

## **sub\_scape** poetic ecologies

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**sub\_scape** is a real-time generative system for manipulating data streams. The system samples, folds and re maps one data set onto another. The data sets comprise numerical data, and data streams of video and audio. Using elegant rules, **sub\_scape** generates poetic ecologies of sound and image. What emerge from the system are aesthetic complexes and evolving patterns, along with anomalies, turbulence and recursive effects. The system exhibits confluence, paradox, metaphor and commentary, arising from the intriguing combinations of source data and formal strategies.

**sub\_scape** has been housed in a periscope object for single visitor use. The periscope has an in-built screen. The visitor sits to view the display. By turning the periscope horizontally, the visitor changes the data flows and effects.



user with sub\_scape

To date there have been two **sub\_scape** iterations, **sub\_scapePROOF** and **sub\_scapeBALTIC**

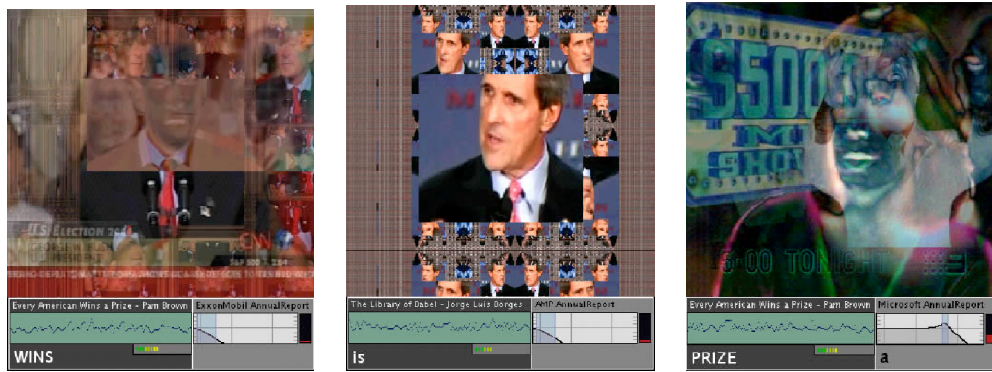
### **sub\_scapePROOF**

**sub\_scapePROOF** was created for the exhibition "PROOF - the act of seeing with one's own eyes", at the Australian Centre for the Moving Image (ACMI), Melbourne 2004 – 2005.

For **sub\_scapePROOF**, artists Waterson and Richards populated the **sub\_scape** system with video of the pulpit-like rhetoric of the professional politician (the recent American and Australian elections, and the Iraqi and Palestinian conflicts); 'secular confessional' TV such as Jerry Springer and Dr Phil; advertisements, and TV reportage with its increasingly value-added, Baroque display.

Mapped through this video/audio data stream are literary texts that represent some axiomatic notions about truth, discourse and affect. Jorge Luis Borges' parable of language *The Library of Babel*; a Sufi text titled *Seeing* which contrasts the western-leaning, neo-Aristotelian philosopher Avicenna's focus on universals with Sufist consciousness of the 'now'; a short poem *Every American Wins a Prize*, by Australian Pam Brown, which acts as a commentary on commercialisation and the Americanisation of topos; and an excerpt from "...and if, taking the eye of a man most recently dead..." Descartes via feminist Luce Irigaray, who is known for her complex linguistic, philosophical and psychoanalytic precepts.

As the **sub\_scape** system maps these texts onto the video stream, key words in the texts – for example, *trust*, *insinuate*, *fact* – trigger the introduction of another set of data, representing a third type of 'truth': the annual reports of various multinational companies involved in the insurance, telecommunications and manufacturing. This also drives the video edits, cutting according to the poetic texts and annual reports. The system continually edits the video together on the fly, hence the video and audio is constantly changing the juxtaposition of segments.



screen shots from sub\_scapePROOF

**sub\_scapePROOF** critiques the notion of evidential, superficial “truth” in a post-faith age. By mapping philosophy and corporate data back onto the language of superpower politics and western, pathological tropes of fear and anxiety, **sub\_scapePROOF** generates a playful and ironic critique on the traditional politics and power dynamics of knowledge-through-mapping.

By playing on the emergent aesthetic and sense-making behaviours of the datasets, by using the dynamics of turbulence, balance, recursive effect and pattern formation in the data, **sub\_scapePROOF** transmits an affect of “truth” more baroque than Cartesian, and “meaning” more symbolic than fixed.

## sub\_scapeBALTIC

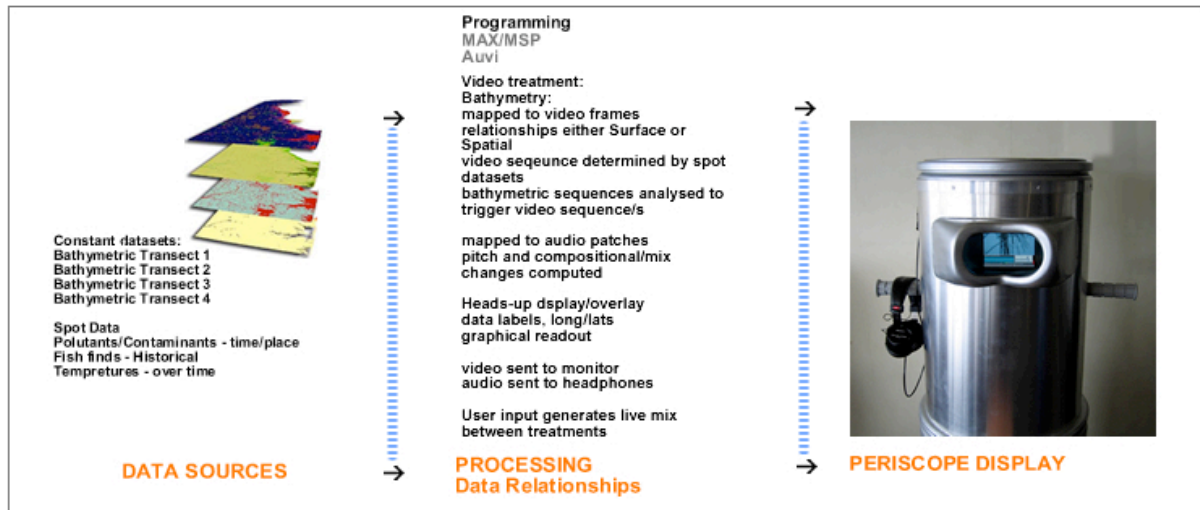
**sub\_scapeBALTIC** was created for ISEA2004, and exhibited in August 2004 on the Helsinki-Tallin passenger ship during the festival. For **sub\_scapeBALTIC**, the artists took data sets from the Baltic Sea (bathymetry transects of the ship’s course, pollutants found in grey seals and fish, historical and contemporary fish finds, etc) and transcoded and mapped them in real time onto audio and video data modules of Australian desert, both pristine and polluted.

**sub\_scapeBALTIC** plays with the reflexive synthesis of seemingly alternative spaces – the northern sea and the southern desert. Yet the sea and desert are isomorphs, having metaphysical, aesthetic and political connections between them. The western imagination represents the sea and the desert as “non-place” and negative space. But mapped as they are with lines of force and communication, trade and theft, disease and DNA, development and exploitation, they are highly political spaces. Both the sea and desert are “deep space” (a combinative trope of physical place and social connectedness) onto which we project our deepest, most troubling collective histories and desires. Environmentally, the desert was once a seabed; both places have similar geomorphologies.



Video stills from sub\_scapeBALTIC

## sub\_scapeBALTIC Data Mapping Overview



### Artistic rationale and influences

Traditionally, western cartography combines multiple data sets in a 2 dimensional representation. The datamapping (combinative, cross-referencing of datasets) tells a story – the landuse and landforms of a place; demographics and epidemiology; ethnography and employment, etc. Imaginative and politicised choice of datasets creates more esoteric ‘maps’, eg civil society; 3d visualisations of bombsites and archaeological sites in the virtual heritage industry.

Aesthetically and globally, datamapping/cartography have embraced two, 3 and 4 dimensional forms of representation, from mud maps to Magnetic Image Resonance body mapping and sonar seabed visualisation. There have been infinite combinations of the pictorial and symbolic, from Micronesian shell maps to Chinese pictorial maps. The use of live data input/dynamic maps, from collaborative sand painting in Aboriginal Australia to web based data visualisation softwares.

Today, the proliferation of data in digital storage/retrieval systems demand that artist engage with the aesthetics, forms and politics of datamapping. sub\_scape is a real-time generative system for manipulating data streams. The system samples, manipulates, folds and re maps one data set onto another.

Digital data is extraordinary stuff. It is ‘non-material’, being abstract and ethereal. As Dr Anne Finnegan has so nimbly argued: like Derrida’s take on writing, data is less an imprint than the principle of ‘being imprinted’. Yet we can treat data as matter, precisely because its “capacity for ‘being-imprinted’ is a variable...it can as easily accommodate the crunching of large numbers...or can be mapped and configured across 2, 3 or 4 dimensions, at various levels of data saturation”.

So this ‘non matter’ can be manipulated, sampled, folded, compressed, expanded; its flow can be animated, made to swarm, flock, stagger, be still, disperse and remass. Freed from the constraints of the analogue (the archive, the ledger), digital data can cut loose and be released into its capacity for imprintedness – it can be mapped onto anything with the potential for being inscribed or imprinted. For instance: the body, cyberspace, a video stream, other dataflows or datasets.

Data has a certain independence, a life of its own – it holds only a tangential, non-mimetic relationship to the subject that was tallied or quantified during data collection. Data is the product of abstract thought (what information will illustrate the data collector’s thesis?) – it reflects its own behaviours not those of its ‘content’. The data mass can behave as one but will also be comprised of its molecular components, each exhibiting its own behaviour. Thus the capacity for emergence - pattern formation, recursive effect, complex and unexpected behaviours, densities and sparseness, emerging from simple rules applied to and/or extracted from the data mass.

The growing scope of digital data has already had a profound effect on ontology and subjectivity. Today we try to understand the complexity of socio-enviro-political systems through our exposure to a proliferation of data, and its myriad forms of imprintedness (visualisation). From dynamic weather maps, to virtual heritage & applications in epidemiology, and from tracking polluted water to pattern recognition

in complex crimes like corporate fraud, new strata of subjects and subjectivity emerge.

Yet this impactful phenomenon is further complicated by contentious issues of data 'accuracy' and ownership, and the cultural specificity of the forms and aesthetics of visualisation. Access to data and complex visualisations does not necessarily make for a more culturally sensitive or comprehensive understanding of 'deep space' - that combinative trope of physical place and social connectedness that we inhabit. Neither do new mapping technologies interrogate, celebrate or account for the poetical and speculative affects of notions of space, human consciousness and subjectivity in space. Nor do extensive amounts of data mitigate against the phenomenon of 'compassion fatigue' plaguing the western world today. Exploration of the data trope and alternate mapping is timely for digital artists.

### Specifications

**Periscope dimensions:** Approximately 140 cm Height and 55 cm Diameter, weight 26 kg.

**Materials:** Aluminium, moulded resin, rubber handles. VC to midi box, midi box, LCD screen included.

**Hardware requirements:** Mac CPU running OSX, min 1ghz processor, min 512 meg ram. Stereo headphones.

**Software:** The system is written in MaxMSP, Jitter and Auv-i. Artists will supply the softwares.

**Freight costs:**

**Installation time:** Approx 3 hours.

### Artist bios

**Sarah Waterson** - is an installation/multi-media artist, whose work deals with the influence of electronic technologies on subjectivities. Over the past seventeen years she has exhibited her installations/interactive environments and digital works both nationally and internationally, including Germany, Finland and the USA. Her artworks have been exhibited nationally at The Sydney Opera House, Artspace, the Australian Centre for the Moving Image, the Australian Centre for Photography, the Institute for Modern Art, The National Gallery of Victoria, Casula Powerhouse and internationally at ISEA Helsinki and Tallinn. Waterson was also a participating artist in the Brandon Project, Guggenheim Museum, New York, USA. Her recent interactive electronic installations have included: subscapePROOF (collaboration with Kate Richards, Australian Centre for the Moving Image 04), subscapeBALTIC (collaboration with Kate Richards, ISEA2004) Mapping E~Motion (exhibited at The National Gallery of Victoria, The Institute of Modern Art, Brisbane, Australia and SoundWatch , Artspace, New Zealand) and trans.mute (a Sydney City Council public art commission) amongst many others. Waterson is a senior lecturer in interactive design, and is the Associate Head of School at the School of Communication Arts, , University of Western Sydney, Australia.

**Kate Richards** is a Sydney-based media artist working across multimedia, interactivity, visualisation software and time-based media. Recent interactive multimedia art projects include the *Life After Wartime* suite with Ross Gibson, whose most recent iteration *Bystander* has just premiered at Sydney's PerformanceSpace@CarriageWorks. The live game event *Wayfarer* with Martyn Coutts also premiered in 2007 at PerformanceSpace@CarriageWorks. *sub\_scape* with Sarah Waterson has had two iterations – at ISEA2004 in Helsinki/Tallin and at ACMI in Melbourne in 2005, and a machinima version has been shown extensively in Australia. Other recent media exhibitions include *The Uncertainty Principle* (solo show) at the Australian Centre for Photography in 2007, and *Crying Man 4* with Lyndal Jones at Artspace in 2005. Her artworks have been exhibited nationally at The Sydney Opera House, Artspace, the Australian Centre for the Moving Image, the Australian Centre for Photography and internationally at most recently at ISEA Helsinki and File Sao Paulo. As a multimedia designer and producer in the cultural sectors, Kate's recent clients include the Historic Houses Trust NSW, the National Parks and Wildlife Service (NSW), the Sydney Olympic Park Authority, Griffith University, UTS and Otto Cserhalmi + Partners, Landini Associates and Jacob Allom and Wade, the latter all architectural firms.