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THE SOUTH SYDNEY PROJECT: INTERACTION AND ARCHIVE AESTHETICS

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A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy, Sydney College of the Arts, The University of Sydney.

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Summary

Description of Creative Work

The creative work for examination is a large-scale interactive audiovisual installation: *The Streets of Your Town* (2014). The work will be exhibited at the Sydney College of the Arts Postgraduate Degree Show 4 – 10 December 2014.

Abstract of Thesis

This practice-based thesis questions how interactive media artworks affect the way audiences engage with the past. It considers contemporary art's 'impulse' towards archives within the context of the age of Big Data. At a time when society is generating more information than ever before, this thesis explores how artists working with interactive databases can contribute novel systems and aesthetic experiences in order to carve new ways into and through archives. This thesis brings into dialogue practical and theoretical discoveries made along the journey of reimagining an oral history archive through the system of an immersive responsive installation. It argues that interactive artworks can allow for an *embodied*, *exploratory* and *generative* engagement with archival material. Further, it suggests that such *processual* and *emergent* accounts of the past are appropriate ways of modelling the world and its archived traces in a digital era characterised by swathes of stored data and fluctuating information flows. As critically interdisciplinary work across the fields of new media art and history, this research also suggests the value of such experimental methodologies for rethinking traditional approaches to archives with a view to generating aesthetic and affective, rather than factual and textual, engagements with the past.

Introduction

The past of the call is the future of the answer.

—Jean-Louis Chrétien, The Call and the Response¹

Let me begin by remembering a conversation. The exchange was not particularly long, or even very involved. However, it did provide what a good conversation often does; a spark of intrigue whose niggling flame would burn long after the discussion itself had ceased. The conversation occurred a few years ago between a colleague, Sue Rosen, and myself at a Thai restaurant in Albury, New South Wales. A group of us were eating dinner ahead of a history seminar we were involved in the next day. Over the meal, Sue spoke about an oral history project she had worked on in the early 1990s. Commissioned by South Sydney Council, Sue had interviewed around sixty people about their experiences of growing up in South Sydney throughout the twentieth-century.² As a long-time resident of that area, my ears pricked up.

Sue spoke passionately of the wonderful characters and stories she had come across talking to people who had grown up in suburbs like Redfern, Surry Hills and Newtown—suburbs so ingrained in my psyche they have become iconic to me: Chippendale, Kings Cross, Woolloomooloo. I asked Sue about the kinds of people she had interviewed. The oldest participant, Keith Mulhearn, was born in 1904 and remembered Newtown in the early part of the century. The youngest, Dean Ingram, was born in 1975 in Waterloo and grew up in a completely different South Sydney. These were places that I considered to be my 'territory'—suburbs where I knew the shortcuts, streets filled with memories. I wondered what these interviews might tell me about this place I knew so well, in a time before my memories of it began. What changes were represented in the intervening years between Keith and Dean's recollections of South Sydney?

¹ Jean-Louis Chrétien, *The Call and the Response*, trans. Anne A. Davenport (New York: Fordham University Press, 2004), 10–11.

² The former South Sydney City Council was subsumed into the City of Sydney Council in 2004. City of Sydney Council has recently made some of the South Sydney Project oral histories available online on their website as part of their broader oral history collection: http://www.sydneyoralhistories.com.au. Accessed: 13 July 2014.

As the conversation continued it became apparent that tied up in Sue's passion for the project was a frustration at the lack of funding available to digitise the videotapes these interviews had been recorded on. The original Sony Hi8 cassettes, which had been the professional standard at the time, were now physically deteriorating as well as quickly becoming technologically obsolete. Although the audiotapes of the interviews are held in the City of Sydney archives, the council had not continued the project by digitising the videos, despite having partnered with Sue in producing a book based on the material.³ As our conversation moved away from South Sydney and on to other things, Sue's exasperation over the fate of the oral history collection stayed with me. I thought about it later that night in the quiet of my hotel room.

All over the world, institutions are collecting oral history records. What happens to these stories once they have been archived? As conversations, oral histories take place between flesh and blood people, and communicate with the visceral and embodied significance of what it means to be a witness—to tell a story—and to have someone bear witness to that story. But as documents of these encounters, the recordings shift into the inertness of the archive.

Archives are, of course, undeniably useful things. They provide the conditions for the preservation of information and their indexical structure enables the systemisation of that data. Thus oral history archives, as with other kinds of archives, are valuable material for researchers and will continue to afford historical insights in the future in ways that are not even conceivable to us now. Yet the very nature of archives can, conversely, make them impenetrable; requiring specialist knowledge, travel or funding to access. In entering the archive, oral histories therefore risk passing from being vital spoken accounts of lived experience into muted historical records of that experience.

Sue's situation seemed instructive. After having lovingly produced the collection of South Sydney oral histories, she was left with boxes of tapes and no budget to do anything further with them. I wondered how an artist, such as myself, might go about working with these oral histories in a way that would reflect some of their

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³ Sue Rosen, *We Never had a Hotbed of Crime! Life in Twentieth-Century South Sydney* (Alexandria, Sydney: Hale & Iremonger in association with the South Sydney Council, 2000).

spoken vitality. With this thought in mind, I contacted Sue many months after our initial conversation with a proposal for the South Sydney Archive. I would digitise the oral history videotapes if Sue, in turn, made the material available for me to use in my research.

As an artist, I have a long held interest in the act of the interview. Ask any good interviewer and they will tell you that there is an art to interviewing someone. I have turned this around in my practice to make art out of interviews. For a number of years over different projects I have conducted interviews and used those conversations as raw source material to create artworks. Interviews are an effective way to extract information from a subject, but they also disclose other less factual characteristics of communication. There is an imaginative space that opens up between two interlocutors seeking to articulate experience through language. Listen closely to a conversation and it will begin to reveal certain poetic qualities. The structure of call and response that an interview is built around is a fundamental mode of human communication and there is a kind of empathy represented in the act of asking a question and listening, closely, to the response.

In a series of past works I have talked to people, recorded those conversations, and listened closely to the responses, letting the interviewees' words provide impetus for the creation of an artwork. These works were based around generating a poetic response to a certain concept by commandeering words from interviews and enabling participants to reinterpret those words through interactivity. In one such work, *The Braille Box* (2007), I interviewed eight people about their experience of blindness.⁴ I incorporated the edited and processed interview material into an interactive installation by using strips of touch-sensitive Braille text that would trigger sound and video when touched. Participants could make their own combinations of sounds and images with the touch of a finger and thus imaginatively engage the experiences of the interviewees through physical interactions with their words.

In beginning *The South Sydney Project*, as this research would come to be called, I wanted to extend my investigation by building on this suite of interview-based

⁴ Jessica Tyrrell, *The Braille Box*, 2007, interactive audiovisual installation.

interactive installations. I was interested in a project where I would not conduct the interviews myself, but for the first time would work with archival material, allowing both a new perspective on the act of the interview and critical distance in analysing the impact of placing the words of others into the context of an interactive artwork. I was especially attracted by the South Sydney oral histories because they spoke of the past of the place where I lived. I wondered if by engaging with the material through my art practice I might come to a deeper understanding of South Sydney. I felt an unexpected sense of responsibility to bear witness to these stories from my 'homeland'—a sort of ethical imperative to come face-to-face with a history of South Sydney as told through the memories of some of its residents.

Although it draws on historical material, this thesis is not a history of South Sydney. Instead, it recounts my experiences reimagining Sue Rosen's oral histories of South Sydney into an interactive installation. It tells the story of my quest to better know the place where I live by listening to and re-telling the memories of others who have lived there in the past. Stories need a listener to bring them to life. The way I have chosen to bring these stories of South Sydney to life is different to the way an historian might choose to write the narrative. Similarly, the questions that I have asked are not the questions an historian might ask of the same material. I have searched for different qualities, textures and gaps, and used different tools. I have looked from different angles, and done so with a distinct perspective and a particular sensibility—the sensibility of an artist.

In the remainder of this introductory chapter I will offer an explication of how my particular sensibilities and curiosities as an artist have shaped this research. To do so I will present three structures—my research questions, methodology and ethical framework—as a set of coordinates, a roadmap, by which to read the rest of this thesis. Firstly I outline the guiding questions I have asked (and re-asked) in honing the research. I then outline the methodology I have developed in addressing these questions: a practice-based research approach that has allowed the insights gained from my art-making to feed into those accrued in my theoretical research in a complementary and cyclical process. In the final section I address the ethical considerations that have emerged in the process of

reinterpreting others' memories and show how I have established an ethical framework to negotiate this difficult terrain.

Research Questions and Outline of Chapters

The questions I have asked throughout this research process are variations on curiosities that have been driving my research for a long time. They are questions that have emerged from my ongoing experiences as a researcher in the visual arts addressing concepts such as perception and experience, narrative and language, the act of the interview and the effect of interactivity on audience engagement with artworks. All of these themes are represented in my current research, but working with the South Sydney material has also raised new concerns. I came to this project armed with the cumulative knowledge generated from past research experiences, but also with a handful of fresh curiosities specific to my new undertaking. As I started working in the studio, and critically reflecting on that work through theoretical research, these curiosities began to coalesce into a set of discrete research questions. Each of these questions, which I will now outline, forms the basis of a corresponding chapter in this thesis.

The first chapter, 'Three Hallucinations', is structured around a series of place-based metaphorical 'hallucinations' that serve as a way of introducing some of the characters of the archive and also probing the imaginative underside of their remembrances. In doing so I ask the basic question: *What is the aesthetic potential of the South Sydney Archive?* I draw elements of Edward Casey's ideas around memory together with an account of the development of the practice of oral history to focus on the subjectivity entailed in both the telling of oral histories and their apprehension by listeners.⁵ I show how focusing on the *orality* of oral history—the crucial part of its DNA that distinguishes it from other archival material—helped me find a way into approaching the interviews as aesthetic and affective, rather than factual and textual, material. I discuss how in focusing on what I call the 'resonant' qualities of the interviews—a term which I adopt from Gaston Bachelard—I come to see the South Sydney Archive as a repository of local knowledge with which to establish imaginative understandings and responses to

⁵ Edward Casey, *Remembering: A Phenomenological Study* (Bloomington, IN: Indiana University Press, 2000).

place.⁶ This notion is extended using some of the 'practices', theorised by Michel de Certeau in his text 'Walking in the City', by which everyday inhabitants negotiate place from the ground up.⁷ Following Certeau, Chapter One draws on examples of artworks that bring spoken stories into dialogue with places to show how poetic responses to environments might 'invent' those places and make them, as Certeau says, 'habitable'.⁸

The second chapter, 'Interaction Aesthetics', shifts from the streets to the studio to examine the field in which my practice is located: interactive media art. In considering the process of incorporating the South Sydney oral histories into a responsive immersive installation, I question: *What kinds of aesthetic experiences* are produced by interactive media art? In doing so I first situate digitally mediated interactive works within a broader genealogy of participatory practices. I then look specifically to the materials and methods of making responsive immersive installations to consider what is especially revelatory about being in an interactive artwork. In thinking through how successful interactive media works sustain creative engagement, I unpack the interaction design of David Rokeby's wellknown work, Very Nervous System (1983-) using a framework developed by Ernest Edmonds, Lizzie Muller and Matthew Connell.⁹ The final section turns to a consideration of my own practice, providing an account of my experiences in the studio developing the prototype of the South Sydney Project artwork. I consider how the relationship with source material that I established through improvised audiovisual performance informed my design process in developing an interactive system that would allow audiences an exploratory experience of the oral histories. As I will demonstrate shortly in this introduction, the incorporation of this experiential knowledge gained through my studio practice is an integral element of my research methodology.

My experiences in the studio working with archival material for the first time quickly led to a fascination with the conceptual implications of using 'the archive'

⁶ Gaston Bachelard, *The Poetics of Space*, trans. Maria Jolas (Boston: Beacon Press, 1994).

⁷ Michel de Certeau, 'Walking in the City', in Certeau, *The Practice of Everyday Life*, trans. Steven Rendall (Berkeley: University of California Press, 1988), 91–110.

⁸ Ibid., 107 and 105.

⁹ Ernest Edmonds, Lizzie Muller and Matthew Connell, 'On Creative Engagement', *Visual Communication* 5.3 (2006): 307–22.

as source material for making artworks. Chapter Three, 'Remixing the Archive', questions: What is learned in cutting up and recombining the archive? In his 2004 article 'An Archival Impulse', Hal Foster identifies a wave of contemporary artists engaging with archives, not only as their subject matter, but also as a key structural and methodological element in their practice. ¹⁰ I consider this trend within a broader context of artistic practices based on what Nicolas Bourriaud terms 'postproduction' and Kenneth Goldsmith calls 'uncreativity' that recombine, reappropriate and remix existing material. ¹¹ This leads to a discussion of the potential of the database form, within the context of the vast information flows that characterise contemporary networked culture, to extend artistic remix operations by generating relational and emergent meanings.

Chapter Four, 'The Historians', turns to the field of historiography to consider how the new information flows and remix practices discussed in Chapter Three might impact on the profession of history. In doing so it asks the fundamental question: How do we engage with the past? with a curiosity about how different modes of representing history might chime or conflict with our lived experience of the past. I consider examples of database-driven artworks that produce emergent and relational renderings of archival and historical material. I speculate that while traditional historical narratives offer fixed accounts, these processual systems provide ways to model our relationship with the past that are appropriate for the information flux of a digitised society. I wonder whether such practices might contribute to—or exist at the edge of—what David Thelen has called a new 'participatory historical culture'.¹² Finally, I revisit the question of ethics (which is broached later in this introduction) in relation to the paradigm of remix, and probe the value of such artistic approaches to reinterpreting archives in sparking the historical imagination.

The final chapter, 'The Streets of Your Town', returns to the studio to present an explication of my process developing the final iteration of the South Sydney Project

¹⁰ Hal Foster, 'An Archival Impulse', October 110 (2004): 3–22.

¹¹ Nicolas Bourriaud, *Postproduction: Culture as Screenplay*, trans. Jeanine Herman (New York: Lukas & Sternberg, 2002), 13; Kenneth Goldsmith, *Uncreative Writing: Managing Language in the Digital Age* (New York: Columbia University Press, 2011), 1–13.

¹² David Thelen, 'A Participatory Historical Culture', in Roy Rosenzweig and David Thelen, *The Presence of the Past: Popular Uses of History in American Life* (New York: Columbia University Press, 1998), 190–207.

artwork. The questions this chapter addresses relate to this design process itself. I wonder: *How might key discoveries gathered over the course of the research be spatialised through a new iteration of the artwork's interface?* I show how I responded to my evaluation of the prototype, as well as historiographical debates around time and linearity, in order to refine the interaction design of a new version of the work. In considering an appropriate premise for selecting the interview fragments to populate this version I describe the development of a 'bespoke' datamining process for cutting up the archive that would foreshadow potential areas for further research laid out in the conclusion of this thesis.

Methodological Framework

What is the material of thought?

—Paul Carter, *Material Thinking: The Theory and Practice of Creative Research*¹³

In addressing the research questions outlined above, my enquiry finds its form as a practice-based research project. As such, the *curiosities* and *claims* that have emerged from my experiences and experiments in the studio have fed into, and in turn been fed by, my theoretical enquiries, researching and writing. I have chosen the words 'curiosity' and 'claim' purposefully to represent the modes of 'implicit' and 'explicit' knowledge that Ross Gibson invokes in his essay on practice-based research, 'The Known World'. This text has deeply informed my conception of what it means to do practice-based research and I shall return to it shortly. Before doing so, I would like to tease out what I mean when I use the terms 'curiosity' and 'claim' in talking about practice-based research. And I would also like to tell a little story about a typewriter.

¹³ Paul Carter, *Material Thinking: The Theory and Practice of Creative Research* (Melbourne: Melbourne University Publishing, 2004), xi.

¹⁴ Ross Gibson, 'The Known World', *TEXT Special Issue, Symposium: Creative and Practice-led Research—Current Status, Future Plans* 8 (2010).

http://www.textjournal.com.au/speciss/issue8/Gibson.pdf. Accessed: 8 April 2011.

As artists, we make. We come to know the world, in part, through making. This 'making-knowledge' is a special kind of knowledge—a particular way of knowing that emerges from curious experimentation and manifests as an implicit and embodied understanding of the materials, methods and concepts we employ. Yet as artists, we also communicate linguistically. Artists have long communicated their revelations, not solely through their work, but also through thinking and talking around what they have made, both for themselves and for their audience. Think of Vincent Van Gogh's letters to his brother Theo or the manifestos that were almost compulsory for twentieth-century art movements such as Surrealism or Dadaism. Consider the artist statements that invariably accompany artworks in exhibitions and catalogues and are increasingly valued equally to curatorial interpretations. Artists have been thinking and talking around their artwork for a long time, and these explications have a relationship that is intricately bound up in the process of making.

Practice-based research, which is a relatively emergent methodology in the traditional academic framework, assumes that when artists are making, they are not only making artworks; they are also *making knowledge*. This is the kind of 'material thinking' that Paul Carter discusses in his leading book on creative research. A practice-based research methodology formally positions 'making-knowledge' in relation to 'thinking and talking'—theoretical and reflective undertakings—and furthermore situates these two modes of knowledge generation as being concomitant. It creates a framework for a purposeful and productive dialogue between these complimentary ways of knowing and, in doing so, enables the generation of knowledge that would not have been possible by following one route to the exclusion of the other.

To illustrate this, let me tell you a little about the typewriter. As a child I was often driven to find out exactly how different machines worked, so I would physically take apart an old typewriter, for example, and then painstakingly put it back together again. I remember crouching in my parents' garage, screwdriver in hand, dismembering my dad's ancient typewriter piece by piece. I was conducting a kind of typewriter autopsy—removing the exoskeleton of the machine to reveal its

¹⁵ Carter, *Material Thinking*.

individual components, poking around to work out how each part related to the other. I remember holding a rib-like bundle of long metallic keys, my hands greasy from the machine oil and blackened from the special kind of matte black ink, almost powdery, of the typewriter ribbon.

This practical task generated an embodied knowledge of how a typewriter works. I came to know the feel and smell of the typewriter, to know how its individual parts operated as a whole. Having pieced the machine back together by intuition, I began to acquire the kind of understanding that I could not quite have gained by looking at an instruction manual or a book about how typewriters work. It was an understanding borne of the determination *to work something out for one's self*. To play, to become immersed, to learn by touch, by doing. Once my childhood curiosity to understand the internal workings of the typewriter had been satisfied by physically experiencing how it was put together, I was then able to begin formulating in my mind more *explicit* claims to knowledge about how the machine operated. These were the kind of claims that, with a little more tinkering, I might be able to articulate to others.

I share this anecdote because it is a strong and early memory of conducting a form of practice-based research. The story demonstrates how implicit knowledge can feed explicit knowledge in an almost instinctual manner, a process rooted in a kind of child-like desire to discover by doing, rather than by being told or shown. However, the translation of implicit knowledge that is felt in the body into explicit knowledge that can be communicated through language is anything but child-like. It requires a purposeful, systematic and cognisant negotiation between the investigation of curiosities and the formulation of claims. In nutting out this backand-forth rhythm of being inside and then outside of an experience, Gibson notes the etymological correlative between 'experiment' and 'experience':

Acknowledgement—the shift in knowledge—is instigated when the researching artist conducts a productive and purposeful experiment. Etymologically, to experiment and to experience are closely related. (Indeed the French noun for 'experiment' is 'expérience'). The experimenter goes consciously and interrogatively into and then out of an experience, knowing it somewhat by

It is in what Gibson refers to as the 'cognitive quickstep' between the poles of immersion and reflection that knowledge generation takes place for the practice-based researcher. Note that in Gibson's formulation, the experience is only known *somewhat* by either immersion or reflection alone; it can only ever be known wholly in the combination of these processes. Knowledge is generated by going into and then out of these modes until a translation occurs between the two. Thus, it is in the dialogue between experience and the communication of experience—when experimental and experiential discoveries are translated linguistically into a 'narrative' account—that knowledge is produced.

Let us return briefly to the example of the typewriter. Often the machines I dismembered would not work again once they had been put back together for the first time. From my initial experimentation I had generated *preliminary* claims about the workings of the typewriter. Armed with this provisional knowledge, I would go back into the experience of typewriter deconstruction to test my formulations by applying them again—this time making adjustments, learning from mistakes. I would keep up the process throughout the long stretch of the summer school holidays. What I was doing, though I might not have known it at the time, was learning about the typewriter *somewhat by immersion* and *somewhat by reflection*.

Having pursued this dialogical way of knowing to the point that the typewriter worked once again, I was eventually confident enough in my knowledge to drag neighbourhood friends into the garage-laboratory to demonstrate my findings. I discovered that I could now speak of the typewriter with an assured and commanding knowledge that only comes from experimenting, from going, with curiosity, into an experience. This urge I had to share what I had learned points to a crucial component of practice-based research: the communication of new knowledge to a community of peers.

Any research must be communicated in order for it to be useful to others. This is

¹⁶ Gibson, 'The Known World', 5.

¹⁷ Ibid., 11.

especially important in practice-based research where part of what is being communicated is tacit knowledge; the kind we might be tempted to believe is unable to be articulated. As Barbara Bolt notes in discussing such 'praxical knowledge':

Whilst the artwork is imminently articulate and eloquent in its own right, tacit knowing and the generative potential of process have the potential to reveal new insights: both those insights that inform and find form in artworks and those that can be articulated in words.¹⁸

Just as practice-based researchers rely on an internal translation of implicit knowledge into explicit knowledge, this explication must be extended to a community of peers in order for it to have ongoing value as research. As Gibson notes, by communicating our claims—not just through artwork, but also linguistically—'discourse amongst a scholarly community becomes feasible, because interlocutors can share language in order to contend with the outcomes of the research'.¹⁹ As a researcher, the generation of knowledge must take place within the context of a community of fellow researchers, and must offer outcomes that are not only new and communicable but useful in that they can be developed by others. The idea of establishing a shared discourse through which non-traditional (or, at least, non-linguistic) research outcomes can be discussed, compared and, vitally, built on, is at the crux of the practice-based methodology as a framework for research in the visual arts.

In the following chapters I shall attempt to offer what I have described above: the communication of explicit claims to knowledge—specifically, those that have emerged in the process of working with, and coming to know, the South Sydney oral histories and the artwork's interactive system, somewhat by immersion and somewhat by reflection. I have used the typewriter story along with some ideas borrowed from Gibson in order to describe the theoretical premise of my methodology. Yet a methodology is practical; it is a way of *doing* things. Thus over the course of this thesis I will refer specifically to my process of working with the

¹⁸ Barbara Bolt, 'The Magic is in Handling', in *Practice as Research: Approaches to Creative Arts Enquiry*, eds. Estelle Barrett and Barbara Bolt (London; New York: I. B. Tauris, 2007), 31. ¹⁹ Gibson, 'The Known World', 11.

South Sydney material in the studio to illustrate how I have arrived at certain claims to knowledge. I will also draw on the words of the interviewees to exemplify certain propositions that have emerged from this practical work.

Ethical Framework

Any research that appropriates the words of others must have a sound ethical basis in doing so. In the final section of this introduction I will address the way in which I have negotiated some of the ethical considerations that have emerged from reinterpreting the South Sydney oral history material into an artwork. Unlike many of my past works where I have interviewed people in order to create artworks from those recorded conversations, this research has not involved interviewing any subjects. Instead, I have worked exclusively with extant archival material created in 1993–95 by historian Sue Rosen, who granted me licence to use the oral histories in the production of an artwork.²⁰

During our conversations in developing this agreement, Sue and I had many discussions about the ethics of the project. I was initially concerned about how the interviewees might feel about their words being appropriated into an artwork. Sue held that the participants had agreed to be interviewed willingly with the desire to impart their stories for posterity, and would thus have no problem with the material being used for creative purposes. Each of the participants in the original South Sydney Project had been fully briefed on possible ongoing uses of their interviews and had signed agreements indicating approval for the material to be included in subsequent projects, such as education material, theatre productions and exhibitions. I raised the feasibility of contacting the interviewees to inform them of this new project, but Sue felt that considering the nature of the original agreements this would be unnecessary, and also extremely difficult as many would have passed away or be impossible to track down.

Sue was more concerned that I maintain an open dialogue with her, as the custodian of the stories, about how my research was progressing. She expressed a

²⁰ Rosen and Tyrrell co-signed a Memorandum of Understanding which granted permission for Tyrrell to use the South Sydney material as part of her research and outlined the parameters of their arrangement, such as the attribution of Rosen as the creator of the original material.

strong sense of personal responsibility that the integrity of the participants be upheld, as they had trusted her by sharing their stories in the first place. I could relate strongly to this feeling, knowing from the interviews I have conducted in the past the weight of responsibility one feels towards another's testimony. I had showed Sue some examples of my previous artworks, including the piece based on interviews with blind people. I sensed that my demonstrated experience of working ethically and sensitively with other peoples' stories gave Sue confidence that I had a sound internal ethical compass to guide me in treating the South Sydney material with respect.

Following these discussions, I began to develop an ethical framework for the research which involved an acknowledgement that, although I was working with archival material, these interviews were nonetheless spoken memories and stories that belonged to real people, and needed to be treated with respect and sensitivity. In developing this idea of an 'internal ethical compass'—the personal sense of responsibility to bear sincere witness to another's testimony—I have looked to Katherine Biber's notion of a 'jurisprudence of sensitivity' put forth in her article, 'In Crime's Archive'. While Biber's research regards criminal archival material, as distinct from oral history, her framework towards the cultural re-use of evidence is useful in thinking about ethical standards around reworking sensitive extant material based on personal judgement where, as Biber puts it, quoting Desmond Manderson, there is no 'right answer'. Biber broadens the definition of 'sensitivity' from its specific legal context in positing the idea of a jurisprudence of sensitivity as a framework to negotiate ethical questions raised by the possible ongoing cultural uses of criminal evidence. Biber suggests:

Listing what is 'sensitive' is an intellectual undertaking; recognizing what is 'sensitive' demands feeling something. A jurisprudence of sensitivity recognizes sensibilities, emotions and harm. ... It recognizes that certain materials require special care, delicate handling, tact ...²²

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²¹ Katherine Biber, 'In Crime's Archive: The Cultural Afterlife of Criminal Evidence', *British Journal of Criminology* 53 (2013): 1043. Biber quotes Desmond Manderson, 'Judgment in Law and the Humanities', in *Law and the Humanities: An Introduction*, eds. Austin Sarat, Matthew Anderson, Cathrine O. Frank (Cambridge: Cambridge University Press, 2010), 496.

Biber outlines how such an approach requires more than a single decision, employing sensitivity is a 'process of judgement' that emerges from ongoing debate and consideration.²³ Following William Twining, Biber shows how a jurisprudence of sensitivity calls for a negotiation of the 'spaces *between* fact and value, fact and law, reason and intuition'.²⁴ Aside from my internal sensitivities, my primary external checkpoint would be the communication of questions around ethics both with my supervisor and to a broader research community; an ongoing undertaking that would become part of a continuous process of exercising sensitivity suggested by Biber. I will discuss in Chapter Four, for example, how dialogue around the ethics of my project with historians during conference presentations helped me refine my approach to working with the South Sydney Archive and establish my position in relation to the ethics of the research.

Crucially, my ethical compass would also be guided by consultation with Sue as the producer and custodian of the stories. Sue's input would be invaluable as she had personal relationships with the participants and an intimate knowledge of the context in which the interviews took place—a context I could not wholly ascertain by watching recordings of the encounters. This intimate level of understanding of the material, which I would draw on in our discussions over the course of my research, was produced from her lived interactions with the interviewees; from entering their homes to film them, sharing cups of tea and having conversations that occurred off camera. Sue had been able to develop a sense of these people as individuals; she felt their presence and their vulnerability as they sat before her and the camera, sharing personal memories from childhood. Even more so than with interviews I had conducted for past artworks, it was apparent that the telling of an oral history—rooted as it is in personal experience and the subjectivities of perception and memory—is an exercise bound up in trust and the strange sort of intimacy that can emerge from sharing something deeply personal with a virtual stranger.

The question of how to honour the bond of trust established between Sue and her interviewees was a major ethical consideration for me in approaching the South

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²⁴ William Twining, *Rethinking Evidence* (Cambridge: Cambridge University Press, 2008), 7, quoted in Biber, 'In Crime's Archive', 1045. Emphasis in original.

Sydney material. Although the interviewees might have trusted Sue in sharing their memories, they may not trust subsequent researchers, such as myself, over whose interpretation of their interview they would not have jurisdiction. What if their words were misrepresented? And what, exactly, would constitute misinterpretation? I wondered, for example, what distinguishes an historian unintentionally misinterpreting the meaning of an oral history, and an artist wilfully reinterpreting it? Perhaps the issue of trust was actually more a question of *expectations*. When the South Sydney interviewees gave their oral histories they had the expectation that their words might be used for historical research. They would also assume (rightly or wrongly so) that historians drawing on their material would adhere to certain ethical protocols within their field, such as providing relevant context and corroboration in analysing the source.

What does this mean for an artist, such as myself, who intentionally divorces the words from their context in order to search for aesthetic and affective experiences rather than factual historical understandings? Despite having signed an agreement to subsequent—including 'creative'—re-uses of their words, the interviewees could hardly have expected that twenty years later their interviews would be incorporated into an 'interactive art installation', as such a thing did not exist in the popular consciousness of the time. It is murky territory between the desire to reinterpret and the potential to misinterpret when expectations surrounding best practice differ across different fields. This poses an ethical challenge for the interdisciplinary researcher utilising material from a particular field and applying a methodology from another domain. I wondered, what is my responsibility as an artist engaging in a discipline where certain expectations exist around the representation of reality that might be in conflict with my artistic methodology?

In thinking through this question, I turned to the field of nonfiction film where theorists and filmmakers have long grappled with the contradictions inherent in the process of representing something called 'reality'. This bind is neatly encapsulated in the classic Griersonian definition of documentary as 'the creative treatment of actuality'. Within this seemingly oxymoronic statement exists an acknowledgement that any representation of reality is just that—a representation.

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²⁵ John Grierson, 'First Principles of Documentary', in *Grierson on Documentary*, ed. Hardy Forsyth (Berkeley: University of California Press, 1966), 145–56.

Yet the genre of documentary is based on the idea of using material that is factual, that is *of the world*. So, what is at stake in treating actuality in a creative way? And if the signified can never really be untangled from the signifier, is not all treatment of actuality in some way creative?

Many documentary filmmakers have addressed these questions by creating self-reflexive works that foreground their own artifice as filmic representations of reality, and thus critique the veil of objective factuality implied in traditional nonfiction filmmaking. These documentaries acknowledge their role as a medium of representation by highlighting, for example, the subjective perspective of the filmmaker or the formal elements of film production and postproduction. Other documentary makers have extended this investigation by elevating formal or aesthetic concerns as their principal focus. In accounting for these kinds of films, Carl Plantinga has put forward:

[A] category of the *poetic nonfiction film* to recognize the fact that some nonfiction films are concerned not primarily with argument, or with the assertion of propositions about the world, but have an aesthetic function that serves as their primary organizing principle.²⁶

Plantinga's taxonomy of the poetic documentary builds on Michael Renov's identification of the desire 'to express' as one of the four 'constitutive modalities' of documentary.²⁷ Acknowledging that the aesthetic function of documentary has been historically undervalued, Renov argues:

[T]hat a work undertaking some manner of historical documentation renders that representation in a challenging or innovative manner should in no way disqualify it as nonfiction because the question of expressivity is, in all events, a matter of degree. All such renderings require a series of authorial choices, none neutral, some of which may appear more 'artful' or purely expressive than others.²⁸

Renov continues, stating:

⁶ Carl Dlantings (Voice and Authorit

 ²⁶ Carl Plantinga, 'Voice and Authority', in Plantinga, *Rhetoric and Representation in Nonfiction Film* (Cambridge, UK; New York, NY: Cambridge University Press, 1997), 103. Emphasis in original.
 ²⁷ Michael Renov, 'Toward a Poetics of Documentary', in *Theorizing Documentary*, ed. Michael Renov (New York: Routledge, 1993), 32 and 13.
 ²⁸ Ibid., 35.

The ability to evoke emotional response or induce pleasure in the spectator by formal means, to generate lyric power through shadings of sound and image in a manner exclusive to verbalization, or to engage with the musical or poetic qualities of language itself must not be seen as mere distractions from the main event.²⁹

For artists working with historical sources, as for filmmakers using documentary material, aesthetic concerns are equally valid avenues for investigation as textual readings. In my research, calling not only upon the textual qualities of the South Sydney oral histories, but also its aesthetic qualities, has allowed me to create an outcome that accounts for the inherent *audiovisuality* of the material. By using sound in the artwork, I can capitalise on the *spoken* nature of the oral histories—the fact that they have resonance, timbre, dynamics and intonation that tell a story independent of the content of the words. The use of video allows the visual elements of the interview such as movement, gesture and composition to be represented. Engaging the formal elements of the video itself—its grain, texture, colour and saturation—draws out new discoveries again. Importantly, by transcending the imperatives of historical accuracy and even 'truth', potential is created for extracting aesthetic and affective meanings from the textual content of the interviewees' words.

Learning from the documentarians, there is clearly great value in extending the subjectivity inherent in any interpretation of a source to allow for non-textual examinations of 'factual' material. As Renov reminds us in his analysis of the work of Paul Strand, 'It is, in fact, the photographic artist's discovery of the unanticipated—his ability to unleash the visual epiphany—that wrenches the image free of its purely preservational moorings'.³⁰ Strand's wrenching of the documentary image from its 'preservational moorings' is reminiscent of my desire to revive the South Sydney oral histories from the archive by engaging their *spoken vitality*. This aim is best realised by employing my particular sensibility as an artist, and a practice-based research methodology, to engage both the aesthetic and affective aspects of the material.

²⁹ Ibid.

³⁰ Ibid., 34.

Earlier I questioned what is at stake in the creative treatment of actuality. There are surely challenges involved in appropriating others' words into unexpected contexts. I have outlined how I have addressed the ethical considerations arising from my recontextualisation of material created with the assumption of certain discipline-specific protocols. Yet I have also shown that any intervention into historical or factual material is subject to varying degrees of authorial intention and, furthermore, that an innovative approach to this kind of material creates potential for unanticipated discoveries. As I begin to elaborate over the coming chapters on the discoveries I have made in working with the South Sydney Archive, I will demonstrate that the new understandings enabled by an engagement with oral history's aesthetic and affective qualities represents a valuable contribution to knowledge—and one that could not be generated by another approach.

Chapter One

Three Hallucinations: a walk through South Sydney

We are never real historians, but always near poets

—Gaston Bachelard, The Poetics of Space1

Introduction

This chapter takes a walk through the suburbs of South Sydney. But we are not meandering aimlessly. This is a journey with a distinct purpose. Our walk revisits the locations of a series of 'hallucinations' I experienced over the summer of 2010. During this time I was digitising the South Sydney oral histories. I became so immersed in the archive that my mind would constantly whirl with words from the interviews. While traversing a street in Redfern, for example, I would experience the mental flash of an image from an interview I had listened to the day before that would transport me to a bygone era. I might be standing a few blocks from my house while mentally stripping the street of cars and resurrecting the original façades of terrace houses that had since been renovated. It is a transporting venture to meditate on the past of the place where you live. It enacts a kind of time-travel.

This chapter charts the sites of three of these hallucinations. In doing so, it seeks to familiarise the reader with the South Sydney Archive in order to offer a taste of some of its characters and their stories. Furthermore, in revisiting these sites and analysing the hallucinations, this chapter maps the slippery connections between place, memory and imagination that unfolded as I began working towards reinterpreting the South Sydney oral histories into an artwork. It shows how, by inhabiting the hallucinatory space of walking the streets of South Sydney while imagining the world remembered in the interviews, a messy overlapping of place, memory and imagination occurred. In the triangulation of these ideas the

¹ Gaston Bachelard, The Poetics of Space, trans. Maria Jolas (Boston: Beacon Press, 1994), 6.

conceptual framework for the artwork began to take shape as I asked the basic question, what is the aesthetic potential of the South Sydney Archive?

Initially I had viewed the archive as a collection of documents that cumulatively provided a factual account of the past of South Sydney. I had hoped that by working with these accounts I would learn what my area was like in the time before my memories of it began. Yet as fragments of the stories infiltrated my contemporary experience of South Sydney through the hallucinations I was prompted to think about the interviews differently. The archive began to present itself to me as a repository of inspirations: a catalogue of affects that could ignite imaginings of the past that intermingled with my current experience of places. I realised that I was learning about the past of South Sydney, but it was an emotional and associative understanding I was gaining—a knowledge of resonances.

The overall research question this thesis tackles is *how might interactive media art affect the way audiences engage with the past?* In addressing such a question, this chapter firstly establishes how the oral histories changed the way I interacted with the past of the place where I lived as I began to digitise, edit and process the interviews. Through observing and analysing this change—represented by the hallucinations—this chapter shows how I was able to challenge my preconceptions of the interviews as 'historical material' and begin to work with them as 'artistic material'. In shifting how I engaged with the oral histories from a textual to an aesthetic level, I began to see a way into an artwork that would extend this kind of experience to an audience.

Each of the three stops on the walk analyses an excerpt of the interview that precipitated a particular hallucination. I use the hallucinations as examples to unfold my argument about the value of working artistically with the 'resonant' qualities of historical material. The first section of this chapter focuses on the act of *telling* an oral history and explores the non-factual information transmitted in this process. It considers the subjective nature of the oral history record as being material rooted in memory. Drawing on Edward Casey's phenomenological study of memory and following from Alessandro Portelli's theorisation of oral history, I explore the transformations that a past experience undergoes when it is relived

through memory and re-told through words. I also suggest that the abstractions that occur in this process might have implications for how an artist could engage such material. Finally, I define what I refer to as the resonant qualities of the oral histories in relation to Gaston Bachelard's use of the terms 'resonance' and 'reverberation'.²

The second section shifts the focus from the teller to the *listener* of an oral history. Having established that the past is transfigured in the process of being remembered, I explore the further transformations that occur when a listener imagines an oral history in the act of apprehending it. In attending to these imaginative visualisations, I draw on Bachelard's exploration of how we connect with intimate spaces through the 'poetic imagination' and show how this emphasis on poetic imagination has informed the conceptual basis for the artwork.

The final section is framed by the idea of *responses*. I explore how artists have creatively constituted traces of the past into productive responses in the present. Using Michel de Certeau's notion of 'practices' that 'invent space', I advocate for the value of such poetic imaginings as responses that *produce* place.³

Telling

The first hallucination happened on Cleveland Street. I was walking west along the artery that cuts a line from Surry Hills, through Redfern, and into Chippendale. A route I knew so well that my feet slid into autopilot, allowing my mind to wander. Just as I passed Cleveland St Public School, I sensed a change in the atmosphere. February's muggy afternoon air, thick with an incessant traffic buzz, gave way to a cool early morning stillness. Looking up from my vantage point at the hem of Alfred Park, Redfern was suddenly deserted. In the distance, emerging from this emptiness, I could make out a bulky form. It seemed to *sway* as it cleared the crest of Regent Street up ahead. An *elephant!* Not one, but a whole *procession* of elephants,

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² Ibid., xxiii.

³ Michel de Certeau, *The Practice of Everyday Life*, trans. Steven Rendall (Berkeley; Los Angles; London: University of California Press, 1988), 107.

lumbering up Cleveland Street. Their slow parade played out like it was being screened by a little film projector inside my mind.

In the summer of 2010, to the best of my knowledge, no elephants really walked up Cleveland Street. The scene described above is what I have called a 'hallucination'—a sudden and strong mental image spurred by my immersion in the South Sydney Archive. Bev Karonidis, who was interviewed by Sue Rosen as part of the project, recalled the excitement of Wirth's Circus coming to Alfred Park at Easter time when she was growing up in Redfern in the 1940s:

[W]e'd wake up, oh, probably about five o'clock in the morning we'd hear the rattling noises, when you'd get up and rush and look out the window, and it would be the elephants pulling up ... they didn't use trucks ... elephants actually pulled up ... the other animals and all the equipment up the park ... And then there was no water down there apparently, because they'd bring up the horses and the elephants twice a day to the trough across the road. There was another trough outside Cleveland Street School, and they would bring them ... to these troughs, to water them. So we'd get sort of a ... free show; you'd see all the animals come up.⁴

It was Bev's memory that revisited me while walking past Cleveland Street School. I was struck by the incongruous imagery of elephants pulling a load of circus animals and equipment along a main city road. This image jarred with my contemporary experience of the place—the *pace* of the vision seemed deeply anachronistic transposed onto the speed of Sydney's peak hour traffic. I was also moved by the subtle sense of emotional significance that Bev's recollection is imbued with: the anticipation of 'rattling noises', the 'rush' to the window and that, for a poor kid growing up in Redfern, this activity constituted a 'sort of ... free show'. Already I could see that an oral history tells more than just *what happened*. Swathes of information reside in such seemingly peripheral concerns as undulations of voice or imagery generated through description.

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⁴ Bev Karonidis, born 1936, Redfern, quoted in Sue Rosen, ed., *South Sydney Social History Project Transcript*—*Redfern-Waterloo-Chippendale* (unpublished transcript, 1994–95), 20–21.



Figure 1a. Bev Karonidis, born 1936, Redfern. Video still from South Sydney interview footage. Figure 1b. Video still of test digital processing of original footage.

The value of these kinds of non-factual first-person insights is now widely recognised by contemporary historians. Yet following its post-World War II origins the practice of oral history received criticism for being unreliable in the same way that memory is often considered untrustworthy—that it can suffer distortion from personal bias, forgetfulness or conflation. Alistair Thompson quotes Patrick O'Farrell who epitomised this view, bemoaning in his 1979 *Quadrant* article that oral history was heading towards 'the world of image, selective memory, later overlays and utter subjectivity⁵ ... And where will it lead us? Not into our history, but into myth'.⁶

Thompson describes how, responding to these early criticisms, oral history has undergone a revolution regarding the issue of subjectivity. From the late 1970s a paradigm shift saw the development of 'post-positivist' approaches to memory work. Historians turned the positivist criticisms epitomised by O'Farrell's comments on their head, arguing that the value of oral history lay in its very subjectivity. Portelli has been a particularly vocal advocate for the usefulness of the subjective perspectives provided by oral histories. Portelli argues that by virtue of the 'unique and precious element' of the 'speaker's subjectivity', oral history 'tells us less about *events* than about their *meaning*'. 8

Looking back at the story that sparked my first hallucination, it is clear that Bev Karonidis' account does not provide a great deal of factual information about the event of Wirth's Circus coming to Alfred Park at Easter. She does not mention the date, for example, or give much detail about the number of animals, kind of equipment, or route they took to the park. Instead, the story plays out almost as a series of vignettes: the children at the window in the early morning, the animals watering at the troughs outside the school. It is through the particular way that she speaks about it that Bev provides a fascinating insight into the meaning of the event.

⁵ Patrick O'Farrell, 'Oral History: Facts and Fiction', *Oral History Association of Australia Journal* 5 (1982–83): 4. Originally published in *Quadrant* 23.11 (November 1979).

⁶ Ibid., 9.

⁷ Alistair Thomson, 'Four Paradigm Transformations in Oral History', *The Oral History Review* 34.1 (2006): 49–70.

⁸ Alessandro Portelli, 'What Makes Oral History Different', in *The Oral History Reader*, eds. Robert Perks and Alistair Thompson (London; New York: Routledge, 2006), 36. Emphasis in original.

An historian such as Portelli might be concerned with analysing this emotional meaning for insights into a broader social context. Why were certain events remembered and others forgotten? The fact that Bev was so excited by the 'free show' might be taken, for example, as indication of the level of poverty faced by families in her socioeconomic demographic. Yet, as an artist appreciating the nuances of Bev's subjectivity, I was compelled by the same qualities that O'Farrell disparaged in his *Quadrant* essay. How could I incorporate into an artwork the mental images that emerge in listening to an oral history? What use could I make of the 'overlays', the 'selective', the 'myths'? How could I commandeer these instances of emotional intensity, not as historical clues, but as resonances?

Before continuing to address these questions in the second section, I want to take a moment to define this notion of the 'resonant' qualities of the oral histories. Such qualities, which I differentiate from its 'factual' or semantic attributes, lie in the material's aesthetic and affective features. 'Aesthetic' has come to imply a range of ideas, from signifying concepts of beauty and taste to designating a genre or theory of art. I would like to sidestep such related concepts to take the term closer to its original Greek derivation, *aisthesthai*, meaning 'perceive'. Thus in this thesis the application of the idea of aesthetics is concerned with elements of artworks as they relate to sensory perception. As such, in discussing certain forms I will predominately focus on the feelings that they produce—which brings the aesthetic in line with another related and slippery concept, that of affect. By definition 'affect' is hard to pin down as it resides in the very forces that act on our bodies and by extension propel both our feelings and our thoughts. To continue the etymological approach we can illuminate the current discussion of affect with its Latin origin afficere, meaning 'work on, influence'. As Gregory J. Seigworth and Melissa Gregg so eloquently, if elusively explain, affect lies in the influence of intensities that work on us:

[A]ffect is found in those intensities that pass body to body (human, nonhuman, part-body, and otherwise), in those resonances that circulate about, between, and sometimes stick to bodies and worlds, and in the very passages or variations between these intensities and resonances themselves.⁹

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⁹ Gregory J. Seigworth and Melissa Gregg, 'An Inventory of Shimmers', in *The Affect Theory Reader*, eds. Gregory J. Seigworth and Melissa Gregg (Durham; London: Duke University Press, 2010), 1.

In terms of the South Sydney oral histories, the resonant qualities—its aesthetic and affective capacities—are to do with the look, sound and feel of the material and how these things act upon or affect us. For example, such elements as the tone and intonation of the spoken words or the hue, saturation and composition of the video may 'speak' to or 'strike' us so that they seem to resound in our being. They might stir something in us—a memory, a sense of empathy, a mental image. This could simply be caused by the timbre of a familiar accent that is reminiscent of a relative. Or for me, the incongruous imagery of the elephants on a street I knew well.

In developing this definition I have had in mind Roland Barthes' notion of the 'punctum', which he evokes in *Camera Lucida* to describe the 'accident' in a photograph that 'pricks' but also 'bruises' and 'is poignant' to the viewer. ¹⁰ I have also drawn from Bachelard, who invokes the term 'resonance' in his phenomenological study of the role that poetic images play in how we relate to intimate spaces. In his introduction to *The Poetics of Space*, Bachelard proposes a methodology for a phenomenological study of the poetic imagination. He considers the power of the poetic image as a phenomenon that resounds in our being, possessing us: 'In resonance we hear the poem, in the reverberations we speak it, it is our own. The reverberations bring about a change in being'. ¹¹ Bachelard goes on to propose that, 'The exuberance and depth of a poem are always phenomena of the resonance-reverberation doublet. It is as though the poem, through its exuberance, awakened new depths in us'. ¹²

Bachelard differentiates between the resonant level on which the poetic image figures in our mind and the reverberation that it causes in our 'soul', or imaginative, yearning capacity. In doing so he distinguishes between the reception of a poetic quality (resonance) and the more generative process of rendering the poet's meaning in one's own imagination (reverberation). The way a memory

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¹⁰ Roland Barthes, *Camera Lucida: Reflections on Photography*, trans. Richard Howard (New York: Hill and Wang, 1981), 26–27.

¹¹ Bachelard, *The Poetics of Space*, xxii.

¹² Ibid., xxiii.

expressed in an oral history can take on its own reverberant life in the mind's eye of the listener is explored in the next section of this chapter.

Listening

It's hot again and my anticipation of the cold bitter taste of beer grows as I clear Redfern Station. I'm on foot, heading to where the Glengarry consecrates the corner of Lawson and Abercrombie Streets in Chippendale. The tiled façade of the pub comes into view and once again it's an awareness of a sound that comes first. A child's voice, singing. As if summoned by her own song, a girl appears. She's out the front of the pub in dishevelled clothing, a beat-up hat upturned at her feet. All raggedy blonde ringlets and sweet distant melodies, her small form radiates the most fragile music, the kind of music that sounds like nostalgia.

The second hallucination takes place a few blocks up Abercrombie Street from where the elephants appeared. This vision was stimulated by a story belonging to Jane Lanyon, another of the South Sydney Project interviewees. Jane was born in 1925 in a house on Balfour Street, Chippendale, directly opposite what is now the White Rabbit gallery for contemporary Chinese art.

And ... as I got older I used to stand outside the hotels and sing and put a hat on the ground. They used to come out and give me their pennies and halfpennies ... Oh I was doing alright, you see, and I used to buy myself a halfpenny lolly and with the other money I used to get half a pound of butter or something, what mum was short of, and take it home and, she must of wondered where I was gettin' the money from but somebody told her I was outside the Glengarry Hotel singing. Oh dear, oh dear I'll never forget the beltin' I got! Yes, so that ended my first musical career outside the Glengarry Hotel!¹³

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¹³ Jane Lanyon, born 1920, Chippendale, quoted in Rosen, *South Sydney Transcript—Redfern-Waterloo-Chippendale*, 6.





Figure 2a. Jane Lanyon, born 1920, Chippendale. Video still from South Sydney interview footage. Figure 2b. Video still of test digital processing of original footage.

This section shifts the focus from the teller to the *listener* of an oral history in order to consider the phenomena that pass between interlocutors in the process of speaking about memories. Clearly the event outside the Glengarry Hotel was of emotional significance for Jane. Not least because she chose to recount the story, but also because of the way she talks about it. The 'beltin" she received was one she says she will 'never forget' and she describes the event in the momentous terms of having ended her 'first musical career'. As a listener, I connected with the familiar childhood experience of trying to please one's parents, but being reprimanded for unknowingly disappointing them in the process. It was also my connection to the place—the Glengarry is a pub around the corner from my house—that cemented the impact of the memory because I could place it. I could relate to it on the concrete level of having been in the same spot where Jane had been.

In being remembered, all the embodied and multisensory depth of a human experience is condensed into language. In being recounted, these pieces of language are corralled and cajoled into a sequence—a story—that is comprehensible to others. Casey, in his phenomenological study of remembering, shows how an experience is transmuted through the very process of being remembered:

[R]emembering transforms one kind of experience into another: *in being* remembered, an experience becomes a different kind of experience. It becomes 'a memory', with all that this entails, not merely of the consistent, the enduring, the reliable, but also of the fragile, the errant, the confabulated. Each memory is unique; none is simple repetition or revival. The way the past is relived in memory assures that it will be transfigured in subtle and significant ways.¹⁴

If, as Casey asserts, an experience is not merely revived by the process of being remembered, but actually transfigured, what further transformations take place when a past experience is not just internally recalled, but communicated to others? Listening to Jane's memory of busking outside the Glengarry Hotel opened up an imaginative space for me where I mentally generated images inspired by her

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¹⁴ Edward Casey, *Remembering: A Phenomenological Study* (Bloomington, IN: Indiana University Press, 2000), xxii. Emphasis in original.

linguistic description. In forming these images I drew on my own memories of the Glengarry coupled with an imaginative reckoning of what Jane might have looked like as a girl in the 1930s. Yet this mental flash of a child outside the pub did not represent the past reality of Jane's busking experience. It was twice transfigured, to use Casey's terminology—once in being remembered by Jane and again by my mental processes of imagining her story. It is therefore through the hallucinatory combination of memory and imagination that I connect with her past experience.

Bachelard has sought to show how we mentally access the intimate spaces of our past through a kind of poetic reverie, or what he refers to as 'daydreaming', where memory and imagination mingle. In *The Poetics of Space*, Bachelard demonstrates that in recollecting intimate spaces—the ultimate of which is the house where we were born—we are caught in an act of poetic imagination. In recalling this first home:

[W]e add to our store of dreams; we are never real historians, but always near poets, and our emotion is perhaps nothing but an expression of a poetry that was lost. Thus, by approaching the house images with care not to break up the solidarity of memory and imagination, we may hope to make others feel all the psychological elasticity of an image that moves us at an unimaginable depth. Through poems, perhaps more than through recollections, we touch the ultimate depth of the space of the house. 16

Bachelard asserts that through the poetic image we connect deeply with spaces. When we read a poem we bring the poet's imagery to life in our mind's eye. Similarly, when listening to an oral history an imaginative space opens up in which the listener renders the memory with their own internal imagery. Dennis Tedlock also likens oral history to poetry in his article, 'Learning to Listen: Oral History as Poetry'. Considering oral history's often 'highly metaphorical or poetic speech events', as well as the prevalence of repetition, deliberate rhythms and fluctuations in tone and dynamic, Tedlock argues that:

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¹⁵ Bachelard, The Poetics of Space, 6.

¹⁶ Ibid.

relatively casual conversational narratives which are the more ORDINARY business of the oral historian are THEMSELVES highly poetical and cannot be properly understood from prose transcripts. the MEANING of SPOKEN narrative is not only carried by the sheer words as transcribed by alphabetic writing but by the placement of SILENCES by TONES of VOICE by whispers and SHOUTS.¹⁷

Tedlock advocates engaging with oral history on its own terms as an *oral* source. His assertion of the importance of orality is in part a response to the practice of early oral historians who would often work from transcripts and dispose of the original tape recordings, the written document being valued more highly than the spoken word. Tedlock points out that history was not always produced to be read. In ancient Greece histories were composed with oral delivery in mind; for example Herodotus and Homer would perform their histories. 18 It was not until the advent of the printing press and the nineteenth-century rise of the document that oral sources came to be seen as less authoritative than written ones.

Extending Tedlock's discussion of the poetic characteristics of oral history, I assert that it is not just the dynamics of its delivery, but also its capacity to stimulate the poetic imagination that unites or al history and poetry. Just as the reader or listener of a poem produces poetic images in their mind's eye as they experience the poem, the listener of an oral history also imagines the scenes that the teller describes. More so than in the course of an ordinary conversation, the listener of an oral history is required to imaginatively participate as they must mentally recreate the past world being conveyed. The 'past-ness' of this world means listening to an oral history is generally a more active process than everyday conversational discourse, as it requires the listener to imaginatively render something beyond their present experience.

¹⁷ Dennis Tedlock, 'Learning to Listen: Oral History as Poetry', Boundary 2: The Oral Impulse in Contemporary American Poetry 3.3 (1975): 711 and 712. Formatting in original.

¹⁸ Ruth Crosby, 'Oral Delivery in the Middle Ages', Speculum 11 (1936): 88.

The way an oral history sparks images in the listener's mind is not necessarily useful research material for an historian, even one as committed to examining subjectivity as Portelli. However, I was intrigued by the artistic potential in Bachelard's methodology of maintaining the 'solidarity of memory and imagination' to study the poetic images generated when listening to an oral history. It is within the imaginative space where the listener visualises a memory contained in an oral history that this solidarity is strongest. For a researcher wanting to make an artistic interpretation of historical material, this imaginative space suggests a *loosening* of the experience from the past—that it might have a new creative life in the present, not tied eternally to its referent.

During the summer I spent listening to the archive of interviews, I found that my imagination went into overdrive visualising each story. The stronger the images described—the elephants—or the deeper my experience with the place—the Glengarry—the more these moments would resonate with me. The process created a constant push-and-pull between past and present: I was mentally mapping images inspired by the oral histories onto the places that I knew from experience. The more I listened to the stories and the more I walked the streets they spoke of, the more jumbled these associations between image and place became in my mind. Yet far from muddying my purpose, this jumbling effect freed me to engage the material on an imaginative, rather than factual, level.

Discussing the active melange of memory and imagination that occurs in daydreaming about an intimate space, Bachelard notes, 'it is impossible to receive the psychic benefit of poetry unless these two functions of the human psyche—the function of the real and the function of the unreal—are made to cooperate'.¹⁹ The resonant pieces of the oral histories formed a catalogue of fragments in my own memory. As I continued to relive them through my imagination in various contexts and sequences I realised that I was creating new 'texts' from the words of the interviewees—texts that were in one way increasingly removed from the factuality of the source material, yet in another way deeply charged with its poetic intensity.

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¹⁹ Bachelard, *The Poetics of Space*, xxxiv-xxxv.

Responding

The streetlights blink on. Something in the automated shift of colour temperature heightens my senses. A spot of heat flares at the corner of my eye. I turn to see that Redfern is on fire. It's a whole series of fires, each the size of a lounge room, punctuating the intersections along Walker Street. Burning coordinates on a black map, a constellation of flares.

The night I saw Redfern on fire I was a few hundred meters from my home at the time, thinking of Ted McDermott. Born in 1925 in Redfern, Ted is one of the South Sydney Project participants who seem imbued with a streetwise attitude that I was not sure still existed in my suburb. It emanated from the down-to-earth gruffness with which he recollected the pub brawls and intricate network of SP bookies of 1930s Redfern. In his interview with Sue Rosen he was encouraged to recall the big events of the year:

I think one of the biggest events as far as the kids were concerned was Cracker Night. You know we used to, families used to buy us all the crackers and they'd give us spending money, or we'd go and buy the crackers or something ... And the big bon fires, we used to light them in the middle of the road of Walker Street, and all the streets. You used to, you'd be piling on the wood, all day, all day, they'd be piling on the bon fire, and they used to light the bon fires. I reckon half of them would have a bon fire as big as this room, and then just set her away, and away she'd go, and oh, there would be crackers and Tom thumbs and starlights, and sparklers, and jumping jacks and, oh it was a big night, big night.²⁰

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²⁰ Ted McDermott, born 1925, Redfern, quoted in Rosen, *South Sydney Transcript—Redfern-Waterloo-Chippendale*, 80–81.

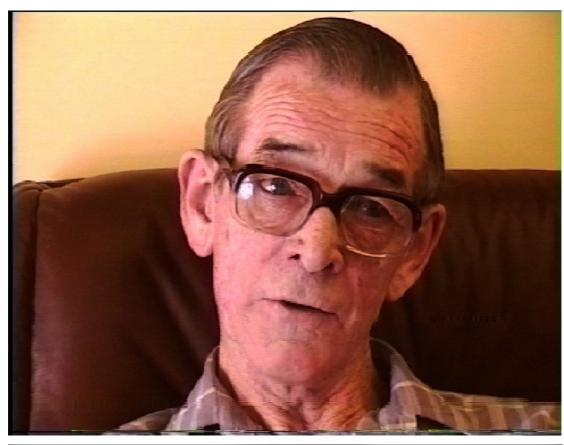




Figure 3a. Ted McDermott, born 1925, Redfern. Video still from South Sydney interview footage. Figure 3b. Video still of test digital processing of original footage.

In his recollection of Cracker Night, Ted rattles off a string of different fireworks names almost in verse. The image of bon fires 'as big as this room' conjured for me the sight of houses on fire, flames licking out of the front windows. I found the most evocative description was how residents lit fires in Walker Street, 'and all the streets'. A child's narrow sense of geography means that the surrounding streets as good as equal 'all the streets' in the world. Something in this exaggerated turn of phrase triggered in my mind's eye an image of the whole of Redfern woof up in fire; every street alight. It was the bombing of Dresden as I had imagined it in Kurt Vonnegut's *Slaughterhouse-Five*; it was the Great Fire of London.²¹ And it was this imagery that flared in my mind as I too traversed Walker Street at dusk one evening.

This section is the last stop on our walk. It suggests some possibilities for artistic *uses* of the kinds of poetic imaginings I have analysed in this chapter. Having thought about the subjectivities inherent in oral history's acts of remembering/telling, as well as the imaginative transformations that occur in the process of listening, this final section explores two examples of the aesthetic and affective results of talking and listening that can arise when artists work with spoken stories in places. I will use Certeau's influential chapter 'Walking in the City' as a basis to consider how artistic practices might suggest new imaginings or uses for spaces that could be seen as responses that 'invent space'.²²

In urban planning the term 'desire line' refers to a trace worn into the ground where pedestrians have improvised a more desirable (usually more direct) course in favour of the marked route. This phenomenon could serve as a metonymic representation of what Certeau terms the 'practices' enacted by everyday inhabits of the city.²³ Certeau shows that despite the official uses of space imposed by city planners, inhabitants nevertheless invent spaces through their idiosyncratic operations within them. The way inhabitants *use* spaces leaves not just a trace of their past presence; but also *constitutes* those very spaces. In demonstrating this idea, Certeau gives an example of how street and place names lose their 'official' historical signification as inhabitants generate their own meanings:

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²¹ Kurt Vonnegut, *Slaughterhouse-Five* (London: Vintage Books, 2000).

²² Certeau, *The Practice of Everyday Life*, 91–110 and 107.

²³ Ibid., 107.

Disposed in constellations that hierarchize and semantically order the surface of the city, operating chronological arrangements and historical justifications, these words (Borrégo, Botzaris, Bougainville ...) slowly lose, like worn coins, the value engraved on them, but their ability to signify outlives its first definition. Saints-*Pères, Corentin Celtan, Red Square* ... these names make themselves available to the diverse meanings given them by passers-by ...²⁴

If we charted all the desire lines etched into the surface of Redfern it might result in a map of pedestrian urges, impulses and intents. This map would be very different to the official routes sanctioned by urban planners and local governments. If we wanted to, we could create a course through Chippendale by following only those streets whose namesakes are flowers (*Ivy, Myrtle, Rose* ...) without ever knowing their historical lineage. Thus the received meaning—the interpretation—overrides the imposed meaning in the way that inhabitants actually use space:

Linking acts and footsteps, opening meanings and directions, these words operate in the name of an emptying-out and wearing-away of their primary role. They become liberated spaces that can be occupied. A rich indetermination gives them, by means of a semantic rarefaction, the function of articulating a second, poetic geography on top of the geography of the literal, forbidden or permitted meaning. They insinuate other routes into the functionalist and historical order of movement.²⁵

Certeau's street names spell out new poetic combinations for walkers who follow them without knowing their origin. Similarly, the words of the South Sydney oral histories, as they become transfigured in the imagination of the listener, map out a second, poetic geography over the physical topography of the suburbs. They produce a map of emotions, a topology of resonances that can be walked, as I have done through my description of the hallucinations. These poetic mapping actions suggest other routes into the official orderings of space—they intimate other, mythic histories.

The aesthetic potential of this effect is perhaps most obvious in artworks that

²⁴ Ibid., 104.

²⁵ Ibid., 105.

literally layer spaces with stories or words, creating a second, poetic geography through the content of the artwork. Lev Manovich has coined the term 'augmented space' to describe the way new technology can overlay space with 'dynamically changing information ... [that] is likely to be in multimedia form and is often localized for each user'. ²⁶ As an example of 'what can be done culturally with augmented spaces', Manovich analyses the work of Janet Cardiff, who has pioneered the sound walk as an art form. ²⁷ In works such as *The Missing Voice* (1999) audience members armed with audioplayers and headphones are guided by the artist's voice to traverse geographical spaces through the streets of London. ²⁸ The soundtrack builds a narrative space which, when experienced *in situ*, creates interplay between the actual and imagined: the place and the story.

Describing his experience of *The Missing Voice*, David Pinder emphasises how through this interplay the audience participates in generating meaning in the work, 'The relationship between what [Cardiff] says and conjures up in the imagination and your own experiences and perceptions is critical'.²⁹ The act of participating in *The Missing Voice* becomes a kind of embodied illustration of Certeau's 'second, poetic geography'. Certeau asserts that, 'one can measure the importance of these signifying practices (to tell oneself legends) as practices which invent space'.³⁰ Cardiff and the audience together generate new ways of understanding and moving through space and these operations equate to a storied invention of spaces.

While Cardiff's work is firmly fictive in its storytelling, Graeme Miller's *Linked* (2003) takes oral history interviews with actual people as its material for the reinvention of place.³¹ Miller witnessed his community in East London razed to make way for the M11 link road in the late 1990s. He responded by 'rebuilding' the homes imaginatively through an artwork made from interviews with former residents of his community in Leyton. The work is a deliberately un-monumental monument, consisting of a series of shortwave radio transmitters erected on an

²⁶ Lev Manovich, 'The Poetics of Augmented Space', *Visual Communication* 5.2 (2006): 220.

²⁷ Ibid., 226. ²⁸ Janet Cardiff, *The Missing Voice*, 1999, audio walk, 50 minutes.

²⁹ David Pinder, 'Ghostly Footsteps: Voices, Memories and Walks in the City', *Cultural Geographies* 8.1 (2001): 5.

³⁰ Certeau, *The Practice of Everyday Life*, 107.

³¹ Graeme Miller, *Linked*, 2003, audio sculpture.

overpass that broadcast a composition incorporating these voices. Listeners access maps and radios from a local library to explore the work with headphones and their imagination.

Toby Butler, in his account of experiencing *Linked*, describes the poetic effect of the interviewees' words aurally overlaying the place he is traversing. Standing on the same bridge in Leyton that figures in the interview he is listening to, Butler recounts the effect of a collision of place, memory and imagination:

A Cockney voice asks: 'Where's London? Where's London?' He goes on to say: 'The only time my dad ever got somewhat emotional was when he thought of the war. And he was a fire warden. He went and stood on the bridge at Leyton tube station. And the whole of London was on fire'. I look over to the tower blocks and sky scrapers on the horizon. It is a view of London I haven't seen before. The sun is ready to start its descent behind the city. The voice says: 'And it was burning from stem to stern. And you could smell the burning flesh. And you could feel the heat'. I start to feel slightly choked up. A strange wave of emotion passes through my body.³²

Just as Pinder observes of Cardiff's work, Butler also notes how listeners participate in generating meaning through their own subjective associations and imaginings. He points out how Miller has, in fact, deliberately structured the work to assist the audience in this process, creating poetic repetitions of words and periods of silence for contemplation:

He deliberately leaves musical spaces, 'a lulling moment', between fragments of stories to allow the listener time to participate with their own thoughts; 'a kind of mutual surface for where your voice meets other peoples ...'³³

Although his community in Leyton was destroyed, Miller intends that through Linked the place might live on; that the demolished houses could be rebuilt in the imaginations of those who experience the work. Miller hypothesises that if enough people encounter *Linked* it could create a sort of 'critical mass' where 'somehow

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³² Toby Butler and Graeme Miller, 'Linked: a Landmark in Sound, a Public Walk of Art', *Cultural Geographies* 12 (2005): 77–78.

³³ Ibid., 83.

you could argue that the houses exist at least as much as the road does—they just exist at a different level'.³⁴ In this way the artist constructs an invisible poetic geography over a physical place that audiences can participate in building through their own experiences of the work; experiences which are always nuanced by their individual associations and perceptions. Such creative actions invent space as they give new, imaginative meanings to places that, in the words of Certeau, can 'insinuate other routes into the functionalist and historical order of movement'.³⁵

Towards the end of the summer of the hallucinations, I undertook a short artist residency in Chippendale to begin producing a prototype of the South Sydney artwork. The artist-run space on Wellington Street where I was based was around the corner from the house on Balfour Street that Jane Lanyon was born in. On one of the first days of my residency I made the tiny pilgrimage to Jane's front door. Looking at this non-descript terrace house I felt privileged to be party to its invisible history: to have a secret understanding of the past of this place drawn partly from Jane's memory and completed by my imaginings. Just as *Linked* imaginatively rebuilt the artist's community in Leyton, I reconstructed a phantasm of Jane's history from the archived fragments of her memories that loomed in my imagination. The question I would ponder over the remainder of the residency was how I could use interactivity to extend this 'second, poetic geography' to an audience through the experience of my artwork.

Conclusion

The end of our walk brings the close of the first chapter. On our journey I have told the story of my first experiences with the South Sydney oral histories. I recounted how these stories began to 'get into my head' over the summer that I digitised them. I have analysed the intricate overlay of place, memory and imagination that formed for me as I traversed South Sydney while mentally inventing the world built from the interviewee's words. Through this process I shifted my conception of the interviews from being historical to artistic material. In doing so, I established a basis for an artistic process of working with the oral histories by

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³⁴ Ibid., 87.

³⁵ Certeau, *The Practice of Everyday Life*, 105.

emphasising engagement with their aesthetic and affective, or what I have called resonant qualities.

In analysing the material's resonant qualities, I first considered the act of telling an oral history as a subjective exercise, calling on Casey's conception of remembering as a process of mentally re-rendering an experience. Following Portelli's stance on the significance of subjectivity within historical discourse, I argued for the artistic value of engaging the non-factual information transmitted in such a subjective process as remembering. Secondly I considered the act of listening to an oral history as a further subjective transformation. I argued that a description of an experience is doubly transfigured; abstracted firstly through the prism of the teller's remembering and then further through the listener's imagining. Drawing from Bachelard's methodology of constituting memory into poetic imagining I showed how the oral histories possess the capacity to generate poetic images in the mind's eye of the listener. I argued that in constituting this imagery the listener participates in composing new poetic versions from factual texts. The third act, responding, I have used as a way of exploring how other artists have 'augmented' places using resonant material such as locative storytelling and oral histories. Considering the way I hallucinated a second, poetic South Sydney as I walked through the suburbs remembered in the interviews, I have framed such artistic responses with Certeau's idea of practices that invent space.

I leave you on Wellington Street in Chippendale where I am about to create the first iteration of the work that brings into being the poetic imaginings I have hallucinated around South Sydney. Moving from the conceptual basis for the artwork I formed through the discoveries in this chapter, the next chapter will start to think about the nature of interactive media art—the medium I work in—and how digitally mediated interactivity might create aesthetic experiences that tap into or extend some of the resonant qualities of the archive I have been exploring.

Chapter Two

Interaction Aesthetics

Between the conception
And the creation
Between the emotion
And the response
Falls the Shadow.

—T. S. Eliot, *The Hollow Men*¹

Introduction

In 1917 Marcel Duchamp submitted a urinal he had purchased from the Mott ironworks in New York to the inaugural exhibition of the American Society of Independent Artists. Duchamp had upturned the urinal, titled it 'Fountain', and signed the work 'R. Mutt 1917'. This would have been the first public showing of the new 'readymade' sculptures Duchamp had begun toying with in his Paris studio a few years earlier. However, *Fountain* was rejected by the Society's directors, despite participation in the exhibition being open to any artist who paid the \$6 entry price. Duchamp, who had paid the fee, resigned from the Society in protest. In the midst of the surrounding controversy the artist would anonymously defend his gesture in *The Blind Man*. Duchamp's claim was, simply, that he had 'created a new thought for that object'.3

Duchamp created this 'new thought' by recontextualising a utilitarian everyday thing into an artwork. Unpicking the bind between signifier and signified he turned a urinal into *Fountain*. In reimagining an oral history archive, my research is also concerned with unpicking my material's factual signification and giving it a new life in the aesthetic domain. Yet where Duchamp primarily used the power of

¹ T. S. Eliot, *Selected Poems* (San Diego, CA: Harcourt Brace Jovanovich, 1964), 80.

² Marcel Duchamp, *Fountain*, 1917, porcelain.

³ Marcel Duchamp, 'The Richard Mutt Case', *The Blind Man* 2 (1917). The article was published anonymously, although it is commonly attributed to Duchamp, one of the editors of the small magazine *The Blind Man*.

context, coupled with a semantic flourish of clever titling to present a 'new thought' for the urinal, my research recontextualises the South Sydney Archive through *interactivity*. Whereas Duchamp's gesture enacted a radical challenge to assumptions around originality and what constitutes an art object, my aim is to explore the new kinds of aesthetic experience of my material that might be produced by encountering it through an interactive artwork. Taking 'aesthetic' in its relation to the domain of sensory perception, it is thus not only a new thought that I want to generate for my material, but also a new *feeling*. Or, more precisely, to borrow from Raymond Williams, 'not feeling against thought, but thought as felt and feeling as thought: practical consciousness of a present kind'.⁴

Thus the central question of this chapter emerges, what kinds of aesthetic experiences are generated by interactive media art? Addressing this question means enquiring into both the role and experience of the audience and also the nature and form of interactive artwork. In an interview in 2007 Brian Massumi expressed 'a real need right now to revisit the aesthetic in relation to interactive art'. This call has been answered with an increasing wealth of research into 'interaction aesthetics', including Katja Kwastek's comprehensive study in her recent book, Aesthetics of Interaction in Digital Art. As Linda Candy and Ernest Edmonds point out, valuable contributions are also being made by an 'emerging community of practitioner researchers' who offer an insider perspective on the development of new technological systems, methodologies and aesthetic approaches to interactivity.

⁴ William's idea of the 'structure of feeling' is one of his key contributions to cultural theory. Sidestepping the issue of 'structure', I borrow instead from Williams' particular conception of 'feeling', which he uses almost interchangeably with 'experience', as a kind of amalgam of thinking and feeling: 'We are talking about characteristic elements of impulse, restraint, and tone; specifically affective elements of consciousness and relationships: not feeling against thought, but thought as felt and feeling as thought: practical consciousness of a present kind, in a living and interrelating continuity. We are then defining these elements as a "structure": as a set, with specific internal relations, at once interlocking and in tension. Yet we are also defining a social experience which is still in process, often indeed not yet recognized as social but taken to be private, idiosyncratic, and even isolating, but which in analysis … has its emergent, connecting, and dominant characteristics'. Raymond Williams, 'Structure of Feeling', in *Marxism and Literature* (Oxford: Oxford University Press, 1977), 132.

⁵ Brian Massumi, *Semblance and Event: Activist Philosophy and the Occurrent Arts* (Cambridge, MA: MIT Press, 2011), 52.

⁶ Katja Kwastek, *Aesthetics of Interaction in Digital Art* (Cambridge, MA: MIT Press, 2013).

⁷ Linda Candy and Ernest Edmonds, 'Introduction', in *Interacting: Art, Research and the Creative Practitioner*, eds. Linda Candy and Ernest Edmonds (Faringdon, Oxfordshire: Libri Publishing, 2012), 9.

Adding to this growing area of research, this chapter will address the question of how interactive media art produces aesthetic experience, using a three-pronged approach. Rather than offering a complete study, my aim is to outline a specific trajectory of ideas that have informed my own process of making. The first section traces a lineage from Duchamp's readymades to situate my work within a diverse field of practice and theory surrounding the evolving renegotiation of the relationship between artist, audience and artwork. I argue that although interactive media art is often considered in terms of its technical advancements, it equally draws conceptual drive from other fields of art concerned with revaluating aesthetic experience as anchored in processes rather than objects.

Having looked broadly at the impulse towards participation in art and the new questions for aesthetics this raises, the second section turns to an examination of what is special about digitally mediated interactivity. Focusing on responsive immersive installations as the specific area where my practice is located, I analyse elements of David Rokeby's celebrated interactive piece *Very Nervous System* (1983–) to enquire into how certain works succeed in creating engaging and meaningful, rather than formulaic, interactions.⁸

The final section is concerned with how the discoveries made over the first two parts of the chapter are instantiated in my own studio practice. I analyse the design process of creating a prototype of the South Sydney Project artwork that would, as I reflected in the introduction to this thesis, engage some of the oral history's 'spoken vitality'. In dissecting my studio work in this way I hope to shed light on what T. S. Eliot might call the 'shadowy' grounds between the conception and creation of an artwork to show that in interactive media art aesthetic experience is produced in the process of negotiating ground between the artist's output and the audience's input—and within this feedback loop an emergent and exploratory experience of digital media is created.

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⁸ David Rokeby, *Very Nervous System*, 1983–ongoing, interactive audio installation. Detailed documentation of the iterative development of *VNS* is available online at the Daniel Langlois Foundation: http://www.fondation-langlois.org/html/e/page.php?NumPage=2199. Accessed: 13 November 2010.

Participation and Process

Duchamp has shown us that the audience has a role to play in producing meaning in a given work:

[T]he creative act is not performed by the artist alone; the spectator brings the work in contact with the external world by deciphering and interpreting its inner qualification and thus adds his contribution to the creative act.⁹

Duchamp's readymades precipitated a new way of thinking about the relationship between art and its audience. If art is no longer defined by its craft, but also by its concept, audience input becomes as important as the artist's output in generating meaning. Within this framework the focus is not on how the work is brought into being through the skill of producing an object. The question becomes how perception and interpretation, both that of the artist and audience, ultimately bring the work into being—a value neatly expressed in Duchamp's often-quoted statement that 'the spectator makes the picture'.¹¹o

Extending Duchamp's assertion of the concomitance of both artist and audience in the creative act, one could argue that all art is to some extent interactive in that the audience contributes its own interpretation in apprehending a work. This view chimes with a poststructuralist perspective on meaning production within a text where the 'death of the author' repositions the dynamic between the creator and audience of a work. While on one level it is helpful to consider all art through such a lens as being broadly interactive, this is not to deny that some art explicitly calls for an active physical or conceptual participation from the audience. Furthermore we have seen the emergence of 'interactive media art', to borrow Kwastek's term, as a specific form of digitally mediated interactive work within the field of new media art. 12

⁹ Marcel Duchamp, 'The Creative Act', in Robert Lebel, *Marcel Duchamp* (New York: Paragraphic Books, 1959), 78. Talk originally delivered by Duchamp in Houston at the meeting of the American Federation of the Arts, April 1957.

¹⁰ Marcel Duchamp quoted in Edward Ball and Robert Knafo, 'The R. Mutt Dossier', *Artforum* (October 1988): 115.

¹¹ Roland Barthes, 'The Death of the Author', in Barthes, *Image-Music-Text*, ed. and trans. Stephen Heath (London: Flamingo, 1984), 142–48.

¹² Kwastek, *Aesthetics of Interaction in Digital Art*, 9.

Various critics have observed that, especially in its nascent period, new media art has often been divided from the mainstream contemporary art world as a specialised technological field. In 1996 Lev Manovich polemically asserted that the 'Turing-land' of Ars Electronica, ISEA and SIGGRAPH would not converge with the 'Duchamp-land' of the mainstream art world exemplified by the major international galleries. ¹³ Erkki Huhtamo attributes this to the fact that:

[I]nteractive artworks were first welcomed (and even commissioned) by science centers rather than art institutions. This was partly a consequence of the context in which pioneers like Myron Krueger had worked and first been appreciated.¹⁴

While the intervening years since Manovich's statement has seen increasing hybridisation across the two areas, the endurance of this division continues to be observed by critics, including Claire Bishop's notable sidelining of new media art's contribution to a contemporary aesthetic engagement with the digital in her recent *Artforum* article 'Digital Divide'—a point we will return to in the next chapter. ¹⁵ Edward Shanken has even coined the acronyms 'NMA' and 'MCA' to describe the silos of new media art and mainstream contemporary art. ¹⁶

Part of my desire in anchoring this chapter with a discussion of Duchamp's readymades is to add to contemporary contributions (such as Shanken's) realigning the traditional genealogy that sees new media art's influences more often discussed in terms of technological advances rather than the conceptual inheritance of the avant-garde.¹⁷ To some extent this desire reflects my personal

¹³ Lev Manovich, 'The Death of Computer Art', *Rhizome*, 23 October 1996. http://rhizome.org/discuss/view/28877. Accessed: 17 April 2014.

¹⁴ Huhtamo continues, 'The situation reflects the customary inertia of the art world, which has hardly legitimized video art, just 25 years after its inception. What's more, video art has developed much closer to the existing art institutions, whereas computer art allegedly has a questionable background as the bastard son of the military-industrial complex. Interactivity is seen by many cultural elitists as a fad, inseparable from the all-pervasive banal discourses of technoculture'. Erkki Huhtamo, 'Seven Ways of Misunderstanding Interactive Art: An Imaginary Dialogue', in *Digital Mediations* (Pasadena, CA: Art Center College of Design, 1995). Exhibition catalogue. http://sophia.smith.edu/course/csc106/readings/interaction.pdf. Accessed: 3 April 2012.

¹⁵ Claire Bishop, 'Digital Divide: Contemporary Art and New Media', *Artforum* (September 2012). http://artforum.com/inprint/issue=201207&id=31944. Accessed: 5 July 2013.

¹⁶ Edward A. Shanken quoted in Sean Cubitt and Paul Thomas, 'Introduction: The New Materialism in Media Art History', in *Relive: Media Art Histories*, eds. Sean Cubitt and Paul Thomas (Cambridge, MA: MIT Press, 2013), 2.

¹⁷ Edward A. Shanken, 'Contemporary Art and New Media: Toward a Hybrid Discourse?' (unpublished monograph, 2009). http://artexetra.files.wordpress.com/2009/02/shanken-hybrid-discourse-draft-0-2.pdf. Accessed: 2 January 2014.

set of influences as a practitioner. Yet it also speaks to the question of whether we are now experiencing a 'post-medium/media condition'¹⁸ where Greenbergian notions of medium specificity are superseded by theories around what Nicolas Bourriaud has termed 'altermodern' practice where 'artists translate and transcode information from one format to another'.¹⁹ In other words, as artistic practices become increasingly hybridised, can we any longer derive meaningful insight into artworks by focusing on their particular form?

Anna Dezeuze has posited the 'do-it-yourself artwork' as a non-medium specific frame with which to account for the range of practices that engage audience participation from Fluxus works to new media art.²⁰ The term is lifted from Yoko Ono's 1965 explication of her instruction works that 'the painting will be more or less a do-it-yourself kit according to the instructions'.²¹ Dezeuze maintains that participatory practice is not 'unified by formal characteristics' and can 'take many forms'.²² By grouping participatory practices together despite of their medium specificities Dezeuze institutes an approach that situates meaning not within form, but within the process of participation itself:

[T]he do-it-yourself artwork is a practice that exists *only* through a potential participation. The verb 'do' suggests an emphasis on process and actions to be performed by an active spectator in real time and space, while the pronoun 'it' remains open, as the result of this process will be determined by each individual's

¹⁸ The lineage of the terms 'post-medium' and 'post-media' are complex and have developed from a number of different trajectories. See: Félix Guattari, 'Postmodern Deadlock and Post-Media Transition', in *Soft Subversions: Texts and Interviews 1977–1985*, ed. Sylvère Lotringer, trans. Chet Wiener and Emily Wittman (Los Angeles, CA: Semiotext(e), 1996), 291–300; Rosalind Krauss, *A Voyage on the North Sea: Art in the Age of the Post-Medium Condition* (London: Thames & Hudson, 1999), 64; Lev Manovich, 'Post-Media Aesthetics', in *disLOCATIONS*, eds. Dennis Del Favero and Jeffrey Shaw (Karlsruhe: ZKM Center for Art, 2001), n.p. Exhibition catalogue; Peter Weibel, 'The Post-Media Condition', in *Postmedia Condition* (Madrid: Centro Cultural Conde Duque, 2006), 98. Exhibition catalogue.

¹⁹ Bourriaud notes, 'Altermodern art is thus read as a hypertext; artists translate and transcode information from one format to another, and wander in geography as well as in history'. Nicolas Bourriaud, 'Altermodern Manifesto', 2009. http://www.tate.org.uk/whats-on/tate-britain/exhibition/altermodern/explain-altermodern/altermodern-explained-manifesto Accessed: 30 March 2014. 'Altermodern' art is related to Jörg Heiser's notion of 'superhybridity'. Jörg Heiser, 'Pick & Mix', *Frieze* 133 (2010). http://www.frieze.com/issue/article/pick-mix/. Accessed: 30 March 2014.

²⁰ Anna Dezeuze, 'An Introduction to the 'Do-it-Yourself' Artwork', in *The 'Do-it-Yourself' Artwork: Participation from Fluxus to New Media*, ed. Anna Dezeuze (Manchester; New York: Manchester University Press, 2010), 1.

²¹ Ibid.

²² Ibid.

unique personal experience. The conjunction of a task suggested by the work, the result of this action, and the pronoun 'yourself', sets up a new triangular relation between the artist, the artwork and the spectator/participant.²³

Such a definition asserts the aesthetic contribution of an active audience; one with an action to perform—something to *do*—in order to 'complete' the work.²⁴ This view realigns the traditional relations between artist, artwork and audience in a way that extends Duchamp's gesture with the readymades to situate aesthetic experience as residing firmly in a process of doing, rather than the contemplation and interpretation of static objects.

This desire to activate the audience has theoretical roots in the likes of Walter Benjamin's 'Author as Producer', Roland Barthes' 'Death of the Author' and Umberto Eco's *The Open Work*.²⁵ In the 'open works' analysed by Eco, such as Karlheinz Stockhausen's *Klavierstück XI*—a composition offering groupings of notes for musicians to interpret rather than a set score—focus is shifted from reception to the use of the work:

The poetics of the 'work in movement' (and partly that of the 'open' work) sets in motion a new cycle of relations between the artist and his audience, a new mechanics of aesthetic perception, a different status for the artistic product in contemporary society. ... It poses new practical problems by organizing new

²³ Ibid.. 3-4.

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²⁴ It is important to note that this 'new triangular relation', as Dezeuze calls it, has raised the question of whether a specific term is required to adequately account for the new active role of the audience who have become more than passive 'viewers'. While Dezeuze refers to 'participants', Rokeby talks about 'interactors' in his influential essay, 'Transforming Mirrors', noting: 'No satisfactory term has yet been proposed to describe the person who engages in interaction with an artwork. Roy Ascott has suggested the term "user", but that carries implications that the artwork is at the service of that person, implying an imbalance in the relationship between person and artwork that is potentially misleading. "Interactor" is used here for simplicity'. David Rokeby, 'Transforming Mirrors: Subjectivity and Control in Interactive Media', in *Critical Issues in Electronic* Media, ed. Simon Penny (Albany, NY: State University of New York Press, 1995), 157. Graham differentiates between the terms 'interactive', 'collaborative' and 'participative' practices. Beryl Graham, 'What Kind of Participative System? Critical Vocabularies from New Media Art', in The 'Doit-Yourself' Artwork, ed. Dezeuze, 281–305. In this thesis I generally use the term 'audience', acknowledging that participatory practices such as interactive media art involve an active audience that is both conceptually and practically removed from the traditional idea of a passive observer. ²⁵ Walter Benjamin, 'The Author as Producer', in Benjamin, *Understanding Brecht*, trans. Anna Bostock (London; New York: Verso, 1998), 85-103; Roland Barthes, 'The Death of the Author', in Barthes, Image-Music-Text, ed. and trans. Stephen Heath (London: Flamingo, 1984), 142-48; Umberto Eco, The Open Work (Boston: Harvard University Press, 1989). For a good primer on the social dimension of participation and excerpts of some of these texts see: Claire Bishop, ed., Participation (London; Cambridge, MA: Whitechapel; MIT Press, 2006).

communicative situations. In short, it installs a new relationship between the contemplation and the utilization of a work of art. ²⁶

Eco observes a transition in such modern works from prioritising artistic intention—which offers up an art object for audience contemplation—to interpretation—which sets up a system of relations through utilisation. This emphasis on utilisation resonates with Ludwig Wittgenstein's influential definition of the meaning of a word as 'its use in the language', in opposition to the Platonic model that sees an 'innate' being of things.²⁷ While there is a clear parallel between this statement and Duchamp's semantic recontextualising of a urinal into *Fountain*, a Wittgensteinian conception of meaning as situated in use is also highly relevant to the participatory practices described by Dezeuze where there is no fixed object but rather a set of relations and interactions at play.²⁸

Applying such a conception to interactive media art helps establish that, as with other participatory art practices from the likes of Alan Kaprow's Happenings²⁹ to the more recent Relational Art theorised by Bourriaud, the aesthetics of such work lie not in objects but in the flux of relations between people, situations, artifacts and the world.³⁰ Indeed, in their article, 'On Creative Engagement', Ernest

²⁶ Eco, *The Open Work*, 22–23. Emphasis in original.

²⁷ Ludwig Wittgenstein, *Philosophical Investigations*, eds. G. E. M. Anscombe and R. Rhees, trans. G. E. M. Anscombe (Oxford: Blackwell, 1953), 43. Of course one could similarly look to Whitehead's process theory put forth in his magnum opus *Process and Reality* where he shows that being is not fixed but is 'a creative advance into novelty'. Alfred North Whitehead, *Process and Reality: an Essay in Cosmology*, eds. David Ray Griffin and Donald W. Sherburne (New York: The Free Press, 1979), 28. Barker draws the link between interactive media art and Whitehead's process theory, as well as Gilles Deleuze's concept of 'the virtual'. Tim Barker, 'Toward a Process Philosophy for Digital Aesthetics' (paper presented at the *15th International Symposium on Electronic Art*, Belfast, UK, 23 August – 1 September 2009). http://www.icinema.unsw.edu.au/assets/165/barker49.pdf. Accessed: 17 June 2012.

²⁸ Though Duchamp is not known to have met Wittgenstein, the artist was familiar with the philosophy of his contemporary. Nesbit quotes a conversation with Teeny Duchamp in asserting Duchamp's familiarity with Wittgenstein: 'Those close to Duchamp at the end of his life remember his interest in all kinds of things, for example, in Wittgenstein. But, Teeny explained, although Marcel was interested, as was she, in Wittgenstein, "he never worked with the ideas *per se*"'. Nesbit remarks that it is not known either at which point in his career Duchamp read Wittgenstein or which works he read. Molly Nesbit, 'Last Words (Rilke, Wittgenstein)(Duchamp)', *Art History* 21.4 (1998): 557.

²⁹ Allan Kaprow, *Assemblage, Environments and Happenings* (New York: Harry N. Abrams, Inc., 1966).

³⁰ Nicolas Bourriaud, *Relational Aesthetics*, trans. Simon Pleasance and Fronza Woods with the participation of Mathieu Copeland (Dijon, France: Les Presses du Réel, 2002). Bourriaud's relational art has been critiqued in a well-known response by Bishop. Claire Bishop, 'Antagonism and Relational Aesthetics', *October* 110 (2004): 51–79.

Edmonds, Lizzie Muller and Matthew Connell assert that to understand interactive media art is to probe the very nature of interaction:

In interactive art, the complexity, the key experiences, the value is surely embedded in the interaction itself, not in still frames. That is the concrete reality of such art. The essence is the lean, economically realized process of interaction. Interaction is not material. It is experienced, perceived and understood, but we cannot touch it.³¹

Of course, Dezeuze is not alone in situating art that involves human-computer interactions in the context of the major upheavals of twentieth-century art. As conceptual and participatory practices of the 1960s resulted in increasingly 'dematerialised' art,³² key thinkers recognised a synergy with concurrent technological developments in computing and electronic communications. In 1966 pioneering practitioner of computer-based art Roy Ascott related a range of avantgarde practices such as Dada, Surrealism, Fluxus, Happenings and the work of John Cage to Norbert Wiener's idea of 'cybernetics'³³ as the science of the 'perfectibility of systems'.³⁴ Terming the then-modern art as 'behavioural', Ascott explains:

The artist, the artifact and the spectator are all involved in a more behavioural context. We find an insistence on polemic, formal ambiguity and instability, uncertainty and room for change in the images and forms of Modern Art. And these factors predominate not for esoteric or obscurantist reasons but to draw the spectator into active participation in the act of creation; to extend him, via the artifact, the opportunity to become involved in creative behaviour on all levels of experience—physical, emotional and conceptual.³⁵

³¹ Ernest Edmonds, Lizzie Muller and Matthew Connell, 'On Creative Engagement', *Visual Communication* 5.3 (2006): 315.

³² Lucy Lippard, *Six Years: The Dematerialization of the Art Object from 1966 to 1972* (Berkeley; Los Angeles, CA: University of California Press, 1997).

³³ Norbert Wiener, *Cybernetics: Or, Control and Communication in the Animal and the Machine* (Cambridge, MA: MIT Press, 1965).

³⁴ Roy Ascott, 'Behaviourist Art and the Cybernetic Vision', in *Telematic Embrace: Visionary Theories of Art, Technology and Consciousness*, ed. Edward A. Shanken (Berkeley; Los Angeles; London: University of California Press, 2003), 126.

³⁵ Ibid., 110.

Ascott believed that the 'behavioural tendencies' of such new forms of art foresaw the focus on processes and systems that defined cybernetics—and that burgeoning developments in science and technology would inform and extend this trajectory:

We are moving towards a fully cybernated society ... where processes of retraction, instant communication, autonomic flexibility will inform every aspect of our environment ...³⁶ Awareness of these underlying forces will sharpen [the artist's] perception; the utilisation of new techniques will enlarge his powers of thought and creative action; he will be empowered to construct a vision in art which will enhance the cybernated society as much as it will be enriched by it.³⁷

The kind of behavioural art considered by Ascott posed a problem for a traditional view of aesthetics that saw a subject apprehending a separate object. Jack Burnham's influential 1968 *Artforum* essay proposed a 'systems' approach to account for the new aesthetics of what he called 'post-formalist art'—such as environmental work, Happenings and kinetic art—that could not easily be described as objects, but existed as systems of relations between the audience, artwork and the world.³⁸ In a statement that parallels Dezeuze's emphasis on doing, Burnham observes how such art reflected the technological developments of society, suggesting, 'We are now in transition from an *object-oriented* to a *systems-oriented* culture. Here change emanates, not from *things*, but from the *way things are done*'.³⁹

Burnham's important 1970 exhibition *Software* at the Jewish Museum in New York was one of the first major exhibitions to show technological art in the context of a major museum and reflected the correspondence between new forms of art and technology. Crucially, Burnham's curatorial premise avoided distinguishing between the early computer-based works that he included alongside pieces of conceptual art. Thus Douglas Huebler's conceptual work, *Variable Piece No. 4* (1969), in which the audience was prompted to write a secret on a piece of paper that would be anonymously exchanged for the secret of another gallery visitor,

³⁶ Ibid., 126.

³⁷ Ibid., 127.

³⁸ Burnham describes 'post-formalist art' as work that shows 'that art does not reside in material entities, but in relations between people and between people and the components of their environment'. Jack Burnham, 'Systems Esthetics', *Artforum* 7.1 (September 1968): 31. ³⁹ Ibid., 31. Emphasis in original.

was shown alongside Ned Woodman and Theodor Nelson's Labyrinth: an *Interactive Catalogue*. ⁴⁰ *Labyrinth* was the first public demonstration of a hypertext system and allowed the audience to navigate an electronic version of the exhibition catalogue at computer terminals in the gallery, which would then print out their unique path in hardcopy.⁴¹

This confluence of technical and conceptual works was based on Burnham's conception of the exhibition as a metaphor for art where 'software' represented the ideas behind a work and 'hardware' was associated with the actual art object.⁴² Burnham's interest lay in work primarily concerned with the former—works that 'deal with underlying structures of communication or energy exchange instead of abstract appearances'. 43 As Burnham states in his introductory catalogue essay:

Many of the finest works in the *Software* exhibition are in no way connected with machines. In a sense they represent the 'programs' of artists who have chosen not to make paintings or sculptures, but to express ideas or art propositions. After experiencing examples of Conceptual Art, it becomes apparent that machines can only handle the ideas given to them by human beings. What machines do is to telescope and edit experiences in a way that printed materials cannot.⁴⁴

While Burnham valiantly insists on undermining what he calls the 'usual qualitative distinctions between the artistic and technical subcultures', 45 a level of technological determinism nonetheless underlies his discussion—as does Ascott's 'cybernetic vision'. Burnham's assertion that machines 'telescope and edit experiences in a way that printed materials cannot' belies the fact that while a systems aesthetic is broadly appropriate for understandings art's shift from

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⁴⁰ Douglas Huebler, Variable Piece No. 4, 1969, performance with instructions; Ned Woodman and Theodor Nelson, Labyrinth: an Interactive Catalogue, 1970, hypertext exhibition catalogue installation.

⁴¹ Jack Burnham, ed., Software—Information Technology: Its New Meaning for Art (New York: Jewish Museum, 1970), 18. Exhibition catalogue.

⁴² Shanken notes, 'Software' was predicated on the ideas of "software" and "information technology" as metaphors for art. [Burnham] conceived of "software" as parallel to the aesthetic principles, concepts, or programs that underlie the formal embodiment of the actual art objects, which in turn parallel "hardware." Edward A. Shanken, 'The House That Jack Built: Jack Burnham's Concept of "Software" as a Metaphor for Art', Leonardo Electronic Almanac 6.10 (1998). http://www.artexetra.com/House.html. Accessed: 15 September 2012.

⁴³ Jack Burnham, 'Notes on Art and Information Processing', in *Software*, ed. Burnham, 10–11.

⁴⁴ Ibid., 14.

⁴⁵ Ibid.

objects to processes of relations, different systems also produce radically different experiences.

Thus, in establishing the kinds of aesthetic experiences produced by interactive media art, we must question how the digital processing that underpins such a system differentiates it from non-computer-based participatory practices. We must ask how interactive media art's digitality impacts the way it renders systems of relations differently to participatory work that requires the audience to interact in order to bring the work into being, but which operates in the absence of technological computation.

Materiality and Interactivity

Interactive art as a subset of new media art emerged in its own right in the early 1990s. As we have seen, the concept of participation as an artistic goal or aesthetic medium has been explicated since at least the time of the Dadaists. Thus I take the phrase 'interactive media art' from Kwastek to differentiate digitally mediated interactive work from that based on conceptual or analogue forms of participation. We can simply define interactive media art as work encompassing an aesthetic engagement with digitally mediated interaction, and note the immersive responsive installation practice that this research examines as a subgenre.

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⁴⁶ Kwastek traces a succinct timeline of its development: 'while social interactions were increasingly staged as artistic projects from the 1960s onward, and electronically controlled interactions were first used in art projects in the 1950s and 1960s (followed by digitally controlled human-machine interactions from the 1970s on), it was not until the 1990s that "interactive art" became an important concept in media art'. Kwastek further notes that, 'The public perception of interactive (media) art as an independent genre was bolstered by its inclusion in 1990 as a category in the Prix Ars Electronica, which also established the restrictive use of the term to the areas of electronic and digital art'. Kwastek, *Aesthetics of Interaction in Digital Art*, 8.

⁴⁸ Edmonds, Muller and Connell provide a taxonomy of interactivity that helps bring more specificity to this general definition. The authors note four categories of interactivity: (i) static: 'The art object does not change and is viewed by a person'. (ii) dynamic-passive: 'The art object has an internal mechanism that enables it to change or it may be modified by an environmental factor'. (iii) dynamic-interactive: 'All the conditions of the dynamic-passive category apply with the added factor that the human "viewer" has an active role in influencing the changes in the art object'. (iv) dynamic-interactive (varying): 'The conditions for both (ii) and (iii) apply, with the addition of a modifying agent that changes the original specification of the art object'. My practice can be categorised as 'dynamic-interactive'. Edmonds, Muller and Connell, 'On Creative Engagement', 310–11.

Critics, theorists and practitioners alike have wrestled with terminology to appropriately describe the broad field of work constituted by artistic experimentation with electronic and digital technology, of which interactive media art is but a small part. 'Digital art', 'media art' and 'new media art' are often used interchangeably and have more recently superseded alternates such as 'computer art' or 'information art'. The difficulty emanates from the variety and changefulness of the genre which, while having its roots in the in the midtwentieth-century, is still coalescing as a movement. This is compounded by the fact that each of the terms above is somewhat unsatisfactory without qualification.⁴⁹ 'Digital art' excludes electronic art; 'media art' is worryingly broad (as, of course, all art uses media in one way or another); and 'new media art' encounters the issue of the indeterminacy of the word 'new'—not to mention the fact that much so-called new media art is actually a hybrid of older and newer forms. For example, my work incorporates motion-sensors—which could be considered a relatively new artistic material—along with video projection, which has guite an established history in artistic discourse and practice.

I thus use the term 'new media art' to describe the field of this research with an acknowledgement of its semantic shortcomings. As an antidote to this I hope to develop an understanding of 'media' in this section in the ecological sense evoked by Sean Cubitt and Paul Thomas:

A medium is composed not of permanent essence but a series of connected evolutions, each of which assembles its elements from what is available, inventing, adapting, retro-engineering, refitting, and sabotaging. The digital is far too vast to

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⁴⁹ Kwastek gives a good run down of such difficulties: 'Since the 1980s, and increasingly since the 1990s, artistic works that make use of electronic media have been subsumed under the term "(new) media art". If "media art" is regarded as an artistic category defined by technical or formal characteristics, then it is open to the common criticism that, in a broad sense, all art is media art, insofar as all art seeks to convey a message by means of a medium of some kind. But even the narrower use of the term—according to which "(new) media art" refers only to forms of artistic expression that employ electronic media—fails to differentiate between analog and digital processes of image and sound production, or between participatory or representative works, or between performative projects and installations. "Media art" is thus, an umbrella term for very different types of artistic expression, often also encompassing the field of video art.' Kwastek also discusses how 'computer art' as a term was increasingly replaced by 'digital art' in the 1990s, noting, 'Contrary to what the wording of the term may suggest, "digital art" is understood to refer not only to purely immaterial works expressed in code, software or data—such as Internet art—but also to installation and performative works that use digital media'. Kwastek, *Aesthetics of Interaction in Digital Art*, 1–2.

be assimilable to a single aesthetic: the aesthetic of a dot-matrix printer has little to do with *Avatar*; Excel has little in common with Blender.⁵⁰

To think about interactive media art in this light as an *assembling* set of connections is to acknowledge that vastly different ecologies make up its varied forms or articulations of practice. Being installation-based, the environment of my work is distinct from online, locative or performative interactive media art. It is reliant on the discrete set of architectural relations produced by and with the particular physical space in which it is situated—most often the gallery structure of the 'white cube' or 'black box'.

This conception of a medium also acknowledges that interactions take place on many levels beyond those between the audience and the artwork. Indeed, in my work only a small part of the equipment in each piece directly facilitates interaction with the audience. While certain sensors and software are crucial for such interactivity, so too is the work made up of interactions across nonhuman components including the projector, speakers, cables and screen. On an even more basic level are the interactions represented in the execution of code to render the video data and the firing of computer transistors that themselves produce a transduction of energy. These systems and subsystems pulse at a different rate to the flows of inter-human or analogue interactions on which other participatory practices are premised.

Taking such an ecological view of interactive media art complicates the conception of the 'immateriality' of the digital and links to a contemporary wave of media theory seeking to reassess the relationship between technology and materiality.⁵¹ Anna Munster is one such voice. In her book *Materializing New Media*, Munster seeks to carve out a new genealogy of digital culture against the binary of man versus machine, one which makes room to 'take the body, sensation, movement and conditions such as place and duration into account'.⁵² Yet over and above the issue of human bodies, this 'new materialism' in media theory also asks—as

⁵⁰ Cubitt and Thomas, 'Introduction', 9.

⁵¹ Here I am influenced by Fuller's conception of media ecology. Matthew Fuller, *Media Ecologies: Materialist Energies in Art and Technoculture* (Cambridge, MA: MIT Press, 2007).

⁵² Anna Munster, *Materializing New Media: Embodiment in Information Aesthetics* (Hanover: Dartmouth College Press, 2006), 3.

Munster does in her subsequent text *Aesthesia of Networks*—for a focus on how non-human elements operate and experience.⁵³ As Jussi Parikka suggests, new materialism considers, 'non-human bodies and objects, processes that escape direct and conscious human perception, intensity of matter of technological and biological kinds'.⁵⁴

While Burnham reflects that, 'change now emanates not from *things*, but from the *way things are done*', it is important to qualify that in a time of 'The Internet of Things' this applies not only to humans doing things to and with technology, but also to technology doing its own things independently of direct human control.⁵⁵ While perhaps this analysis is most pertinent to fully autonomous systems, in my work I can look to the example of parallel processing of concurrent software programs that talk to each other in order to automatically process MIDI signals generated by the motion sensors. While my understanding of this relationship might only ever be speculative as I cannot transcend my own perception to perceive in the way a computer does, as a practice-based researcher in interactive media art part of my understanding of my work resides in a tacit knowledge of how certain systems and software will behave and respond to each other in different conditions.

This perspective suggests that the aesthetics of interactive media art emanate not solely from the abstract process of interaction, but also from particular relations between and across every element of the artwork's system. It also asserts that while interactive media art is not object-based, it is also far from immaterial. It is materialised in the way it acts on and with the body, but also in the physical processes and processing of data, electricity, light and sound. We can thus reflect that while transcending issues of medium and genre is productive in establishing overarching conceptual influences and thematic continuities, a keen eye to the material of practice is nonetheless richly divulgent in probing how such theories play out in specific, practiced circumstances.

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⁵³ Anna Munster, *Aesthesia of Networks: Conjunctive Experience in Art and Technology* (Cambridge, MA: MIT Press, 2013).

⁵⁴ Jussi Parikka, 'New Materialism as Media Theory: Medianatures and Dirty Matter', *Communication and Critical/Cultural Studies* 9.1 (March 2012): 95.

⁵⁵ This term refers to the ever-growing web of networked devices that capture data. Bill Wasik, 'In the Programmable World, All Our Objects Will Act as One', *Wired*, 14 May 2013. http://www.wired.com/2013/05/internet-of-things-2/. Accessed: 3 April 2014.

In the introduction to their recent book, *Relive: Media Art Histories*, Cubitt and Thomas question at what level of detail—between the micro and the macro—the enquiry into media art's history should be situated. Considering this problem of scope, the authors suggest that:

Doing history means building from the minutiae upwards and straining to make sense of them; it is making the broad strokes and then questioning them with the aid of the horded detail. 56

To apply this to the current investigation of how interactive media art produces aesthetic experience means establishing the broad continuities that exist above form—as we have done in the first section—and then complicating these with specific revelations of material instantiations of the works themselves—as we are about to do. Thus, in the first section of this chapter I established that interactive media art exists within a rich lineage of participatory art practice set in motion by early twentieth-century avant-garde works that reposition the role of the spectator. I showed how this genealogy gives a broad perspective on the aesthetic implications of work that is in process and thus cannot be understood as an object, but must be recognised as a system.

I will now look closely at two examples of practice in the remainder of this chapter, focusing on the area of immersive responsive installation. Firstly I will analyse Rokeby's renowned interactive work *Very Nervous System*. Although this work has been widely discussed in new media art history, theory and criticism, it is of particular interest here as it shares important characteristics with my own work in being based on a responsive motion-sensing system and constituted by what Munster refers to as an 'intensely embodied and diffusely abstract' interface.⁵⁷ I will then turn to a discussion of my own practice by dissecting my process of developing the prototype of the South Sydney Project artwork.

⁵⁶ Cubitt and Thomas, 'Introduction', 9.

⁵⁷ Munster, *Materializing New Media*, 120.

Between Reflection and Refraction

This section considers what is especially revelatory about being in the system of an interactive media artwork. In his influential essay, 'Transforming Mirrors', Rokeby invokes the idea of reflection as a key motif within interactive media art:

A technology is interactive to the degree that it reflects the consequences of our actions or decisions back to us. It follows that an interactive technology is a medium through which we communicate with ourselves ... a mirror. The medium not only reflects back, but also refracts what it is given; what is returned is ourselves, transformed and processed.⁵⁸

Rokeby's own highly celebrated work, *Very Nervous System*, provides a clear example of the importance of the process of *refraction*, along with reflection, in interactive media art. *Very Nervous System* is based on an embodied interface whereby the work sonically echoes every movement of the participant. The audience's body becomes a 'theremin', manipulating sounds with gesture. Recounting her experience of *Very Nervous System*, Lizzie Muller describes how, far from controlling the artwork, one instead enters into a dialogue with it:

The work creates an unusual experience of our bodies' relationship to space, in which we feel connected viscerally to the surrounding environment. The air itself seems charged with potential, but our power is far from absolute. Rokeby has intentionally created a system with unpredictable behaviour, which draws into it the complexity of our broader interaction with the world. We cannot 'control' the <code>Very Nervous System</code>, in the way that we might usually expect to control a computer, because we are part of it. Instead we enter into a seductive and

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⁵⁸ Rokeby, 'Transforming Mirrors', 133. When Rokeby's text was published in 1996, interactive media art was a still a relatively burgeoning form. Many early interactive works, including those cited by Rokeby, employ a literal interface of reflection. For example, pioneering interactive artist Myron Krueger's early interactive work, *Videoplace* (1969), is based on the processed reflection of the viewer's image projected before them. Locally, a landmark Australian exhibition of interactive media art at Campbelltown Arts Centre, *Mirror States*, curated by Cleland and Muller, took Rokeby's analogy as an overriding curatorial motif. Cleland and Muller assembled a suite of Australian and international interactive artworks that conceptually or practically operate as mirrors. In John Tonkin's *time and motion study* (2006), for example, an infinite digital portrait is created as the artwork stores images of past and present viewers, which are refracted on the display screen. Kathy Cleland and Lizzie Muller, eds., *Mirror States* (Sydney; Auckland: Campbelltown Arts Centre; MIC Toi Rerehiko, 2008). Exhibition catalogue.

This distinction articulated by Muller between a paradigm of control and dialogue is crucial to understanding the importance of refraction in interactive media art. Utilitarian interactive technologies reflect our actions back to us; for example, the computer mouse of our PC directly reflects the movement of our hand. Such technology mirrors our actions exactly as expected to accomplish a task as quickly and simply as possible. The user is in control. Interactive media art, on the other hand, processes input in a way that, as Rokeby suggests, refracts and thus transforms it. Though the audience can learn to 'play' the *Very Nervous System*, they cannot control it in the goal-oriented sense that shapes our interactions with everyday consumer technologies. Instead the relationship with the work involves testing the parameters of refraction and responding to them in turn. This cycle, as Ascott has observed in discussing the tendencies of behavioural art, creates a feedback loop where both the work and the audience introduce variables into the system's energy:

The basic principle is *feedback*. The system artifact/observer furnishes its own controlling energy; a function of an output variable (observer response) is to act as an input variable, which introduces more variety into the system and leads to more variety in the output (observer's experience).⁶⁰

In encountering *Very Nervous System* the audience immediately learns that the input of their movements trigger the output of samples of sound. This initial feedback provokes a desire to test out how different kinds of gestures might elicit different sounds and audience members adjust their movements to probe the potential of the system.

⁵⁹ Lizzie Muller, 'Reflected Selves', in *Mirror States*, eds. Cleland and Muller, 28–29.

⁶⁰ Ascott, 'Behaviourist Art and the Cybernetic Vision', 128. Emphasis in original.



Figure 4. David Rokeby, *Very Nervous System* (1983–), interactive audio installation. Participants interacting with *VNS* in 2003 at the Ace Art gallery (Winnipeg, Manitoba). Photos: William Eakin, Risa Horowitz and Liz Garlicki. Copyright David Rokeby and Ace Art Inc.

In their article 'On Creative Engagement', Edmonds, Muller and Connell analyse design principles in interactive media art that contribute to creating engaging audience experiences. Their methodology involves categorising the stages of encounters with interactive media works into three areas: 'attractors' (the elements that initially draw an audience to a work), 'sustainers' (what keeps the audience interested) and 'relaters' (that which might tempt the audience to return within a museum context).⁶¹ The authors describe the sustainers, which are of interest here, as the work's 'holding power'.⁶² These are the very elements that make the experience of an interactive media artwork meaningful, where 'meaningful' does not denote the satisfaction of accomplishing a set task, but rather alludes to a level of active 'creative engagement'.⁶³

In analysing examples of practice, Edmonds, Muller and Connell hypothesise on the importance of a 'two-pronged approach' in creating sustainers where the audience is simultaneously provided with 'something that they [can] readily grasp together with something rather difficult to pin down'.⁶⁴ To apply this to Rokeby's work we might attribute the immediate feedback linking movement to sound as the 'readily graspable' element. As Caitlin Jones observes of the work:

The response time of the system, what Rokeby refers to as the 'feedback loop', is intentionally short and as a result, the computer's seemingly instantaneous response to movement leaves little time for the user to ruminate on how or why their actions create sound. 65

What the audience is left to ruminate on—the more difficult to immediately 'pin down' element—is the extent of this relationship. How do particular movements link to specific sounds? What is the range of sounds? And, when these parameters are established, how might the audience member specifically engage the system to produce their own composition? Thus the design of the system balances an initial reward for action with a level of depth and complexity to sustain creative

⁶¹ Edmonds, Muller and Connell, 'On Creative Engagement', 307.

⁶² Ibid., 319.

⁶³ Ibid., 311.

⁶⁴ Ibid., 317.

⁶⁵ Caitlin Jones, 'David Rokeby', in *Mirror States*, eds. Cleland and Muller, 22.

engagement through exploration. This is the system's capacity for refraction—not only to reflect action but also to process and transform it.

In discussing participatory practices in a broad sense, Dezeuze has outlined the potential risks faced by works that fail to succeed in this task:

Spectator participation ... is always caught up between two opposing threats: the risk of being used as a superficial gimmick, and that of being invested with unattainable hopes of social change or personal transformation.⁶⁶

Considering levels of experimentalism in 'do-it-yourself' works, Dezeuze observes that meaningful participation is achieved by 'maintaining a balance between limited variables and an openness to a range of results'.67 If the variables within a work are too restrictive, Dezeuze asserts, the participation becomes mechanical, whereas if the variables are too open the encounter risks being arbitrary. The challenge for interactive media artists becomes the design of a system where the interaction is not tokenistic or overly functional on the one hand, nor esoteric or opaque on the other. This negotiation in allowing for the right level of what is readily graspable and what is difficult to pin down might colloquially be called achieving the 'sweet spot'.68 The balancing of these elements within the artwork, as Dezeuze points out, allows a level of complexity into the system to produce meaningful interaction. This does not mean complicated or clunky interaction design—rather it suggests the power of creative engagement lies in how the work registers as an exploratory experience.

⁶⁶ Dezeuze, 'An Introduction', 9.

⁶⁷ Ibid., 9.

⁶⁸ Bullough takes up this issue in his classic art theory essay from 1912, "Psychical Distance" as a Factor in Art and as an Aesthetic Principle'. Bullough tackles the question of the nature of aesthetic appreciation by describing a 'psychical distance' created in the recognition of an object or situation that feels separate or distant from our practicable selves, likening this experience to the apprehension of objects within a fog. As Bullough notes, 'this distanced view of things is not, and cannot be, our normal outlook'. Taking distance thus as an aesthetic principle, Bullough asserts the notion of the 'antinomy of distance' where, paradoxically, the most desirable state in 'aesthetic appreciation' and 'artistic production' involves both a 'concordance' and transformational distance between the subject and the work. Bullough reasons that the sweet spot, is achieved through the creation of 'the utmost decrease of Distance without its disappearance'. Edward Bullough, "'Psychical Distance" as a Factor in Art and an Aesthetic Principle', *British Journal of Psychology* 5 (1912): 87–117.

Prototyping the South Sydney Project Artwork

I have asserted that interactive media art operates within a theoretical and historical context where the role of the spectator has been elevated, challenged and redefined. I have also argued that the openness created by the shifting boundaries between audience, artwork and artist generates artworks that exist in the process of these relations being established, tested and negotiated—and as such can be understood as aesthetic systems rather than objects. Having set up this context, this section shifts to a more practice-grounded approach, focusing on discoveries from my studio research. I examine the production of the first iteration of the South Sydney Project artwork. In doing so I consider the design process involved in creating the prototype in terms of the particular exploration of the oral history material it engenders. I also discuss how designing an interactive system appropriate for the structure of the South Sydney oral histories as an archive set the agenda for further research into the aesthetic and conceptual implications of remixing archival material, which I will examine in Chapter Three.

The introduction of interactivity into my practice was synchronous with my first live audiovisual performances. This context is important in establishing how I developed my approach to interaction design. Around the time that I started making interactive works in 2007, I was also beginning to produce live audiovisual performances.⁶⁹ These performances, often collaborations with other video and sound artists, involved using VJ software to trigger and process a database of video clips 'on the fly' in real time.⁷⁰ Initially I thought of these performances partly as a way of coming to terms with audiovisual material I would later use for my video art pieces outside of the constraints of my usual working methodologies.

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⁶⁹ Such performances include: *Homepage*, live audiovisual performance with Chris Caines, *Liquid Architecture 8*, 2007, Sydney; *Untitled*, live audiovisual performance with Shannon O'Neill and Chris Caines, *Liquid Architecture 10*, 2009, Sydney; and *Headwater*, live audiovisual performance, The Field (Chris Caines, Shannon O'Neill and Jessica Tyrrell), *Memory Flows* exhibition launch, Sydney, 2010

⁷⁰ Examples of VJ software I have used in interactive installation and performance work include GarageCUBE's Modul8 and VIDVOX's VDMX.



Figure 5. The Field (Chris Caines, Shannon O'Neill and Jessica Tyrrell), *Headwater*, 2010, live audiovisual performance, *Memory Flows* exhibition launch, Armory Gallery, Sydney. Still from video documentation.

However, using video in a live performance context allowed a plane of spontaneity to open up in my relationship with my material. I approached creating work in an improvisational way by responding to the other performers, the audience and the physical time and space in which we were performing. Rather than locking off fixed sequences of imagery as I did making linear video works, improvised performance allowed for a more exploratory way of creating. It generated a feeling of being inside the process of working with moving images and founded a direct and intimate relation to their composition. In these performances I often used gestural controllers such as a MIDI keyboard, or even my own body, to adjust parameters of the video material, heightening the embodied sense of joining with the video material in performing the work.

This approach to making audiovisual performance began feeding into my development of interactive installations. I wanted to create systems that would process material independently of my input and also physically extend to an audience the creative satisfaction I gained from this exploratory improvisation. Rather than coding custom programs I continued using VJ software and simply changed the interface of interaction. In doing so I experimented with mapping video and sound to sensors installed in a space so that the audience, rather than my MIDI keyboard, would trigger and process audiovisual material in different ways.

Developing my installation-based interactive practice into a research process has involved working in an iterative manner by making prototypes that are reversioned and refined through my own evaluation of the work as I make it in the studio, as well as observation of audience encounters with the system. I also iterate the interaction design across different projects, not solely within the development of a single work, as I found that discoveries from each project could be translated and evolved in subsequent undertakings. In this sense the work itself, as well as the way it is made, is process-based. An iterative process almost becomes a demand of the medium because new discoveries and refinements occur as the work operates in different contexts and is exposed to different audiences. In discussing methods of practitioner-researchers in interactive media art, Candy and Edmonds observe that:

In a very real sense, the audience is part of an interactive work, such that an artist cannot understand the work fully without seeing the audience interacting with it. Sometimes artists need to know more about their audiences than casual observation on their part will allow. Where, for example, the artist wishes to understand whether the artwork 'works' in a particular way with different people from diverse backgrounds, this might only be achieved by way of systematic studies.⁷¹

The first prototype of the South Sydney Project was created as part of a short artist residency at Serial Space in Chippendale.⁷² I had ten days working in the space to experiment with introducing interactivity into the archive. The residency would culminate in a work-in-progress showing where I could observe the installation in action with an audience. I decided to work with a different interview on each day of my residency, editing down ten selected conversations into a series of short clips that resonated with me on different levels.

When I originally watched the South Sydney interviews back-to-back during the digitisation process outlined in Chapter One, I observed that the archive had its own kind of organisational logic. By this I mean that through common points in the interviewees' accounts emerged a constellation-like network of connections between the characters, places and events collectively recalled. As I re-watched my ten chosen interviews over an intensive period at Serial Space these connections reappeared. A number of interviewees, for example, remembered the horse and dray delivering milk to peoples' homes during the Depression era. Contradictions existed as well as connections—differing perceptions of collective experiences that in themselves proved instructive. I had edited a section of Ted McDermott's interview where he recalls with delight the fights that routinely broke out of pubs in Redfern in the '30s and spilled into Redfern Park or Kettle Street.⁷³ Yet in her interview Grace Schwebel recalls the 'drunken brawls' following the 'six o'clock swill' in 1920s Newtown as 'brutal' and 'horrifying', remembering that she and her family routinely witnessed these fights as they walked along King Street on a

⁷¹ Candy and Edmonds, 'Introduction', 8.

⁷² Documentation can be found on my residency blog:

http://eatingmywords.net/tendaysinchippendale/. Accessed: 22 January 2012.

⁷³ Ted McDermott, born 1925, Redfern, quoted in Sue Rosen, ed., *South Sydney Social History Project Transcript—Redfern-Waterloo-Chippendale* (unpublished transcript, 1994–95), 65.

Delighting in these points of intersection (whether complimentary or contradictory), I wondered how I could bring the collection of interviews into dynamic relation with one another—and with the audience—by extending this relational structure into the logic of the artwork's interaction design. I experimented by montaging the initial ten sets of edited clips in my VJ software, using a MIDI keyboard to fade up and down the opacity and volume of different fragments. As I improvised a mix of the sound and video elements together I was struck by the fleeting and novel associations—both textual and aesthetic—that emerged by chance. The simple accidental juxtaposition of two interviewees mentioning the same street name would immediately draw a mental map between the fragments.

Thus I conceived a prototype interactive system with the desire to elevate and extend such novel associations that might occur across montaged pieces of footage. For the work-in-progress showing at Serial Space I used the initial ten sets of clips loaded in the VJ software's database as content. As archives and databases are closely related, the use of a database-driven interactive system meant the artwork's nerve centre echoed the very structure of the South Sydney Archive. Working with an intimate area of the gallery I created a diffuse spatial interface by wall-mounting infrared and ultrasonic sensors that detected audience members as they entered or moved around the installation. These motion-sensors were MIDI mapped to the database of video clips, so that movements across the space—and by different participants—would randomly trigger clips to be projected on a small pane of bubbled antique glass and the corresponding voices to reverberate in the space. The interviewees' faces were blurred by this surface so that they appeared almost like spectres of South Sydney, emerging from the architecture, conjured by the audience's physical presence.

Jane Lanyon, who featured in one of my 'hallucinations' in Chapter One, speaks with a soft, broad Australian accent, 'We did what they called a "midnight flitter", in the darkness of the night we moved to a two storey house in nineteen Vine

⁷⁴ Grace Schwebel, born 1923, Newtown, quoted in Sue Rosen, ed., *South Sydney Social History Project Transcript—Newtown-Darlington* (unpublished transcript, 1994–95), 138–39.

Street, Redfern'.⁷⁵ The flicker of black and white video that accompanies her voice shimmers like an apparition. Leo Hannon's accent resonates with Lanyon's as broad and working class—possessing in its timbre and tone the subtle but compelling authority of the witness: 'As a child I can remember my father never got constant work ... he was digging drains in Centennial Park'.⁷⁶

Such fragments of recollections triggered within the installation cumulatively build a sense of a place in another time. A hypertext narrative of South Sydney emerges, precipitated by the chance operations of audience movement. I designed the prototype so that multiple audience members moving simultaneously within the work would cause the clips to overlay one another, whereas movements made successively would montage the fragments in sequence. This design emphasises the associative links that already exist in the archive but could not be accessed through a linear reading of the material. In this way, Ted and Grace's conflicting recollections of the six o'clock swill—just as Jane and Leo's voices—could be brought into dialogue with one another.

The interaction design echoes the way I compose when VJing, but implicates the audience in generating their own compositions across the database of material. The variable of the audience movements means that these are but chance aesthetic connections—resonances—rather than factual historical insights. Instead of functioning as a logical interface for accessing the oral histories from the archive, the interaction design echoes the structure of memory as a fragmentary and associative mechanism. The audiences' sense that they are encountering someone's actual memory is enriched by the way the recollections are experienced within the artwork as memories often appear—flashes of imagery and utterances of sound that are suddenly triggered, only to recede almost as swiftly as they are formed.

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⁷⁵ Jane Lanyon, born 1920, Chippendale, quoted in Rosen, *South Sydney Transcript—Redfern-Waterloo-Chippendale*, 39.

⁷⁶ Leo Hannon, born 1923, Werribee (raised in Newtown), quoted in Rosen, *South Sydney Transcript—Newtown-Darlington*, 193.



Figure 6a and 6b. Jessica Tyrrell, *The South Sydney Project* artwork prototype, 2010, interactive audiovisual installation. Stills from video documentation of work-in-progress showing at Serial Space, Chippendale, Sydney in 2010.

The recombined fragments of the South Sydney oral histories enact a conversation between the voices in the archive, as well as between the audience and the archive. It is not only the new associative meanings generated by novel combinations of the material that are significant, but also the very process the audience engages in physically creating these combinations; mining the material for its poetic undercurrents, mapping patterns, charting sparks of connectivity.

The prototype endeavours to provide a 'readily graspable' element in the interaction design —to apply Edmonds, Muller and Connell's discussion of 'sustainers' of creative engagement—in immediately triggering sound and video as the audience enters the space. Yet as I designed the system to be responsive to movement, it follows that if the audience members are still, the work falls quiet. Thus the audience are prompted into motion to explore how the variables of the nature and speed of their movements impact the playback of the sound and video—this is the 'somewhat difficult to pin down' characteristic.

While the experience of the work is visceral in that the whole body is implicated in the generation of media, the negotiation between the readily graspable and the difficult to pin down also provokes a kind of 'reflection-in-action' as the audience cognitively processes an understanding of the system whilst being immersed in it.⁷⁷ Thus the open system of an interactive media work generates a rendering of the material where meaning resides not solely in either thoughts or feelings themselves, but in their overlapping and intermingling. This is along the lines of what Nathanial Stern has described in his analysis of embodiment and interactive media art as 'moving-thinking-feeling'⁷⁸—or to revisit Williams' phrase, 'practical consciousness of a present kind'.79 This capacity of interactive media art to produce experiences of *felt thought* and *thinking feeling* through an exploration of its system will be further unpacked in Chapter Five when I examine the

⁷⁷ Schön develops the notion of 'reflection-in-action' in considering the tacit knowledge practitioners gain and use in the process of doing their practice. Schön notes that in 'reflection-inaction', 'doing and thinking are complementary. Doing extends thinking in the tests, moves, and probes of experimental action, and reflection feeds on doing and its results. Each feeds the other, and each sets boundaries for the other'. Donald Schön, The Reflective Practitioner: How Professionals Think in Action (London: Ashgate, 1991), 280.

⁷⁸ Nathaniel Stern, *Interactive Art and Embodiment: The Implicit Body as Performance* (Canterbury: Gylphi, 2013), 2.

⁷⁹ Williams, 'Structure of Feeling', 132.

development of the final iteration of the South Sydney Project artwork.⁸⁰

Rokeby takes a humanistic view of technology, suggesting that the experience of interactive media art can entail a deeper negotiation of what it means for a subject to be in the world. Rokeby ventures that engaging in work that processes and transforms our gestures impacts how we see ourselves positioned in relation to the system of the artwork—and thus to a broader sense of ourselves in the world: 'To the degree that the technology transforms our image in the act of reflection, it provides us with a sense of the relation between this self and the experienced world'.⁸¹

The world itself is, of course, the ultimate feedback system of endless inputs, outputs and variables of ever-increasing intricacy. Following the complexity theory of Paul Cilliers, Ross Gibson observes that the experience of encountering processual and emergent interactive media art is an appropriate analogue of our experience of a changeable world:

[Y]ou get a feeling for the endless flux and paradoxically patterned unpredictability that are always coursing through the lively portions of the world. Such works encourage you to understand how you and the world are in and of each other, how you and the world are constituent of each other and mutually obliged, how you and the world are implicated, therefore, not distanced. Such artworks can help you experience renditions of the complexity that plays out when individuals, their environments and their communities insinuate each other. And by experiencing it, you have the chance to know it, to know it in the manner that is appropriate to complexity.⁸²

⁸⁰ Massumi describes a similar effect in the installations of Robert Irwin, noting that in being in his works, 'You have an immersive thinking-feeling of what it's *like* to be alive in inhabited space, and only what *that's* like. It's a perception of the perception of lived space. And you're all in that perception, every thought, every movement, every shadow, every sound, each of them modulating the others, in immediate vibrational relation, in resonance. The resonance is all embracing'.

 $Massumi, \textit{Semblance and Event, } \textbf{72}. \ Emphasis in original.}$

⁸¹ Rokeby, 'Transforming Mirrors', 133.

⁸² Ross Gibson, 'The Known World', *TEXT Special Issue, Symposium: Creative and Practice-led Research—Current Status, Future Plans* 8 (2010), 8.

http://www.textjournal.com.au/speciss/issue8/Gibson.pdf. Accessed: 8 April 2011.

I have shown that getting to know the South Sydney Archive through the emergent and processual interactive system of an artwork such as the prototype I have created is, similarly, to know it in a way that is appropriate to complexity. It is to know it through a sense of dialogue rather than control—through the exploration of transmutable interconnections of meaning that echo not just the organisational logic of the archive, but also the fluctuating dynamism that marks the suburbs, neighbourhoods and communities it speaks of.

Conclusion

The key question I have explored in this chapter is: what kinds of aesthetic experiences are produced by interactive media art? In addressing this question, I have firstly taken a non-medium specific view to locate my research within a broad range of practices and theoretical influences that extend the audience's role in generating meaning within an artwork. I thus established that the aesthetic experience of interactive media art, as with other participatory practices, is located in its status as a system of relations in the process of being brought into being through action. As such, interactive media art produces experiences and situations that are emergent.

I then enquired into specific characteristics and components of two immersive responsive installations—Rokeby's *Very Nervous System* and the prototype of my own South Sydney Project artwork. In doing so I have shown that the aesthetic experience of interactive media art equally lies in the particularities of the digital mediation of its specific system. This is influenced by how the interface has been designed and programmed, and also how each material element in its media ecology relates to and interacts with the other. Drawing on Rokeby's contribution on the modes of reflection and refraction I asserted that in transforming and processing actions, interactive media art produces an exploratory encounter with its material, and with the system itself.

I also reflected on how the particular kind of aesthetic experience of interactive media art taps into the resonant qualities of the South Sydney Archive identified in Chapter One. I asserted that the database-driven system on which the interactivity

is founded echoes the structure or internal logic of the archive. I showed how the prototype further extends the material by facilitating new associations generated by the audience. Finally, I suggested that the processual, emergent and exploratory encounter with the oral histories enabled by the work is appropriate to account for the flux, dynamism and complexity of the world of which they speak.

The next chapter, 'Remixing the Archive', links the conceptual significance of working with archival material with the relational potential of the database structure I have just introduced. I bring Bourriaud's concept of 'postproduction' and Kenneth Goldsmith's conception of 'uncreativity' into dialogue with Hal Foster's notion of the 'archival impulse' to probe the relationships between the archive and the database. ⁸³ In exploring the continuing impulse for artists to reimagine, reprocess and rework both archival and existing cultural material, I question what is learned in cutting up and recombining the archive?

⁸³ Nicolas Bourriaud, *Postproduction: Culture as Screenplay*, trans. Jeanine Herman (New York: Lukas & Sternberg, 2002), 13. Kenneth Goldsmith, *Uncreative Writing: Managing Language in the Digital Age* (New York: Columbia University Press, 2011), 1–13; Hal Foster, 'An Archival Impulse', *October* 110 (2004): 3–22.

Chapter Three

Remixing the Archive

Stories about places are makeshift things. They are composed with the world's debris.

—Michel de Certeau, The Practice of Everyday Life¹

Introduction

In 1920, the journal, *Littérature*, published a poem by Dada artist Tristan Tzara:

TO MAKE A DADAIST POEM

Take a newspaper.

Take some scissors.

Choose from this paper an article of the length you want to make your poem.

Cut out the article.

Next carefully cut out each of the words which make up the article and put them in a bag.

Shake gently.

Next take out each cutting one after the other in the order they left the bag.

Copy conscientiously.

The poem will resemble you.

And there you are 'an infinitely original author of charming sensibility, even though misunderstood by the vulgar'.²

By cutting into and recombining a factual document—an act that one would expect to produce nonsense—Tzara in fact exposes a kind of poetic undercurrent pulsing through the material. William Burroughs revived the Dadaist's 'cut-up' technique in the late 1950s and 1960s via Brion Gysin, employing it in producing his

¹ Michel de Certeau, *The Practice of Everyday Life*, trans. Steven Rendall (Berkeley: University of California Press, 1988), 107.

² Tristan Tzara, 'Pour faire un poème dadaïste', *Littérature* 15 (1920): 18.

groundbreaking work, *Naked Lunch*.³ Burroughs speculated that the cut-up technique could be used to divine or decode hidden meanings from within the original text, famously musing, 'If you cut into the present, the future leaks out'.⁴ I would like to turn Burroughs' statement around in this chapter to ask: *if you cut into the past, what leaks out?* Or, to put it another way, *what is learned in cutting up and recombining the archive?*

Information flows in Western networked societies have increased to the point that we are now experiencing the age of Big Data—a time when many everyday activities generate data incidentally, from online searches to shopping to smartphones.⁵ In an era that has seen more information produced and stored than ever before, new strategies and systems for making sense of the world's content are becoming increasingly important. This chapter shows how, in a context of the sheer ubiquity of both documentation and archivisation, the artist's role is repositioned to the task of reworking existing material, rather than producing more. As the twentieth-century haiku master Seishi Yamaguchi expresses, quoting Mallarmé, '[because] objects are already in existence, it is not necessary to create them ... all we have to do is grasp the relationships among them'.⁶

The first section of this chapter surveys key theories around the archive, focusing on Hal Foster's idea of an 'archival impulse' in contemporary art, to establish the special condition of the archive. I bring Foster's notion of an archival impulse into dialogue with Nicolas Bourriaud's idea of 'postproduction' and Kenneth Goldsmith's conception of 'uncreativity' to establish a tendency in contemporary

³ William S. Burroughs, *Naked Lunch* (New York: Grove, 1959).

⁴ William S. Burroughs, 'Origin and Theory of the Tape Cut-Ups' (1976) on *Break Through in Grey Room* LP (Sub Rosa, 1986).

⁵ The term 'Big Data' refers to the astronomical quantity of information produced in the digital age. In defining 'Big Data' Manovich notes the meaning of the term in the computer industry: 'Big Data is a term applied to data sets whose size it beyond the ability of commonly used software tools to capture, manage, and process the data within a tolerable elapsed time. Big Data sizes are a constantly moving target currently ranging from a few dozen terabytes to many petabytes of data in a single data set'. Manovich also refers to key media articles introducing the term: 'The Petabyte Age', *Wired* 16.7 (23 June 2008) and 'Data, Data Everywhere', *The Economist*, 27 February 2010. Lev Manovich, 'Trending: the Promises and Challenges of Big Social Data', in *Debates in the Digital Humanities*, ed. Matthew K. Gold (Minneapolis: University of Minnesota Press, 2012), 460. Boyd and Crawford note, 'Big Data is less about data that is big than it is about a capacity to search, aggregate, and cross-reference large data sets'. Danah Boyd and Kate Crawford, 'Critical Questions for Big Data', *Information, Communication & Society* 15.5 (2012): 663.

⁶ Mallarmé quoted in Seishi Yamaguchi, *The Essence of Modern Haiku* (Atlanta: Mangajin, 1993), xix.

⁷ Hal Foster, 'An Archival Impulse', October 110 (2004): 3–22.

art towards remixing as an approach to working with both archival and existing cultural material.⁸ Rather than separate these trends, this chapter seeks to contextualise them as part of a broader impulse for artists to reimagine, reprocess and reinterpret what Michel de Certeau might call 'the world's debris'.⁹

This leads into a discussion in the second section of how artists' interpretations of archives could be extended by the database's generative logic of relations and emergent associations. I link the conceptual significance of working with archival material with what Lev Manovich has characterised as the 'new symbolic form' of the database. I argue that just as the database shifts focus from intention to interpretation by presenting unstructured and nonlinear combinations of content, so too does reimagining extant material give conceptual significance to interpretation as a kind of 'postproduction' of meaning. I then explore how the database's compositional potential might be extended through interactivity. I show how audience interaction introduces a kind of Cagean 'indeterminacy' into database-driven compositions that allows for a more experimental process of meaning production. I conclude by suggesting that experimental systems for the reinterpretation of existing material reassign value from residing 'innately' in objects or information to assert the importance of chance aesthetic connections and resonant subjective interpretations.

Archival Impulses

Litwin Books, 2009).

The challenge in defining 'the archive' stems from the fact that it is a concept continually being negotiated and reassessed. 12 We can talk about the archive in a

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⁸ Nicolas Bourriaud, *Postproduction: Culture as Screenplay*, trans. Jeanine Herman (New York: Lukas & Sternberg, 2002), 13; Kenneth Goldsmith, *Uncreative Writing: Managing Language in the Digital Age* (New York: Columbia University Press, 2011), 1–13.

⁹ Certeau, The Practice of Everyday Life, 107.

¹⁰ Lev Manovich, 'Database as Symbolic Form', in *Database Aesthetics: Art in the Age of Informational Overflow*, ed. Victoria Vesna (Minneapolis; London: University of Minnesota Press, 2007), 39–60.

For Cage, 'indeterminacy' refers to elements of compositions which are not predetermined, thus 'bringing about the possibility of a unique form, which is to say a unique morphology of the continuity, a unique expressive content, for each performance'. John Cage, 'Indeterminacy', in Cage, *Silence: Lectures and Writings* (Middletown, CT: Wesleyan University Press, 1961), 35.
 In his historical account John Ridener notes that the concept of the archive has been challenged and redefined across disciplines beyond archival theory such as art and critical theory. John Ridener, *From Polders to Postmodernism: A Concise History of Archival Theory* (Sacramento, CA:

traditional sense as a collection of public records that preserve and convey historical information. The term also applies to the physical place (which increasingly might also be a digitised space), as well as the governing institution, that manages and stores the collection of documents (which may or may not be text-based).¹³

While this description provides a useful starting point, and the oral history material my work is based on certainly conforms to this traditional definition, it fails to account for more conceptual considerations of what an archive might contain and the forms it could take. Surely vernacular collections such as a family photo album or the accumulation of posts on a blog could also be described in some sense as an archive? This section seeks to establish an expanded understanding of the archive that is, nonetheless, based on the specific and nuanced attributes that exist within the archive as it is traditionally defined.

Jacques Derrida's meditation on the document in 'Archive Fever: A Freudian Impression' is a key contemporary theoretical text in terms of deconstructing the idea of the archive. Derrida conducts a kind of psychoanalysis of the archive, linking society's impulse towards archivisation to Sigmund Freud's concept of the death drive. This is an idea Freud develops in *Beyond the Pleasure Principle* of a destructive psychological urge to return to an 'earlier state of things'. The theory became a way for Freud to account for a tendency he observed in his subjects to

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¹³ Robert F. Berkhofer Jr. provides a good example of such a traditional definition: 'If archives originally contained the records generated by governments, the term today applies to any body of documentation produced by a corporate body or organisation that has a specific name and acts as an entity. [...] Technically speaking, archives contain the noncurrent or discontinued records of such a group. The term "archives" today refers at one and the same time to the records themselves, the institutional agency handling them at present, and the building or part of a building housing them'. Robert F. Berkhofer Jr., *Fashioning History: Current Practices and Principles* (New York: Palgrave Macmillan, 2008), 96. While on one hand T. R. Schellenberg acknowledges, '... there is no final or ultimate definition of the term "archives" that must be accepted without change and in preference to all others', he also provides a working definition for 'modern' archivists: 'Those records of any public or private institution which are adjudged worthy of permanent preservation for reference or research purposes and which have been deposited or have been selected for deposit in an archival institution'. T. R. Schellenberg, *Modern Archives: Principles and Techniques* (Chicago: The Society of American Archivists, 2003), 15–16.

¹⁴ Jacques Derrida, 'Archive Fever: A Freudian Impression', trans. Eric Prenowitz, *Diacritics*, 25.2 (1995): 9–63. Derrida re-reads Freud's text, 'A note upon the Mystic Writing-Pad', where the operation of memory is compared to a child's erasable pad inscribed with a series of traces. Sigmund Freud, 'A Note upon the "Mystic Writing-Pad"', in *The Standard Edition of the Complete Psychological Works, Volume XIX*, ed. and trans. James Strachey (London: The Hogarth Press, 1961). ¹⁵ Sigmund Freud, *Beyond the Pleasure Principle and Other Writings*, trans. John Reddick (London, UK: Penguin, 2003), 288.

re-stage or repeat the past. In his clinical practice, for example, Freud notes an inclination for patients 'to *repeat* the repressed material as a contemporary experience instead of … *remembering* it as something belonging to the past'. ¹⁶ Drawing a line from this repetitive urge to the contemporary concept of the archive, Derrida finds that to suffer from 'archive fever' is to be possessed by a libidinal compulsion to return to a mythic originating point. ¹⁷ Or, in other words, to preserve what cannot be repeated.

The impossibility of return coupled by the haunting presence of the document prompts Derrida to identify the 'spectral' condition of the archive—the paradoxical non-presence and non-absence of a prior actuality suggested in its archived trace: "The structure of the archive is *spectral*. It is spectral *a priori*: neither present nor absent "in the flesh", neither visible nor invisible, a trace always referring to another whose eyes can never be met'.¹⁸

Yet Derrida also sees an optimism embedded in the impossibility of return, reasoning that the archive thus propels us forward. He argues that, counter-intuitively, the archive is not aligned with the past but the future:

[T]he question of the archive is not, we repeat, a question of the past. It is not the question of a concept dealing with the past that might *already* be at our disposal or not at our disposal, *an archivable concept of the archive*. It is a question of the future, the question of the future itself, the question of a response, of a promise and of a responsibility for tomorrow.¹⁹

Derrida sees the potential or 'promise' of the archive as the individual's response in using it as a tool for navigating the present and future. It is this kind of productive response, projecting the archive into the future through a creative

¹⁶ Ibid., 308. Emphasis in original.

¹⁷ Derrida further notes that archive fever 'is to have a compulsive, repetitive, and nostalgic desire for the archive, an irrepressible desire to return to the origin, a homesickness, a nostalgia for return to the most archaic place of absolute commencement'. Derrida, 'Archive Fever', 57.

¹⁸ Ibid., 54. Emphasis in original.

¹⁹ Derrida continues, 'The archive: if we want to know what that will have meant, we will only know in times to come. Perhaps. Not tomorrow but in times to come, later on or perhaps never. A spectral messianicity is at work in the concept and ties it, like religion, like history, like science itself, to a very singular experience of the promise'. Ibid., 27. Emphasis in original.

reassessment of the past, that artists who work with archival material can engender.

As I touched on earlier in this thesis, Foster has influentially described an 'archival impulse' in contemporary art.²⁰ In his 2004 article in *October*, Foster identifies a trend of 'archival artists' suffering from such an archive fever—drawn to reassessing and reworking archives and archival material in order to 'make historical information, often lost or displaced, physically present'.²¹ Such artists—Foster takes the work of Thomas Hirschhorn, Sam Durant and Tacita Dean as key examples—engage with archives not only as their subject matter, but also as a primary structural and methodological element in their practice.²²

Christian Boltanski's work is typical of Foster's idea of archival art as it is closely aligned with the archive as material and methodology. An excerpt of text from Boltanski's artist book *Research and Presentation of all that Remains of my Childhood 1944–1950* (1969) is included in Charles Merewether's 2006 anthology of documents that chart art's archival turn.²³ In this work Boltanski undertakes the compulsive archivisation of the period of his life when he was a child, seeking to preserve all the moments, objects and traces of himself from this time. In pursuing a project that is ultimately futile, Boltanski sardonically challenges the archive as an analogue of memory, asserting the disjunction between lived experience and its trace in documentation:

So many years will be spent searching, studying, classifying, before my life is secured, carefully arranged and labelled in a safe place—secure against theft, fire

Exhibition catalogue.

²⁰ Foster, 'An Archival Impulse'.

²¹ Ibid., 4.

²² Foster is not alone in recognising the ubiquity of contemporary artists fascinated with archival material. Enwezor opens his catalogue essay for the 2008 exhibition *Archive Fever* at the International Centre of Photography in New York with the statement that, 'the archive as an active, regulatory discursive system ... has engaged the attention of so many contemporary artists in recent years'. Enwezor continues to note that such artists have 'appropriated, interpreted, reconfigured, and interrogated archival structures and archival materials'. Okwui Enwezor, ed., *Archive Fever: Uses of the Document in Contemporary Art* (Göttingen, Germany: Steidl, 2008), 11.

²³ Christian Boltanski, *Research and Presentation of all that Remains of my Childhood 1944–1950*, 1969, artist book; Charles Merewether, ed., *The Archive: Documents of Contemporary Art* (London; Cambridge, MA: Whitechapel; MIT Press, 2006).

and nuclear war—from whence it will be possible to take it out and assemble it at any point. Then, being thus assured of never dying, I may finally rest.²⁴

Boltanski contrasts a methodology of bureaucratic archivisation with the content of a personal collection. His work speaks to a sense of futility embedded in both kinds of archives—the impossibility of total or encompassing preservation or return to the past. The establishment of an archive, as we infer from Boltanski's statement, is an act of exclusion as well as inclusion. An archive is a context, delineating between what is inside and outside—what is remembered and what is forgotten.

Similarly to the impossibility of Boltanski's endeavour to preserve his childhood, the South Sydney Archive, with its sixty participants and their particular memories, cannot preserve or account for anything like an entirety of the past of the place it seeks to document—even when seen in the context of the City of Sydney's broader and ongoing oral history collection. Having 'made it in' to the official narrative, secured by local government's certification, the recording of the participants' stories belies the fact that so many others have been left out—and, indeed, the impossibility of ever including them all.²⁵

In *The Big Archive*, Sven Spieker takes a broader view than Foster in examining the impact of the bureaucratic archive on twentieth-century art practice from 'Dadaist montage to late-twentieth-century installation'.²⁶ Spieker shows how the Dadaists, amongst others of the avant-garde, critiqued the nineteenth-century conception of the archive in an approach that was echoed by generations of artists from the

²⁴ Boltanski, *Research and Presentation* in ibid., 25.

²⁵ On the other hand Foucault considers the archive, not as marked by exclusion, but as an overarching and all-inclusive governing system of a given society. Thus Foucault posits the archive as a framework that cannot be viewed from the outside, in the same way that language is a limitless structure to our thoughts and relations within the world. The archive is both inexhaustible and unknowable, yet we cannot think outside of it. In *The Archaeology of Knowledge*, Foucault contends that, "The archive is first the law of what can be said, the system that governs the appearance of statements as unique events'. Foucault continues: 'It is obvious that the archive of a society, a culture, or a civilization cannot be described exhaustively; or even, no doubt, the archive of a whole period. On the other hand, it is not possible for us to describe our own archive, since it is from within these rules that we speak, since it is that which gives to what we can say—and to itself, the object of our discourse—its modes of appearance, its forms of existence and coexistence, its system of accumulation, historicity, and disappearance. The archive cannot be described in its totality; and in its presence it is unavoidable'. Michel Foucault, *The Archaeology of Knowledge and the Discourse on Language*, trans. A. M. Sheridan Smith (New York: Pantheon Books, 1972), 129–30.

1960s to today. Spieker proposes that:

[T]he use of archives in late-twentieth-century art reacts in a variety of ways to the assault by the early-twentieth-century avant-gardes on the nineteenth-century objectification (and fetishization) of linear time and historical process.²⁷

Spieker points to twentieth-century artists' rejection of the scientific, positivist approach to archivisation that characterised its formulation in the nineteenth-century, demonstrating that in the fracturing global upheavals of the early twentieth-century, avant-garde artists had foreseen what Michel Foucault would explicate decades later—that the archive, 'emerges in fragments, regions, levels'.²⁸

Spieker devotes a chapter of his book to exploring Duchamp's readymades as exemplary of the avant-garde's critique of the nineteenth-century archive:

Duchamp's readymades, which are often interpreted as little more than investigations into the power of naming, claim that contingency and the possibility of accident lie at the very center of any effort to record and measure time, and that the incursion of chance affects the archive at every level.²⁹

In the previous chapter of this thesis the readymades provided a useful tool to help conceptualise the way participation shifts the focus of aesthetic experience from a premise of reception to interpretation. Following Spieker, we can see that the idea of the readymade is also entwined in how we understand the archive:

[T]he readymades function as an index of contingent time; forgotten to the present and lost to the order of symbols, they carry with them the mark of what returns to us without ever becoming recognizable as such; they are like the nuclei of the past enclosed within the texture of the present. As instances of archivization, the readymades allow us to consider the present itself as an archive; not as a monolithic container of past events but as a convolute of textured threads that revolve around a hollow shaft whose open end points are covered with symbols.³⁰

²⁷ Ibid.

²⁸ Foucault, *The Archaeology of Knowledge*, 130.

²⁹ Spieker, The Big Archive, 14.

³⁰ Ibid., 62–63.

The implication eloquently articulated by Spieker is that readymades as 'instances of archivisation' reposition 'the present itself as an archive'. Duchamp followed through on such conceptual connotations of the readymade himself in a lecture at New York's Museum of Modern Art in 1961. Duchamp proclaimed: 'Since the tubes of paint used by an artist are manufactured and ready made products we must conclude that all the paintings in the world are "readymades aided" and also works of assemblage'. This implies that while the archive is marked by a certain sense of pathos articulated by Derrida as its spectral nature, it is also characterised by fragmentation and the impact of chance—suggesting that what we consider as archival is always an act of interpretation.

Bourriaud cites Duchamp's readymades as a key influence on his theorisation of the wave of artists since the early nineties who engage in what he terms the art of 'postproduction' to 'interpret, reproduce, re-exhibit, or use works made by others or available cultural products'.³² Though Foster distinguishes his archival art from Bourriaud's 'postproduction', a decade later the two theories now both appear as attempts to shift conceptions of artistic creation from the generation of new material to acts of interpretation—a gesture historically rooted in the readymade:

When Duchamp exhibits a manufactured object (a bottle rack, a urinal, a snow shovel) as a work of the mind, he shifts the problematic of the 'creative process', emphasizing the artist's gaze brought to bear on an object instead of manual skill. He asserts that the act of choosing is enough to establish the artistic process, just as the act of fabricating, painting, or sculpting does: to give a new idea to an object is already production. Duchamp thereby completes the definition of the term *creation*: to create is to insert an object into a new scenario, to consider it a character in a narrative.³³

of Modern Art, New York, 19 October 1961.

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³¹ Duchamp had earlier distinguished amongst his work the 'unassisted readymades', such as as *Bottle Rack* (1914)—which was not altered or added to in any way—and the 'assisted readymades' where the artist combined or added to the found material. Duchamp's *Bicycle Wheel* (1913), for example, is 'assisted' by the inclusion of a stool. Yet in differentiating the degrees of physical intervention by the artist, Duchamp nevertheless asserts that whether 'assisted' or 'unassisted', all material can be viewed in one sense or another as 'readymade'. Marcel Duchamp, 'Apropos of "Readymades", *Art and Artists* 1.4 (1966): 47. Talk originally delivered by Duchamp at the Museum

³² Bourriaud, *Postproduction: Culture as Screenplay*, 13.

³³ Ibid., 25. Emphasis in original.

Bourriaud's *Postproduction* theorises the practices and approaches of contemporary artists who, in the shadow of Duchamp, posit the operation of recontextualisation as an act of creation. Bourriaud invokes the DJ and programmer as representational of the new role of the artist in the 'proliferating chaos of global culture in the information age':

Notions of originality (being at the origin of) and even of creation (making something from nothing) are slowly blurred in this new cultural landscape marked by the twin figures of the DJ and the programmer, both of whom have the task of selecting cultural objects and inserting them into new contexts.³⁴

Goldsmith's more recent notion of 'uncreativity' has reverberations of Bourriaud's concept of postproduction. What is partly fascinating about Goldsmith's idea of uncreativity that promotes unoriginality, plagiarism and repurposing is that ironically the concept is not new! In the literary realm we can quickly cite William Shakespeare's plundering of extant historical sources as an example.³⁵ Yet this is not to deny the trend in contemporary literature—and especially poetry—towards rethinking writing as a process of reinterpreting the 'world's debris' rather than employing traditional modes of creation and composition.

For such writers, as Goldsmith says, 'the act of writing is literally moving language from one place to another, proclaiming that context is the new content'.³⁶ An early example of such uncreative practice can be seen in Goldsmith's own work, *Day*, where the writer hijacked the entire text of one day's *New York Times* and published it as a novel.³⁷

With the rise of the internet and the unprecedented amount of information and text being created and archived, Goldsmith argues that:

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³⁴ Ibid., 13.

³⁵ Posner outlines a number of instances of Shakespeare's 'plagiarism'. Posner notes for example, 'Mention of Shakespeare brings to mind that *West Side Story* is just one of the links in a chain of plagiarisms that began with Ovid's *Pyramus and Thisbe* and continued with the forgotten Arthur Brooke's *The Tragical History of Romeus and Juliet*, which was plundered heavily by Shakespeare'. Richard A. Posner, 'On Plagiarism', *The Atlantic*, April 2002.

http://www.theatlantic.com/magazine/archive/2002/04/on-plagiarism/302469/. Accessed: 1 August 2014.

³⁶ Goldsmith, *Uncreative Writing*, 3.

³⁷ Kenneth Goldsmith, *Day* (Barrington, MA: The Figures, 2003).

[O]ur problem is not needing to write more of it; instead, we must learn to negotiate the vast quantity that exists. How I make my way through this thicket of information—how I manage it, parse it, organize and distribute it—is what distinguishes my writing from yours.³⁸

The work of Susan Hiller reflects the kinds of uncreative engagement with artistically reassessing existing content described by Goldsmith and Bourriaud, yet it also exhibits a strong impulse towards archives as an artistic material. Indeed Hiller's work Witness (2000) literally allows the audience to make their way through a 'thicket of information' sourced from the internet and rendered as an audio sculpture.³⁹ In producing *Witness* Hiller worked much like one of Goldsmith's uncreative writers, mining the enormous archive of the internet, spending years collecting thousands of eyewitness descriptions of extraterrestrial encounters from all over the world. Witness incorporates these spoken testimonials in a sound installation made up of hundreds of small speakers dangling from the gallery ceiling. Suspended in almost complete darkness, the voices that emanate from the glinting speakers form a constellation of sound. Approaching the installation the audience can make out a soft symphony of murmurs. As they move through the work they are able to hold certain speakers up to their ear, zeroing in on particular accounts. In this way, the audience member's trajectory in the installation creates a unique physical path through the mass of information.

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³⁸ Goldsmith, *Uncreative Writing*, 1.

³⁹ Susan Hiller, Witness, 2000, audio sculpture.

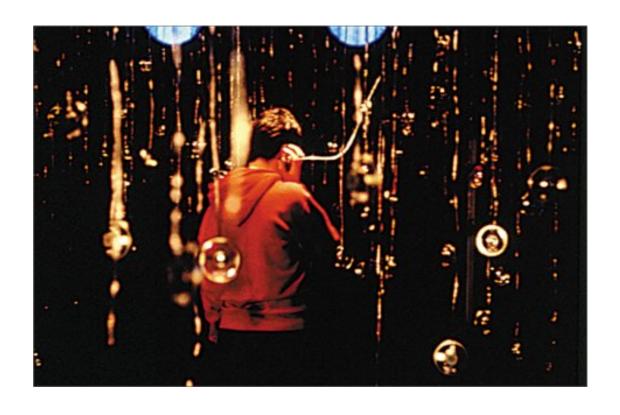


Figure 7. Susan Hiller, *Witness*, 2000, audio sculpture: 400 speakers, wiring, steel structure, 10 CD players, switching equipment, lights suspended from ceiling and walls.

Part of the appeal of *Witness*, in Derrida's terms, is the spectral nature of the content—the fact that the stories feel like they have a connection to the real because they are taken from actual people's accounts posted online. Hiller describes the content of the work in a way that asserts its authority as the accounts of eyewitnesses, noting, 'The stories are artefacts of their time and place; they are (social) facts. ... These are real stories concerning sights that were seen by real people'. Yet Hiller has also engaged in postproduction in reconfiguring the voices into a new context. The written testimonies are vocally performed by actors and the artwork strategically sculpts the audience's journey as the audio dynamics are programmed to fluctuate automatically so that certain stories are focused on periodically. This has the effect of dramatising the experience so that the voices feel simultaneously real and, as Bourriaud might say, are inserted like 'character[s] in a narrative'. **I

Examples of Hiller's work (though not *Witness*) are discussed in Spieker's *The Big Archive* as representative of contemporary archival art practice that demonstrates the 'refraction of the archive into a database of movable signifiers'.⁴² As Spieker notes, 'The principal difference between databases and archives lies in the fact that ... databases are modular—all their elements can be regrouped in any way'.⁴³ Though he neglects to examine works using digital databases, Spieker's insight is how the modularity of databases is both instructive as a formal model and also a conceptual influence on analogue archival art.

Spieker considers the modular form of the database as a motif across late twentieth-century photographic works that appear to the viewer as unordered collections. A well-known example that Spieker draws on is Gerhard Richter's *Atlas*—an ongoing compendium of collected photographs begun by the artist in 1962.⁴⁴ Richter assembles his wealth of images in grid-like arrangements on a series of plates that deny linear reading and rather evoke possible patterned

⁴⁰ Susan Hiller, Appendix to *Witness* (London: Artangel Publishing, 2001), http://www.artangel.org.uk//projects/2000/witness/susan hiller_the three kinds of ufo/susan hiller_on_witness. Accessed: 27 July 2013.

⁴¹ Bourriaud, *Postproduction*, 6.

⁴² Spieker, *The Big Archive*, 148.

⁴³ Ibid., 136.

⁴⁴ For a detailed discussion of Richter's *Atlas* see Benjamin H. D. Buchloh, 'Gerhard Richter's "Atlas": The Anomic Archive', *October* 88 (1999): 117–45.

connections across the collection. Spieker applies the implications of the database structure to his detailed analysis of such analogue works, noting that just as databases are modular in form, 'In late-twentieth-century photo archives, too, it is not the linear sequence of moments ... that takes center stage but the possibility of their combination and concatenation'.⁴⁵

Yet while Spieker outlines the influence of the technological database on art's relationship with the archive, Foster is quick to eschew its impact on his archival artists. Foster declares that artist archives are different from digital databases because the artist develops subjective approaches to organising or conceptualising objects and ephemera that do not conform to a machine's logic. While one might assume that the realm of the digital and, especially the internet, could provide the ultimate domain for archival artists, Foster is adamant in asserting the 'idiosyncratic' nature of such art over any allegiance to technology. 46 As Foster firmly explains, 'The archives at issue here are not databases in this sense [digital]; they are recalcitrantly material, fragmentary rather than fungible, and as such they call out for human interpretation, not machinic reprocessing'.⁴⁷ In setting up a stark binary between humans and computers, such a statement ignores the fact that code is written by people and, as we established in Chapter Two, the digital is not necessarily immaterial. More fundamentally, the distinction undermines the aesthetic potential of the database, with its modular structure where any element can be connected to any another, to extend the mission of archival artists who, as Foster says, strive to 'connect what cannot be connected'.⁴⁸

Goldsmith sees the field of literature as behind the times in relation to contemporary art in investigating the new possibilities of what writing and creation can be, attributing this to the fact that reappropriation is more established in the visual arts as a legitimate form of production. It is thus surprising that Claire Bishop, in her recent *Artforum* article 'Digital Divide', cites literature—and poetry especially—as being freer to explore the realm of the digital than visual art is.⁴⁹

⁴⁵ Spieker, *The Big Archive*, 136.

⁴⁶ Foster, 'An Archival Impulse', 3.

⁴⁷ Ibid., 5.

⁴⁸ Thomas Hirschhorn quoted in ibid., 10.

⁴⁹ Claire Bishop, 'Digital Divide: Contemporary Art and New Media', *Artforum* (September 2012). http://artforum.com/inprint/issue=201207&id=31944. Accessed: 5 July 2013.

Bishop argues that visual art has failed to embrace or engage the digitisation of contemporary society. She ascribes this largely to the mainstream art world's reliance on the market value of physical objects and analogue technologies, whereas she reasons that capital flows are smaller and operate differently in the world of online publishing. Bishop thus asserts that few contemporary artists or artworks 'really confront the question of what it means to think, see, and filter affect through the digital'.⁵⁰ As an example of this 'disavowal' of digitality, Bishop looks to Foster's consideration of archival artists and their abidingly non-technological focus on reimaginings of 'auratic' objects and ephemera.⁵¹

However Bishop's argument only stands because she performs a neat operation of rhetoric in the opening of her text, sidelining new media art from discussion as a 'specialized field' outside of the mainstream (read: commercial) art world. This unhelpful dichotomy perpetuates the schism between what Edward Shanken has dubbed the worlds of MCA and NMA, as noted in the previous chapter. In delineating between these areas as sharply as Foster does between subjective and technological interpretations of archives, Bishop misses an opportunity to discuss the contribution of new media work to contemporary art's engagement with the digital. New media works, not being object-based, largely operate outside of the mainstream art economy (as Bishop herself asserts). Thus many artists working with new media are exploring what Bishop calls 'a new dematerialized, deauthored, and unmarketable reality of collective culture' with a deep engagement in the digital and its impacts on experience.⁵² A brief roll call of important new media artists—those whose work I discuss across this thesis, for example—quickly challenges Bishop's assertion.

Bishop makes the point that 'visual art's ongoing double attachment to intellectual property and physicality threatens to jeopardize its own relevance in the forthcoming decades' when the challenge for artists will be to 'convey experience

⁵⁰ Ibid.

⁵¹ Any discussion of the 'auratic' art object is directly indebted to Benjamin's 'The Work of Art in the Age of Mechanical Reproduction'; so often quoted that I will not revisit it in any further detail here other than to steal the idea of 'aura'. Walter Benjamin, 'The Work of Art in the Age of Mechanical Reproduction', in *Illuminations*, ed. Hannah Arendt, trans. Harry Zohn (New York: Schocken, 2007), 217–51.

⁵² Bishop, 'Digital Divide'.

in ways adequate to our new technological circumstances'.⁵³ It follows, then, that works of visual art that exist outside the market constraints of the commercially-driven mainstream art world—those not necessarily wedded to traditional approaches to intellectual property and objecthood—are best equipped to address the impact of the 'un-auratic' realm of the digital, yet Bishop dismisses these practices.

This leads me to question, in considering my research creating an interactive database system for reinterpreting oral histories, what happens when the artist's archival impulse is aided or operates in relation to the logic of the database?

Database Aesthetics

As indexable stores of content the archive and the database share structural allegiance. Yet while many archives are actually made up of or include databases, their respective aesthetics have been conceived by Foster as being oppositional. The archive is fetishised as an auratic material form linked to the poetics of memory and history, while the database is viewed as an immaterial technical structure. This section draws on theory and practices that establish the database's poetics and aesthetics above its capacity for processing information to demonstrate that artists use databases not in opposition to but as an integral part of their subjective interpretations of material.

In his influential essay, 'Database as Symbolic Form', Manovich argues that while linear narrative prevailed in the modern era, the database is a 'new symbolic form' of a computerised and networked society. As such, he hypothesises on the database's potential as 'a new way to structure our experience of ourselves and of the world'.⁵⁴ Manovich explains, in broad brushstrokes, the precipitators of this shift:

Indeed, if after the death of God (Nietzsche), the end of grand Narratives of Enlightenment (Lyotard) and the arrival of the Web (Tim Berners-Lee) the world appears to us as an endless and unstructured collection of images, texts, and other

⁵³ Ibid.

⁵⁴ Manovich, 'Database as Symbolic Form', 39.

data records, it is only appropriate that we will be moved to model it as a database—but it is also appropriate that we would want to develop the poetics, aesthetics, and ethics of this database.⁵⁵

Manovich acknowledges that new media artworks—which constitute part of the development of the database's aesthetics and poetics—may or may not employ actual databases. Yet he suggests that many of them operate or appear as databases in a more conceptual or symbolic sense, encouraging us to model our experience of the world in a new way:

In computer science database is defined as a structured collection of data. The data stored in a database is organized for fast search and retrieval by a computer and therefore it is anything but a simple collection of items. Different types of databases—hierarchical, network, relational and object-oriented—use different models to organize data. [...] New media objects may or may not employ these highly structured database models; however, from the point of view of user's experience a large proportion of them are databases in a more basic sense. They appear as collections of items on which the user can perform various operations: view, navigate, search. The user experience of such computerized collections is therefore quite distinct from reading a narrative or watching a film or navigating an architectural site. Similarly, literary or cinematic narrative, an architectural plan and database each present a different model of what a world is like. ⁵⁶

As a dynamic collection of content the database is relational because its connective make-up means that any item can be connected to any other. Thus the database logic, as opposed to the immovable trajectory of linear narrative, is geared towards modular associations, presenting a model of the world premised on mutable connections.

Bill Seaman has been making artworks that explore the associative potential of databases since the early 1990s.

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⁵⁵ Ibid., 40.

⁵⁶ Ibid., 39.





Figure 8a and 8b. Bill Seaman, *The Exquisite Mechanism of Shivers*, 1991, interactive CD-ROM. Screenshots from the CD *artintact1*, 1994. Copyright Bill Seaman.

One such work, *The Exquisite Mechanism of Shivers* (1991), was first presented as an interactive CD-ROM and later iterated as installation versions.⁵⁷ The work allows users to combine and re-combine modules of text/video/sound into new poetic compositions in a kind of 'exquisite corpse' approach to the generation of a multimodal poetic text.

Unlike Hiller's work, where the associations are made physically by the audience's particular route through the stories, Seaman's practice involves the writing of database-driven programs that dynamically produce relational connections in response to the audience's actions within the system.

This conception of database-based composition can be compared to the bardic system of composition used by oral poets. A. B. Lord, in his illuminating comparative literature study of Homerian epic poetry and modern Slavic oral poetry traditions, *The Singer of Tales*, debunked assumptions around authorship to show how oral poets utilised text in a fluid way to create multiform stories based on formulaic patterning:

Unlike the oral poet, we are not accustomed to thinking in terms of fluidity [of text]. We find it difficult to grasp something that is multiform. It seems to us necessary to construct an ideal text or to seek an original, and we remain dissatisfied with an ever-changing phenomenon. I believe that once we know the facts of oral composition we must cease trying to find an original of any traditional song. From one point of view each performance is an original. From another point of view it is impossible to retrace the work of generations of singers to that moment when some singer first sang a particular song. ⁵⁸

Lord's analysis of the oral poets' method of composition challenged the symbolic form of the fixed narrative. As the tales were sung into being differently in each performance, they offered a model of working with content not stitched into a particular sequence, but multiform in its potential arrangements and rearrangements. Janet Murray has drawn a line connecting Lord's discoveries and

⁵⁸ Albert Bates Lord, Singer of Tales (Cambridge, MA: Harvard University Press, 1960), 100.

⁵⁷ Bill Seaman, *The Exquisite Mechanism of Shivers*, 1991, interactive CD-ROM.

new media technologies—especially mediums of multiform narrative such as gaming and hypertext. In her now classic *Hamlet on the Holodeck*, Murray argues:

The bardic system is fundamentally conservative; it serves to transmit a fixed story from teller to teller and from generation to generation. But what it conserves is not a single particular performance but the underlying patterns from which the bards can create multiple varied performances. Their success in combining the satisfactions of a coherent plot with the pleasures of endless variation is therefore a provocative model of what we might hope to achieve in cyberspace. To do so we must reconceptualise authorship, in the same way Lord did, and think of it not as the inscribing of a fixed written text but as the invention and arrangement of the expressive patterns that constitute a multiform story.⁵⁹

Though the message the bardic system transmits is, as Murray suggests, 'fundamentally conservative', the system itself has radical implications for contemporary conceptions of composition and authorship. The bard's 'database' was their memory—an internal store of recombine-able story elements that would come together in the improvisation of each performance. As many artists, such as Seaman, now outsource this compositional intuition to programmed databases, we see the emphasis shift from the creativity of the producer to the creative potential of the systems they make. As Goldsmith speculates with regards to 'uncreative writers':

While the author won't die, we might begin to view authorship in a more conceptual way: Perhaps the best authors of the future will be ones who can write the best programs with which to manipulate, parse, and distribute language-based practices.⁶⁰

Such programs as that which drives *The Exquisite Mechanism of Shivers* provide *emergent* compositions that come into being continually, just as the bard improvised unique instantiations of their stories from mentally stored components. Speaking of what he has termed the 'recombinant poetics' of database-driven artistic production, Seaman reflects, 'The database in my case is

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⁵⁹ Janet H. Murray, *Hamlet on the Holodeck* (Cambridge, MA: MIT Press, 1998), 194.

⁶⁰ Goldsmith, *Uncreative Writing*, 11.

used to navigate the open potentials of poetic expression, dynamic association through human processes and emergent meanings arising out of these processes'. 61 Seaman explains how, in pairing interactivity with a dynamic database of content, the relational and emergent characteristics of the work are extended by the audience's subjective associations.

Similarly in my work, the database allows for a mode of composition and an experience of the South Sydney Archive that is relational and emergent. In my analogy to Tzara's poem that opened this chapter, one could equate the database system of my work with the bag in which the newspaper clippings are placed. Just as the poet playfully suggests generating a poem by pulling out snippets of text, so too do interactors in the artwork draw up fragments of spoken remembrance with their movements. Similarly to the way a new poem is produced in Tzara's reordering process, through the operation of the artwork's database system these fragments are intersected and overlapped to form new poetic associations. Whereas Tzara's method calls on the poet to extract pieces of text from the bag to create a new composition, my work extends this gesture by handing the bag to the audience. The intersection of interactivity with the database structure increases the level of chance connections produced by the system by cutting up the material along different and changeable lines. This is further enhanced by the subjective associations of the work that the audience furnishes, reflecting Tzara's quip that 'the poem will resemble you'.

Following John Cage's definition of an experiment as an act whose outcomes are unknown, Anna Dezeuze examines the influence of a Cagean conception of experimentation in 'do-it-yourself' art practices.⁶² Dezeuze shows how artists working with participative practices often position the 'variable' introduced by audience interaction, not just to 'activate' the audience, but also as a productive compositional element. Dezeuze argues that this view of experimentalism:

⁶¹ Bill Seaman, 'Recombinant Poetics and Related Database Aesthetics', in *Database Aesthetics: Art in the Age of Informational Overflow*, ed. Victoria Vesna (Minneapolis; London: University of Minnesota Press, 2007), 123.

⁶² Cage notes, 'An experimental action is one the outcome of which is not foreseen'. Cage, *Silence: Lectures and Writings*, 39; Anna Dezeuze, 'An Introduction to the 'Do-it-Yourself' Artwork', in *The 'Do-it-Yourself' Artwork: Participation from Fluxus to New Media*, ed. Anna Dezeuze (Manchester; New York: Manchester University Press, 2010), 15.

[A]ccounts for the appeal of spectator participation as a means to introduce 'unknown outcomes' within the structure of the artwork. 63 ... Consequently, the differences between various do-it-yourself experiments lie perhaps in the degrees of unpredictability allowed by each framework. 64

In my work the combination of interactivity with a database structure means the path that the audience traces through the system becomes a unique composition of the archival material, with each experience of the work producing an individual combination based on the participant's interactions. The interactivity together with the database structure not only creates new relationships between pieces of content, but also generates relationships that are unique to each encounter. As each individual produces their own composition, the work cannot be experienced in the same way twice.

Yet while the chance operations of audience interaction further extend the compositional potential of the database, it is important to note that the participant does not become an 'author' of the work. While the relational and emergent nature of the database-driven associations can account for much of the satisfaction of experiencing an interactive work, Murray has made the crucial point that interactors are always acting within a framework established by the artist:

The interactor is not the author of a digital narrative, although the interactor can experience one of the most exciting aspects of artistic creation—the thrill of exerting power over enticing and plastic materials. This is not authorship but agency. 65

In any interactive work the artist's role is affirmed, as it is their artistic vision that the audience interaction ultimately realises. While it is important to discuss the significance of artwork that affords agency to its audience—it is also important not to overemphasise audience intervention as an act of authorship. Miwon Kwon, in her article 'Exchange Rate: on Obligation and Reciprocity in some of the Art of the 1960s and after', uses the idea of the 'gift economy' as a working metaphor to illuminate the power structures inherent in any artistic exchange of interaction:

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⁶³ Ibid., 9.

⁶⁴ Ibid., 11.

⁶⁵ Murray, Hamlet on the Holodeck, 152–53.

[T]he gift of sharing the authorial role of the artist, rendering the audiences into active participants or partners to complete the work, registers the artist's desire for solidarity or equality with his or her audience while at the same time reaffirming the artist's superior position.⁶⁶

In discussing interactive media art as an open system that sets in motion relations between audience and artwork, it is essential to recognise that the artist inhabits a privileged role in this equation. Jack Burnham, in his article 'Systems Esthetics', offers a helpful view of what this role could be—one that acknowledges the artist's primacy in establishing the framework of the piece, but is more open than simply conceiving of the artist as the work's creator. Burnham finds that in a systems aesthetic the artist 'is a perspectivist considering goals, boundaries, structure, input, output, and related activity inside and outside the system.' Similarly, in describing 'uncreative' practice Goldsmith quotes Sol LeWitt's dictum that 'the idea becomes a machine that makes the art' to suggest that in the future the role of the artist will increasingly be to create machines that generate the best accounts of the world's data—the production of systems for the investigation of relational meaning. In this conception, meaning arises through context—and the act of recontextualisation—and the artist makes frameworks for establishing compelling ways into content.

For me the influence of working with archival material and interactive databases has meant that I have focused on the recombinations produced by the system in concert with the audience's interpretation, rather than conveying the factual content of the oral histories. In contrast to works where I have conducted interviews myself, using archival material for the South Sydney Project has shifted my focus from the idea of production to a kind of 'postproduction'; an interest in the subsequent meanings that can be relationally or associatively generated from source material. Thus, instead of declaring the audience as authors in the work, their agency is important because it shifts emphasis to the value of the subjective associational connections that they generate within the system.

⁶⁶ Miwon Kwon, 'Exchange Rate: on Obligation and Reciprocity in some of the Art of the 1960s and after', in *The 'Do-it-Yourself' Artwork*, ed. Dezeuze, 233–34.

⁶⁷ Jack Burnham, 'Systems Esthetics', Artforum 7.1 (1968): 32.

⁶⁸ Goldsmith, *Uncreative Writing*, 4.

Thus the aesthetics of the database lie in its generative potential for producing new meanings from novel combinations of materials. This conception repositions value from being innately in objects or information to residing in the connections that are formed between them, and thus in their interpretation. Furthermore, the elevation of chance-based procedures through the introduction of audience interaction attests that the database's revelations come not only from logical rational connections, but also from indeterminate aesthetic resonances and idiosyncratic associations

Conclusion

Recall my question posed in the introduction of this chapter: *if you cut into the past, what leaks out?* In looking into different methodologies and theories around artistic practices that remix archival and extant cultural material I have shown that what leaks out are new relational and emergent connections—leading to a generative understanding of the world and its past, one that posits value not in information or things but in *ways into them.* As more and more data is generated, building new systems to do this becomes increasingly important.

In this chapter I have situated Foster's notion of an 'archival impulse' in contemporary art within a broader context of theories of reappropriation conveyed in both Bourriaud's idea of 'postproduction' and Goldsmith's 'uncreativity'. In doing so I have shown that archival artists are not isolated in their impulse to rework historical documents, but operate in the age of Big Data where everything becomes a readymade material for artists to harness and reinterpret. In this situation where artistic production is increasingly focused on concepts and methods of interpretation rather than making content, the task of the artist becomes one of tracing illuminating pathways through existing information.

Foster differentiates his archival artists from those working with digital databases, and Bishop claims that few contemporary artists 'really confront the question of what it means to think, see, and filter affect through the digital'.⁶⁹ Yet in analysing examples of digital artworks that do just this, I have argued that new media artists

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⁶⁹ Bishop, 'Digital Divide'.

are uniquely positioned to make a 'response' (as Derrida says) that confronts the impact of the rise of the digital on contemporary experience and our relationship to the archive. As an example I have shown how my work employs the 'new symbolic form' of the database in concert with an interactive system to open up the compositional potential of the South Sydney Archive, thus enabling the audience to generate new relational meanings from the material. Finally, I contended that my approach to reimagining the archive reassigns value and significance within the material from the content to the process of combination and composition.

The next chapter explores the impact of the remix paradigm on the field of history. I respond to the issue of how historians will synthesise accounts of the past in age of Big Data. Chapter Four, 'The Historians', describes my experience presenting the findings from my interdisciplinary research to attendees at a series of history conferences where I asserted the value of my work as a way of creating new modes of engagement between audiences and the past. I discuss how some of the historians questioned whether incorporating historical material into an interactive artwork would increase audience interest in the past, with others suggesting that the process might even be unethical, compromising the research material. In response I advocate the value of artists' experimental approaches to engaging with historical material and assert that they do not negate or compromise traditional ways of interpreting the past.

Chapter Four

The Historians

The past is never dead. It's not even past.

—William Faulkner, Requiem for a Nun¹

Introduction

The overall question this thesis seeks to address is how interactive media art might affect the way audiences engage with the past. Having previously focused on interaction and archives, this chapter turns to the field of historiography and the very issue of *how we engage with the past*. It questions the relationship between how the past is represented in books and in artworks against the way individuals experience it in practice. I use this as a way into discussing whether the leakage between the disciplines of history and new media art might suggest new avenues for engaging with the past through its traces in the archive.

The previous chapter established the context for my work as the age of Big Data, or what Victoria Vesna has called 'the age of information overflow'. In this milieu creative practitioners are rethinking production through processes of recontextualisation and reinterpretation, responding to the massive data flows and accumulations that characterise digital society. This chapter explores the implications of such a context on the field of history in terms of influencing how we come to know, feel about and engage with the past.

In his essay, 'All Things are in Contact' in the journal *Rethinking History*, Ross Gibson reviews three recent books that deal with the concept of the archive.³

¹ William Faulkner, *Requiem for a Nun* (New York; Toronto: Random House, 2012), 72.

² In the introduction to her anthology on database aesthetics, Vesna notes, 'As an artist working with networked technologies for the past fifteen years, I have discovered that one has to be conscious of the information overflow and develop a philosophy in relation to handling large amounts of data'. Victoria Vesna, 'Introduction', in *Database Aesthetics: Art in the Age of Informational Overflow*, ed. Victoria Vesna (Minneapolis; London: University of Minnesota Press, 2007), ix.

³ Gibson reviews two texts that I discuss in this thesis, as well as another that is not referenced

Gibson takes these texts as a springboard to suggest that in the future we might need to recalibrate our presumptions about the archive—and consequently about historical practice—in the wake of society's ever-increasing capacity for information generation and storage.⁴ I take as a starting point Gibson's corresponding call for a 'new historiography' that is 'dynamic', 'atmospheric' and 'complex' and thus equipped to account for the information flux that marks our current historical moment.⁵

This chapter colours debates surrounding relativism in historiography with examples of contemporary new media works that engage historical material through different database-driven systems. Given their particular capacity to spark the historical imagination, I assert that such works constitute part, or exist at the edge of, the kind of new 'participatory historical culture' for which David Thelen and others have called.⁶ I speculate that interactive database-driven artworks are of value in their usefulness for audiences constructing revelatory pathways through archival traces.

Narrative versus Database Histories

While time continuously changes, accounts of these changes as they figure in professional historical discourse are almost wholly concerned with fixing down coherent and linear narrative accounts of the past. This methodology is partly due to the rise in authority of the written document in the nineteenth-century and the subsuming of bureaucratic archives into the professional practice of history. As discussed in Chapter One in relation to oral history, the written document has not always been the primary mode of transmitting knowledge about the past. Where

here. Respectively the titles are: Charles Merewether, ed., *The Archive: Documents of Contemporary Art* (London; Cambridge, MA: Whitechapel; MIT Press, 2006); Sven Spieker, *The Big Archive: Art from Bureaucracy* (Cambridge, MA: MIT Press, 2008); Dan Adler, *Hanne Darboven: Cultural History 1880–1983* (London: Afterall Books, 2009). Ross Gibson, 'All Things are in Contact', *Rethinking History* 14.4 (2010): 587–95.

⁴ Gibson notes, 'In this flux there is new tumult for history makers. It is tumult brought by new matter, new mysteries, new forms of modeling the elements and valency of the past'. Ibid., 594–95. ⁵ Ibid., 595.

⁶ David Thelen, 'A Participatory Historical Culture', in Roy Rosenzweig and David Thelen, *The Presence of the Past: Popular Uses of History in American Life* (New York: Columbia University Press, 1998), 190–207.

⁷ Thompson's *Voice of the Past* traces a history of oral history, challenging assumptions of historical scholarship by examining the use of oral sources by historians. Paul Thompson, *Voice of the Past: Oral History* (Oxford: Oxford University Press, 2000).

oral history draws on oral traditions and the lineage of ancient Greek historians who performed their histories, professional history since the advent of the printing press and the nineteenth-century rise of the document has come to be synonymous with the fixed, written form of the published book.

This is not to say that interpretations and understandings of the past conveyed through fixed forms do not change. Of course they do. Operations embedded in the profession of history such as forums for debate, new research and revision mean that knowledge of the past evolves as it is built upon and revised systematically. Yet in the very act of interpreting the past through a linear form, the historian fixes down, and straightens out, the flux of time into the line of a story. This drive is especially evident in the non-academic field of popular history, where compelling narratives equate to greater book sales. In her essay 'In Search of History', Barbara Tuchman notes:

I believe it is safer to leave the 'why' alone until after one has not only gathered the facts but arranged them in sequence; to be exact, in sentences, paragraphs, and chapters. The very process of transforming a collection of personalities, dates, gun calibres, letters, and speeches into a narrative eventually forces the 'why' to the surface 8

In Tuchman's conception the historian 'forces' a truthful interpretation—the 'why'—in the process of accounting for the 'facts' sequentially through narrative. While historians create narrative accounts in order to generate a deeper understanding and greater knowledge of the past, does the past fall naturally into the structure of 'sentences, paragraphs and chapters'? And who chooses the sequence and arrangements of these narrative elements?

Peter Novick begins his book, *That Noble Dream: The 'Objectivity Question' and the American Historical Profession*, with the statement, 'At the very center of the professional historical venture is the idea and ideal of "objectivity". Novick shows how positivist influences, such the source-based history of German Leopold von

⁹ Peter Novick, *That Noble Dream: The 'Objectivity Question' and the American Historical Profession* (Cambridge: Cambridge University Press, 1988), 1.

⁸ Barbara W. Tuchman, 'In Search of History', in Tuchman, *Practicing History: Selected Essays* (New York: Random House, 1981), 23.

Ranke, elevated the 'objectivity question' in situating history as a scientific discipline, beginning in the late nineteenth-century. 10 Yet this view was criticised by waves of historians—from the 1930s post-World War I relativism of Carl Becker and Charles Beard to postmodern critiques in the 1980s and '90s from the likes of Keith Jenkins—showing that the issue of whether there exists an objective reality which can be translated into an objective account of the past has long been a conundrum for the history profession.¹¹

E. H. Carr poses this question in his 1962 book, What is History?, grappling with the problem of whether history is the examination of past events or the past events themselves: 'The belief in a hard core of historical facts existing independently of interpretation of the historian, is a preposterous fallacy but one that is very hard to eradicate.'12 Indeed, considering Carr's argument in her essay, Tuchman counters, 'As I see it evidence is more important than interpretation, and facts are history whether interpreted or not'.13 Thus we see that wrapped up in the question of an objective interpretation of history are two issues. The first is whether there exists an objective reality that can be examined, and the second concerns the interrelatedness of the examination to the very 'reality' it considers.

In contemporary networked culture the objectivity question is complicated by the sheer amount and speed of information being produced and archived at any time. Accounts of experience can now be documented and shared globally almost instantaneously and en masse. As an example, think of the 'Twitter Revolution' that both accompanied and influenced the 2011 Egyptian Revolution.¹⁴ Experience becomes so wrapped up in its near-instantaneous documentation that it is now even harder to separate 'hard core' historical facts from their interpretation than when Carr wrote *What is History?* in the early sixties.

¹⁰ Ibid., 26-30.

¹¹ Such historians were indebted to the idealist philosophy of Benedetto Croce and Robin George Collingwood that saw history as a question of ideas rather than 'facts'. See Carl Becker, 'Everyman his own Historian', American Historical Review 37.2 (1932): 221-36, Oxford University Press on behalf of the American Historical Association; Charles Beard, 'Written History as an Act of Faith', American Historical Review 39.2 (1934): 219-31; Keith Jenkins, 'Doing History in the Post-modern World', in Re-thinking History, ed. Keith Jenkins (New York; London: Routledge, 1991), 70.

¹² E. H. Carr, What is History? (New York; Toronto: Random House, 1967), 10.

¹³ Tuchman, 'In Search of History', 23.

¹⁴ Sam Gustino, 'Social Media Sparked, Accelerated Egypt's Revolutionary Fire', Wired, 11 February 2011. http://www.wired.com/business/2011/02/egypts-revolutionary-fire/. Accessed: 1 August 2013.

In the context of such information flux how can a linear history account for the sheer multiplicity of documented human experience? I discussed in the previous chapter how the database has become, as Lev Manovich asserts, the 'new symbolic form' of the twenty-first-century, where linear narrative prevailed in the modern age. As I showed, the database form has potential to generate relational connections across material, producing dynamic accounts that are not fixed, but rather emergent. Might the searching, indexing and relational potential of the database form better account for this multiplicity than a fixed narrative?

The shift from narrative to database as the predominant cultural symbolic form of the twenty-first-century has deep implications on the generation, communication and experience of history. Of course historians already use digital resources such as online databases in their research. In Clio Wired: The Future of the Past in the *Digital Age,* Roy Rosenzweig explores the potential of the online database of the internet, especially the popular 'grassroots' content shared by amateur historians, for 'shaping the roads and cars that will populate the future information superhighways'. 15 Rosenzweig speculates on the capacity of the internet, quoting Theodor Nelson who coined the term 'hypertext', to:

[H]ave every feature a novelist or absent-minded professor could want, holding everything he wanted in just the complicated way he wanted it held, and handling notes and manuscripts in the subtle and complex way he wanted them handled. 16

The 'subtle and complex' connections produced by a database in conjunction with a good search function makes for a powerful research tool. Yet, if the database is the new symbolic form of our current age, surely it will influence the way professional histories are modelled and experienced, as well as impacting the research process towards these works.¹⁷ What will this mean for the act of

¹⁵ Roy Rosenzweig, Clio Wired: The Future of the Past in the Digital Age (New York: Columbia University Press. 2011). 234.

¹⁶ Ibid., 203.

¹⁷ Chartier has examined potential ways in which the database form will impact how histories are represented beyond how they are researched. Chartier comments that hypertext histories will mean that readers will be able to check the entire hyperlinked sources of which the author may have only cited a small section in their overall text—thus positioning readership more in line with research. Roger Chartier, 'History, Time, And Space', Republics of Letters: A Journal for the Study of Knowledge, Politics, and the Arts 2.2 (2011): 11. http://rofl.stanford.edu/node/100. Accessed: 26 November 2013.

storytelling embedded in the traditional communication of history?

Grappling with the implications of the postmodern fracturing of narrative for history, William Cronon warns:

The danger of postmodernism, despite all the rich insights it offers into the contested terrain of narrative discourse, is that it threatens to lose track of the very thing that makes narrative so compelling a part of history and human consciousness both. After all, the principal difference between a chronicle and a narrative is that a good story makes us care about its subject in a way that a chronicle does not.¹⁸

As Cronon suggests, a narrative can allow audiences to relate to the past and understand it in a meaningful way. In crafting stories where readers care about the subject, historians can bring about the powerful and productive experience of empathy in the audience. Yet because databases are dynamic they provide different experiences of historical material to the particular kinds of richness that can be generated by printed books. Databases can allow an exploration of the past where meanings are un-fixed and relational and where compositions are emerging and multiform.

Grace Karskens has reflected on the tension historians face in trying to lock down linear accounts of shifting, multifaceted subjects such as urban spaces. Writing on the feat of producing a history of a city as complex as Sydney, Karskens observes, 'There is an incongruity between the very notion of finite analytic narrative, which attempts to fix and pin down, and the fractured, multilayered, shifting nature of the subject'. ¹⁹ Karskens uses the metaphor of conversation to express the power of the writer to acknowledge (or not) the shifting dialectic flows of experience that chatter beneath any written historical text:

¹⁹ Grace Karskens, 'Tales of Sydney and the Telling of Sydney Histories', *Journal of Urban History* 28.6 (2002): 780.

¹⁸ William Cronon, 'A Place for Stories: Nature, History, and Narrative', *Journal of American History* 78.4 (1992): 1374.

As writing privileges the writer, he or she can choose to either silence or explore the messy dynamics of debate, the dialogues integral to the making of any city, the disruptive interface where the past rubs up against the present.²⁰

The dynamic relational database produces emergent meanings from existing material, which are endless in their possibilities of reconstitution and also unique to each reading. As Jenkins has said, 'those who claim to know what history is, is for them ... to have always already carried out an act of interpretation'.²¹ The emergent meanings databases produce account for the idea that there is no singular way to tell a history; that any telling of the past is but one possible version imposed by the teller's choices about what to leave in, what to leave out, and how to present the information.

Uses of History

Writing in the wave of post-war American relativist historians described by Novick, Becker's 'Everyman His Own Historian', sees historical interpretations of the past as being always provisional.²² Becker notes, 'Regarded historically, as a process of becoming, man and his world can obviously be understood only tentatively, since it is by definition something still in the making, something yet unfinished'.²³ Considering the necessary tentativeness of any account of the past, Becker advocates a conception of history based on the 'work' it does in the everyday, over 'objective' scientific imperatives:

The history that lies inert in unread books does no work in the world. The history that does work in the world, the history that influences the course of history, is living history, that pattern of remembered events, whether true or false, that enlarges and enriches the collective specious present, the specious present of Mr. Everyman. It is for this reason that the history of history is a record of the 'new history' that in every age rises to confound and supplant the old. It should be a relief to us to renounce omniscience, to recognize that every generation, our

²⁰ Ibid., 791.

²¹ Jenkins, 'Doing History in the Post-modern World', 70.

²² The chapter 'The Center does not Hold' in Novick's *That Noble Dream*, offers a run-down of postwar debates surrounding what he calls the 'objectivity question' in a range of disciplines influencing historical practice from literary criticism to psychology. Novick, *That Noble Dream*, 522–72.

²³ Becker, 'Everyman his own Historian', 236.

own included will, must inevitably, understand the past and anticipate the future in the light of its own restricted experience, must inevitably play on the dead whatever tricks it finds necessary for its own peace of mind. 24

While sounding somewhat prosaic, and perhaps even parochial, in his assertion of the everyday, Becker's relativism offers a helpful emphasis on the idea of use. The concept of 'use' was discussed in Chapter Two in relation to my assertion that meaning within interactive media art lies in its process, echoing Umberto Eco's 'open works' that install 'a new relationship between the *contemplation* and the *utilization* of a work of art'.²⁵ If, as Becker attests, interpretations of history are always provisional—always in process—the value of history exists not in contemplation but in its use for navigating the everyday. Or, to recall Derrida's remarks on the archive from the previous chapter, perhaps history is not a question of the past but a question of *response*.

With resonances of Becker's argument, Thelen considers the past to be a common resource that individuals use, almost as a tool, to shape their understanding of the world around them. Thelen remarks that, 'what we have in common as human beings is that we employ the past to make sense of the present and to influence the future'. ²⁶ Thelen's comments arise from his collaborative work with Rosenzweig, documented in *The Presence of the Past: Popular Uses of History in American Life*. The text is based on qualitative and quantitative research on a group of American citizens and their relationship with history and the past. From their field work, Rosenzweig and Thelen demonstrate that although many Americans feel disconnected from the academic discipline of history, they have a deep engagement with the past and use it in their everyday lives to create their own histories and navigate the present. Analysing their findings, Thelen remarks, 'Far from mechanically storing and retrieving fully formed representations of the past, respondents constructed and used pasts as products and by-products of living their lives'. ²⁷

²⁴ Ibid., 234–35.

²⁵ Umberto Eco, *The Open Work* (Boston: Harvard University Press, 1989), 22–23. Emphasis in original.

²⁶ Thelen, 'A Participatory Historical Culture', 190.

²⁷ Ibid., 196.

Thelen takes the research findings to suggest that the past is present in our daily lives. Or to repeat William Faulkner's often-quoted adage, 'The past is never dead. It isn't even past'. ²⁸ Based on this existing active engagement between everyday people and the past, Thelen advocates for a 'participatory historical culture', arguing that, 'Moving the focus of history from texts to interpreters turns historical culture from a spectator sport into something created by participants.' ²⁹ This accounts for the fact that in their daily lives, according to Thelen, individuals already 'use the past critically, creatively, and actively, in making and testing narratives of change and continuity'. ³⁰

In the context of the ever-expanding archive of contemporary experience that is the internet version 2.0, where participation, remix and dialogue (not to mention cookies, caches and search histories) are the touchstones of an engagement with society and culture, history is necessarily rooted in participation because we are all generating so much stored data all the time. As Gibson forcefully contends at the conclusion of his essay: 'If you have used Google today, you have already left some traces in the new history'.³¹ Thus the need Rosenzweig and Thelen identify in the 1990s, to consider history as a question of using the past 'critically, creatively, and actively', rings doubly true nearly two decades later when creating and archiving searchable historical material is as ubiquitous as clicking a mouse.³²

While this chapter does not suggest new avenues for traditional historical practice or historiography, it does look to the edges of the discipline of history, to the seams where things come together and fray apart; to interdisciplinary projects such as my own research, that probe across knowledge silos to ask the question of what it means to engage with the past. Might the work of new media artists embracing the symbolic form of the database in their interpretations of archival material give historians insight into opportunities for synthesising accounts of the past in new ways? In such a relativist subjective historiography put forward by Rosenzweig and Thelen that understands history as its use in everyday people's lives, could

²⁸ Faulkner, *Requiem for a Nun*, 72.

²⁹ Thelen, 'A Participatory Historical Culture', 199.

³⁰ Ibid., 205.

³¹ Gibson, 'All Things are in Contact', 595.

³² Thelen, 'A Participatory Historical Culture', 205.

database-driven artistic practices that reinterpret archival and historical material constitute part of a new 'participatory historical culture'?

New Media Art and Archives

In responding to this question, this section looks to two contemporary new media practitioners whose work blurs the fields of art and history to offer novel and innovative accounts of the past. Examining these works also serves to contextualise my own practice amongst a growing number of new media projects using the database form to reimagine archival material.

Jeanie Sinclair's, *The Intangible Archive* (2012), is highly pertinent to my research as an interactive database-driven work based on oral histories.³³ Yet whereas my practice is installation-based, Sinclair's work takes the oral histories out of the archive and onto the streets. *The Intangible Archive* is a locative media work based on oral history testimonies that document St Ives, a seaside town in the west of England, and its historic artist colony. The audience experiences the work *in situ* by walking the streets of St Ives equipped with headphones and a GPS-enabled smartphone app that triggers recollections from the database of oral histories at certain points on the journey.

Sinclair views the act of walking through place while experiencing the archival material as a performance where each participant physicalises the archival search.³⁴ In physically enacting, or 'performing' these novel archival connections, Sinclair asserts that participants create a unique history of St Ives from their individual encounter with the material:

ty_oral_.html. Accessed: 20 August 2013.

³³ Jeanie Sinclair and Philip Reeder, *The Intangible Archive*, 2012, interactive locative media work. The artists discuss the iterative development of their work further in: Jeanie Sinclair and Philip Reeder, 'Sounds of the Sea: Making a Mixed Reality Oral History Application for the St Ives Archive' (paper presented at *Museums and the Web* conference, San Diego, CA, USA, 11 – 14 April 2012). http://www.museumsandtheweb.com/mw2012/papers/sounds_of_the_sea_making_a_mixed_reali

³⁴ Sinclair and Reeder note, 'Walking becomes not only a physicalization of archival research, enacting a performance that hopes for serendipitous encounters, but also becomes a performance of the syncopated rhythms of the hidden connections between communities of place, past and present'. Ibid.

Each walker experiences their own narrative of St Ives, according to how they move around the town. Individual voices confirm and contradict existing ideas of place, revealing links and disjunctions between communities, uncovering hidden rhizomatic relationships that are continually being made and remade, making, unmaking and remaking place through these hidden relationships. Through walking, the text of oral history is juxtaposed with the materiality of place, the disembodied voice becomes part of the embodied experience of walking, a performance of a narrative that is non-linear, performed and re-performed through the action of walking. It invites links and associations between the textuality of the archive and the materiality of place through embodied experience.³⁵

Sinclair shows that, while based on the archival material of the oral history interviews, *The Intangible Archive* is equally rooted in the audience's present experience of the place they are traversing. Similarly to Janet Cardiff's *The Missing Voice* and Graeme Miller's *Linked*, the vocalised memories in Sinclair's work cluster in affective ways with the associations produced by being in a particular physical space. From both the textual connections of voices recombined by the database and the physical intersections produced by experiencing the archival oral histories *in situ*, the walkers produce new subjective and associative 'histories' through their imagination.

Also experienced via a smartphone app, Richard Fox's *Razorhurst* (2009) is a GPS-based locative work that takes Depression-era Darlinghurst as its setting.³⁶

³⁵ Jeanie Sinclair, *The Intangible Archive: Sound, space, memory* (artist statement online). http://theintangiblearchive.wordpress.com. Accessed: 26 August 2013.

³⁶ Richard Fox, *Razorhurst*, 2009, interactive locative media work. The *Razorhurst* app for smartphones can be downloaded from: http://www.razorhurst.com.au. Accessed: 20 August 2010.

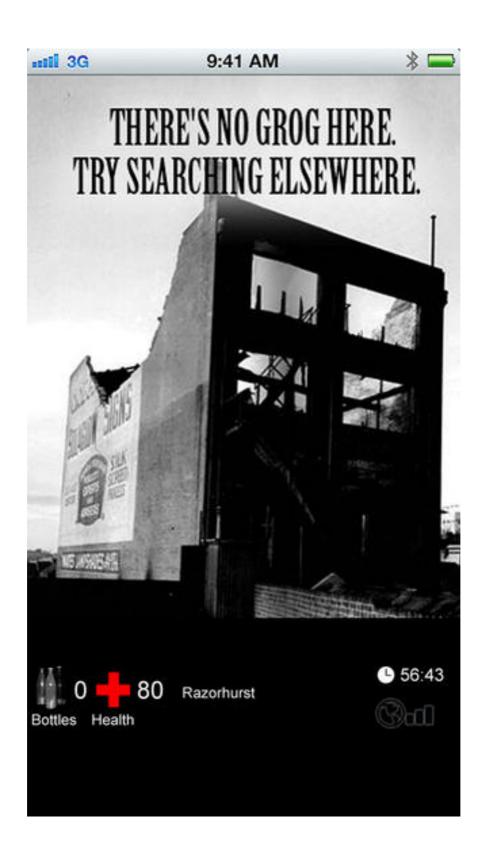


Figure 9. Richard Fox, *Razorhurst*, 2009, interactive locative media work. iPhone screenshot. Copyright Richard Fox.

The work narrativises an historical account of the past, turning razor-gang Sydney into an interactive noir fiction where, as the website publicity proclaims, 'you can explore this dark world in a cutting edge experience that combines video game, drama and travel adventure. Armed with your mobile you scour the streets for slygrog while evading gangsters'.³⁷

The videogame format is a popular riff in contemporary interactive media art, partly because the framework offers an automatic motivation for interaction and logic for design, but also because the gaming industry is a major driver in both technology and genre conventions regarding interactivity. Fox's work is based on a database of stills, graphics, sound and videos that animate the gameplay, including archival material sourced from the City of Sydney archives and the Sydney Justice and Police Museum, as well as original content. Fox playfully mashes up the source material in an approach that mixes fact and fiction in an imaginative rendering of the past presented as a site-specific gaming experience. In this sense *Razorhurst* offers a different form of engagement with the past to Sinclair's work—perhaps not one so rooted in resonant meanings, but more so in the imaginative potential of site-specific play.

Kate Richards describes her encounter with *Razorhurst* in 'Time Travelling via GPS', where she notes how—as with Sinclair's work—the situated nature of the locative artwork sparks imaginative links between the archival material and her present experience of the place:

Overall I found the experience affective. ... The brightly lit City Gym reminds me that in the Depression only the fittest survived and muscles were developed

³⁷ *Razorhurst* promotional statement online: http://www.razorhurst.com.au. Accessed: 20 August 2013.

³⁸ This point is made by Tofts in his excellent survey of Australian new media art: 'Prior to the advent of CD-ROMs, multimedia and the World Wide Web in the early 1990s, computers had already found their way into domestic life in the form of video games. This association of computers with entertainment and game-play indelibly fixed the computer and its modes of interaction as part of available culture. In this respect, the popularity of video games is the first and most pervasive instance of the computerisation of society. Interactivity, as a concept, was natural to game play. However, game-play, with its logic of pursuit strategy and problem-solving, offered a paradigm for engaging with electronic media generally, requiring two-way or reciprocal interplay between itself and the user. Video and computer games also introduced styles of engagement with computers that would find resonance in our first encounters with computer-based art works'. Darren Tofts, *Interzone: Media Arts in Australia* (Fishermans Bend, Victoria: Thames & Hudson), 7.

hauling fruit boxes down at Paddy's Markets or wringing wet sheets by hand in some dismal backyard.³⁹

Although Richards' review finds flaws in the functioning of the GPS technology in Fox's work, *Razorhurst* clearly piques her interest regarding the potential of new technology to explore the connection between place and memory in novel ways. The experience prompts her to question: 'Considering the links between the visceral and memory, what role do digital media have in enhancing the powers of historical imagination and in reinvigorating lost histories and spaces?'⁴⁰

Works such as Fox's *Razorhurst* and Sinclair's *The Intangible Archive* suggest that digital media have a key role to play in 'enhancing the powers of historical imagination', demonstrating that the use of technology in rich and productive relation with archival material can evoke subjective, playful and resonant engagement with the history of places and people. Artists such as these are using different types of database-driven digital media—from mobile phones and global positioning systems to online platforms—to reinterpret historical material in a way that provides imaginative understandings of, and relationships with, the past.

Novick describes the post-war debates surrounding the 'objectivity question' in a range of disciplines from literary criticism to psychology that have influenced historical practice in the United States. Novick reflects on psychoanalyst Roy Schafer's collaborative conception of the relations between analyst and analysand in the psychoanalytic framework as one based on the privileging of use:

For Schafer it was the task of the analyst and analysand to collaborate in constructing a coherent and useful *version* of the latter's psychic life history, one among many possible versions, since there was no 'single knowable reality as a final test of truth'. Psychoanalysis, for Schafer, offered a 'narrative method for constructing a second reality', which, following Nelson Goodman, he called a kind of 'worldmaking'.⁴¹

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³⁹ Kate Richards, 'Time Travelling via GPS: Richard Fox, Razorhurst', *RealTime* 93 (2009): 33. http://www.realtimearts.net/article/93/9588. Accessed: 12 October 2010. 40 Ibid.

⁴¹ Novick, *That Noble Dream*, 561. Emphasis in original.

In producing a schema for extracting different sorts of meaning from the world, new media art that engages archival material offers a specific tool for this 'worldmaking' of the past, as does history. Neither of these tools—historical or artistic—is mutually exclusive. Conversely, I suggest that the importance of both approaches lie precisely in their complimentary relationship with one another as different perspectives on interpreting the past. Artistic projects that foreground the aesthetic qualities of archives are valuable in their capacity to uncover fresh revelations and imaginative experiences that might compliment the factual understandings generated by a traditional historical methodology of interpreting the same material. Such aesthetic interpretations are of equal value, and should be used in conjunction with traditional historical approaches to understanding and engaging the past.

Revisiting the Ethics Question

In the discipline of history, perhaps more so than in creative writing, the issue of ethics is always paramount in any discussion of value. 'Uncreative' remix methods of artistic production might be helpful in generating novel and fresh interpretations of the past, but when such approaches are applied to historical material will they represent ethical and responsible ways of dealing with the past and its documents? Manovich suggests that as the database emerges as a key cultural form in the twenty-first-century we are compelled to develop its 'poetics, aesthetics, and ethics'. While database aesthetics have been widely discussed, an ethics of the database has been neglected, creating room to develop such a framework for database-driven remixes that is appropriate to a contemporary context of reuse and reappropriation.

I have outlined the ethical framework for my research in the introduction of this thesis. It is instructive to look to my own experiences again here, as the question of ethics has not become clearer throughout the research process, but rather seems even more hotly contested than when I set out. In communicating my research I have participated in conferences in both disciplines my research overlaps: new media art and history. While presenting my research to an audience of artists, such as at the *Database, Narrative, Archive* conference I attended at Concordia

University in 2011, questions of the ethics of my project were conspicuously absent.⁴² This demographic was more interested in the technological systems I was employing to rework my material and the aesthetic and conceptual outcomes this generated.

Thus I was caught somewhat by surprise when I presented a paper to the Oral History Association of Australia conference in Melbourne later that year.⁴³ The audience's questions almost exclusively regarded the ethics of my work. Some saw the intentional abstraction and fragmentation of the testimonies as unethical, as a deliberate attempt to misrepresent the interviewees. Yet while there were those who voiced concerns with the ethics of my research, others jumped to my defence. One conference attendee suggested that an historian could just as easily misrepresent the interviews by misconstruing (purposefully or through misinterpretation) a written excerpt from the South Sydney transcripts in order to engineer a particular textual argument.

The scope and variety of these critiques emphasised that the ethical considerations surrounding my project are complex and contested. I reflected afterward that the very process of discussing my research, especially in such an interdisciplinary context where assumptions around what constitutes ethical practice can be divergent, has informed the evolution of my ethical framework in working with the South Sydney material.

In mulling over the impassioned arguments of the historians and considering how I could align them with my own artistic instincts, I came to see that there might not be a singular 'right' answer as to how to work with the material in an ethically sound manner; there was certainly no predetermined route to follow.

Consequently I have come to the view as a researcher, following the contribution of Katherine Biber that I discussed in the introduction to this thesis, that the question of ethics must be enacted as a self-reflective process rather than a finite

⁴² Database Narrative Archive (DNA) International Symposium on Nonlinear Digital Storytelling (Concordia University, Montréal, 13 – 15 May 2011). http://www.dnasymposium.com. Accessed: 26 August 2013.

⁴³ The Oral History Association of Australia biennial national conference: Communities of Memory (State Library of Victoria, Melbourne, 7 – 9 October 2011). http://www.ohaa.org.au/page/conferences.html. Accessed: 26 August 2013.

determination. In this framework any decision or judgement should be open to revision and reconsideration in order to account for new information or perspectives raised through scholarly discourse or through the experience of practice itself.

Having refined my views from the OHAA discussion, I presented my research at the Sydney History conference, *From the Ground Up*, in 2012.⁴⁴ While the ethics of my project were less debated in this forum, the value of my approach was brought up. There was a sense that aesthetic explorations do not constitute a 'real' engagement with history, but rather a superficial one. As one audience member questioned after my presentation: 'Yes, but will this get people out there buying more history books?' My response to the historians was that interactive media art allows an engagement with the past that is different to what audiences might find in a history book, yet this does not make it less rigorous—or rather suggests it can be rigorous in different ways.

Kenneth Goldsmith recounts a parallel argument against his 'uncreative writing' practice that centres on anxiety around issues of value and evaluation. If everything is writing, how will we tell good writing from bad writing? Similarly we might ask that if artworks and history books both open up ways into the past, what are the best ways in? Goldsmith's rebuttal to his critics is also applicable here: 'If all language can be transformed into poetry by merely reframing—an exciting possibility—then she who reframes words in the most charged and convincing way will be judged the best'.⁴⁵

While the discoveries generated by artistic and historical enquiries might be dissimilar, this does not undermine the value of the aesthetic insights artists can bring to archives in generating new understandings of the past. To call once more on Michael Renov's assertion of the power of the poetic documentary:

⁴⁴ Sydney History conference, *From the Ground Up: People and Places in Sydney's Past* (State Library of NSW, Sydney, 23 – 24 August 2012).

http://www.mq.edu.au/about us/faculties and departments/faculty of arts/mhpir/modern history/conferences and seminars/from the ground up conference. Accessed: 26 August 2013.

⁴⁵ Kenneth Goldsmith, *Uncreative Writing: Managing Language in the Digital Age* (New York: Columbia University Press, 2011), 10.

The ability to evoke emotional response or induce pleasure in the spectator by formal means, to generate lyric power through shadings of sound and image in a manner exclusive to verbalization, or to engage with the musical or poetic qualities of language itself must not be seen as mere distractions from the main event.⁴⁶

Valuable accounts of the past will become those that provide the most useful tools for navigating society's information. These tools will offer novel, fresh and, as Goldsmith says, 'charged and convincing' ways of interpreting the world. In this sense, either an historical or an artistic approach to investigating archival material is no more or less valuable than the other. Furthermore their value is complimentary, not contradictory, as insights from both models of worldmaking can—and should—overlap. The value of each lies equally in their capacity to interpret the world's material in fresh and useful ways.

Conclusion

This chapter has considered the fundamental question of *how we engage with the past*. In addressing this issue, I have examined debates in historiography surrounding how historical representation influences the way we come to know the past. I have suggested that the emergence of the database as a symbolic form in the twenty-first-century poses a challenge for those historians whose interpretations of the past are tied to the modernist cultural form of the linear narrative structure, and to the fixed medium of the printed book.

In teasing out a poetics and aesthetics of the database, I have been confronted with questions of how database logic challenges traditional historical ideas of objectivity, and its ideals of clarity and coherence. I have asserted that historical and artistic approaches such as my research offer equally valid methodologies for examining the past. I have argued that the issue of value lies not within the discipline itself, but in the fresh insights a particular methodology can bring about. In examining examples of two new media works that reinterpret historical material through different types of playful or poetic database-driven systems, I have shown that creative practice—just as much as authoritative historical

46 Michael Renov, 'Toward a Poetics of Documentary', in *Theorizing Documentary*, ed. Michael Renov (New York: Routledge, 1993), 35.

tomes—has the capacity to reframe the past in charged and convincing ways, creating engaging and useful accounts of archived traces.

In the next chapter I will focus on my recent studio process in producing the final iteration of the South Sydney artwork. I show how I devised a bespoke method for 'data-mining' the oral history archived to select the final pieces of content for the installation. I also consider the interface design of the work, which draws on discoveries made through audience evaluation of the prototype, as a way of spatialising the tensions between linear and nonlinear representations of history discussed in this chapter.

Chapter Five

The Streets of Your Town

That's not time, only a simple line.

—Michel Serres, Conversations on Science, Culture, and Time¹

Introduction

In the first chapter of this thesis I described my walks through the streets of South Sydney and the ensuing site-specific 'hallucinations' that emanated from my imaginings of the oral histories *in situ*. I showed how these walking operations allowed me to reconceptualise the South Sydney Archive from a set of historical documents into aesthetic material—and in a sense gave me licence to start working with the interviews to produce art rather than history. In this chapter I again invoke the idea of a walk. This time it is not a walk outside, but rather, the back-and-forth pacing across my studio that saw the development of the third iteration of the South Sydney Project artwork.

This final chapter is based around the question: how might key discoveries gathered over the course of the research be spatialised through a new iteration of the artwork's interface? The first section describes the studio process of developing a new version of the artwork, which I have titled *The Streets of Your Town*. I focus on the resolution of three areas: the interface design, the selection of interview content and the choice of the projected imagery. In discussing the interface design I show how I resolved the formal elements of the installation by drawing on my evaluation of interaction design issues that arose in earlier iterations. I then demonstrate how, following a Cagean approach to composition, I introduced chance into the process of choosing the specific fragments of material to populate the work's database. Finally, I consider the substitution of an archival piece of

¹ Michel Serres with Bruno Latour, *Conversations on Science, Culture, and Time*, trans. Roxanne Lapidus (Ann Arbor, MI: University of Michigan Press, 1995), 49.

² The Streets of Your Town is 'uncreatively' taken from a song of the same title by Australian band The Go-Betweens, 16 Lover's Lane (Beggars Banquet, 1988).

footage of Sydney's George Street in place of the projected imagery of the interviewees' faces.

As a practice-based research project my studio process has impacted my theoretical investigations, which have, in turn, fed back into my making. The second section of this chapter articulates an example of this: I show how in rationalising the interaction design of the new iteration I was driven to work practically with some of the concepts I had investigated in my writing. Specifically, I discuss how questions of linear temporality in historical discourse raised in the previous chapter were aestheticised or formalised as part of the spatial interaction design. I extend these discussions focusing on Michel Serres' nonlinear conception of time and Michel Foucault's archaeological description of historical practice.³ In doing so I argue that as a physical work that can be experienced, my installation allows the audience to perform or embody the ruptures and discontinuities that mark the spatial metaphorisation of time and history in postmodern discourse.

The Streets of Your Town

As discussed earlier, my iterative process of interaction design involves the generation and testing of evolving versions of artworks. For this research I have produced three main versions of the South Sydney Project artwork: the prototype made as part of a residency at Serial Space in 2010, a second version shown as a work-in-progress at the DNA symposium in 2011 and the iteration for examination at the Sydney College of the Arts Postgraduate Degree show in 2014. In Chapter Two I described my studio process of developing the prototype version of the installation. This section discusses some key aspects of how I refined the new iteration to resolve issues with the interaction design I observed in earlier versions of the work. I also reflect on how, in doing so, new interaction design problems emerged in the spatial context of the exhibition. I suggest that these issues point to areas where the work's interface could be further refined and as such represent valuable learning opportunities in themselves.

³ Serres and Latour, Conversations on Science, Culture, and Time; Michel Foucault, The Archaeology of Knowledge and the Discourse on Language, trans. A. M. Sheridan Smith (New York: Pantheon Books, 1972).



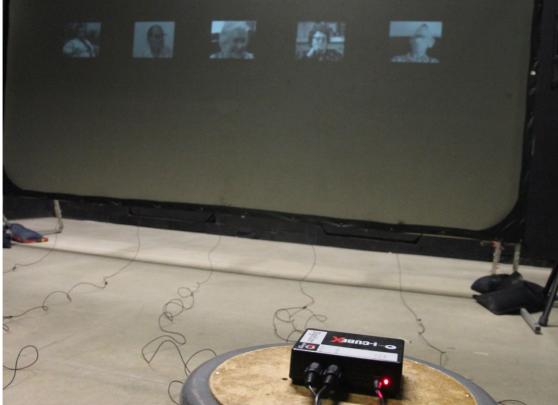


Figure 10a and 10b. Jessica Tyrrell, *The South Sydney Project* artwork, 2011. Documentation of the second iteration installed at the DNA Symposium, Concordia University, Montreal in 2011. Figure 10b shows the installation of the infra-red sensor cabling.

The main purpose for testing iterations with live audiences is to be able to observe the way gallery visitors actually interact with the artwork. As Caitlin Jones and Lizzie Muller have noted, there is often a gap between the 'ideal' interaction that the artist intends and the 'real' interaction of how an interactive artwork is engaged by audiences in practice. By incorporating informal audience evaluation into my iterative process I aim to draw lessons from the real interactions to inform how I refine the design of the interactive interface and system to create a more meaningful and intuitive experience for the audience. S

The interaction design for the South Sydney Project artwork prototype, similarly to David Rokeby's *Very Nervous System* (discussed in detail in Chapter Two), was based on content being triggered by audience movements in the installation space. Yet the infrared and ultrasonic sensors I had used were only activated when audience members moved directly in front of their line of sight. Thus participants tended to stand before the screen (where the sensors were focused) and jerk their leg or wave their arms in order to keep triggering content, rather than having to continuously move around the space. Whereas Rokeby's work encourages the audience to explore their range of movements by linking different gestures to different sound samples, this design based on continuous arbitrary movement did not offer an interaction that felt intuitive for the audience within the context of my work.

The question of intuitive interaction design within an art installation must be distinguished from how designers in the field of Human Computer Interaction

⁴ Caitlin Jones and Lizzie Muller, 'Between Real and Ideal: Documenting Media Art', *Leonardo* 41.4 (2008): 418–19.

⁵ There are a number of different formal models for audience evaluation of interactive media art. Muller helpfully outlines some approaches in: Lizzie Muller, 'Towards an Oral History of New Media Art' (Montreal, Canada: The Daniel Langlois Foundation for Art, Science, and Technology, 2008). http://www.fondation-langlois.org/html/e/page.php?NumPage=2096. Accessed: 3 May 2013. Muller's PhD thesis provides an excellent account of how interactive artists use audience evaluation to iteratively develop their work. Elizabeth Muller, 'The Experience of Interactive Art: A Curatorial Study' (PhD diss., University of Technology, Sydney, 2009). I explicitly use the term 'informal' here to differentiate my subjective audience evaluation process of observation and reflection from the formal models employed in the documentation and development of interactive artworks. As a practice-based researcher in interactive media art I have found that an informal approach to audience evaluation through observation and discussions with participants interacting with different prototypes is most successful for the iterative development of my work.

(HCI) might think about creating rational interactions for utilitarian purposes.⁶ As Paul Dourish has shown, 'HCI has traditionally been built on a procedural foundation. HCI, from its very beginning, took on the trappings of the traditional computational model in terms of plans, procedures, tasks and goals'.⁷ The aim of the interaction within an art installation may not be goal-oriented in the same way as it is within traditional HCI design; it may be exploratory or, indeed, intentionally antagonistic.⁸ For example, describing his motivation for developing the interactive system for *Very Nervous System*, Rokeby notes an impulse towards contrariness:

Because the computer is purely logical, the language of interaction should strive to be intuitive. Because the computer removes you from your body, the body should be strongly engaged. Because the computer's activity takes place on the tiny playing fields of integrated circuits, the encounter with the computer should take place in human-scaled physical space. Because the computer is objective and disinterested, the experience should be intimate.⁹

While the artist's system may circumvent the programmatic logic of the computer, Rokeby nonetheless asserts an internal logic within the artwork—in this case one based on principles of embodiment, intuition and intimacy. The imperatives for interactive design within an art context thus become establishing conceptual and aesthetic consistency across the interface and content to promote the particular experience intended by the artist. It is in this sense that we can talk about intuitive interaction in an art installation where the same design may be illogical in a conventional HCI context.

⁶ Manovich discusses the evolution of computer interfaces from command-line to graphic user interfaces (GUI) to current 'experiential' design in: Lev Manovich, 'Information as an Aesthetic Event' (2007). http://manovich.net/index.php/projects/information-as-an-aesthetic-event. Accessed: 5 May 2010.

⁷ Paul Dourish, *Where the Action is: The Foundations of Embodied Interaction* (Cambridge, MA: MIT Press, 2001), 4.

⁸ Polaine has examined the role of play, for example, as a heuristic device in interaction design. Polaine notes, 'As play is such a fundamental building block of culture, society, technology and cognition, it is an ideal lens through which to examine the interactive experience'. Andy Polaine, 'Developing a Language of Interactivity through the Theory of Play' (PhD diss., University of Technology, Sydney, 2009), 152.

⁹ David Rokeby, artist statement accompanying *Very Nervous System* video documentation on Vimeo. http://vimeo.com/8120954. Accessed: 19 May 2013.

Considering this formulation of intuitive interaction in relation to my own work, I experimented with appropriating the routes visitors might naturally take in approaching a projected image in a gallery—the artwork's 'desire line'. I had observed that the screen placement in the prototype functioned to orient the audience into a certain viewing relationship, almost like a sun drawing viewers into its orbit. To capitalise on the spatialising gravity of the projection I decided to centre the interactivity on a straight line in the middle of the gallery facing the imagery at the back of the installation space. I experimented with a range of different physical interfaces to engage this trajectory, for example chalking a child's hopscotch course on the floor of the studio oriented towards the projection. I liked the way the hopscotch shape, with its abstracted outlines of progressive spatial zones, was visually reminiscent of a street map. Through experimentation in the studio I gradually developed the hopscotch form into the outline of a single street traced in chalk on the ground in the gallery. The interface of the chalk outline of a street had the effect of recalling my early walking incursions into South Sydney, yet abstracted those journeys into a streamlined linear motif. Thus, the audience's interaction was directed from generalised movement around a large space in the installation into a single straight walk, helping to resolve the unfocused movement that was problematic in earlier iterations.

In order to make the walk along the chalk steeet trigger the artwork's content I needed to track audience movements along the line. Because of the limitations of the sensors I had used previously, I experimented with controlling the interactivity via new gaming technology that had recently come to market and was being hacked by artists and musicians for broader uses. ¹⁰ The Xbox Kinect has a motion sensor camera with the capacity to track a greater distance within the installation than the sensors I had used earlier. By training the Kinect's view on the installation area I could designate the line drawn in the centre of the space, oriented towards the screen, as the interactive zone. The Kinect could quite accurately track the audience's walk along this line as they moved to and from the projection. By converting the data generated from these movements into MIDI signals I set the VJ

¹⁰ For example, Sydney-based artist John Tonkin uses the Kinect in his interactive installation *Experiments in Proximity* (2013) to control imagery via the audience's position in relation to the screen. David Haines and Joyce Hinterding's interactive installation *Monocline: White Cube* (2010) uses the Kinect to allow participants to navigate in a 3D environment real time.

software to trigger and control the audiovisual material. Thus any movement along the line would trigger a random interview fragment to be played, allowing audience members to physically remix the archive along a line made by walking.

In Chapter Two I described how the operations of the database-driven interactive system created novel aesthetic associations that emerged through chance combinations of certain words or sounds across the interview fragments. For example, I noted how the simple accidental juxtaposition of two interviewees mentioning the same suburb name would produce a kind of 'mental map' between those fragments. In selecting the specific pieces of content from the South Sydney Archive to be included in the final iteration of the artwork I was interested in emphasising this kind of combination of geographic coordinates.

Whereas for the prototype I searched the interviews for short clips that 'resonated' with me on an emotional or aesthetic level, for this iteration I decided to apply a strict framework in determining the material that would populate the database of the final work. Discussing the role of chance operations in the musical compositions of John Cage, Marc G. Jensen notes, 'In all of his work with chance, Cage sought a balance between the rational and irrational by allowing random events to function within the context of a controlled system'. ¹¹ In the same manner that Cage often courted chance in his compositions by applying a controlled procedure to the selection of certain musical elements, I decided to use only the sentences within the interviews that included a street name. This approach meant that I was not predetermining the precise content of the fragments, but rather the parameters for their selection.

The use of street names recalls Michel de Certeau's discussion of proper names that I examined in Chapter One. In considering everyday inhabitants' walking practices in the city Certeau argues that proper names lose their original signification and thus allow practitioners of the city to insinuate their own meanings:

Linking acts and footsteps, opening meanings and directions, these words operate

¹¹ Marc G. Jensen, 'John Cage, Chance Operations, and the Chaos Game: Cage and the "I Ching", *The Musical Times* 150.1907 (2009): 97.

in the name of an emptying-out and wearing-away of their primary role. They become liberated spaces that can be occupied. A rich indetermination gives them, by means of a semantic rarefaction, the function of articulating a second, poetic geography on top of the geography of the literal, forbidden or permitted meaning. They insinuate other routes into the functionalist and historical order of movement. 12

In Chapter One I used this idea to parallel the way I was working with the South Sydney Archive. I took Certeau's sense of the 'rich indetermination' of proper names as an overarching metaphor for my methodology of reinterpreting historical material with attention to its aesthetic and affective, rather than factual and textual, qualities. Just as 'constellations' of proper names generate a 'second, poetic geography' that overlays physical space, so too do the stories of the South Sydney interviewees form a web of memories that, detached from their home and imported into the archive, begin to undergo a process of rarefaction. Instead of logically repairing the original literal meanings I isolated the proper names: accelerating the 'emptying-out' and 'wearing-away' of their historical signification through fragmentation and the introduction of chance-based procedures.

This involved a kind of bespoke data-mining approach of trawling through the transcripts using a keyword search for the word 'street' and then selecting corresponding portions of the interviews. The use of such a system felt like an appropriate response to the nature of the archive as a collection of data gathered and indexed for search and retrieval. Although this was not an automated process (perhaps in the future the video material itself will be able to be tagged with the written transcript in its metadata and desired segments extracted algorithmically), it signals an approach to working with historical material reminiscent of Ross Gibson's consideration of a 'new history' that was discussed in the previous chapter. Gibson contends that, '[The new historiography] will accept that all past things are equally in contact, so long as you have the ability to store, index, search and synthesise with them'. ¹³ In the age of Big Data it will be historians, along with Google and the NSA, that employ data-mining practices in order to make sense of

¹² Michel de Certeau, *The Practice of Everyday Life*, trans. Steven Rendall (Berkeley: University of California Press, 1988), 105.

¹³ Ross Gibson, 'All Things are in Contact', *Rethinking History* 14.4 (2010): 595.

the unfathomable mass of records of the past.¹⁴ In terms of the aim of my research to explore how artistic intervention might produce new ways of engaging with the past, I wanted to appropriate, and perhaps foreshadow, this kind of data-mining approach in order to generate aesthetic resonances rather than factual connections.

By following this technical procedure I could have used any word as a search term to filter the archive. (It would be interesting to iterate the artwork by replacing the keyword query with the word 'memory' or 'breakfast', for example, to see what different patterns of recollections occurred). However the use of the street names serves the important function of acknowledging and responding to the fact that the South Sydney interviews are essentially stories about places. As the context for the original interviews was to present a social history of the area, the recollections are littered with spatial coordinates. For example one of the participants, Henry Brown, situates his memories through detailed descriptions of specific locations, as if he is giving directions:

Do you know Wyndham Street at all? That's first street off Botany Road on Henderson Road, the, what's the name of that ... the Lord Raglan Hotel's on the corner, well just alongside The Lord Raglan is a lane. A lane way goes down into the middle of the block and it was just down that laneway that there used to be a two storey house, that's where Dad was born there, in there. 15

¹⁴ The implications of Big Data and the potential uses of procedures such as data-mining for history work are only beginning to be debated. Grossman in a 2012 article, 'Big Data: an Opportunity for History?', considers the relationship between Big Data and history, commenting, 'I have little doubt that people asking big questions of Big Data would benefit from collaboration with the qualities and interpretive perspectives historians bring to this kind of enterprise'. James Grossman, 'Big Data: An Opportunity for History?', *Perspectives on History* (March 2012),

http://www.historians.org./publications-and-directories/perspectives-on-history/march-2012/big-data-an-opportunity-for-historians. Accessed: 2 February 2014. In an experimental approach, Graham, Milligan and Weingart, are 'writing in public, one page at a time' a book online to be titled *The Historian's Macroscope: Big Digital History* in which they explore the practical and conceptual implications of Big Data on the practice and epistemological foundation of history. Shawn Graham, Ian Milligan and Scott Weingart, *The Historian's Macroscope: Big Digital History* (London: Imperial College Press, forthcoming). http://www.themacroscope.org. Accessed: 2 February 2014. Munster discusses artistic subversions of data-mining methodologies in her chapter: Anna Munster, 'Data Undermining: Data Relationality and Networked Experience', in Munster, *Aesthesia of Networks: Conjunctive Experience in Art and Technology* (Cambridge, MA: MIT Press, 2013), 73–98.

¹⁵ Henry Brown, born 1919, Erskineville, quoted in Sue Rosen, ed., *South Sydney Social History Project Transcript*—*Erskineville* (unpublished transcript, 1994–95), 23.

The process of sieving out such fragments from the archive based on the street name search became a form of mapping. By bringing all the streets mentioned in the archive together into a database and associating them dynamically with the work's interface, a single walk through an anonymous South Sydney street in the installation becomes a map of all the archive's streets. While the word 'map' might first elicit the mental image of an atlas or street directory, the artwork's mapping function is far from that of a geographic or cartographic map that colonises territory by fixing down its boundaries. As an unfixed and emergent rendering of the places of South Sydney the work operates more in the manner of a sketch map—an ephemeral representation that emerges in the use of descriptions of locations.

In his book, *Lines: A Brief History*, Tim Ingold reminds us that, "The vast majority of maps that have ever been drawn by human beings have scarcely survived the immediate contexts of their production". These sketch maps are the hand drawn notes, or tracings in sand, that are drafted in aid of a conversation that their meaning barely outlives. Being highly contextual in existence, such maps are unfixed and unfinished: they are the means to a journey rather than a survey of indexed places. Ingold contrasts the lines of the sketch map, which indicate 'habitation', with those of the cartographic map that signify 'occupation'. ¹⁷

I found, overwhelmingly, that where each street name was mentioned in the South Sydney interviews it was used to locate a past experience—to orient a memory. Although I observed that different interviewees referred to street names in different ways—most notably in terms of the frequency of their use—generally the interviewees did not evoke a street name in order to objectively describe what a place was like, but rather to ground their memories and reflect on how the places were used by their inhabitants. Thus in responding to the question of whether people worked locally in Newtown, Keith Mulhearn not only gives the location of a major factory but also remembers it in use through the image of workers unloading fruit:

[T]he jam factory, the IXL jam factory was on the corner of Grove Street and

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¹⁶ Tim Ingold, *Lines: A Brief History* (London; New York: Routledge, 2007), 84.

¹⁷ Ibid., 85.

Darling's Road there and it was down into Forbes Street, was, I mean, a lot of people worked there, and a lot of fruit and stuff coming in from the country, you'd see melons, loads and loads of melons and things of that kind, see that's all gone. ¹⁸

Thus the telling of the place becomes a mapping activity, one that emphasises the lived experience of the places. In the chapter 'Spatial Stories' from *The Practice of* Everyday Life Certeau looks at the very activity of talking about and telling stories about places.¹⁹ Certeau shows how oral narrations of places can have the same productive capacity as the pedestrian operations explored in his parallel chapter, 'Walking in the City'—they can invent spaces.²⁰ Certeau asserts that inhabitants practice place through the everyday stories they tell about where they live and have been. In analysing this function Certeau contrasts narrations of itineraries or tours in space—those stories that tell of the use of places—with the scopic delineation of mapping. Examining the development of the modern cartographic map from the fifteenth-century, Certeau shows how maps were once more like a ledger of the uses of places—descriptions of things that had happened there—and have developed into totalising surveys that disavow the operations that produced them. As Certeau notes, 'the map has slowly disengaged itself from the itineraries that were the condition of its possibility'.²¹ In contrast Certeau asserts that everyday spatial stories have the capacity to, rather than show us what is there, 'tell us what one can do in [space] and make out of it'.²²

²² Ibid., 122.

¹⁸ Keith Mulhearn, born 1904, Newtown, quoted in Sue Rosen, ed., *South Sydney Social History Project Transcript—Newtown* (unpublished transcript, 1994–95), 17.

¹⁹ Michel de Certeau, 'Spatial Stories', in Certeau, *The Practice of Everyday Life*, trans. Steven Rendall (Berkeley: University of California Press, 1988), 115–30.

²⁰ It is important to note that in his 'Spatial Stories' chapter Certeau distinguishes between 'place' (*lieu*) as fixed and delineated and 'space' (*espace*) as lived and practiced: 'space is a practiced place.' Certeau compares the modes of the 'received' place and the 'produced' space to the distinction between the written and spoken word, noting, 'an act of reading is the space produced by the practice of a particular place: a written text'. Ibid., 117. Certeau also argues that the 'identification' of places and the 'actualisation' of spaces can combine or move back and forth, arguing that stories 'organize the play of changing relationships between places and spaces.' Ibid., 118. However, increasingly in human geography Certeau's distinction is inverted so that 'space' is seen as the empty physical quantity and 'place' is culturally specific, practiced and produced. See Tim Ingold, 'Against Space: Place, Movement, Knowledge', in Ingold, *Being Alive: Essays on Movement, Knowledge and Description* (London; New York, Routledge, 2011), 145–55. In this thesis I generally use 'space' and 'place' interchangeably.

²¹ For example, Certeau looks to the 'fifteenth-century Aztec map describing the exodus of the Totomihuacas'. Certeau explains that, 'This drawing outlines not the "route" (there wasn't one) but the "log" of their journey on foot—an outline marked out by footprints with regular gaps between them and by pictures of the successive events that took place in the course of the journey (meals, battles, crossings of rivers or mountains, etc.): not a "geographical map" but "history book". Certeau, *The Practice of Everyday Life*, 120.

Certeau's focus on inventing spaces rather than showing them objectively has been instructive in developing the imagery for the new iteration of the South Sydney Project artwork. Whereas earlier versions used projected vision of the interviewees' faces, the prerogative to invent spaces enabled me to employ artistic license by replacing the synchronous video of the interviews. Using only the audio fragments, I introduced a spatial counterpoint to the voices by projecting looped footage from the National Film and Sound Archive of Australia that showed George Street filmed in 1906 from a tram traveling south along the artery.²³ The grainy black and white footage, marked in places with film sprockets, black spots and white lens flares, is fetishistically archival in the 'spectral' sense evoked by Jacques Derrida. When I first stumbled upon the footage on YouTube it loomed on the screen as a kind of mythic image that represented an imagining of 'old' Sydney. Although not filmed on location in South Sydney, the footage functions as a cinematic apparition of a historic generality of Sydney's urban past.

In introducing the footage into the installation I wanted to abstract the imagery so that it was not necessarily identifiable as George Street. As with Certeau's 'worn coins' I would re-engrave its value with a new signification.²⁴ While I experimented with different digital postproduction filters to do this in Adobe After Effects, the most satisfying outcome drew on a technique I had developed for another artwork. The Tide Toward the Shore (2013)²⁵ consists of a 'wall' of large glass jars, each filled with water, onto which video footage of a passing landscape is rearprojected. This work is one of the large-scale audiovisual environments I produced as part of the investigative climate of my PhD research. While not concerned with responsive interactivity, the work provided me with an avenue to explore some of the research questions around aesthetic experiences of place and memory that are driving this thesis. Specifically the piece was the result of experimentation with formal elements integral to my audiovisual installation practice, especially a material exploration of different projection surfaces.

²³ Video on YouTube titled: 'A 1906 bird's-eye view of George Street, Sydney, NSW'. https://www.voutube.com/watch?v=Ifnto7iIW2A. Accessed: 15 September 2011.

²⁴ In Chapter One I quoted Certeau's description of proper names: 'Disposed in constellations that hierarchize and semantically order the surface of the city, operating chronological arrangements and historical justifications, these words (Borrégo, Botzaris, Bougainville ...) slowly lose, like worn coins, the value engraved on them, but their ability to signify outlives its first definition'. Certeau, The Practice of Everyday Life, 158.

²⁵ Jessica Tyrrell, *The Tide Toward the Shore*, 2013, audiovisual installation.





Figure 11a. Still from YouTube video titled: 'A 1906 bird's-eye view of George Street, Sydney, NSW'. Copyright National Film and Sound Archives of Australia. Figure 11b. Still from test video of digitally processed George Street footage.

In developing *The Tide Toward the Shore* I discovered ways of refracting light from the projector to extend the image beyond the confines of the screen and create a sense of immersion and dynamic interplay between the visual material, the audience and the gallery space.

This experimentation with projection surfaces for *The Tide Toward the Shore* led to the technique of placing a glass jar over the lens to distort the video projection for *The Streets of Your Town*. Physically refracting the light in this way produced a blurring effect, which gave the illusion of a ghostly trace in the footage, making George Street appear as an anonymous city street—an archetypal view of a bustling pubescent modernity. Taking the data generated by movements along the interface of the work I used the Kinect to link the audiences' footfall with the progression of the footage. As the participant moves along the chalked line of the interface each step shuffles the play direction backward and forwards, causing the vision of the tram travelling along the street to stall and then continue, whilst simultaneously triggering random audio fragments of the stories about South Sydney's streets.

In developing this new iteration I was pleased to have been able to experiment with pushing the work towards abstraction, a process which allowed me to delve into ideas of anachronism and deterioration. Yet while this new interaction design resolved certain issues with the interface of the earlier iterations, in exhibiting the work I found that fresh design problems emerged. The way that viewers tended to act in the installation was not always the interaction I had tried to engineer through the work's design. Particularly, audience members were reticent to walk on the interface—the chalk drawing that traced a linear outline of a street. This issue was partially a product of the context of the exhibition where the work occupied a large space that made it difficult to direct the audience's passage into a straight line. Yet I also reflected that the chalk drawing might have acted as a more inviting interface if it had been scuffed or partially erased, priming viewers for interaction by suggesting the prior footsteps of others. This would better resolve the interface as an 'attractor' of audience interaction, to use Edmonds, Muller and

Connell's term for the element(s) of an interactive work that first garners the audience's attention and directs them into experiencing the work.²⁶

In the sense that it revealed certain irresolution between my intended interaction and the audience's experience of the work, the degree show became a site for audience evaluation in itself. Lizzie Muller has written on the idea that an interactive work is made up of a dialogue between 'the artist's "ideal" and the audience's "real" versions of the work'. Muller has shown how negotiating between the ideal and real states of the artwork can be a productive process for curating and documenting interactive media art. Yet she also points to the tensions that result from idealised rather than practical understandings of artworks. Muller has shown how 'the gap between artist intention and audience experience' can be a practical problem for curators who can end up facing '... a kind of mythical artwork which relies on ideal conditions, and an ideal participant, and can therefore never be satisfactorily presented'. 29

Observing audiences interacting with *The Streets of Your Town* through the exhibition process revealed to me that the design was too much a product of my idealised intentions and did not take into account the reality of the possible range of audience behaviour in the particular space. This showed the need to take a more experiential approach to the further iterative development of the work that incorporates the analysis of this new audience evaluation. Yet the fact that the exhibition continued to generate productive learning opportunities is appropriate to a practice-based research methodology that avows the development of knowledge through an iterative process of practice and reflection, rather than in the production of a fixed and final outcome.

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²⁶ Ernest Edmonds, Lizzie Muller and Matthew Connell, 'On Creative Engagement', *Visual Communication* 5.3 (2006): 315.

²⁷ Elizabeth Muller, 'The Experience of Interactive Art: A Curatorial Study' (PhD diss., University of Technology, Sydney, 2009), 187.

²⁸ This dialogue between the states of 'real' and 'ideal' is extended to the context of the documentation of ephemeral interactive works in Caitlin Jones and Lizzie Muller, 'Between Real and Ideal: Documenting Media Art', *Leonardo* 41.4 (2008): 418–19.

²⁹ Muller, 'The Experience of Interactive Art: A Curatorial Study', 188.

Breaking up the Line of Time

The motif of a conventional historical timeline is associated with chronological progression as it marks out events in order. This view is a timeline as a forward arrow that cannot be reversed or looped back lest it lose its very function. Most VJ software, including that which I have used in the installation, incorporates a timeline as an interface to visualise the sequence of video or audio clips from a database of material. Yet although such software presents a visually linear interface, the timeline is not chronological. Because the clips are linked to a database they can be endlessly rearranged, layered, repeated and deleted. The play head indicator, which represents the user's current position in the sequence, can also be instantly positioned, or 'scrubbed', anywhere along the timeline without the necessity that exists in analogue video or film to fast-forward or rewind through the content.

In my walks back and forth along the interface while testing the interactivity of the final work in the studio, I got to thinking about the problems historians face in crafting multiplicities of material into the straight line of a narrative account. I remembered the question I raised in the previous chapter of whether the shifting and multifaceted characteristics of the past fit neatly into ordered 'sentences, paragraphs, and chapters' — or whether the database was a more appropriate form to account for the constant flux of information we experience in the age of Big Data. Rather than seeking to answer the question or resolve the quandary in its design, the interactive interface of the work exposes this tension and allows the audience to embody it in walking along a linear trajectory mapped to a database of remixable content.

In his published conversation with Serres, Bruno Latour attempts to establish his colleague's view of the subject of time: 'It's obvious to us moderns, as we advance in time, that each successive stage outstrips the proceeding one'. Serres counters:

³⁰ It is true that when a digital video or sound piece is exported from digital editing software into a stand-alone work the editing decisions are locked into a set linear sequence. Yet even in this instance, in the actual *process* of editing, rather than at the export stage, the timeline shows a field of possibilities that is nonlinear.

³¹ Barbara W. Tuchman, 'In Search of History', in Tuchman, *Practicing History: Selected Essays* (New York: Random House, 1981), 23.

'That's not time, only a simple line'.³² Serres argues that the positivist conception of time as a linear succession of progress after progress, symbolised by the forward arrow, does not account for the contradictions in how we experience duration. 'As an example', Serres suggests, 'I am young and old. Only my life, its time or its duration, can make these two propositions coherent between themselves'.³³ Contradicting the traditional view of linear time, Serres sees future scientific discoveries anticipated in past works of poetry,³⁴ just as he views contemporary technologies as incorporating ancient discoveries.³⁵ In delineating between experienced temporality and the scientific measurement of time, Serres uses the metaphor of a handkerchief:

If you take a handkerchief and spread it out in order to iron it, you can see in it certain fixed distances and proximities. If you sketch a circle in one area, you can mark out nearby points and measure far-off distances. Then take the same handkerchief and crumple it, by putting it in your pocket. Two distant points are suddenly close, even superimposed. If, further, you tear it in certain places, two points that were close can become very distant. The science of nearness and rifts is called topology, while the science of stable and well-defined distances is called metrical geometry.³⁶

Serres aligns embodied duration to the crumpled handkerchief—to topology—whereas the science of time is evoked as the metrical geometry of fixing and ironing out duration in order to measure set distances. Keeping this disparity in mind in the context of my artwork, the geometric edge of the linear interface is juxtaposed against the topological surges of distance and proximity produced by the database assemblage of audio fragments that fluctuate through anachronistic

³² Serres and Latour, *Conversations on Science, Culture, and Time*, 49.

³³ Ibid. This quote is reminiscent of Deleuze's reading of Henri Bergson where he notes, 'What Fellini says is Bergsonian: "We are constructed in memory; we are *simultaneously* childhood, adolescence, old age and maturity". Deleuze continues that 'non-chronological time' allows the paradoxical 'coexistence of all the sheets of past'. Gilles Deleuze, *Cinema II: The Time-Image*, trans. Hugh Tomlinson and Robert Galeta (London: Continuum, 2005), 96. Emphasis in original. ³⁴ For example Serres notes, 'A novelist like Zola invented thermodynamic operators well before the science of thermodynamics'. Serres and Latour, *Conversations on Science, Culture, and Time*, 55. Serres also asserts that in his sonnet on the flight of the wasp, 'Verlaine intuits the reality of background noise'. Ibid., 78.

³⁵ For example, Serres argues, 'Consider a late-model car. It is a disparate aggregate of scientific and technological solutions dating from different periods. One can date it component by component: this part was invented at the turn of the century, another, ten years ago, and Carnot's cycle is almost two hundred years old. Not to mention the wheel that dates back to neolithic times'. Ibid., 45.

³⁶ Ibid., 60.

temporalities. Because the pieces of interview material represent several decades in their recollections of South Sydney, the installation allows the audience to jump back and forth through different periods as they move along the geometric interface, echoing the tensions Serres describes in trying to iron out linearity from the uneven surges of time as we live it.

Perhaps the one thing we do know about time is that it does not stand still and Serres' theory is appropriately infused with movement. However, it is a different movement to the flow of linear time classically visualised as a stream running under a bridge:

Time doesn't flow; it percolates. This means precisely that it passes and doesn't pass. In Latin the verb *colare*, the origin of the French verb *couler*, 'to flow', means precisely 'to filter'. In filter one flux passes through, while another does not.³⁷ ...

No, time flows in a turbulent and chaotic manner; it percolates.³⁸

If we consider this conception of time in relation to the way the past is represented in historical discourse, it is evident that the static, fixed form of linear narrative strains against the turbulent and chaotic movement of time in Serres' invocation. An example of this can be seen in Roland Barthes' observation of a 'friction' in the historian's need to reconcile the time of the historical event with the time of their own written discourse, which he calls 'paper time'.³⁹ Barthes shows how this friction leads to various discursive factors in the writing of history such as an acceleration of time, which is exemplified by the fact that, 'In Machiavelli's *History of Florence*, the same measure (a chapter) covers several centuries here, and some twenty years there'.⁴⁰

I have showed how in contrast to the narrative form, the structure of the database allows its content to 'percolate' together so that each element exists in relation to all other components and can be 'filtered' in different formulations. In the introduction to this thesis I wondered what changes might be represented in the

³⁷ Ibid., 58.

³⁸ Ibid., 59.

³⁹ Roland Barthes, 'The Discourse of History', in Barthes, *The Rustle of Language*, trans. Richard Howard (Berkeley; Los Angeles, CA: University of California Press), 130. ⁴⁰ Ibid., 129.

years between the recollections of Keith Mulhearn—the oldest participant in the South Sydney Project—and Dean Ingram—the youngest interviewee. While chronologically their stories are the most distant, the database system of the artwork creates the potential for Keith and Dean's recollections to be sequenced together. To use Serres' phrase, 'Two distant points are suddenly close'.⁴¹ While such chronological discontinuities produced by the way the database puts 'all past things ... equally in contact' might be factually incoherent, they are not inconsistent with Serres' view of how we experience the present as a mélange of temporalities:

[E]very historical era is ... multitemporal, simultaneously drawing from the obsolete, the contemporary, and the futuristic. An object, a circumstance, is thus polychronic, multitemporal, and reveals a time that is gathered together, with multiple pleats. 43

Yet, thinking of time as a line has the effect of situating events that are further in the past as being more distant from present experience. Some historians have argued that distance is necessary for establishing an objective viewpoint from which to interpret the past.⁴⁴ Yet, echoing Serres' description of a time that percolates rather than progresses, Mark Salber Phillips has also critiqued the metaphor of the flowing river in his discussion of the idea of 'historical distance':

Scientific time may be measured by abstractions, but history's movements are neither neutral nor uniform. Though time is often compared to a river ... it might equally be imagined as a city street, where the traffic changes its rhythms at different times of the day, and where the flow of present purposes rubs up against structures built by earlier generations.⁴⁵

Phillips asserts this conception of temporality to support his argument against a linear approach to assessing the relationship between the passage of time and the

43 Serres and Latour, Conversations on Science, Culture, and Time, 60.

⁴¹ Serres and Latour, Conversations on Science, Culture, and Time, 60.

⁴² Gibson, 'All Things Are In Contact', 595.

⁴⁴ For example see Friedrich Meinecke, *Historism: The Rise of a New Historical Outlook*, trans. J. E. Anderson (London: Routledge, 1972).

⁴⁵ Mark Salber Phillips, 'Rethinking Historical Distance: From Doctrine to Heuristic', *History and Theory* 50 (2011): 14.

ideal viewpoint from which to narrate history. Phillips demonstrates that just because an event is further in the past does not mean it will be less 'present' to a particular age. As an example he notes, 'Americans today feel the Founding Fathers as a presence in their history and continue an engagement with the eighteenth-century that has little resonance for their Anglo-Canadian neighbors'. ⁴⁶ Such historical 'presences' in the present have the function of reminding us of the varying speeds of influences of the past. Just as we experience temporality unevenly, so too do different layers of history exist anachronistically together at any one moment.

In his influential text, *The Archaeology of Knowledge*, Foucault posits 'archaeology' as a methodology of historiography, arguing that such an approach is necessary because history is made up of strata or layers of many histories that are best analysed, not by attempting to draw out causal connections, but by looking to 'the phenomena of rupture, of discontinuity'.⁴⁷ Foucault rejects a teleological conception of history as a continuous and linear progression. Instead he asserts that, beneath the metanarratives scripted by positivist thinkers to define historical periods, there exist various 'interruptions' requiring examination. The most 'radical' of these is the acknowledgement that, following Louis Althusser, all history is fundamentally ideological.⁴⁸ In a conception of history that lines up with Serres' notion of 'percolating' time, Foucault sees within any past:

[S]everal pasts, several forms of connexion, several hierarchies of importance, several networks of determination, several teleologies, for one and the same science, as its present undergoes change: thus historical descriptions are necessarily ordered by the present state of knowledge, they increase with every transformation and never cease, in turn, to break with themselves ...⁴⁹

Foucault's archaeology presents a spatial metaphor through which to understand history, a point made by Edward Soja in his chapter 'History: Geography:

⁴⁶ Ibid., 15.

⁴⁷ Far from speaking generally about layers of history, Foucault conducts a detailed analysis of specific levels of systems of thought, or what he terms 'discursive formations' and the rules that govern their operations. For Foucault 'statements' are the most basic strata of discursive practices and the 'archive' is the most overarching. Foucault, *The Archaeology of Knowledge*, 4.

⁴⁸ Ibid.

⁴⁹ Ibid., 5.

Modernity'.⁵⁰ Soja conducts his own archaeology into what he sees as the geographic underpinnings of Foucault's work, mining the somewhat 'buried ... precursory spatial turn' represented by Foucault—an influence Soja believes is hidden by the theorist's overriding identification as an historian.⁵¹ Soja shows that to think of history in layers, as overlapping networks and enmeshed connections, is to think of history spatially.

While Foucault's notion of archaeology offers a spatial metaphor, immersive interactive artworks are *actually* spatial. The novelty of such artworks in presenting historical material spatially is that they allow for an embodied experience of the material. Anna Munster looks at the concept of embodiment in relation to digital media, not as a translation between separate corporeal and incorporeal elements, but rather as a fluid overlapping or folding between the two. Demonstrating a 'new materialist' approach, Munster suggests, 'Rather than foreclosing the relations between matter and machines, perhaps we could ask what "interminglings" between the two are made possible by yoking a sentient body to a computer terminal'.⁵² This sense of intermingling is crucial as it asserts that the power and significance of embodied experience of the digital resides, not in the closing off of the body as impermeable to technology, but rather in its opening up as a site of transduction of information. As Munster notes in describing the understanding of the body brought about by experiencing Rokeby's Very Nervous System, 'Corporeal experience (or aspects of it) extends and intensifies and, in doing so, splits, folds or inflects away from a sense of the body as bound and closed to the outside world'.53

In presenting a fragmented and process-based experience of the South Sydney Archive, my work has the capacity to offer a physical experience of the historic discontinuities and ruptures that Foucault describes. Unlike written text where it is impossible to read two sentences at once, sound allows us to hear layers. In my work the audio fragments can be layered over one another depending on the speed

⁵⁰ Edward Soja, *Postmodern Geographies: The Reassertion of Space in Critical Social Theory* (London; New York: Verso, 1989), 16–21.

⁵¹ Ibid., 16.

⁵² Anna Munster, *Materializing New Media: Embodiment in Information Aesthetics* (Hanover, NH: Dartmouth College Press, 2006), 62.

⁵³ Ibid., 119.

at which the participant moves along the interface and the number of participants in the installation. Thus the juxtaposition of voices across the archive may occur not just through different sequences but also through a simultaneity of overlapping layers, echoing Foucault's strata of discourses that transform at different rates and in different directions. The experience of this is to hear the competing voices of the past archaeologically, in the sense evoked by Foucault, to listen to a history that is not uniform but dynamic.

Similarly Serres' metaphor of time as a topology of 'nearness and rifts' is highly spatial. Serres notes that in the French language the word for time, *le temps*, is the same as the word for the weather.⁵⁴ The weather, with its turbulence that Serres links to the movement of time, is a fundamentally spatial phenomenon. We understand the weather in space; in the way it acts on our body and in the world—by being in it. The use of a surround sound system in my work seeks to echo the immersive force of the weather by allowing audio fragments to emanate from various positions in the installation. This has an architectural effect of spatialising the voices so they can be occupied, allowing the audience to stand in the midst of their physical reverberations and embody the turbulent temporality that their fluctuations evoke.

In the previous chapter I discussed Jeanie Sinclair's locative interactive sound work, *The Intangible Archive*, based on oral histories about St Ives. I noted Sinclair's suggestion that the act of walking through St Ives while experiencing the oral histories about that place is a performative gesture where each participant physicalises the archival search.⁵⁵ By triggering content dependent on their position in the town, the audience becomes part of the interface with the archival material—they perform the search function.

Similarly to the sense of performance evoked by Sinclair, in my work the audience embodies a 'cursor' that slides back and forth along the digital timeline described

⁵⁴ Serres and Latour, *Conversations on Science, Culture, and Time*, 58.

⁵⁵ Jeanie Sinclair and Philip Reeder, 'Sounds of the Sea: Making a Mixed Reality Oral History Application for the St Ives Archive' (paper presented at *Museums and the Web* conference, San Diego, CA, USA, 11 – 14 April 2012,).

http://www.museumsandtheweb.com/mw2012/papers/sounds of the sea making a mixed reality oral.html. Accessed: 20 August 2013.

at the beginning of this section in the same way a VJ 'scrubs' a video clip. As much as the participant might try to impose a causal progression by walking forward along the line, the undulating patterns of chance introduce anachronism as each footstep imposes variability into the work. As such the artwork spatialises the tension between fixed narrative and dynamic database forms in historical representations of the past. The audience performs with their body a composition of archival sounds and images that are always in flux, always in the act of being recomposed.

To speak of such an action as a performance is not, however, to apply the term in the sense of a scripted and rehearsed undertaking. Rather, participation in the installation is performative in the sense of producing a live and embodied enactment of the content. This bringing into being of an emergent composition is performance as aligned with *improvisation*, a process I discussed in Chapter Two in relation to the impact of my audiovisual performance practice on my approach to interaction design. In his article, 'The Known World', Gibson explains how, when we experience a complex system such as the responsive environment of an interactive artwork, we come to know it both through testing and reflecting. This process, as with improvisation, is based on the back-and-forth rhythm of venturing an action and developing that action in response to environmental feedback. In the context of my work the audience might tentatively venture a first step onto the marked-out 'street' on the gallery floor (testing) and quickly realise that this action has the consequence of conjuring sounds and images (reflecting). This provokes the desire to probe the system further with a second step. When you are in an interactive work, as Gibson says, 'you become not only a witnessing participant but also a diviner, someone who begins to distil some brittle definitions about the tendencies that are pushing through the system'.⁵⁶

This maneuvering between being simultaneously attentive and absorbed, of attending to experience both through thinking and through feeling,⁵⁷ can give you

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⁵⁶ Ross Gibson, 'The Known World', *TEXT Special Issue, Symposium: Creative and Practice-led Research—Current Status, Future Plans* 8 (2010): 10.

http://www.textjournal.com.au/speciss/issue8/Gibson.pdf. Accessed: 8 April 2011.

⁵⁷ Massumi has used the term 'felt thought' to describe imagination. Massumi notes, 'Imagination can also be called intuition: a thinking feeling. Not feeling something. Feeling thought—as such, in its movement, as process, on arrival, as yet unthought-out and un-enacted, postinstrumental and

a sense that you are 'in and of the world', to use Gibson's phrase—that you are bringing a world into being through process, through use. 58 'To improvise', as Gilles Deleuze and Félix Guattari poetically put it, 'is to join with the World'. 59 To improvise with historical material in an open system of an interactive artwork is to join with the world's past—it engenders a mutual implication, an intermingling, between the participant and the voices that speak with the authority of that which has been before. To improvise within such a system is to be present in an unstill and restless past, a past that is always being brought into being, always being conjured.

Conclusion

58 Gibson, 'The Known World', 8.

This chapter has examined both the studio process and theoretical considerations behind the interactive interface developed for the final iteration of the South Sydney Project artwork. The first section focused on my practical experimentation to refine the work's interaction design, following informal audience evaluation of the prototype. In seeking to hone the interface to provide a more intuitive audience experience, I asserted the notion of a design that makes sense, or is consistent with, the conceptual and aesthetic aims of the work. In this regard I developed a linear interface that echoed the most direct route the audience might take in approaching a projection in the installation. I showed how this line became the outline of a single anonymous street traced on the gallery floor, to which all the streets in the South Sydney Archive were mapped via the work's interactive database.

The second section considered the interaction design from a more conceptual perspective. In Chapter Four I contrasted the linearity of narrative historical discourse with the database-driven form of new media works. In this chapter I have shown how, rather than resolving this rift between linear and nonlinear

preoperative. Suspended. Looped out. Imagination is felt thought, thought only-felt, felt as only thought can be: insensibly unstill. Outside any given thing, outside any given sense, outside actuality. Outside coming in. The mutual envelopment of thought and sensation, as they arrive together, pre—what they will have become, just beginning to unfold from the unfelt and unthinkable outside: of process, transformation in itself'. Brian Massumi, *Parables for the Virtual: Movement, Affect, Sensation* (Durham; London: Duke University Press, 2002), 134.

⁵⁹ Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. Brian Massumi (Minneapolis; London: University of Minnesota Press, 1987), 311.

modes in historical representations of the past, I developed an interface that spatialises this contrast so the audience physically performs or enacts the tension. Drawing on Serres' assertion of the nonlinearity of time I argued that the anachronisms produced by the database in my work are not inconsistent with the contradictions that characterise our lived experience of temporality. Furthermore, responding to Foucault's spatial metaphor of history as archaeology, I have suggested that my work allows a physical and embodied experience of the anachronisms produced by the temporal discontinuities of stratified historical discourses.

By elevating these anachronisms through processes of fragmentation and chance my work asserts that any understanding of the past can only be partial and provisional. Yet the fragmentation of the archive is not intended to affect a nihilistic displacement and decentering of the subject. Rather it is intended to empower subjectivity by creating an improvised engagement that implicates the audience in bringing the past into being. Thus the artwork presents a system of fragmentation as a space for re-composition of the oral histories: a space of liberated stories, to use Certeau's language, that can be physically occupied by the audience with new contexts and connections.

Conclusion

I began the South Sydney Project with a quest to better know the past of the place where I lived. My research process has certainly generated insights into what the 'streets of my town' were like before my memories of them began. I have had the opportunity to listen closely to the voices of former residents recounting everyday details of their lives in the suburbs where I too have walked, eaten and slept. Yet my research took me unexpectedly from a focus on bearing witness to these 'everyday practices' to a more fundamental investigation of the very nature of historical knowledge and representation. The overall question this thesis has sought to address is *how might interactive media art affect the way audiences engage with the past?* In responding to this question I have explored the nature of experience generated by interactive media art as a medium. I have also turned to the field of historiography, probing modes of historical representation, to inquire what it means, at a basic level, to engage with the past.

This conclusion is in three parts. Firstly I summarise the overall trajectory of my research, reflecting on the discoveries made in each chapter. I show how I have argued and demonstrated that interactive media art can engender an exploratory, embodied and generative engagement with the past. The second section explicates where this research makes a specific contribution to knowledge in my field. I assert that my work provides a valuable model for exploring oral history material in the context of interactive media art. Finally I outline potential avenues for future research suggested by this project. I show how my research prepares ground for further interdisciplinary collaboration across the fields of interactive media art and history, especially regarding the exploration of generative compositional software in autonomously rendering archival material.

Thesis Summary

In the introduction to this thesis I outlined how my practiced-based research methodology is driven by a reflexive interplay between the embodied, tacit understandings generated through making and the critical reflections produced by theoretical investigation. I have continued this avowal of the first-person authority

of the practitioner through the subjective tone of this thesis. While maintaining an underlying criticality I have also brought to the foreground an individual perspective on my materials and process of making. This approach to developing a personal voice in the writing is not accidental, but a critical response to the nature of practice-based research where the embodied experience of the maker is central to the generation of knowledge. It is also an appropriate tone to accompany the assertion of the value of subjectivity that runs throughout this thesis, not least in the first chapter where, following Alessandro Portelli, I advocate for the usefulness of the subjective perspective of the speaker in conveying information not only about the 'event' but also its 'meaning'.¹

In Chapter One, 'Three Hallucinations', I showed how the personal experience of imaginatively reliving the South Sydney oral histories during my walks through the suburbs they describe enabled me to reconceptualise the archive from a set of factual documents into aesthetic material for artistic production. In doing so I borrowed Gaston Bachelard's term 'resonance' to theorise the poetic imaginings that can arise in the translation of an oral history from teller to listener. In considering the productive capacity of such poetic imaginings I drew on Michel de Certeau's notion of 'practices', which he uses to describe how inhabitants can alter received or determined meanings through their everyday operations to produce individual accounts of the city. I focused on Certeau's discussion of proper names (which would become important again in Chapter Five) as a model for thinking about the way factual material—or signifiers that are singular in their signification—can lose their intended meanings and become open to imaginative reinterpretation.

The second chapter, 'Interaction Aesthetics', positioned interactive media art within a broad field of participatory practices, and carved out a genealogy that extended not solely from a history of computation or technological change, but grew out of early twentieth-century avant-garde art practices such as Dada that have contributed to repositioning the role of the spectator. I then looked more closely at the specific genre of interactive media art where I locate my practice: immersive responsive installations. I argued that such works produce emergent

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¹ Alessandro Portelli, 'What makes Oral History Different', in *The Oral History Reader*, eds. Robert Perks and Alistair Thompson (London; New York: Routledge, 2006), 36.

systems that transform and process audience input, generating an exploratory engagement with digital media and the work's system itself. Finally, I considered the design process of the prototype of the South Sydney Project artwork to show how such an emergent and exploratory system allowed new associations to feed back across the South Sydney Archive.

In the third chapter, 'Remixing the Archive', I looked specifically at the idea of 'remix' as an artistic practice of recombining, reprocessing and reinterpreting extant material, whether it is archival or broader cultural material. In doing so I thought about Hal Foster's 'archival art' in the context of Nicolas Bourriaud's notion of 'postproduction' and Kenneth Goldsmith's idea of 'uncreativity'. I demonstrated that in the current age of Big Data the ability to find new ways into the world's content becomes a paramount concern. I asserted that artists exploring the aesthetics of databases are uniquely positioned to produce systems that spark emergent and relational connections across content and, thus, the aesthetics of the database lie in its generative potential. In the context of my work, I showed how database-driven interactivity opens up the compositional potential of the South Sydney Archive, allowing the audience to generate new relational meanings by remixing the interviews.

I turned to a discussion of historiography in the fourth chapter, 'The Historians', to question how the remix practices raised in Chapter Three might impact modes of historical discourse. I showed that while professional history is wedded to linear forms of (printed) narrative storytelling, database-driven systems that remix historical material, such as my work, offer unfixed and processual accounts of the past that are appropriate for navigating the flux of massive data flows that characterise the digital age. I proposed that examples of creative practice engaging archival material in new ways might contribute to a new 'participatory historical culture' for which progressive historians have called. I then redressed the question of ethics in relation to database-driven remix practices to argue that aesthetic accounts of the past are valuable in providing new kinds of experiences of archival material, and should be used in conjunction with factual historical interpretations.

The fifth chapter, 'The Streets of Your Town', closely examined my studio process in building on previous versions of the South Sydney Project artwork to develop a new iteration. I showed how I used my informal audience evaluation of the prototype to refine the interaction design of the work. In thinking about the formal device of the straight line that I developed as the physical interface of the installation, I extended my discussion of narrative and database forms to further consider the question of linearity in historical representations of the past. I drew on Michel Serres' nonlinear conception of time and Michel Foucault's 'archeological' methodology, arguing that these notions present spatial metaphors of historical temporality. I showed that interactive artworks can physicalise this literary spatiality to produce an embodied experience of archival material—one that allows for a performative improvisation with the past.

When archival material is presented to an audience as a fixed linear account, as in the narrative form of traditional historical discourse, it has the impact of locking down a certain meaning: one that is pre-composed in the stitching together of a specific sequence. This, of course, is the purpose of historical interpretation—to assert the historian's particular point of view about what happened in the past. Yet, to engage the past is always a reconstruction: a compositional act. While historians seek to recompose the fragments of the past into coherent documents, I have drawn on the capacity of a database-driven interactive system to implicate the audience in this act of composition. I have shown that through improvising with archival material in the open system of an interactive artwork the audience joins with the past—they participate in bringing the past into being in the present. The remixes generated in the flux of these interactions produce an unfixed and emergent representation of the past; one that is appropriate for the current digital age of massive data flows. As such my work demonstrates the ability of interactive media artworks to leverage historical material as an aesthetically productive force, emphasising how the past can be conjured in the present for embodied exploration and imaginative interpretation.

Contribution to Knowledge

The overall question this thesis has sought to address is *how might interactive media art affect the way audiences engage with the past?* As the field of interactive media art continues to burgeon, a cache of research has begun to be established on the special characteristics of the medium, as well as the challenges it poses to the traditional art object. At the same time non-digital artists are demonstrating an increasing interest in historical materials and processes—the 'archival impulse' identified by Foster. My research question came about by wondering what new meanings and experiences might be generated in folding together these two areas of enquiry—interactive and archival art. What new relationships might be generated if an historical archive was set in motion by the database-driven system of an interactive artwork?

Throughout this thesis I have discussed the potential for my practical work to generate new connections and associations across the South Sydney Archive. While these new connections are valuable in themselves, there are also challenges in quantifying and analysing their impact specifically. Because of the process-based character of interactive media art discussed in Chapter Two, the affect of the work is transient and located in each individual's encounter with the installation. While methodologies and projects exist to create systematic documentation of audiences' experiences within interactive media art—for example, using the model of oral history to record participants' lived experiences of engaging certain works—such an approach is outside the scope of this research.²

My research makes its key contribution to knowledge in the presentation of a critically interdisciplinary approach to working aesthetically with archival material in a new media art context. Responding to the question of how interactive media art might change the way audiences engage with the past has required working in an interdisciplinary mode across art and history. Through my studio work I have brought archival source material—the kind of documents usually the domain of historians—into dialogue with artistic processes and new media

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² Lizzie Muller, 'Towards an Oral History of New Media Art' (Montreal, Canada: The Daniel Langlois Foundation for Art, Science, and Technology, 2008). http://www.fondation-langlois.org/html/e/page.php?NumPage=2096. Accessed: 3 May 2013.

technologies. In my written work I have melded critical discussions from the fields of art and media theory with debates in historiography. This interdisciplinary approach suggests a model that could be extended in my own future research or by other practitioners and researchers.

Joe Moran points to the slipperiness of the term 'interdisciplinary', in that it can evoke both a joining of modes of knowledge or an assertion of differences:

[It] can suggest forging connections across the different disciplines; but it can also mean establishing a kind of undisciplined space in the interstices between disciplines, or even attempting to transcend disciplinary boundaries altogether.³

The model of interdisciplinary research I have pursued has focused on forging connections rather than transcending the boundaries of art and history as separate disciplines. I have positioned myself strongly as an art practitioner, rather than an historian, and have consistently located my 'home' discipline within the field of contemporary art. It has been, paradoxically, the assertion of each discipline's specificities along with the playful combination of concepts, materials and processes from both fields that has produced the most novel insights. For example, digitising the South Sydney oral histories entailed working similarly to how a digital archivist might, with attention to file formats and compression standards. Yet, while keeping one eye to the preservation of the material, I was also particularly compelled by the moments when the file signals dropped out—a glitch aesthetic that fed my formulation of the impossibility of avoiding fragmentation and the impact of chance in any endeavour to preserve the past.

As Moran concludes in his assertion of the value of interdisciplinary approaches:

We can seek to transform the disciplines, encourage communication between them or use them to create new intellectual configurations or alliances, but we can never

³ Joe Moran, *Interdisciplinarity: The New Critical Idiom* (London; New York: Routledge, 2002), 15.

⁴ Such an approach of transcending home disciplines is increasingly termed 'transdisciplinary', however Moran avoids this term to focus on the value of what he calls the 'indeterminacy' of the word 'interdisciplinary'. Ibid.

⁵ Cascone articulates such an interest in the visual and sonic artefacts of technological malfunction as related to an 'aesthetics of failure'. Kim Cascone, 'The Aesthetics of Failure: "Post-Digital" Tendencies in Contemporary Computer Music', *Computer Music Journal* 24.4 (2000): 12–18.

entirely dispense with them as a means of organizing knowledge.

Interdisciplinarity could therefore be seen as a way of living with the disciplines more critically and self-consciously, recognizing that their most basic assumptions can always be challenged or reinvigorated by new ways of thinking from elsewhere.⁶

At a time when historians are calling for a 'new history' that is participatory, my work presents an embodied and experiential interface that allows audiences to physically participate in an exploratory encounter with an oral archive.

Furthermore, in the age of Big Data, where historians are realising the importance of establishing new modes for parsing large collections of information, I have produced an open system for experiencing archival material that is relational and emergent. This processual format challenges assumptions around the fixed narrative representation of the past in traditional historical discourse. Yet this challenge, rather than threatening or undermining such conventional approaches, suggests potential for more interdisciplinary collaborations across the fields of new media art and history. As experimental work on the boundaries, with its niggling testing of definitions, my approach helps to fray the edges of established ways of thinking about and making history—as well as art. This does not serve to diminish either discipline but rather contributes to making both more self-reflective and thus more critical.

Elizabeth Deeds Ermarth has written on the epistemological challenges that postmodern theory (or to use her preferred term, the 'discursive condition') poses for history. Ermarth warns against scholars who dismiss the shifts in how we think about fundamental concepts such as objectivity, identity, time and causality precipitated by the canon of poststructuralist critical theory and philosophy. Ermarth believes the 'postmodern' has been trivialised, especially in North America, complaining that, 'dogmatic and regressive responses have succeeded in suppressing rather than encouraging efforts to find out what is at stake in the cultural sea change that by now is given and undeniable'.⁷ Ermarth suggests that interdisciplinary and experimental action is needed for history to respond

⁶ Moran, *Interdisciplinarity*, 187.

⁷ Elizabeth Deeds Ermarth, *History in the Discursive Condition: Reconsidering the Tools of Thought* (New York: Routledge, 2011), xii.

creatively to the radical change wrought by its departure from the tenets of modernity:

New conditions require new tools of thought, even if only for the purpose of preserving or re-tooling long-standing values. That means tectonic change, methodological change: change not just in 'ideas' or 'conclusions' and not just by adopting new vocabulary, but change in the entire way of going and that includes processes and terminologies that we assume without question.⁸

Following Ermarth's call for 'new tools of thought', my research provides a methodological model for working experimentally with historical material in the context of new media art.⁹

Part of navigating the terrain of incorporating oral histories into experimental new media art has required a thorough consideration of the ethics of my approach. To reiterate my concerns in commencing this research, in the introduction to this thesis I noted that working across disciplines poses an ethical challenge in 'utilising material from a particular field and applying a methodology from another domain'. A particularly nagging question regarded the nature of 'my responsibility as an artist engaging in a discipline where certain expectations exist around the representation of reality that might be in conflict with my artistic methodology'.

Over the course of this thesis I have developed an argument in response to this concern that makes a contribution to knowledge by suggesting an ethical framework that, while in one respect is highly personal to my own circumstances, also establishes a precedent for using oral testimony aesthetically in an interactive installation. As I showed in the previous chapter, given that the research is rigorous and based on an appropriate and sensitive ethical framework, all researchers have an equal right to interpret historical material regardless of their field. I argued that it is less ethically sound to leave material untouched in archives

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⁸ Ibid., xiii.

⁹ We might also think of the recent notion of 'post-disciplinary curating' as a related 'new tool'. For example the exhibition *Living in the Ruins of the Twentieth-Century* co-curated by Holly Williams and Adam Jasper Smith at UTS Gallery was based on a 'post-disciplinary' approach to curating. Williams and Smith contextualised historical items from the collection of the Powerhouse Museum alongside works of modernist and contemporary artists who engage the legacy of modernity. Similarly the curatorial approach taken to David Walsh's collection on display at the Museum of Old and New Art in Hobart can be described as 'post-disciplinary'.

than it is for researchers to engage that material through non-traditional or experimental approaches.

In the introduction to this thesis I expressed a sense of responsibility to bear witness to the South Sydney oral histories—what I called an 'ethical imperative to come face-to-face with a history from my "homeland". At its core this is a question of inheritance; of that which stays with you from what has come before. The idea of 'inheritance' is a recurring theme across the work of Jacques Derrida, a point made by Samir Haddad in his book *Derrida and the Inheritance of Democracy*. For Derrida inheritance is the spectral legacy of that which influences, that which one is heir to. *Specters of Marx*, Derrida's work that addresses the concept of inheritance most explicitly, is based on the central example of Karl Marx's haunting legacy on Europe after the failure of communism. Derrida defines inheritance paradoxically as both being chosen and not chosen. By this he means that we do not choose what we inherit, yet we choose how we use our inheritance, or in Derrida's language, how we 'reaffirm' it. Derrida suggests that this means:

[N]ot simply accepting this heritage but relaunching it otherwise and keeping it alive. Not choosing it (since what characterizes inheritance is first of all that one does not choose it; it is what violently elects us), but choosing to keep it alive.¹²

We can never know the past as it was, we can only know it as it is now, in us, conjured in the present. While we do not choose our past, we do choose how we revive it in our present. I felt an ethical imperative to revive my South Sydney inheritance not only by bearing witness to the oral histories, but also by 'relaunching' them 'critically and creatively', to use Roy Rosenzweig and David Thelen's phrase. If any representation of the past is always that—a representation, a reconstruction—then why is the 'creative treatment of actuality' less valuable than a factual interpretation?¹³ In fact, as I have argued across this thesis,

¹⁰ Samir Haddad, *Derrida and the Inheritance of Democracy* (Bloomington, IN: Indiana University Press, 2013).

¹¹ Jacques Derrida, *Specters of Marx: The State of the Debt, the Work of Mourning, and the New International*, trans. Peggy Kamuf (New York; London: Routledge, 2006).

¹² Jacques Derrida and Elizabeth Roudinesco, *For What Tomorrow ... A Dialogue*, trans. Jeff Fort (Stanford: Stanford University Press, 2004), 15–16 quoted in Haddad, *Derrida and the Inheritance of Democracy*, 29.

¹³ John Grierson, 'First Principles of Documentary', in *Grierson on Documentary*, ed., Forsyth Hardy (Berkeley: University of California Press, 1966), 145–56.

reconstituting archival material through creative practice allows new aesthetic and perceptual experiences of the past that are different, but of equal value to those factual understandings established by conventional historical research.

Brian Massumi has suggested that art's political potential lies, not within the nature of its content, but in its capacity to create new experiences that produce imaginative energy.¹⁴ In discussing interactive artworks that model new perceptual experiences for their audience, Massumi argues:

An aesthetic politics defies the law of the conservation of energy. It can get more creative energy out of a situation than it puts in. It's inventive in a more radical way than a technical invention in the usual narrow sense. It's not the gadgetry or setup that's creative, even if nothing like it has ever been seen before. The setup is creative to the extent that an emergent experience takes off from it, that has its own distinctive lived quality, and because of that its own self-differing momentum. ¹⁵

My work seeks to create an experience of the past that is emergent in the sense described by Massumi—one that is not just process-based but also establishes an external momentum that activates the audience to think about 'relaunching' the past 'critically and creatively' in their own lives.

Future Research

Through my research process working with the South Sydney Archive I have cleared up some questions about how interactivity might change the way we engage with the past. I found that interactive media art could engender an embodied, exploratory and generative engagement with archival material. Yet, as with all research, in responding to the specific area of enquiry I outlined for

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¹⁴ As an example, Massumi discusses Natalie Jeremijenko's interactive work with the Bureau of Inverse Technology where the artist 'has used the interactions to slip participants into perceiving, in one case, like a fish. The ideational content was doubled by a perceptual becoming. The thinking-feeling-like-a-fish was the semblance in the situation, pointing beyond it. A quality of experience was built-in that could potentially lead to thoughts, sensations, and further experiences that might fold-out, toward follow-on in other situations that neither the participants not the artists could foresee (never having been an environmentally aware fish before)'. Brian Massumi, *Semblance and Event: Activist Philosophy and the Occurrent Arts* (Cambridge, MA: MIT Press, 2011), 54.

investigation, new questions have arisen. In butting together the fields of new media art and history I found a warren of issues the history profession is just beginning to tackle that are related to, yet outside the scope of this project. A key concern is how historians will interface with and interpret what I have called the 'unfathomable' flows of data that characterise the digital age. How might they employ emergent and processual systems, such as those explored in this research, to tackle the challenges of the age of Big Data?

Discussing the 'computerization of culture' that took hold in Western societies at the turn of the twenty-first-century, Lev Manovich notes the immense quantity of information that was digitised:

In the 1990s, when the new role of a computer as a Universal Media Machine became apparent, already computerized societies went into a digitizing craze. All existing books and video tapes, photographs and audio recordings started to be fed into computers at an ever increasing rate. Steven Spielberg created the Shoah Foundation which videotaped and then digitized numerous interviews with Holocaust survivors; it would take one person forty years to watch all the recorded material. ¹⁶

As different organisations generate increasing amounts of oral history documents—more than could ever be watched or listened to in one lifetime—it is necessary to develop new ways of interfacing with and interpreting such material. Professional historians are beginning to employ sophisticated techniques for aggregating large quantities of data to aid their factual interpretations. The new historical work being done with data manipulation suggests potential for new media artists to experiment with pushing such systems and approaches beyond the purely factual domain into aesthetic explorations. In the final chapter of this thesis I noted how my use of a keyword search term to select audio fragments for the final iteration of the artwork suggested a kind of bespoke data-mining approach. I speculated that this process might foreshadow techniques that historians will need to employ in the future in response to Big Data.

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¹⁶ Lev Manovich, 'Database as Symbolic Form', in *Database Aesthetics: Art in the Age of Informational Overflow*, ed. Victoria Vesna (Minneapolis; London: University of Minnesota Press, 2007), 43.

Historians have already begun experimenting with projects that apply procedures such as data-mining to processing large sets of historical information. Jim Mussell, in his article 'Doing and Making: History as Digital Practice', discusses a series of such projects, for example *Connected Histories*, an online research portal launched in 2011 as a collaboration between the Universities of Hertfordshire, London and Sheffield that, 'allows cross-searching of eleven different resources ... dedicated to British history, 1500–1900'. Mussell explains that, 'By treating the contents of these different resources as processable (textual) data, the project was able to generate its own indices and so link them together'.¹⁷ In drawing conclusions about the capacity of the data-based history projects discussed in his article to make historical information processable, Mussell notes:

Not only does this allow the historian to work with datasets that might be otherwise too large, complex or distinct; it is also generative, producing new bodies of evidence as they are transformed for analysis, and iterative, as datasets are adapted, supplemented and transformed anew. It is here that interdisciplinary collaboration becomes vital. Historians must account for the transformation of the evidence base in their analysis, and this necessitates understanding the methodologies and technologies responsible for these transformations. ¹⁸

Mussell's discussion of the generative transformations of evidence relates to new discoveries made through factual interpretation of the manipulated data. Yet in the world of new media art the term 'generative' has a specific meaning relating to software that is algorithmically generative—meaning it is coded to be autonomously productive.

While I have discussed presenting the version of the South Sydney Project artwork for examination there is also potential to further develop the work beyond the scope of this project. As I showed in Chapter Five, there was a certain lack of alignment between the interaction I intended through my design and the actual audience experience suggests avenues for further refining and resolving the work's interface. Yet in the context of practice-based thesis such as this, where an iterative process is at the heart of the creative research, it is perhaps desirable that

¹⁷ Jim Mussell, 'Doing and Making: History as Digital Practice', in *History in the Digital Age*, ed. Toni Weller (London; New York, Routledge, 2012), 86.

¹⁸ Ibid., 87.

the exhibition acted as a site of learning by providing a forum for audience evaluation. Indeed, a genuinely iterative process never comes fully to a close: even if I cease to work with this archive of material I will continue to evolve its techniques, processes and ideas through future interactive projects.

Further to the interaction design, there is potential to develop my research on the intersections of interactive media art and history by experimenting with algorithmically generative compositional systems to recompose archival material. Earlier in this thesis I considered Goldsmith's speculation on how literary authorship might be reconceptualised in years to come: 'Perhaps the best authors of the future will be ones who can write the best programs with which to manipulate, parse, and distribute language-based practices'.¹⁹

To apply this to my artistic approach to working with archival material and interactive media art suggests the need to focus more intently on the software's agency to act compositionally within the system, rather than on the interface design and audience experience as I have for this research. This could involve programming a system that would automate the bespoke data-mining approach I pursued in creating *The Streets of Your Town* so that the software intelligently reprocessed the archive based on an evolving set of keywords, rather than the single search term of 'street'. This would mean developing generatively coded interactive software that would 'behave' autonomously of human input, rendering historical material in a way that is not only in process but that also has processing capacity.²⁰ To end with a question, what aesthetic transformations might be possible through a 'generative history', a history that composes itself?

¹⁹ Kenneth Goldsmith, *Uncreative Writing: Managing Language in the Digital Age* (New York: Columbia University Press, 2011), 11.

²⁰ Bown, Eldridge and McCormack have termed musical software that is compositionally generative and thus has agency within a musical performance as a 'behavioural object'. Oliver Bown, Alice Eldridge and Jon McCormack, 'Understanding Interaction in Contemporary Digital Music: From Instruments to Behavioural Objects', *Organised Sound* 14.2 (2009): 188–96. This term links well with Ascott's theorisation of 'Behaviourist Art and the Cybernetic Vision' discussed in Chapter Two where he speculates on computational growth systems: 'The necessary conditions of behaviourist art are that the spectator is involved and that the artwork in some way *behaves*'. Roy Ascott, 'Behaviourist Art and the Cybernetic Vision', in *Telematic Embrace: Visionary Theories of Art, Technology and Consciousness*, ed. Edward A. Shanken (Berkeley; Los Angeles; London: University of California Press, 2003), 129. Emphasis in original.

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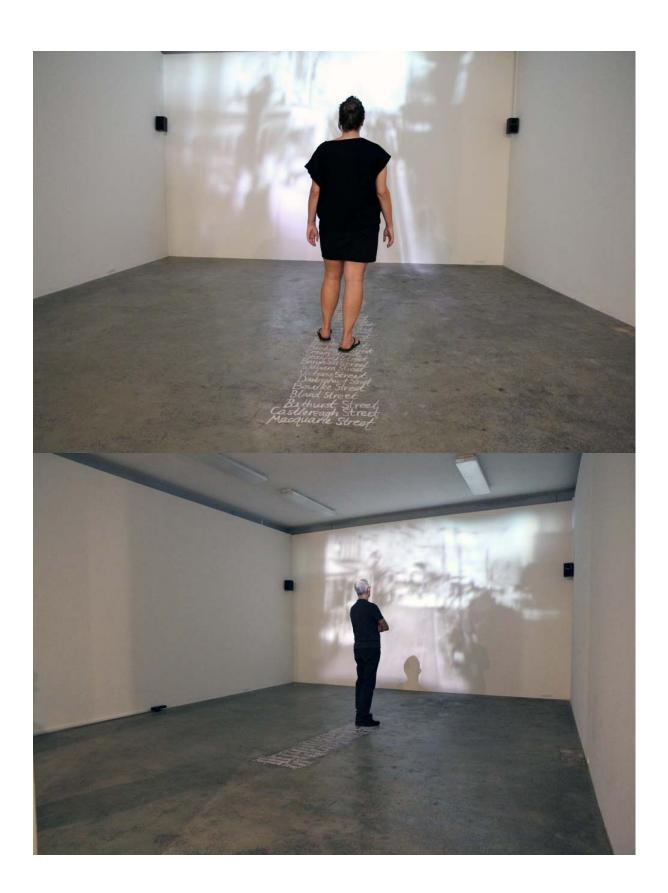
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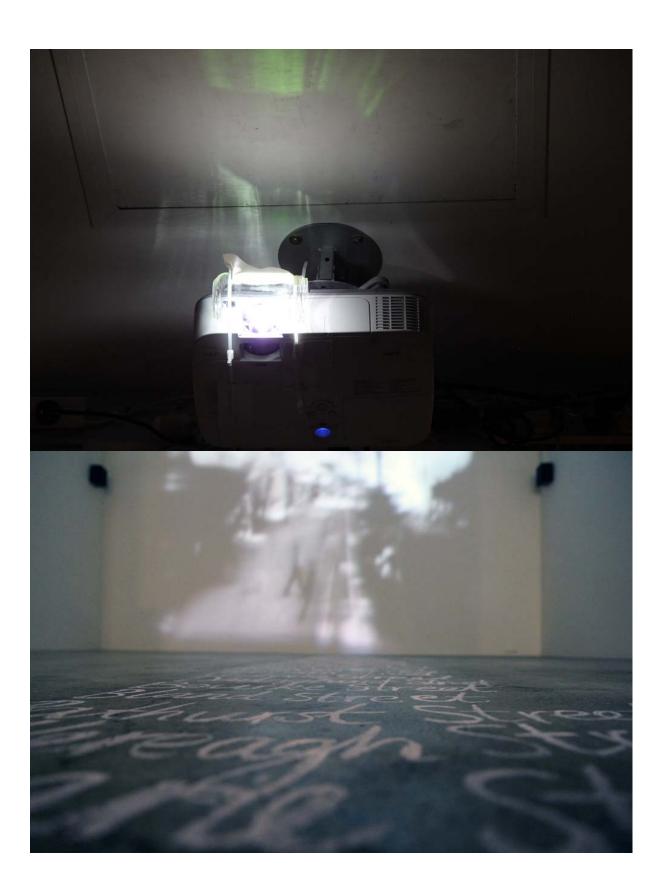
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Catalogue of Work Presented for Exhibition

Jessica Tyrrell, *The Streets of Your Town*, 2014. Interactive audiovisual installation: four-channel sound system, Xbox Kinect motion sensor, glass jar, projector, chalk.









Victoria Street Daninghuist Street Bourke Street Bland Street Bathurst Street Castlereagh Street Macquarie Street

