in relation to the ‘west’ being viewed as ‘the centre’ and my home, South Africa, as on the periphery. I also wanted to establish some kind of connection between Loughborough and Cape Town. I have lived in Cape Town for most of my life but prior to going there I knew little about Loughborough. During a two week residency in Loughborough, as part of the commission, I researched, followed up thoughts, photographed and worked towards a proposal for an artwork.

I looked to the past as a way forward. Loughborough is a medium sized market town, dominated by its university. It is situated in the east midlands of England, and surrounded by more well known towns such as Derby, Leicester and Nottingham. In 1780 the navigable waterway system was expanded to include Loughborough in its vast web of canals that linked towns, transporting coal thereby facilitating growth in industry and the town's role in the industrial revolution [1].

The principal form of global travel at this time was via water. Shipping and naval prowess were important channels of colonisation, with inland waterways and the sea linking Britain to the colonies, Loughborough to Cape Town. I had found a connection: Loughborough, with its industry and location on the canal system, was linked to Cape Town through colonisation, the industrial revolution and water transport. Coal-driven steam engines played a major role in shipping, effectively bringing the colonies closer in travel time.

An imaginative connection can be mapped through water: a drop of water could travel through the Grand Union Canal from Loughborough to London, out to sea with the River Thames, and there get caught up by the great ocean conveyor belt and find itself off Cape Town at the southern end of Africa.

My concept began to take shape around thinking about the Cape as a British colony and the connections between the sea, power and control. The final piece of supporting information for my artwork was making a link to mapping. During the creation and expansion of the British Empire land was 'discovered', named, surveyed and mapped, then 'claimed' and 'owned'. Using surveyor's tools the image I have made is a futile attempt to map the unmapable.

### Disruption and resistance

Using a specialised land-surveying instrument, a 3d laser scanner, I surveyed and scanned the waves. To survey is an act of authority, control, ownership and order. To survey waves, from a mapping point of view, is a pointless exercise. At the time I made *At Sea* I wrote:

I was particularly interested in the futility of this activity, of mapping moving water, a thing that cannot truly be owned, that will not be ordered, even if it can be measured. This artwork is a representation of chaos using measured, contained, scientific visual language. [2].

It is a disruption of the original purpose of surveying and of the concept of a map that demarcates place and by association, ownership. It is a non-map, it cannot be used to locate position and it cannot define areas of ownership in a conventional or meaningful way. In this it is a celebration of chaos, an act of defiance. It is my way of talking back to the centre from the periphery.

My intention here shares much with post-colonial texts that talk back to the centre to re-interpret and destabilize supposedly immutable positions and 'truths'. By 'talking back' I am referring to theorists Ashcroft, Griffiths and Tiffin's seminal book, *The empire writes back: theory and*

*practice in post-colonial literatures*, that explores the complexities of post-colonial writings. Their book title quotes from the title of an article written by Salman Rushdie, *The Empire Writes Back with a Vengeance*, published in the London Times, 3 July 1982.

### Scanning waves

I undertook a voyage in a small boat twenty-five nautical miles south of Cape Point. This expedition, while only a few hours and in moderate weather conditions, was long enough to make some observations about deep sea waves as they welled up and bulged, retracted and opened into cavities. Although there were generally defined swells and troughs these seemed to be an underlying form onto which endless surface variations occurred. Water collected, patterning the surface one moment, then falling away, insubstantial the next - a dynamic, heaving mass.

This far out to sea no land is visible. The seascape is all one can see and this contracts and expands as the boat rises and falls, changing one's point of view. As the boat descends to the bottom of a trough, the world contracts. The next instant a vast seascape opens up around one, as the boat rises to the crest of a wave. This constantly shifting view point is reminiscent of moving about in the 3d laser generated, virtual scanned sphere, but in the real world I have less agency and am bound by physical forces. The physicality of ocean waves and the structure of the sea surface inspired the formal qualities depicted in *At Sea*.

A detailed illustration (Figure 2.) shows some of the topography and variations in the scanned waves' surface - there are peaks, ridges, a cliff-like area in the top left hand corner, and along the upper edge the image fractures into blackness. In the final artwork the panoramic frame acts as a window, selecting part of a larger scene that extends into vastness beyond the picture. This is a sea to lose oneself in.

The coastline around Cape Town is sometimes referred to as the Cape of Storms and as its name suggests, it is notorious for heavy weather and a dangerous, unruly sea. The waves I chose to scan meet the coastline in front of Green Point Lighthouse in Cape Town, the oldest lighthouse in South Africa. I specifically selected this site as the lighthouse was first operational in 1824, when the Cape was a British colony. The lighthouse is situated on the eastern headland adjacent to Table Bay, assisting with navigation into the bay for those wishing to land.

While researching this site I learnt about the *SA Seafarer* that stranded directly in front of the lighthouse during the winter of 1966. This disaster was well documented and aerial photographs show the ship on the rocks with the Green Point Lighthouse clearly visible in the background. The wreck was so close that the lighthouse's rotating light was stopped and the beam pointed towards the ship so that the rescue operation could continue after dark. Other dramatic photographs document huge waves breaking over and engulfing the ship, eventually splitting the hull apart. Accounts of this event reinforced thoughts of the precariousness of coastal activity and the sea's ferocity,

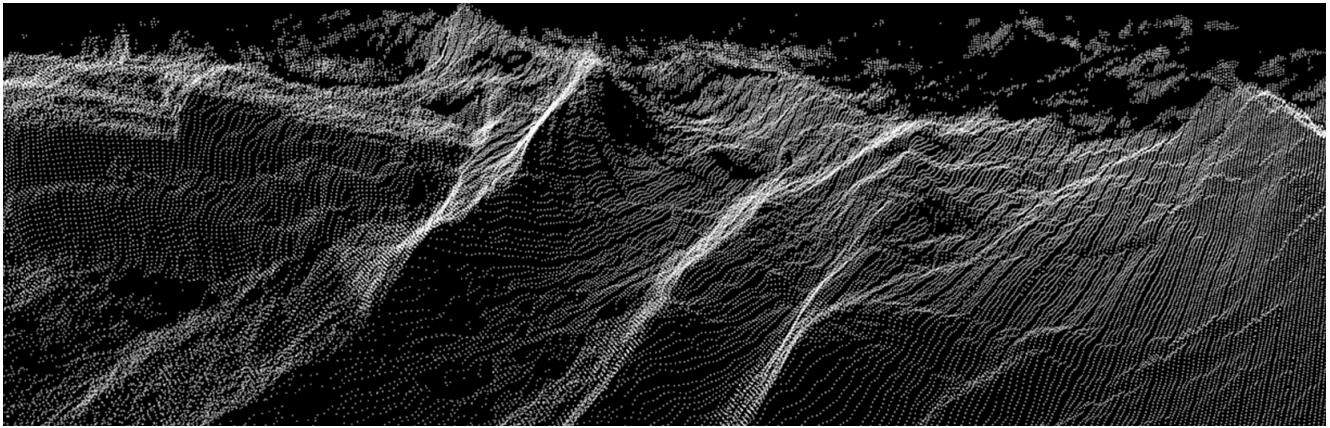


Figure 2. A detail from the digital source file for *At Sea*

and stressed the futility of any attempt to exert authority or control over it. This accentuated the pointlessness of scanning and mapping the waves.

I generally make art using a camera and this was the first time I had worked with a 3d laser scanner and its associated technology. The scanner is mounted on a leveled tripod. The scanner head rotates horizontally as the laser spins on a vertical axis while firing beams to record information in its spherical range. Each laser pulse records a point, a return distance reflected from an object's surface. Its application in surveying is to measure the distance between any of the recorded points, allowing complex environments to be surveyed in a short period of time. Depending on the model of scanner the distance that the laser travels varies. A scanner has a fixed reach, for instance eighty meters. Figure 3. shows an overview of the scan site with the elevated promenade above the sea wall providing a protected location for the scanner. Although this view looks from the edge of the scanned sphere back towards the land, the lighthouse was not recorded as it was beyond the scanner's range.

One of the limitations of laser scanning is that water diffracts the laser beam, so it does not record a return point distance and no image is captured. This was brought to my attention by Cape Town based land surveyors, Gavin Lloyd and Justin Hill, when I approached them to assist with this project. In discussion we decided to experiment, to see if a scan of a breaking wave with foam, a reflective surface, would record an image. This was successful.

My image making using the scanner, consisted of two activities. The first entailed gathering information on site with the scanner, the second interpreting that information on computer. With each scan a sphere or point cloud of information is recorded, a spherical mini sample of the world.

Using software this mini sphere can be interpreted in a 'photographic' way. By this I mean the same formal decision making processes that I go through when I take a photograph can be applied here, except I am not bound by gravity and the physical world. In the virtual information sphere I can float about and choose any position to

'photograph' from. I can 'photograph' from the position of the scanner, or position myself at the edge of the sphere and look towards anything that interests me, in any position I imagine. Like conventional photographic image making I can decide to take a wide shot, or zoom in close to my subject. I can include many formal elements in my composition or compose an image with a large negative space. In this way I can interpret and select information in the mini sphere to compose and 'take' my final image.

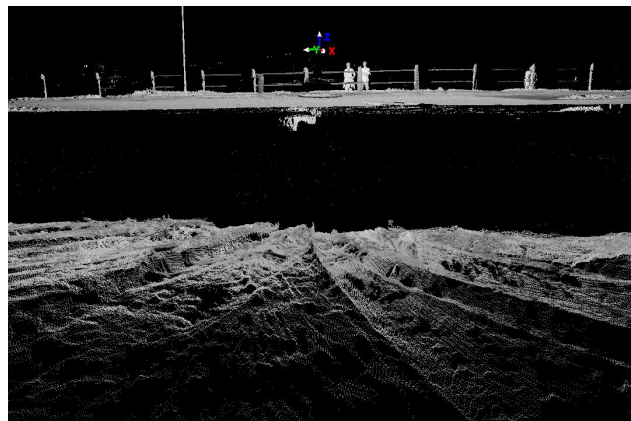


Figure 3. A laser scan detail showing the position of the scanner on the elevated walkway (below the XYZ), in relation to the waves scanned. On the immediate right of the scanner are two figures, inadvertently scanned, myself and land surveyor, Justin Hill.

### Shifting perceptions

Unlike human visual perception, the 3d laser scanner has no discernment, no 'filters' and all information, in the on site scan, is gathered with equal attention and with the same 'neutrality'. This echoes sentiments about photography's supposed objectivity expressed in the 19<sup>th</sup> century, for example -

But in its early years photography was celebrated for its putative ability to produce accurate images of what was

in front of the lens; images which were seen as being mechanically produced and thus free of the selective discriminations of the human eye and hand. [3]

Today few people still believe in the 'neutrality' of the photograph. And any 'accuracy' is undermined when motion is present, either with the recording device or in the subject. In making *At Sea* both scanner and subject were moving.

A scan takes approximately a minute. This technology and its way of looking and recording, is disrupted when the subject moves while being scanned. 3d laser technology is also referred to as 'real scene copying'. This implies a facsimile of the original and this is possible only when the original subject remains static during scanning. Here however, the subject, the waves, are moving so the result recorded is not a facsimile of a wave, but an impression of a wave, a trace of movement.

The speed and direction of the wave relative to the scanner's position and rotation influence what is recorded. In this instance the wave moved and scanner rotated in the same general direction. As a wave meets the shore its speed varies, it slows as it builds up prior to breaking, then accelerates with gravity, slowing once again as it dissipates. The scanner moves at a constant speed. If the wave moves at the scanner's rotational speed the points recorded will be recorded without distortion. However if the wave over takes the scanner the points will be spaced further apart, conversely if the wave is slower than the scanner, the points will be condensed. This made it difficult to predict results. Until we had done it I had no idea what was actually going to be recorded.

Here the recording device (the scanner) and subject relationship has shifted from a mimetic relationship (real scene copying) towards an interpretive relationship. This 'mechanical' interpretation coupled with my post scan, 'photographic' interpretation and selection of the final composition made *At Sea* an imaginative translation of a sea experience, rather than a naturalistic visual representation.

## Conclusion

My initial interest was sparked by the historical and contemporary socio-political distribution of territories on the globe, and perceptions that map some areas as the 'centre' and mark others as the 'margins'. The title of the work, *At Sea* alludes to the subject of the artwork and to the idiomatic expression, *to be at sea*, meaning to be confused or at a loss. Through the process of making I have interrogated global power dynamics and in this regard I am less at sea. However I have been captivated by the sea as a rich area of investigation, and a project that began in a town in the English midlands has led me to discover the shifting quality of the ocean in relation to my own history and geography.

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## Author Biography

Jean Brundrit is a visual artist who works with photographic media. She has exhibited extensively in South Africa and contributed to a number of international exhibitions. She is a Senior Lecturer at the Michaelis School of Fine Art, University of Cape Town where she teaches photography. She is a NRF rated researcher. Her research interests are primarily concerned with exploring the environment and identity, specifically lesbian identity and strategies of representation within a South African context. Her work pertaining to the environment is focused on the impact of rapid climate change and how this is represented in art; as well as the interconnectedness of humans and their relationship to the natural world.