Sensing sites: Contemporary media art installation by Turner, Lyons and Sagar as cross-modal sensory experimentation and multimodal interaction

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Abstract. What are the perceptual elements at play in sensate sites? As a new media curator, I work with artists creating and staging multisensory media environments largely in Aotearoa / New Zealand. These installations contain complex interactivity and participatory requirements that activate simulated synaesthetic and kinesthetic properties. Works by Raewyn Turner, Marcia Lyons and Mark Sagar will be examined from the perspective of enactive cognition, cross-modal sensing and multimodal interactivity. In essence, these ‘black box’ installations experimentally engage with our sensory perception requiring a high level of embodied cognition. The resultant machinic sensor ‘mapped’ spaces define the territory in which the conditions of perception, and the resultant physical, social, emotional and cultural reactions, occur. The body of the viewer becomes the site where meaning is enacted and becomes a traceable event in and of itself.

Over the last 27 years as a curator of new media, video, film, photographic, interactive and live performance projects I have become increasingly challenged and intrigued by the perceptual and sensory experiences contained within many of these multisensory artistic projects. After working in a variety of roles within public art institutions, I took over leading the Moving Image Centre (MIC Toi Rerehiko) for sixteen years. This organization profiled creative media, interdisciplinary arts and live performance and encouraged playful enquiry processes, intercultural engagement and cross-disciplinary collaboration. Many projects combined the integration of creative research and development in emergent technologies with hybrid artistic practices. Exhibition platforms began to adapt to network generated live performance, scalable screen-based media art, embracing cross-pollinating disciplines (theatrical, festival, documentary amongst many others).

Increasingly, many of these works contained complex interactivity and participatory requirements that brought in to play simulated synaesthetic and kinesthetic elements in real time that required a reassessment of the base properties of aesthetic experience. These works cannot be perceived by simple observation. The process for experiencing and understanding is exploratory and one of sensual discovery. Sustained engagement often reveals further layers and meanings of the work. The method of creation also began to fundamentally change, frequently requiring trans-disciplinary teams and a high degree of risk and experimentation in the development and staging. Concurrently, increasing demands were set for the audience in terms of conceptual and participatory involvement. This consistent need for curatorial adaptation to an evolving array of practices sparked the question: What are the perceptual elements at play in sensing multisensory sites?

Environmental and perceptual real-time conditions, within new media installation, are contributing to our understanding of embodied cognition. Chris Salter explains: ‘Perception is increasingly seen as co-structuration — a simultaneous coupling of body, brain, and the lived spaces in which the body finds itself.’ [7] It is in the act of freely crossing and negotiating...
disciplinary boundaries when assessing these artistic multisensory environments that the practice becomes more deeply considered.

Caroline Jones observes that these works mark ‘a shift from aesthetic experience to the aesthetics of experience’ and subsequently ‘the work of the artist includes and transforms the art-goer who is engaged and embodied’. [2] It is within the real time experience of these environments that it is often reported that the participatory viewer has an increased awareness of their own sensory perception through all forms and degrees of sensing. Jones goes on to clarify: ‘What the aesthetics of experience leads me to claim is that the activities occurring in this space of fluid negotiation can be called the work of art, where work is a verb rather than a noun.’ [5] This becomes further complicated with the introduction of virtual and interactive technologies where the experience moves from in-situ to a relationship with remote conditions as in the case of real-time networks with other sites or live engagement with data from internet based sources. These multisensory environments can be reframed as experimental laboratories for a re-contextualisation of both our understanding of our body, its sensing properties and interconnect- edness with large-scale dynamic environmental, political, social and virtual conditions. Salter describes the enactive view as: ‘... perception is not representation but action – a direct projection of the body into the environment and an ongoing “probing” of that environment with the sensor and motor capabilities of the active body.’ [7]

In recent years, I have curated a number of artists who have diverse multi-sensory practices, whose focus has led to manifold insights into a range of perceptual audience experiences. In particular, I will briefly look at specific works produced by Marcia Lyons, Raewyn Turner and Mark Sagar and their various trans-disciplinary collaborative teams involving artists, scientists and engineers. All of the works covered in this paper were staged in environments commonly called “black box” conditions. The viewer’s movements, and physical space of interaction, were mapped and monitored by the art environment through a combination of sensors, cameras and software. This mapped space therefore defines the territory in which the conditions of perception and the resultant physical, social, emotional and cultural reactions occur. The immediate physical conditions of these works locate the interactivity initially in the black box location, however each examined work also contain elements in which it is then possible to connect to remote micro or macro locations. The body of the viewer becomes the site where meaning is enacted and becomes a traceable event in and of itself. Sabine Flach expands: ‘It is always the entire body which perceives and is perceived.’ [3]

In 2010 Marcia Lyons exhibited the interactive media art installation Open Limit [Fig. 1] at the MIC gallery. Open Limit belonged to an ongoing series by Lyons entitled Sensory Broadcasting which sought to explore interactivity, perception and live-feed technologies. This installation provided an immersive physical, interactive and sonic environment that connected to live webcasts and was driven by the gaming platform Unity 3D. The viewer, first dressed in a lab coat with a tracking marker on the back, entered what appeared to be a globular weather condition “on standby”, consisting visually of two projected live video feeds and a real-time triggered revolving sound environment. As the viewer’s movements were tracked various sonic and visual reactions occurred causing planet like forms to emerge. When participants intuitively moved to the shape of the terrain tagging system, sensors “unlocked” live webcasts for global site locations: New York City, Antarctica, Bombay, Iceland or Russia. The specific webcast interacted with was defined by the terrain map that acted as the marker on the
back of the lab coat. Participants on the street outside the gallery were invited to pair their Bluetooth cell phone to the live terrain sound by receiving direct snippets of sound to carry and share from their cells.

Marcia Lyons (US) elaborates: ‘Within a dynamic sense of standing -in, -with or -among remote and local energies, I invite viewers to access a living presence within their own improvisational moves. Remote frequencies become a kind of character study, suggesting a porosity, awaiting entry and passage, as well as the ‘wide open,’ as an endless metaphor for field.‘ I’m interested in how these limits disappear and how perception is determinate.’ Lyons’ project is a visual, emotional weather-like system - a tai-chi-like - movement or an ‘encircling game’ process where viewer’s become competitive without knowing in the underlying gaming software environment. She worked with programmer Roy Davies on the gaming platform interface and interactivity, and with other scientists regarding locasting frequencies. She explains: ‘I seek out experts in the field - scientists, engineers, programmers, whoever is accessible to consult on projects. … Over the past two years I’ve been working with scientists in the field to understand imperceptible frequencies emanating from the planet. The work at MIC came out of a series of investigations where live data and viewer ‘creative interference’ intermix to create a third, in-between, portal. The work is like weather on ‘standby’ waiting to be ‘moved.’’ Dynamic interfacing of the local individual and the global virtual in this piece exemplifies a kinesthetic (somatic) environment through sound and vision.

Also in 2010, Raewyn Turner (NZ) in collaboration with Diane Burgoyne (CAN) exhibited the two installations Re-Sense [Fig.2] and Flap [Fig.3]. The artists’ state: ‘both works are explorations of the olfactory sense and its place in our landscapes and in our everyday lives. These works grew out of a notion that, like the bandwidths of light and sound that are beyond unaided human perception, many olfactory signals presented to our senses remain mainly beyond comprehension.’ Their process began with an experimental sensory investigation. ‘Our initial inquiry centred around whether we could consider the landscape as a map of smell and sound?’

Re-Sense occupied one gallery and consisted of two screens showing samples of video palettes of ‘green’ sourced from New Zealand and Canada. Each territory’s representative green screen was paired with a tonal frequency generator that created sound. Working with the artists, Louise Crouch, a commercial perfumer, created scents that matched synaesthetically the colour/sound palettes. Polymer plastic beads were embedded with fragrance, housed in a glass sculptural form and placed on top of an embedded speaker. Scents were activated and released by sound vibration. As Mark Amery, a local art critic observed; ‘The effect is, as the artists’ intended totally synesthetic, which is to say it creates impressions through stimulating the senses. … The effect is disorientating and all encompassing, as if entering an abstract painting in which life forms have been reduced to their base coordinates and rhythms.’
In the neighbouring gallery, Turner and Burgoyne installed FLAP. FLAP is an installation that utilised white socks that had been given to various voluntary members of the public, who wore them for several days and then redeposited them in to a glass jar. These “specimens” were encased in preserving jars, reflecting on the notion of preservation. The jars were installed lining the wall of the gallery like a scientific experiment. As the viewer came in close proximity to a jar, the lid was triggered, lifting to release the sock’s odour.

The installation encapsulated the intimate environment of our domestic lives focusing on one object – the sock. The artists’ expand on this effect as an affect: ‘It asks us to think about the smells that we take for granted in our homes and provides us with a multi-sensory re-visioning of the very humble sock.’ [8] FLAP, in contrast to Lyons’ experiment, explored non-directive tactile senses; where the participator/audience, not the artist/author, is in control. A sense of smell is individual and the artist becomes the enabler in the activity of recognizing subliminal stimulation.

Turner has collaborated with a variety of artists from industrial chemists, commercial perfumers through to architects and symphony orchestras. Her work is centred on the synaesthetic exploration of our senses. Her working process often sees a mapping of coordinates between senses designing cross-sensory stimulation. For instance in 2002 when designing the orchestral concert series for the deaf, Four Senses Concerts, Turner designed colour palettes and light states that were composed in reaction to the sound composition and were activated through improvisation. ‘The canvas of the whole orchestra was composed using saturated colours to achieve high degrees of retinal stimulation, brightness and afterimage.’ [9]

As described by the artist: ‘The concerts for the deaf, Four Senses in 1999 and 2002, inquire into the sensory worlds of the blind/deaf, of hearing, of breathing in and of visualizing the world. The projects were an experiment with creating simulated synaesthesia and the imaginative ‘vision’ of association triggered by sensory factors. It is possible that one dedicated sense could be used for other sensory perceptions, e.g. the shape of sound, the colour of smell.’ [10] ‘The translations form a methodology in which one medium has been related to another. The correspondences established between sound/silence and colour/light/dark are creating systems and structures as a way of negotiating reflective and subjective connections between sensory experiences.’ [9]
child follows the actions and movements of the viewer displaying realistic responsive behaviours such as smiling, crying, confusion and abandonment. The computational model is capable of these responsive behaviours through a variety of camera-based sensor tracking systems aimed at monitoring eye and individual body movement. The characterization is modeled on that of a six-month old baby, based on Sagar’s own child. Along with the facial expressions that mimic emotional states, it is possible to navigate internally seeing representations from the muscular anatomy down to the neuronal, cellular and neurochemical levels in a live neural network linked to the autonomous behaviour. It is possible to follow the stimuli through the responsive neural pathways and through this simulation gain greater understandings of neural networks.

In a recent public installation, Baby X was vigorously engaged with and there was found to be a high degree of emotional responsiveness on behalf of both character and audience. Participants generally reflected feelings of empathy and sensing a relationship between themselves and the baby. The system is undergoing further experimental extension introducing an interesting dialogue between human sensing and machinic sensing. The computation model is capable of networking with other systems such as environmental, wireless, independent audio-visual sources, intelligent architecture and other robotic systems. Within this context the computational model can be perceived as actor, control system and collaborator.

Sabine Flach asserts ‘However, body images as image scenarios are ... always characterized by a fundamental oscillation between nature and culture, imagination and imago, facticity and fictionality, between habitus, habitat and heredity ... and between intentionality and non-intentionality. This oscillation is key to understanding the connection between expression and emotion.’ [4]

Within Sagar’s work there is the additional sensory oscillation between virtual and real, artificially intelligent and human. Along with increased audience multimodal sensitivity there is an increase in emotion and feeling sensitivity when interacting with the animated child. Triggering empathy, in particular, increases the degree of viewer participatory awareness. Due to the virtual age of the animated child, this interaction does not involve language but rather pre-verbal multi-sensory intuition bringing in to play a dialogue between motion and emotion. As Flach goes on to say: ‘The feeling of sympathy allows the viewer to empathize with what is shown, and this empathy, in turn, is a deep process-oriented feeling that adapts to the expression of emotion as a bodily process.’ [4] Finally this work brings in to play the deeper oscillation in this work that is between character representation, neurobiological representation and embodied cognition.

This paper is entitled Sensing Sites invoking both the human and machinic sensing presence within these multisensory virtual and local media sites. It also acknowledges the connection between physical site of that sensing in terms of external and bodily siting and the incessant oscillation between these elements when aesthetically experiencing the works. Alvo Noe, in his book Varieties of Presence, sets out: ‘Experience, in the large, and in the small, is complex and manifold; it is always an encounter with hidden complexity. Experience is fractal in this sense. Perceptual experience extends to the hidden.’ [6]

Each of the works by Lyons, Turner and Sagar, stage embodied sites that contain complex, transparent participatory engagement. They are locative merging of body and environment both virtual and real that trigger a form of experiencing that incorporates elements of synaesthetic and kinaesthetic sensual real-time exploration in order to reveal meaning. Within each, the black box environments are mapped out and the participatory audience member marked for tracking and interactivity. This brings into activation a complex interplay of site-absorption and “felt” understanding.

REFERENCES


ENDNOTES

1 Observations, contained in this paper Sensing Sites, form the basis of a Doctorate within the College of Fine Arts, University of New South Wales and the National Institute of Creative Industries, University of Auckland. The creative practice component includes formation of a trans-disciplinary research group and staging exhibitions and symposia from 2014 to 2016. I acknowledge the support of the University of New South Wales and the College of Fine Arts.

2 Lyons, M. Personal communication with author. (September 2013).