

An Exploration into Deeper Engagements of Audience and Creative Process

Tina Gonsalves

The artist discusses the trajectory of three creative projects dealing with affect and audience. She discusses the progressions of how audience engagement drove her creative process, and how her work developed, from earlier single channel short film works exploring a one-way dialogue with audiences, to more intricate multi-channelled interactive and wearable technology artworks that explored a more complex two-way dialogue between work and audiences. With each project, the role of audiences became more central to her work informing her artistic process.

1. Background

A major thread through my work has always been intersections between medicine, art and technology. Like art, the practice of medicine is rich in pathos, exposure and vulnerability. Through the use of video, sound and technology, my work attempts to interpret emotions and vulnerabilities into visual and sonic artworks. Through evocative, creative, audiovisual narratives I am interested in provoking and representing the audiences' emotions. I then converge this with software and sensors to monitor the audiences' emotional body, using their psycho-physiological responses to drive the work itself.

With my practice-lead investigations, I explore the ways that art, science and technology can converge to become agents that allow us to form a more intimate relationship with our own bodies, a more intimate communication with each other, tools that crossover between art and wellness, tools that interplay between the internal and external.

1.1 Emotions, Mimicry and Contagion

Emotions provide the foundations to human interaction. Art 'works' when it provokes an emotional response from its audience. Emotion extends beyond the essentially private nature of subjective feelings to encompass changes in behaviour (expression) and physiology (arousal).¹ The ability to read emotions in both others and ourselves is central to empathy and social understanding. In cohesive social interactions, we

are highly attuned to subtle and covert emotional signals and our behaviours often mirror each other in minute detail. Through unconscious mimicry, we forge a bond with each other, long before we utter a word. Scientific research has shown that in emotional empathy, the expressed (or predicted) emotion of another person engenders an embodiment of the same emotion in the observer's subjective feelings and bodily responses.² At times, we may voluntarily suppress our emotional reactions, temporarily disguising our intentions or vulnerability, though 'true' emotions are nevertheless evident in a pattern of internal bodily responses that set an underlying tone for behaviour. Subjectively, we know that states of physiological excitement alter our emotions. Even if we consciously inhibit our outward expression of how we feel, our emotions are betrayed by subtle changes in arousal reactions that can be revealed by bodily monitoring (e.g. in 'lie detector' tests). Feelings, arousal responses and expressions interact closely: being angry makes our blood pressure rise and we frown; smiling makes us feel relaxed and happy; if our palms sweat and our heart jumps a beat, we feel and look anxious.

My current work attempts to track and monitor the hidden psycho-physiological language of the audiences' body to trigger new, more profound interactive experiences for them. To achieve this, the work is highly collaborative, merging computer science, psychology, neuroscience and psychiatry into a powerful creative investigation. This led to a collaboration with emotion neuroscientist, Dr Hugo Critchley, and my role as artist in residence at the Institute of Neurology at University College London (UCL).

This work is built upon earlier short film pieces, using various techniques to translate emotional feelings into a metaphorical artistic moving image form. The aim with this work was to capture the emotions, translate them and then look at the emotional contagion aspects of the work, how it shifts from image to human, then human to human.

2. Case Study One : The "Loss Series" 2002: 12 Short Films

Direction: Tina Gonsalves
Sound: Tina Gonsalves



Figure 1 - "Trust", video 6 from the "Loss Series", Tina Gonsalves, 2002

2.1 Seizing Emotions: From Feeling into Image

In some form or another, I wondered if we all suffer from alexithymia, the inability to express feelings through words. How do you articulate the feeling of hollowness in your chest or gut that emerges when everything that protects you is stripped away? What would the visual metaphorical translations for these feelings look like? What are their inherent properties that would allow them to resonate with audiences? The "Loss Series", 12 short films created in 2002, experimented with various techniques for sonically and visually translating my own emotions and vulnerabilities onto video. Through constant decisions of timing, sound, colour, pace, driven by my emotional feelings, I attempted to create an emotionally potent body of work. With each edit and effect I was always aware of the potential audience, and this directly influenced the way I built each narrative. I imagined each piece becoming a conduit for viewers to recognize their own emotional feelings - that the 'time' of each of the films permitted a few minutes self-reflection of their own feelings. The aim of each piece was to engender a strong element of emotional contagion, a dialogue spreading from image to human and then from human to human.

During the development of the "Loss Series", I kept my computer and camera with me at all times, to document my emotional state, almost as a stream of consciousness video diary. At the time, I was occupying a highly-charged emotional space. While creating the series, the camera is turned on me, mostly using my own emotional body as a catalyst for the narrative of the work. Over a year, I explored the immediacy of digital video to seize 'emotional moments' as I was experiencing them. I created the pieces on my laptop, using my own emotions to drive the editing and effects. With this evolving process of documenting and producing moving images within highly charged emotional moments, I hoped to gain a deeper understanding of my own creative process which might enable a more immediate, creative translation of embodied sensations and experiences into images. I was hoping not to impose an emotion on the audience, yet hoped to engage them emotively in some way.

Making the "Loss Series" involved very intense periods of computer-usage and what felt like a minute would turn out to have been hours. The concept that fed the work had gone deeper and moved into areas

I did not realize existed. My artistic choices felt more visceral and intuitive, as if stemming more from 'gut reactions' rather than conscious choices. More like 'subconscious' or 'stream of consciousness' editing. It was in that space I felt I could tap into the translation of these emotions, from the body into the moving image. Each of the films was purposely left raw and by not 'refining' them, I imagined I was allowing the audience to view my own personal flaws and vulnerabilities. In the process of creating the films, what began to resonate with me was the feeling of 'rawness' and exposure. It was in that feeling of exposure where I found a dialogue with the work. I began to make sense of it, and disparate connections slowly revealed a meaning to me.

I created most of the "Loss Series" while traveling extensively, taking part in various international residencies. The artistic development of the series was quite solitary. In retrospect, the isolation was vital in building the fluidity, techniques and confidence of my artistic process.

Before mastering the works at the Australia Arts Council's Banff Centre Artist in Residency in 2002, I organized a personal screening of the "Loss Series" with other artists. Out of the five women attending, three ended up crying while watching the series. It was a captivating series of work that incited the response that I was searching for. There were moments of great beauty - and other moments where it felt strained.

My personal evaluation of the success of these short films was influenced by the number of acceptances into international film festivals - if the films traveled to festivals extensively, I recognised that somehow they 'related' to a wider audience, and therefore considered them more successful.

I had learnt a lot from the creative process of building the "Loss Series". On reflection, further time spent monitoring the emotional contagion aspects of the work, examining the more potent elements that made it resonate with audiences, would have been beneficial. At the time, I was unsure how to do this as the premise of the "Loss Series" was built on the idea that we do not often have the verbal language to describe our feelings. These thoughts led me to explore bio-sensitive interactivity - if I could monitor the emotions of the audiences' body, exploiting them to trigger the work, I could then also evaluate how strongly the work provokes emotions in the audience.

3. Case Study Two: "Medulla Intimata"

Artist: Tina Gonsalves,
 Engineer: Tom Donaldson,
 Executive Producer: Sara Diamond

(Supported by Australia Arts Council, Arts Queensland, Banff New Media Institute, ArtSway, IAMAS Japan)

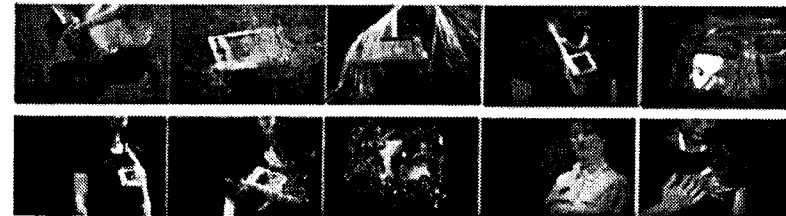


Figure 2 - "Medulla Intimata", jewellery prototypes, photograph: Tina Gonsalves 2005.

3.1 Revealing Emotions Through Prosody

After the "Loss Series" I pursued research to explore how my artwork could probe the audiences' emotional body, using their emotions to drive the video narratives. Working with artificial intelligence engineer, Tom Donaldson, I investigated the use of bio-metric sensors as triggers for emotional video narratives, which I hoped would lead to both more immersive installations as well as intimate wearable works. In further investigating the use of object, technology, intimacy and performance, I found earlier works in this area an inspiration. Atsuko Tanaku, of the Gutai group of Kansai, Japan, with her "Electric Dress" (1956), bridged the gap between performance, sculpture and technology. Nam June Paik's early Fluxus performance work, "TV Cello" (1971) with cellist Charlotte Moorman was also inspirational. As Moorman played the instrument, she also played the video itself. To me, it was as if Moorman was playing not only sounds but also images of her heart, allowing the audience to share her vulnerabilities, desires and fears. The playful process of discovery is also seen in more contemporary works such as Xinwei Sha's and Fo.am's "T-Garden" (2002) and Ansuman Biswas' "Self Portrait" (2001) which researches into the relationship between emotions and physiological states. Krzysztof Wodiczko's "Ægis Project" (2002) is a wearable device that attempts to externalize the complex truth of experience, using each screen or 'head' to show the contradictions between authenticity and assimilation. I hoped that "Medulla Intimata" could extend this work, using the internal emotions to drive the real-time, self-portrait video database. Tom Donaldson and I wanted to create an intimate new social dynamic, inviting the audience to become emotionally involved with the visual information structures that they create.

Most of us go through life hiding our vulnerabilities, or trying as best we can to conceal them. This was a starting point for "Medulla Intimata", a sensor-based digital video jewellery prototype that monitored the

wearer's internal emotional state by using prosody. Video self-portraiture was transmitted real-time to the screen of the jewellery in response to the emotional tone of the wearer's voice. Video was displayed on a screen embedded in the jewellery. The imagery displayed was an emotional portrait, an exploration into the secret life of the emotional, physical, spiritual and psychic body of the wearer. The intention was to evoke a sense of seeing beneath the surface of the skin, exposing the psycho-physiological inner body of the wearer. Through video, the wearer reveals more than they usually might, and social artifice slowly breaks down, disrupting codes of social behaviours. By revealing hidden emotions, "Medulla Intimata" investigates how these emotions might potentially change or subvert how we interrelate in public spaces. The agenda of "Medulla Intimata" was to create a more intimate and 'authentic' communication in social situations, and a deeper understanding of self.

At exhibition stage, it is a playful art work mixing public intervention with jewellery, performance, biometrics, technology and moving image. Tom Donaldson and I wore the jewellery, performing a subtle 'public intervention'. The jewellery changed the way people interacted with me. Audience members told me they felt the jewellery could induce feelings of exposure and vulnerability in the wearer. Therefore, in return people began to have more intimate, deeper and more creative conversations. Katherine Moriwaki writes about "Medulla Intimata" in *Horizon Zero*,³ "The uncontrollability of the jewellery highlights the dual nature of one's public persona and private emotions, creating an accessory which disrupts conditioned ways of presenting the self." Moriwaki adds "...with "Medulla Intimata", repressed and hidden emotions can leak into the managed world of "polite" conversation, creating undercurrents of unspoken thoughts and accusations". In essence, "Medulla Intimata" is much like a prosthetic device that allows us to become more intimate by revealing our most secret mental impulses in social spaces. To experience the intimate screen of "Medulla Intimata" the audience had to penetrate the personal space of the wearer. Bill Seaman writes, "It is potentially a highly charged sexual work in that it brings intimate linguistic/behavioral attributes into play and disrupts interpersonal social norms by questioning the ongoing historical spatial relations that have been previously socially constructed."⁴ "Medulla Intimata" was my first work that directly involved the audience -they created the experience by playfully engaging with me. While 'performing' the work at the ICA in London over a three-week period with Tom Donaldson, we experimented with the varying ways to present the piece. Some times we had explanatory and interpretative materials, such as signs, leaflets, posters to assist the audience in understanding the context for the jewellery. *

other times, we would not give the audience any framework for understanding the interactive nature of the jewellery, and the audience slowly discovered Medulla Intimata's responsivity over time. First they would notice a rather large jewellery piece, secondly that it displays video, and thirdly that it responded to them. On reflection, I think this worked better, as there seemed to be a deeper audience engagement that coincided with the process of discovery. Also, as I wore the piece, the audience could then engage with both the artist and 'art experience'.

Each time we wore the jewellery, we would alter the 'emotional response map' that activated the appropriate video to correlate with the voice. The process of altering the emotional potency of the jewellery was much like painting a daily account of our emotional inner map. We would often play with it. At times, Tom Donaldson would make the emotional map of his jewellery more 'sexually' highlighted to respond more flirtatiously to the tones of women's conversation. More erotic video tracks would then be transmitted to the jewellery. At times I would make the emotional map of my jewellery so 'dull' that the audience would have to entice me a long way into laughter before the jewellery would react at all. When the audience engaged with me, the jewellery would let them know I was bored. The content of the video self-portraiture was of me looking bored. The colour would be stripped away and become greyscale, the transitions would become slow. But then, if the conversation became 'too boring' the jewellery would throw down some inappropriate video in order to help the conversation along into more interesting topics.

The more often we wore the jewellery and played with different contexts for exhibiting it, the jewellery became more potent. After each 'intervention', we would alter the emotional maps, add new footage and modify old footage. We videotaped each 'intervention', monitoring what elements the audience engaged with and how they responded to it. Tom Donaldson also archived all of the conversations and the responding video footage. The process of wearing the jewellery, documenting the interventions, trawling through the archived video edits matched to the conversations, shaped the piece. The jewellery became more compelling and responsive over time.

The project was successful. "Medulla Intimata" became a vehicle for the dissolution of the barriers between art, the social and the environmental. The jewellery created new art experiences integrated into everyday life. The jewellery became a conduit for expression of emotions, breaking down social artifice, allowing more playful and creative social interactions. Finally, "Medulla Intimata" created a new, more intimate and integrated screening environment for video that suited the nature of my work.

The first prototype of "Medulla Intimata" allowed only the artists to 'wear' the piece, and this limitation is now being reversed. The project is now being adapted to work on video mobile phone platforms, enabling a personal artistic experience to a wider audience. The aim is to transform the role of the mobile phone from an information device to an intimate biofeedback accessory that reveals secrets, desires and various feelings of vulnerability within social situations. The work will be further discerned with Dr David Watkins, Head of Jewellery Research Department of the Royal College of Art in London to create a larger series of more delicate, beautiful and responsive empathic jewellery.

The limitations of the project were the subjective nature of content and the limited bio-sensing methods. I knew for these to be relevant to a wider audience, they needed to be informed by more empirical foundations. The search for deeper empirical findings lead to a collaboration with affective neuroscientist Dr Hugo Critchley, and my role as artist in resident at the Institute of Cognitive Neuroscience at UCL, London.

4. Case Study Three: The "FEEL SERIES"

Artist: Tina Gonsalves,
 Neuroscience: Dr Hugo Critchely,
 Hypnosis: Dr David Oakley,
 Engineering: Tina Gonsalves, Doron Friedman, David Muth, Sean Gomer
 (Arts and Humanities Research Council/Arts Council England Arts and Sciences Research Fellowship, Australia Arts Council, Arts Queensland)

4.1 Data-Mining the Emotions of the Audience

In September 2005 I began an AHRC/ACE fellowship and an artist in residency at the Institute of Cognitive Neuroscience and Functional Imaging Laboratory at UCL, a world centre for integrative neuroscience with a multidisciplinary approach to understanding behaviour,



Figure 3 - "FEEL:FERMENT", Tina Gonsalves, 2006

psychological development and workings of the human mind. Spending a year immersed in a major, neuroscientific centre has been inspirational and timely.

The year was spent collaborating with Critchley and his research group. Critchley's research focuses on mechanisms through which emotions, and their corresponding body-states, can transfer between people. Together, we are researching varying interactive applications (The "FEEL SERIES" 2005-present) utilising psycho-physiology to determine emotional states. The emotional data of the body, triggers 'art experiences' that are based on more sophisticated theoretical and aesthetic foundations to induce and entrain emotions. Inspirations are Diana Gromala's "The Living Book of the Senses" (2000-present), a sensorially responsive interactive experience that extends the traditional book, and Pia Tikka's "Obsession" (2006). The aim is to create multi-modal monitoring of the body, much like James Fung's "Regenerative Music" (2000) where he monitored EEG, heart rate, and respiration activity to create a feedback loop between the musician/performer and his instruments. The "FEEL SERIES" brings vision into the equation.

The bio-sensitive video installations of the "FEEL SERIES" respond to the emotional feelings of the audience. Using a range of cues, (sweat, heart rate, breath, prosody, movement, facial emotion recognition) we are discerning the physiological signatures of emotional states to create software that recognises and responds to subtle changes in the body. I am then creating potent emotional narratives that provoke emotional changes in the body. These are tested in the laboratory for their salient effects on the body. As the emotional language of the body creates the narratives of the work itself, we are tapping into ideas of biofeedback. As the audience adjusts their internal body, they adjust the video that surrounds them. We are then interested in ways of influencing the emotional state of the audience, entraining different feeling states within the viewer. I am hoping that seeing, feeling and interacting with the work allows viewers to gain a personal insight and perspective on their emotional responses.

For neuroscience, Critchley sees the project's potential for probing the emotions of his subjects with more potent stimuli, within more ecologically relevant contexts, (i.e. outside a laboratory). He sees this work as a template to treat clinical disorders of social emotion including depression and autism. To me, creating art that crosses over into tools for well-being provides an organic and important progression of my work.

Working with Critchley's research group, I have already begun to shoot, edit and effect potent video stimuli to be used on subjects within the fMRI scanners. I have been creating imagery with an aim to arouse only the heart, and only the stomach, creating an effect on the sympathetic

and parasympathetic nervous system. It has been strange and rather wonderful to produce 'specific organ' arousing video imagery. With these images we are analysing audience response via fMRI images of the brain. These are still being analysed.

To me, the "FEEL SERIES" offers a more profound model of interactivity, directly involving the audience, deepening the audience experience. As a lot of the technology is adaptive and driven by the psychophysiology of the audience, this process of audience feedback is essential to sculpt the interactive installations. The viewer's bio-data shapes the final interactive installations and feeds the artistic content of the work. So, for these projects to 'work' they need to be constantly tested with audiences. Essentially, traditional 'research', 'development' and 'exhibition' timelines have become finely integrated into production. By constant testing, the dynamic between emotionally inducing visual and audio stimuli, audience, software and bio sensing methods are constantly discerned. In this process of weaving exhibition into production, the audience is brought into the artistic process of creating bio-sensitive installations. The audience will see it take shape and notice that over time the work begins to respond to them more sensitively. I have also found the continuous audience feedback allows me a more objective context to think about my work.

I am monitoring audience response via video camera interviews and written feedback forms. The physiological responses of the audience are also monitored, though often this is proving difficult because of the Data Protection Act. Understanding the bio-sensitive interactive experience is complex. With my next work, I hope to collaborate with the Human Computer Interface Group at UCL and I feel this will lead to more comprehensive evaluation models.

Another issue to evaluate will be the cross-cultural specificities and universalities of emotions. In what ways are human emotions 'constructed' from within different cultural settings? Do human emotions across many cultures conform to certain basic biological/physiological processes in the human body? What is the metaphorical language of emotions cross-culturally? Is there cultural variation of physiological changes during emotion induction?

I find as my creative process is developing, the role of the audience has become more finely interwoven into the creative processes of my work. In order to achieve this, the work is becoming highly collaborative. The audience experience is integrated into the conception, development, production and exhibition of the work. I am yet to know if this offers me 'better' work, although I remain unsure what constitutes 'better'. I am creating work that attempts to generate more meaningful communications with the audience. With my work, I hope to bring the audience closer to the creative process. I want the audience to feel

more, to become more sensitive to themselves. The artistic experience results in an audience not only more engaged and enriched by the work, but also, I hope, a deeper relationship with their own body.

Notes and References

- 1 William James, (1894), The Physical Basis of Emotion. *Psychological Review* 101, pp 205-10.
- 2 Harrison et al., (2006), Pupillary Contagion. *Social Cognitive and Affective Neuroscience* (SCAN) 1, pp 1-4).
- 3 Moriwaki, K. (2004) Smart Clothes, Fashionable Technologies, HorizonZero, (accessed March 2005): <http://www.horizonzero.ca/index.php?pp=28&lang=0#>
- 4 Seaman, B. (n.d) Medulla Intimata: A Portrait - Performer's Evocative Meaning- Becoming, Rhode Island: Rhode Island School of Design.

ENGAGE: Interaction, Art and Audience Experience

A CCS / ACID Symposium

The experience of audience is at the heart of interaction and, in particular, interactive art. Computer-based interactive artworks come into being and exist in their full form when they are used. They cannot be understood only as objects, but must be thought of as time-based experiences, or periods of engagement. This collection of papers presents the latest work in the area of interaction, art and audience experience. It draws together different disciplinary approaches and perspectives including artist led research, curatorial and museological approaches and interaction design perspectives.

Editors:
Ernest Edmonds
Lizzie Muller
Deborah Turnbull

Held at:
University of Technology, Sydney
PO Box 123 Broadway
NSW Australia 2007

26-28 November 2006

Creativity and Cognition Studios Press
University of Technology, Sydney
PO Box 123 Broadway
NSW Australia 2007

Telephone: +61 2 9514 2384
Fax: +61 2 9514 4761
Website: www.creativityandcognition.com/engage06

ISBN: 978-0-9751533-4-5

© Copyright 2006 of the authors
All rights reserved. No part of the material protected by this copyright notice may be reproduced in any form or by any means, electronic or mechanical, including photocopying, recording or by any information storage and retrieval system, without written permission from the publisher: Creativity and Cognition Studio Press. All papers have been peer reviewed.

Printed by the UTS Print Services

Cover Design by Ian Gwilt

CONTENTS

List of Contributors	v
Symposium Committee	xi
Forward <i>Ernest Edmonds and Lizzie Muller</i>	xv
Engaging with Experience <i>Lizzie Muller</i>	xvii
Reflections on the Nature of Interaction <i>Ernest Edmonds</i>	xxiii

INVITED PRESENTATIONS

Physical or Virtual, it's all Real <i>Tim Boykett</i>	4
Modes of Creative Engagement <i>Andrew Brown</i>	6
Probes and Commentators: Placing Interpretation at the Heart of Design <i>Bill Gaver</i>	8
Participatory Systems <i>Beryl Graham</i>	10
The Economy of Interaction in Public Art Galleries and Museums <i>Mike Stubbs</i>	12

CONFERENCE PROCEEDINGS

Long Presentations:

THEORETICAL AND CURATORIAL APPROACHES

Emergence: The Generation of Material Spaces in Anthony McCall's 'Line Describing a Cone' <i>Susan Ballard</i>	16
---	----

Media Mirrors and Image Avatars <i>Kathy Cleland</i>	28
From Audience to Inhabitant: Interaction as a Medium in Architecture <i>Joanne Jakovich, Kristy Beilharz</i>	40
The Promise of the Arty Little Microfish <i>Natalia Radywyl</i>	50
ARTIST LED RESEARCH	
Touch as the Act of Signification: Naming as a Key Design Concept for Gesturally Intuitive Interactive Space <i>Roman Danylak, Ernest Edmonds</i>	62
Frolicking with Phantoms: Illusion in Mixed Reality <i>Alex Davies</i>	68
Creating a Social Anxiety Interface in the Artwork 'In the house of shouters' <i>Anna Davis</i>	80
Towards a Visual Taxonomy in Mixed Reality Art <i>Jan Gwilt</i>	90
Partial Reflections: Interactive Environments for Musical Exploration <i>Andrew Johnston, Ben Marks, Linda Candy, Ernest Edmonds</i>	100
Styles of Participation and Engagement in Collective Sound Performance Projects <i>Kazuhiro Jo, Yasuhiro Yamamoto, Kumiyo Nakakoji</i>	110
Some Digital Media Approaches to Non-Linear Narratives and Interactivity <i>Janet Marles</i>	120
INTERSECTION OF HCI AND INTERACTIVE ART	
Eliciting Audience's Experiences to Improve Interactive Art Installation <i>Hanif Baharin, Ann Morrison</i>	134

Catching the Interactive Experience: Using the Repertory Grid Technique for Qualitative and Quantitative Insight into User Experience <i>Daniel Fallman</i>	144
Interactive Art as Embodied Inquiry: Working with Audience Experience <i>George Poonkhin Khut</i>	156
Short Presentations	
THEORETICAL AND CURATORIAL APPROACHES	
The Bairdboard Bombardment: A Decade of Engagement <i>Mike Leggett</i>	172
Surface, Site, Screen: Interactive Art in Public Space <i>Julianne Pierce</i>	184
ARTIST LED RESEARCH	
An Exploration into Deeper Engagements of Audience and Creative Process <i>Tina Gonsalves</i>	196
The Avoca Project: Place and Art and Interaction <i>Lyndal Jones</i>	208
The Reflective Practitioner: in creation of a presence based experience <i>Sarah Moss</i>	218
Identification-Projection-Interaction: The Participant in an Interactive Art Environment <i>Mari Velonaki</i>	230
INTERSECTION OF HCI AND INTERACTIVE ART	
Evaluating Audience Experience <i>Zafer Bilda</i>	248
Perceptual Evaluation of Spatial Audio for "Audio Nomad" Augmented Reality Artworks <i>Nick Mariette</i>	260

The Thummer Mapping Project - ThuMP <i>Garth Paine</i>	270
Investigating Interdisciplinary Collaboration: Case Studies in Art and Technology <i>Yun Zhang, Linda Candy</i>	282
APPENDIX: ACID – Designing the User Experience	292
AUTHOR INDEX	294

Many people and several organizations have made invaluable contributions leading up to and enabling the Engage Symposium. The Powerhouse Museum has been an exciting and vital partner in the development of Beta_space and the concepts that surround it. A number of staff have made important contributions, but we must specifically thank Matthew Connell, whose untiring support has enabled much of that work.

ACID, the Australasian CRC for Interaction Design, has been extremely helpful in joining with UTS to fund much of the research around Beta_space and now to specifically sponsor this Symposium. ANAT, The Australian Network for Art and Technology, are a vital source of support for digital art initiatives in Australia, and have generously sponsored the attendance of Tim Boykett. We also thank OZCHI 2006, as Bill Gaver appears courtesy of this leading forum for work in all areas of HCI.

We thank our invited speakers, Tim Boykett, Andrew Brown, Bill Gaver, Beryl Graham and Mike Stubbs, and all of the contributors for their stimulating papers.

Shigeki Amitani has made an important effort, on all of our behalves, by building and maintaining the web site and paper management system. Finally, we are very indebted to Deborah Turnbull, our Co-Editor of the Proceedings, for her tireless, always enthusiastic, administration of everything to do with enabling Engage to take place.

References

Candy, L. and Edmonds, E. A. (editors). (1999) *Proceedings of the Third International Symposium Creativity and Cognition*. ACM Press, New York.

CC2007. <http://www.cs.umd.edu/hcil/CC2007/>

Edmonds, E. A., Muller, L, and Connell, M. (2006). On Creative Engagement. *Visual Communication*. Vol 5(3). pp 307-322.

Engaging with Experience

Lizzie Muller

"By one of the ironic perversities that often attend the course of affairs, the existence of the works of art upon which formation of an aesthetic theory depends has become an obstruction to theory about them... [T]he work of art is often identified with the building, book, painting, or statue in its existence apart from human experience. Since the actual work of art is what the product does with and in experience, the result is not favourable to understanding." (Dewey 1980: 1)

In the opening paragraph of John Dewey's *Art as Experience* he argues that research in art mistakes its own object by focusing on objects rather than *experience*. He describes the dual existence of art as growing from the experience of the artist, and manifested in the audience's experience of the work. This is not simply a collapsing of the distinction between producer and consumer; rather it is an acknowledgement of the similarities of the lived experience of making and perceiving, and of their mutual inter-dependence. Richard Shusterman has pointed out how Dewey's move away from a closed artistic product to an open and transformative aesthetic experience¹ anticipates later theories associated with post-structuralism (Shusterman 2001). Certainly Dewey's words foretell a general movement in contemporary culture towards a privileging of experience.

For research in art the implications of this shift are profound. Taking the active and creative role of the audience seriously necessitates a research focus on the audience's lived experience, which is often perceived as amorphous and difficult to study. The Engage symposium and the diverse and exciting collection of papers that it has attracted address this need from the particular perspective of interaction. The emphasis is on computer-based interactivity in art but this is framed by the recognition that interaction, in its broadest sense, reaches to the heart of experience itself.

Interaction is central to Dewey's pragmatist account of experience, and to other accounts that emphasise the fundamental fact of our embodied existence in the world, notably J.J. Gibson (1979) and Maurice Merleau-Ponty (2002). For Dewey art is expressive of and constituted in the interaction of the "live creature" with the world; "The first great consideration is that life goes on in an environment; not merely *in* it but