MAPPING FOOTPRINTS
LOST GEOGRAPHIES IN AUSTRALIAN LANDSCAPES

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Thesis submitted in fulfillment of the requirements of the degree of
Master of Philosophy

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September 2008
To Peter for his spirit and his courage
Declaration

**Mapping Footprints. Lost Geographies in Australian Landscapes**

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This thesis is presented as fulfillment of the requirements for the degree of Master of Philosophy at the University of Sydney, Department of Design Computing and Cognition, Faculty of Architecture, Design and Planning.

This is to certify that:
The thesis comprises only my original work and has not been submitted to any other university or higher education institution, or for any other academic award in this University.
Where use has been made of the work of other people, it has been fully acknowledged and referenced.
The thesis is more than 30,000 words in length, exclusive of maps, bibliographies and appendices.

Signature

Francesca Veronesi, September 2008
ABSTRACT

The thesis investigates contemporary perceptions of geography by exploring the tension between space, the map and place. Tensions between fixations of maps and the ever-changing nature of our contemporary geographies open up an in-between space for alternative instruments of spatial inquiry. Feminist discourse, visual culture, critical spatial practices and locative art pierce into the realm of geography by questioning dominant paradigms with reflections on embodiment, situated perspective, multi-inhabitation, performativity and marginality.

If maps offer us instruments to find our way in the world and to give meaning to the spaces we traverse, how can these instruments negotiate instability, belonging and subjectivity? How can maps reveal what is no longer there, what is provisional or ambiguous?

My thesis addresses questions raised by the broader discourse on location in the making of a map of Elvina site, a heritage place of Aboriginal culture in Sydney. The site, itself a map of pictographs carved on a tessellated rock plane, becomes a walkable interface where exchanges between bodies and landscape unfold in form of sound and movement. As walkers wander across the site they encounter voices of Indigenous women recalling their past. These memories inscribe the place with presence and belonging, as stories evoke disconnections, absences and cultural loss. Symbolic meanings of the engravings, their role as teaching aids or material components of rituals and ceremonies have been lost to a large extent with invasion. By enacting a journey-based knowledge of the landscape, the map revives the power of these relics to transfer oral histories back to the present.

Reflecting on issues of transferability and reproducibility, I then continue to explore how maps can mediate that experience of place to other contexts and what gets lost in this process. A second experiment enacts a retrieval of a past experience in a performative way. A map interfaces the walkers’ tracks on Elvina with a simulated navigation of the site in present time. As we follow the footprints left by walkers in their past exploration of the physical space we find ourselves entangled in the mesh of history. By tracking the web of paths across
the narrative-scape we immerse ourselves in the distant spaces where memories and traces belong.

These experiments suggest that maps are very complex objects that carry responsibility. They are responsible for the meanings we discover through them and the connections we develop through their use. They reconfigure our relations with the space we inhabit by intensifying our connectivity. Thus, maps can embrace complexity if we acknowledge that they construct a partial, temporal knowledge of reality. Such situated views challenge domains of power and control and create new territories where subjective appropriations, dissent and interventions are possible.
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ACKNOWLEDGEMENTS

This research would not have been possible without the help, inspiration and encouragement I received from many people who supported me in the last two years.

I firstly acknowledge the invaluable support and guidance I received from my supervisor, Petra Gemeinboeck. I am wholeheartedly grateful to her for sharing her knowledge, experience, friendship, enthusiasm, advice and moral support throughout this research. For her dedication, sensitivity, creative and critical thinking, the exchange we had in the last years has enriched me in many and most significant ways.

I am grateful to Andy Dong, who considered my interest for research and introduced me to Petra Gemeinboeck, thus initiating a fruitful and rewarding collaboration and friendship.

I am deeply thankful to Nigel Helyer who offered me the unique opportunity to collaborate with him and the AudioNomad team. This work would not have been possible without their devoted assistance. In the same way I am grateful to Daniel Woo and Michael Lake who shared with me their knowledge, skills and time. I hope the possibility to test the technology they worked so hard to develop in a spectacular outdoor scenery such as Elvina site rewarded them in part of the difficulties we encountered to make this possible.

Very special thanks go to Rob Saunders for his precious help with the programming of Skin-Memory interface. I am forever indebted to him for offering me his availability and spare weekends.

My most sincere gratitude goes to Alan Madden and Rob Welsh, managers of the Metropolitan Local Aboriginal Land Council, for their trust and the permission they granted me to work at Elvina site. I hope the outcomes of this research can benefit them in their mission to promote and protect Aboriginal cultural heritage. I acknowledge the kind support I received from Rosie Block, curator of the oral history collection at the NSW State Library for allowing me to use the archival materials from the Bicentennial Oral History Project. I wish this work can benefit the dissemination of this important cultural heritage record out of the archives into people’s everyday life.

Thanks to all the people who contributed to make this work possible:

To onacoV, for lending to this project her beautiful voice. I hope many people will have the opportunity to appreciate it. To Mike Neill and Matt Storey of the audio recording studio and audio-visual centre of the Faculty. To my friends Tina Jaffray, Elsa Darmalingum, Anne Burgess and
Heather Reycraft who have shared their time, ideas and comments reading and discussing the drafts of my writings. To those who have participated to the experiments, my gratitude for their inspiring response. To Francesco Careri, author of Walkscapes a book that has guided my research from the very start, for his thoughtful, encouraging comments on my work. A special thank to my parents who have always supported me to pursue my interests, even when this meant moving not only to a foreign country, but literally to the opposite side of the world - un grazie dal profondo del cuore. To my partner Piero, with whom I shared so many thoughts, doubts, and the highs and lows of this research journey which in many ways has become intertwined with our lives, to him goes my deepest and most profound gratitude.
INTRODUCTION

At the beginning of this journey I draw a map of my personal geography in the attempt to trace the routes across spaces, whether physically traversed or imagined, that brought me to embark on this research about maps, memory and landscapes.

I was born in a small town in the North of Italy, renowned for the great Giovanni Pico della Mirandola, a humanist and philosopher. Young Pico soon left his provincial hometown to join the Neoplatonic cabinet at the court of Lorenzo de Medici. His studies on Kabbalah and the dignity of man, in times when God, rather than man was the centre of philosophical speculation, contributed in many and significant ways to what would be later called the ‘Renaissance’ of Western culture. His presence still survives in his hometown through place names and local legends, that of his prodigious and extraordinary memory.

From Mirandola I moved to Venice, only a hundred kilometers away and yet a microcosm of its own. I began to learn about Venice by getting lost. However, living in the city I swiftly became aware of the routes of city dwellers, never intersecting, and in fact intentionally avoiding, the main tracks of the tourists. As I studied the history of its architecture, I practiced in my everyday wanderings through the city how the terrain was conquered, stone after stone, in the dynamic balance between the land and the water. The reason why Venice was for centuries a cartographic centre of excellence is according to Italo Calvino1 because of its dominant spatial themes: uncertainty and variability: it is a city where the limits and boundaries between land and water are constantly changing, therefore the maps of the city are in the constant need of updating. My studies revolved around nomadic and settled cultures, and their differences of marking and inhabiting space. Back then, I couldn’t imagine, that this interest for nomadic spaces and cultures was to usher me to the country of ‘walkabout’.

Four years ago in Seattle I encountered Australia, previously only a remote destination in my mind, simply a location on the map. However, as Glenn Murcutt, Australian architect, presented an ancient landscape of Australia to a mesmerized audience, this encounter triggered a chain of events that eventually drew me here, to Sydney.

This research emerged from an existential question, rather than an intellectual one. Namely it emerged from my desire to know about the place to which I found myself
displaced. Although consciously choosing Australia as my temporary home, I sought to lessen my feeling of being alien, my sense of not belonging. I thus began to explore by walking, reading and with maps. We use the same metaphors for both geographical and emotional displacement “to be moved, to be transported”\(^2\). Hence, knowing a place is a reflexive, existential experience of recognizing of how a place can affect us, physically, culturally, and emotionally.

The series of projects I introduce here, *Mapping Footprints, Lost Geographies in Australian Landscapes*, look at a landscape, one that is submerged and lost beneath layers of history, and whose Indigenous stories have been rendered mute. Intertwining a discourse of theoretical reflection and experimental practices the research investigates contemporary perceptions of geography and the relations between landscapes, cultures and places. It rethinks the potentiality of ‘maps’ to mediate embodied, and cultural experiences by which we orientate ourselves and we understand our environment – the ways we remember and create a sense of place.

The theoretical discourse encompasses multiple interdisciplinary scholarly perspectives that inquire into notions of place and geography, here explored as, according to Irit Rogoff, a set of unfixed relations between subjects and locations\(^3\). Geography is:

> at one and the same time a concept, a sign system and an order of knowledge established at centers of power. By introducing questions of critical epistemology, subjectivity and spectatorship into the arena of geography we shift the interrogation from the center to the margins, to site at which new and multi-dimensional knowledge and identities are constantly in the process of being formed.\(^4\)

If maps offer us instruments to find our way in the world and to give meaning to the spaces we traverse and inhabit, how can these instruments negotiate instability, belonging and subjectivity? How can maps reveal what is no longer there, what is provisional or ambiguous?

The experiments I developed in this research address these questions by conceiving an Aboriginal heritage site as a field of communication between the present and the
past, archived and living knowledge. The site is a place where the Indigenous cultural geographies, due to invasion and dispossession of the land, are to a large extent lost.

The cultural moorings existing on site are reconstructed through the encounter between distant narrators and walkers. A landscape turned into a walkable, responsive interface becomes the playground for this encounter. Employing location based mobile media I attempt a fictional collage, as if place, mediatised by ubiquitous technologies, could be inhabited with distant voices sourced through excavation of media archives. These voices from the past, which appear real and present, charge place with ‘other’, Aboriginal memories. When re-inscribed onto the landscape, or transferred into the space of everyday life, these memories, embodied and re-performed by participants, can re-orient their experience of moving through space and to know it as place. These participatory performances, shaped by subjective interactions between the body, memories and the geography, develop new relations with place, history and cultures.
RESEARCH AIMS

The research aims to investigate the complex context of maps and their relations to culture, place-making and the past by transforming the landscape through re-embodied memories. This will create an experiential discourse to perform and produce knowledge, capable not only of re-emplacing archived histories, but also foregrounding questions of disconnection and loss.

RESEARCH OBJECTIVES

- To develop the theoretical framework of the research by traversing and connecting multiple disciplinary and scholarly perspectives, including Feminist theory, critical spatial theories, theory of everyday life, cultural studies and visual culture which address the relations between subject and location.

- To explore creative means of communicating and accessing the archive through performative interactions with cultural landscapes.

- To extend the discourse of locative media with perspectives of subjectivity and embodiment in the context of a place-making practice.

- To develop mapping instruments that are sensitive to, and shaped by, the physical and the cultural context and by the role/position of the author who charges the instruments with her subjective perspective.

- To renegotiate archived and practiced knowledge and propose new ways of re-contextualising archived oral histories by developing a practice-based experimentation framework in which to explore the aim of the research in experiential and performative ways.
  - The practice-based framework is comprised of two experiments. They include the development of locative/interactive environments, user case
study, reflection and interpretation of questionnaire.

- The first experiment embeds archived stories into the landscape. The second experiment investigates ways to transfer experiential knowledge based on the first experiment.

- To develop a reflective and interpretative discourse that intertwines the theoretical and the practice-based contexts.

**Methodological approach**

The methodological approach closely follows the research objectives. The research uses a mixed-methodology approach, whereby many of its methods and practices had to be developed as part of the research in response to the objectives.

At the core of this research was the development of a dialogue between the reflexive theoretical discourse and the practice-based participatory experiments. This required the development of locative/interactive environments, participatory studies as well as the interpretative approach that guides and intertwines theoretical and practical tracks of this research. This interpretation crosses and relates Feminist theories of location, visual culture’s theories of embodiment, subjectivity and performativity, Post-Colonial theories of geographical representation. It formed the theoretical ground for the development of mapping instruments that address the aim of the research in an experimental and experiential way. In this approach, instruments that are employed for conventional mapping, such as Global Positioning System and Radio Frequency Identification method, have been re-appropriated to develop alternative maps which involve participants to reinstate relations and connections with place.

As performed in this approach, the ‘necessity of invention’ forms the base of any creative research, which, according to Paul Carter, responds to three conditions. “It has to describe a forming situation. It has to articulate the discursive and plastic intelligence of materials. And it has to establish the necessity of design”. My desire of knowing place and culture shaped the interest of this research. The multiple, interdisciplinary perspectives,
questioning location, belonging, mapping, space and culture, the contextual situation of myself as an author, as well as the accessibility of resources such as the archive and the locative medium, all formed the necessity of invention of new instruments and practices to explore questions that are not ‘researchable’ by reduction or simplification.
STRUCTURE OF THE THESIS

The **Introduction** presents the author, the aims, objectives and methods of the research.

**Defining the theoretical scope** intertwines reflections on geography from multiple perspectives. These reflections, encompassing spatial theories of everyday life, locative media, Feminist and Post-colonial theories, and visual culture, explore the tensions between mapped and practiced space and reconfigure the relations between subjects and location. This theoretical framework constitutes the underground of the participatory, experimental practices developed by the research to think through the research questions and aims. Introducing the experimental practices, the last part of this chapter formulates the connections between the theoretical and the practiced-based discourses.

**Mapping Footprints** develops the strategies of a place-making practice at Elvina, Aboriginal heritage site, by exploring a mediation between geography and archived knowledge. Considering the implications of re-contextualising archived Aboriginal oral histories into a landscape, this experimental practice reflects on the role of the author in relation to the geographical and cultural context and the mediation of technology. The process of place-making renegotiates relations between geography and memory by transforming the landscape into a responsive, walkable interface, open to an intercultural dialogue.

**Enactment** describes the encounter of participants with Elvina site. Participants’ interactions with the landscape-based interface provide inspirational responses on the role of performativity and experience in knowing and making place. The site becomes the playground for subjective interactions between physical/virtual and cultural spaces. The relations that are performed through these interactions with place are explored through responses of the participants to their experience of place.

**Transformation** explores the transferability of the site-specific experience at Elvina site to another context through a second experiment. This experiment looks into the act of transformation and poses questions about documentability and reproducibility of
knowledge produced through experience. It reflects on how the field experience informs the process of transformations and the implications involved. Through a skin-based interface interactions between past and present times, archived and living knowledge are displaced onto a new landscape.

Reflections considers the embodied and performative knowledge produced by the research experimental practices and critically looks into the mediation of technology in the production of this knowledge.

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4 Ibid. p.xii
DEFINING THE THEORETICAL SCOPE

The theoretical framework of the research interweaves multiple, scholarly perspectives that reflect on geography and the relations between, place, maps and cultures. These reflections, encompassing critical spatial theories, Feminist and Postcolonial theories, and artistic practices, have reconfigured, and unfixed, the relations between subjects and locations. The theoretical overview that follows comprises some of these multidisciplinary contributions that have explored existing tensions between practiced and mapped spaces in the mutant nature of the complex, contemporary space. The reflections in this chapter revolve around the multidimensionality of contemporary space, shaped by articulations between electronic and placed-based presence, the simultaneous ‘multi-inhabitation’ of coexisting spaces and identities, embodiment and cultural difference. This complex space is the ground onto which we explore by means of a practice questions of knowing place in a contemporary landscape marked by cultural loss, transience and continuous movements in space and time.

Mapped and practiced space

The act of crossing space stems from the natural necessity to move to find the food and the information required for survival. But once the basic needs have been satisfied, walking takes on a symbolic form that has enabled man to dwell in the world. By modifying the sense of the space crossed, walking becomes man’s first aesthetic act. (...) This simple action has given rise to the most important relationships man has established with the land, the territory.

According to Michel de Certeau, walkers, “whose bodies follow the thicks and thins of an urban text” invent the city space by activating its possibility to be “marked, opened up by a memory or a story”. When projected onto spatial representation, identified as maps, walkers’ wanderings through the space of the city are translated into legible trajectories, “tracks are assimilated to traits”. The embodied experience of passing by is reduced to a planimetric image, a visual relic determined by the rules of cartography. “These fixations
Maps and amnesia constitute procedures for forgetting, suggests de Certeau, as maps employ functions of reduction, abstraction, objectiveness in order to assure truthfulness and impartiality. In Western cartographic discourse, rooted in positivistic epistemology, methods are developed to standardize the reflection of reality via an abstract coordinate system, thus erasing and obliterating the subjective, the unmeasurable and the invisible, that is the very notion of place. Knowing place, as a centre of human existence, as a vital source for identity, is according to Relph matter of experience, identification, and involvement.

Maps are created from the distant gaze of surveillance. They are instruments entangled with mechanisms of control, whose conception, derived from the military, is to define “the position of any element within an open environment at any given distance”. One effect of the development of digital cartography and geographic information systems is, according to Harley, the breeding of a “new arrogance in geography about its supposed value as a mode to access reality”. The development of locative technologies relies on the connection to the Global Positioning System launched by The U.S Department of Defence in 1994. Geographical positions are determined by radio signals transmitted by satellites to ground-based receivers. Ubiquity, immediacy and instantaneity of surveillance and mobile communication transform the entire planet into a general urbanised zone that can be mapped in a one to one scale.

According to Crandall the logic of power and control of space is endemic of location sensing technologies, military derived technologies, which deploy the potential of mapping and monitoring to become comprehensive, pervasive and invisible. This enables surveillance and facilitates the arrangement of power through a “omniscient distribution of the gaze: a controlling gaze that is everywhere yet nowhere, and which acquires power solely because of this amorphousness”._15_
In terms of the impact on physical space, the spread of top-down systems of surveillance have dramatically increased the power of mapping technologies to produce patrolled enclosures and remotely monitored spaces, where civic rights of privacy and accessibility are traded for security and protection.\textsuperscript{16}

**Context-aware Technologies / Mobile Geographies**

Simultaneously, the availability of context-aware technologies have triggered a global bottom-up wave of informal movements for collective actions questioning the enclosing/excluding power of remote surveillance and engaging politically and creatively in novel forms of spontaneous spatial intervention and public authoring.\textsuperscript{17} “By engaging with these technologies and their social and spatial implications, artists are shaping the evolution of a space-changing technology”.\textsuperscript{18} Taking advantage of the increasingly ubiquitous Global Positioning System, locative media, loose common for artistic practices using location-based technologies, deploy portable, location aware computing devices that involve participants in mapping processes, social networking or artistic interventions. Here the real geography becomes a canvas to be inscribed with personal narratives, desires and memories, offering communities the opportunity to co-author their environment, map their own space and share subjective experiences and local information.

New forms of socialization and spatialisation are shaped by the ‘coevolution’ between “interactions in geographical space and place, and the electronic domains accessible through new technologies”.\textsuperscript{19} Complex articulations and synergies emerge through exchange between placed-based and telemediated presences. These practices redefine location not in terms of size or scale but as a matter of connectivity.\textsuperscript{20} In this continuum space that renegotiates absence, presence, proximity and distance, “the local is never local. A site is a place where something happens and action unfold because it mobilises distant actants that are both absent and present”.\textsuperscript{21} According to Saskia Sassen,

These interventions entail diverse uses of technology – ranging from political to ludic uses – that can subvert corporate globalization. (…) The narrating, giving shape, making present, involved in digitized environments assumes very
particular meaning when mobilise to represent/enact local specificities in a
global context. (...) There is a kind of public-making work that can produce
disruptive narratives, and make it legible to the local and the silenced.22

As opposed to the disembodied and delocalized experience of virtual reality - virtual
reality is only a map, not a territory23 - locative media explore the threshold where the
digital and the geographic intersect, augmenting and amplifying one another.24 This
superimposition of the virtual to the physical mutually renegotiates the experience of both
spaces.25

Ubiquitous-context-aware technologies reconfigure the practice of
mapping, engaging the location of the body in the discovery and
production of space and allowing novel forms of user-generated cartographies. “Ubicomp
honors the complexity of human relationships, the fact that we have bodies, are
mobile”.26 In locative mapping the multiple dimensions of everyday life are spatialized
and embodied.27 Locative media projects “illustrate how spaces that are both social and
other can be opened at the interface of communication, location and the body”.28 Many
new media theorists praise locative media for its potential of place-making, “escaping
the prevailing sense that our experience of place is disappearing”.29 The user-generated
cartographies produced with this media are often compared to the Situationists’ practices
of urban Dérive,30 and referred to Lefebvre’s theory of ‘lived space’ where city inhabitants
are ‘conscious producers of their liberated space’.31

Other critics are more sceptical: “if there is a certain degree of romanticism in these
(locative) gestures of cartographic and psychogeographic subversion, the same can
be said about locative ‘ethnographers’, whose engagement with and empowerment
of local communities run the risk of becoming functional reforms for governance-
through community or nostalgic evocation of authenticity”.32 The paradox of using these
technologies for bottom-up collective actions consists in the fact that “the surveillance
technologies that enable this ‘playground’ critically link locative media to
the arena of cartography with its hegemonic practices of mapping and the
dominant logics of representation”.33 The fascination of new media culture
with mapping – a “fascination that it shares with the military strategists”14 - concerns some
artists and critics: Broeckmann refers to locative media as ‘the avant-garde of Society of
Control’, Fusco notices that:

In the name of a politics of global connectedness, artists and activists too often substitute an abstract ‘connectedness’ for any real engagement with people in other places or even in their own locale. What gets lost in this focus on mapping is the view of the world from the ground: lived experience.  

Disrupted Geographies / Corporeal Cartographies

Terra Infirma: Geography’s Visual Culture makes a mark in the discourse on geography. Geography is here re-written by artists as a site of collective stories which can be read through difference. Artistic practices engage in re-writing the language of normative cartography, which “masks cultural difference and produces unity and homogeneity”. Marginality is used as a lens through which to explore the disruption of collective narratives, engaging with multidimensional knowledges and identities. The space in not neutral but intertwined with race, economy and sex as in Picky, a map of an American neighborhood by the artist Glenn Ligon. Rogoff describes Ana Mendieta’s dialogue between her body and the landscape: imposing the body on natural topographies the artist produces alternative geographies. Marking the land with her own body and thus embodying the border, the lines of demarcation, she appropriates of the practices of geography which develops by establishing borders, producing law and marking the territory. These alternative routes of geographical investigation move away from geography as a discipline of rights, ownership and belonging. Mapping is here shifted as an activity from the centres of power to the margins. In this way it can include, and give a voice to, the “emergent, collective histories of those who have not fitted into patterns of agency with universal, overarching histories”.  

Feminist discourses on location introduce questions of subjectivity and particularity to the arena of geography. Including subjectivity and difference in the model of geography opens up the space to what Rogoff refers to as a ‘multi-inhabitation’ of different, co-existing spaces. Subjects can embody this multi-inhabitation...
being themselves convergence of histories, cultures and languages. According to Kaplan “investigating location becomes an opportunity to deconstruct the binary formation of postmodernity in favor of the complex, shifting social relations that produce cultures, subjects and identities”. Concepts of partial and situated knowledge extend the discourse on location with feminist perspectives on embodiment, which according to Haraway “resists fixation and is insatiably curious about the webs of differential positioning”.

Luce Irigaray explores the female body as an instrument for producing corporeal geographies. Questioning the primacy of the eye, ‘ocularocentrism’, a principle underpinning Western epistemology, Irigaray argues that “vision is effectively a sense that can totalize, enclose, in its own way. More than the other senses, it is likely to construct a landscape, a horizon”. Although she suggests: “moving through the world, across the universe of dancing, I construct more of a dwelling for myself than through vision”.

Peggy Phelan critically questions the logic of visibility entangled with power, surveillance, law and imperialistic desire of possession, which excludes the “unmarked, unseen, unspoken”. Phelan founds in ‘performance’ the least marked of all art forms. For its ephemeral nature and ontology, which is defined by disappearance, it resists any forms of documentation and reproduction. In this way performance can oppose to, and resist the “reproductive ideology of visible representations”.

**Australian Geographies: Country and Landscape**

The history of maps is according to Paul Carter the history of ground projections to be used for future occupation. Australian colonial spatial history starts with the act of drawing a line on the ground.

Phillip landed and presented gifts of curiosity to the Kayeemaigal and then his party set about preparing a meal before setting off to camp on the south side, Camp Cove. While preparing broiled meat the curiosity of the clansman was deemed intrusive and Phillip drew a circle in the sand to establish the first act of segregation.
Maps are produced for purposes of territorialisation, to define borders and to establish ownership. They are instruments used to impose a project of invasion. As Carter puts it, regions, not yet explored by settlers moving into Australia, but intended to be discovered, are mapped by dotted lines. When continuous lines substitute the dotted ones, the territory is produced, conquered. These traits contain the movement of future occupation and create the territory. A land unmarked and unmapped, signifies an unpossessed land: Terra Nullius. All the pre-existing complex yet invisible web of Indigenous narratives, oral maps embedded in that land and sustained by performative cultural practices were ignored, unseen. Thus, according to Marcia Langton, Indigenous places were obliterated by the settlers in many ways: linguistically, physically and aesthetically.

In our understanding of traditional Aboriginal cultures, ‘mapping’ has no direct translation but a set of multiple meanings such as performing, dancing, singing, telling and dreaming. In land-based cultures such as the Aboriginal, geography functions to remind and to testify the cosmogonic journey of the ancestral beings that dancing and chanting have created the land. “Land is the map” signifies that the all environment is a cultural landscape made up of systems of polysemous signs which, according to Paul Memmott, intertwine individuals, the clan, land and time. This “totemic landscape is defined by a system of places that are indexically associated with ancestral beings, each place containing subjective energies derived from those beings”.

As the power of Ancestral beings is manifested and embodied in the natural features of the geography, the experience of re-enacting the ancestral paths through ritual performances is a way to acquire that original power of transformation. As anthropologist Franca Tamisari explains, the use of a body terminology is applied to define sacred objects for ritual ceremonies, landscape features and the structures of the songs that are enacted to follow the traces, left by the footprints of Ancestors in the dreamtime journey of creation across the land. History and myth are reperformed every time places of a dreaming track are traversed through a ritual journey that re-enacts the ancestral path of creation. Mapping, argues Barbara Bolt, is performative, it traces the trajectories of bodies in movement and requires a “downward look and an attention to the patterns and rhythms of the ground”. The act of representing it on the canvas, or tracing on sand, is a rhythmical action which
Aboriginal artist Julie Dowling explains to be associated to the pace of the heartbeat:

Each step means there’s another step to go on and this part of the country is this part of the picture so that as you are acting out the dot, dot, dot, dot, dot; even the action in itself is quite rhythmical, but when you bring that into connection with the heartbeat and also I’m telling a story now; this dot connects with this dot; this story is about this... 55

The existing, yet invisible, web of oral maps, sustained by performative practices, was read by the ‘first settlers’ as empty space. The concept of Terra Nullius has influenced the imaginary of white Australians by allowing them thinking about ‘settlement’ and ‘discovery’ rather than ‘invasion’ and ‘conquest’, as Lloyd56 points out, and thus legitimising dispossession and occupation. The history of representation of the Australian land-scape begins after an enclosure is defined, a safe look-out from which the distant observer can admire nature and paint it from a distance.57 According to Carter and Bolt, colonisation has changed the perspective from the ground to the horizon, imposing the paradigm of representation of the distant observer where previously was performance:58 “The horizon came into view and seeing was divorced from dance”.59 Reflecting on land and land-scape, or the land framed and portrayed from a distance, Steven Muecke observes:

Seeing things from some kind of standpoint, perspective or distance was also invented a long time ago as the notion of landscape as a feature to be viewed, rather than land as lived in. If one is looking at the land like this, as ‘out there’ and separated from the abstracted position the viewer has had created for him or her by the famous reinassance prospectivity, then it makes its so much more difficult to imagine participation and connectedness for those of us who live here59.

In South of the West Ross Gibson analyses the Australian ‘landscape’ as an image used to construct the identity of the nation. Landscape contains both ‘mythic connotations’ as well as ‘uncultural and primitive’ elements. In order to be domesticated and turned into
culture, the primitive, indomitable land has to become a land-scape, “a part of an artistic discourse” for “people to feel in charge of it”.61

In the documentary *A River of Dreams* Ningali Lawford explains the differences between ‘country’ and ‘landscape’ from an Indigenous perspective:

It’s not easy to explain the differences between the ways the white people see the landscape and our way of looking at country. Think about the map for example: it’s a Christian god light perspective, singular and totalising. Geography: earth writing. Often people say that the white men’s view is that the land is commodity, they see in terms of what they can get for it, as if nature in itself it’s not enough, it’s empty until they add value. Otherwise is wasted. This attitude is a key part of the cultural baggage they impose, that they projected into their new territory - an empty page to be written over. Whereas our country is already a kind of sacred text, an intricate artifact richly inscribed with meaning and significance over hundreds of generations. It works as a myth to imagine that modern Australia is a unified people, as if the landscape is what they have in common, what unites all of us. But to do this it has to repress the Indigenous meaning of country. As like there was a repetition of the initial invasion, this continuing return of the explorer’s indifferent outfits, mapping, naming, possessing, photographing, is all about different technologies of colonial possession, as though it wasn’t done properly in the first place.62

Micheal Riley’s films *Quest for Country* (1993) and *Eora* (1995) embody the opposing tensions existing in Australian land/scapes. The first film is a travel from Sydney to Dubbo through “a desacrated landscape – power stations ominously spewing water vapour, clouds rolling in fast time-exposure”.63 The second is an homage to Sydney’s original custodians which portraits the pristine beauty of the bush, water and rock engravings that can still be admired around the harbour of Australia’s largest metropolis. Riley’s visions mark the disjuncture existing within Australian territories, a disjuncture which reflects also in contemporary identities as McLean suggests: “The Australian is a permanently
displaced person” who has no alternatives than to “negotiate contingent positions which opposed any fixed ideology. A unitary ideology is no longer possible to explain ourselves, monological certainties are dispersed into fluid, fragmented, anxious identities”.

**FORMULATING CONNECTIONS TO A PRACTICED-BASED DISCOURSE**

How do we map and make sense of the multiple tensions that shape contemporary territories? Territories that include - and at the same time are reconfigured by - oppositions? Urban theorist Stefano Boeri explains that not only our terminology is obsolete, with its binary distinction between global/local centre/margins, physical/virtual, absent/present - Indigenous/non-Indigenous- but also the instruments we use to represent these territories are unsuitable. Traditional maps fail to convey the multidimensional and dynamic nature of contemporary spaces. To represent, or maybe only to grasp, this complexity we have to move away from the “zenith paradigm” and look for other interpretative codes.

Emergent practices are shaping new ways of conceiving, acting, producing and interpreting space that are developing new spatial authoring, temporary intervention, experimental mapping. Some call them ‘eclectic atlases’ because like atlases they seek new correspondences between the things of space, their names and the meanings or images that we project upon them. Often these atlases develop relations that are provisional and based on criteria that are subjective, ‘experimental and spurious’. They include the dimension of time, and the ‘biography’ of the authors who mark the space along with mapping it. Others call these emergent forms of mapping ‘translocal’, as they rely on the circulation of resources and rethink locality in the complex, relational dimension of contemporary space.

Translocal spaces are created through the selective connection of distributed, local spaces and actors into a new space for agency. They can create new geographies and new cultural patterns that transgress and change the local spaces from which they are built.

*Eclectic atlases, translocal spaces, contemporary art practices explore new mapping instruments for spatial investigation shaping the ground for further understanding...*
to intervene in, and to reinstate new relations with ‘lived spaces’. Carter proposes to develop further this ‘science of tracks’ as a ‘new ichnology’:

A new ichnology (...) capable to mark movement into a plan, in order to indicate places in a non territorial way, representing what the plane of the map excludes. This new ichnology would be an act of interpretation (...) that encourages the desirability of discourses rather than pointing at disputed territories. As the tacks unfold stories, they build a trama, a plot. In this new ichnology the visible and invisible are no longer opposite, they can be included.

Artists like Janet Cardiff and Teri Rueb experiment the merging of place, movement and sound in their audio-based installations. Moving in space, the audience activates a memory space, a displacement into ‘other’ sonic realities. Janet Cardiff’s Audio Tours direct the audience to re-perform a walk through the streets of London, San Francisco and New York. Site-specific comments from the artist’s voice and recorded ambient noise steer the audience moves. Questions of time and memory are posed by the artist, who asks:

Where is the listener? They’re walking with me, and walking in my footsteps, so they become part of me in a way, but it’s kind of like you’re in my memory: you’re listening to my memories, but they become the present for you. It’s a really complex weaving of time.

Teri Rueb explores with sound and movement the experience of “aimless wandering, drifting and being lost”. The ‘mis-use’ of a precision location sensing technology provocatively works to disorient participants’ movements on the shore of the Watten Sea by delivering waves of sound swaying with the tide. The interactive audio zones filled with literary passages from Rousseau, Joyce, Dante, Woolf, dealing with themes of wandering and drifting, are swept by the tidal raising and falling out on the sea and back to the shore. Drifting and getting lost can be looked at as a form of reflexive inquiry, capable to reinstate new relations between subjects and space
as the anthropologist Franco La Cecla suggests:

Getting lost means that between us and the space there is not only a relationship of dominion, of control on the part of the subject, but also the possibility that the space can dominate us. […] We are no longer capable of giving a value, a meaning to the possibility of getting lost. To change places, to come to terms with different worlds, to be forced to continuously recreate our points of reference, is regenerating at a psychic level, but today no one would recommend such an experience. In primitive cultures, on the other hand, if someone never gets lost he never grows up. And this is done in the desert, the forest, places that are a sort of machine to attain other states of consciousness.74

The making of a place-making practice
At a moment in time when ‘sociotechnologies of encountering’75 extend and mobilise places to distant, yet simultaneous spatiotemporal contexts, while globalising forces tend to homogenise them, Mapping Footprints aims to construct a responsive interface for intercultural dialogues between people, knowledges and place. Taking the Elvina rock engravings site in Kuringai National Park as the site for an experimental practice we investigate the implications of conceiving places as zones of communication in which distant memories of Indigenous narrators archived in the space of media may intervene to reconstruct our physical experience of moving through space, to know it as place. Knowing a place is a reflexive act of self discovery, as orientation, the very act of recognizing one’s own position in space, becomes an existential experience of recognizing how a place affects us, at a sensorial, emotional and cultural level. Doing so, we transcend placelessness and allow places to be disclosed. We can recreate places as we find and listen to the stories and legends that haunt them and search for their identities.

stories create place Aboriginal people will tell you that you cannot know the country until you have walked over it.76 To know about landmarks such as hills, creeks, rocks,
which are believed in Aboriginal culture to be the footprints left by the Ancestors in their journey of creation, is to walk them, to follow them on the land-map and to learn the stories of what happened in a transcended time, when time did not exist. Following the resituated footprints on the land, getting oriented is about finding familiar elements to recognize and follow.

The Ancients sang their way all over the world. They sang the rivers and ranges, salt-pans and sand dunes (...) whether their tracks led they left a trail of music. They wrapped the whole world in a web of song: at last, when the Earth was sung, they felt tired (...) and all of them went ‘back in’.77

In Landprints Seddon investigates the relations between knowledge and places in land-based cultures:

The psychological dependence on regional and local identity is marked in all technologically ‘primitive’ societies. In much of Papua New Guinea, for example, there is a wealth of knowledge about particular places, their physical characteristics, their special uses, and the kind of behaviour that is necessary to maintain both, encoded in a series of taboos that are negative and positive constraints on behaviour that Westerners have sometime described as superstition. The early Greeks had a legion of tutelary deities – the spirits of place – to guard each stream, grove and mountain. That body of legends embroiders the cloth of Western traditions, but now has no functional place in it: ‘only a decorative one’.78

‘Superstitions’ are explained by De Certeau79 as ‘local authorities’, entities that overlay and saturate places with significance. “Legends and stories that haunt urban space like superfluous or additional inhabitants” - that are the “object of a witch-haunt by the very logic of the techno-structure”- ultimately make spaces habitable. What we consider superstitions in our technologically ‘advanced’ society, constitute in fact the very essence of place.
Driving forces within contemporary societies are operating to fade contrasts and reconfigure identities. In Western culture the ambiguous, impermanent, nomadic condition is celebrated by post-modern theorists and actualised by temporary spatial interventions, while a mobilized market economy operates toward “the destabilization of identities, subjectivity and spatiality,” opening the choices “to belong anywhere, everywhere, nowhere.” In former traditional land-based cultures, processes of invasion, dispossession, forced settlement and urbanization have fragmented and reconfigured the relations between people, knowledge and land.

While the pre-existing web of dreamtime stories that were radiating as oral maps across Australian territories now urbanized, are lost or silent, a constellation of Aboriginal stories is populating other spaces: the distributed space of media, the space of media archives.

What is a map? Writing of the history of maps Italo Calvino reminds that maps developed as geographical annotations, spatial narrations of a journey:

The simplest form of a geographical map is not the one that seems most natural to us today, or namely a map representing the surface of the ground as seen by an extraterrestrial gaze. The first need to put places on a map is connected with travel: it is the reminder of the succession of the stages, the tracing of a route. The geographical map, in short, although static, implies a narrative idea, it is conceived in keeping with an itinerary, it is an Odyssey.

Opening an intercultural dialogue between cultures and knowledges of places, Mapping Footprints constructs a map of Aboriginal places and stories. This map is the product of a journey, the geographical narration of the routes of exploration across Indigenous mediascapes such as television, radio programs, internet, films and documentaries and oral history collections. Hence ‘mediascape’ becomes the space for the encounter of the geographies of the ‘Other’, and it is from this encounter that an intercultural dialogue evolves. The pervasive space of communication functions as a contact surface between past and present time, absent and present...
Places that no longer exist, yet survive in personal memories and stories, when broadcasted through the media, or retrieved from media archives, become collective histories capable of affecting our everyday.

Places, a jigsaw of emotions, identities and memories, are kept alive through stories. These mediated spaces are full of stories about survival in a colonized place, adaptation to environments in transformation, cultural contaminations, and negotiations with the dominant culture transforming the connections between individuals, family, community, and the land. The virtual space of media became in this context an open space where expressions of the plurality and diversity of contemporary Aboriginal cultures could be hinged. With respect to the relations between Aboriginal places and stories, Aboriginal writer Anita Heiss notices:

> Our stories are of places that were given to us once our lands were taken, and how these ‘created’ spaces (for example missions and reserves) have become places of significant meaning for many, while often physically disconnecting them from their own country at the same time.  

The experimental practice we conceive at Elvina merges the virtual and the physical, mediated and everyday spaces to think them as a continuum where thresholds between absence, presence, remoteness and proximity dissolve. We are interested in how the use of a technology, that is sensitive to location and movement, may alter the interaction with place so that the subject becomes immersed within a landscape that is enhanced by a resonance of sounds that evoke an existential relationship with place. This re-assembled geography, can cause drift and disorientation to participants wandering through a territory turned unfamiliar by voices and sounds from elsewhere. As a rhapsody that embroiders diverse sequences of musical episodes, our ‘media-geography’ stitches together stories for their capacity to evoke emotions and transfer perspectives of places.

> You go back home, you sit on the river banks. You can put your feet in the water, look at the stream wash away. You just sit there with your eyes closed
and feel the presence, the spirit of our people.\textsuperscript{85}

When we hear the words of Eric Walker speaking to us, not as distant audience but as listeners situated in a context that resembles the one described by the speaker, how does the story affect our perceptions, and how does our memory bring other places and other times to the present?

Acknowledging Kwon’s definition of location as ‘relational and multi-sited’, the site where this participatory practice takes place becomes a ‘discursive narrative\textsuperscript{86}’ where the author/cartographer is a composer and curator that makes a network of voices operable. Contemporary stories become the new locations mapped by this process of re-contextualisation. The pervasive space of media shapes a new aurality and challenges assumptions about attribution and authorship. Stories, according to Hopkins, “by their very nature, (...) are continually changing”.\textsuperscript{87} Passing down orally in traditional times and divulged in the media in contemporary times, stories evolve by incorporating both continuity and change. Thus they allow for recombinations while retaining their individuality.

\textbf{the site as a narrative} An enhanced landscape, augmented and mediatised by the overlaying of the virtual and the physical, delivers to the walkers/participants a temporary polyvocality. An immersive, narrative environment becomes the medium for transferring knowledge and interfacing subjects, stories and locations. Such interface reinterprets in a contemporary way stories of the Dreaming. Dreamtime stories narrate the creation of a particular landscape; they are associated with a locale and have no meaning for people who live elsewhere. This is because local histories relate how to survive in a place and what are the natural resources to rely upon. Emma Lee\textsuperscript{88} tells us that Aboriginal stories are intimately tied to the landscape; each story accommodates changes in the environment. In the mutant nature of contemporary space, contemporary stories narrate the transformation of the space in-between. Such in-between space is defined by oppositional terms; yet, it contains all oppositions: real and virtual, local and translocal, Aboriginal and non-Aboriginal, visible and invisible, present and absent. It is a space shaped by confluences and intersections where dichotomies are blurred and their boundaries perforated. Authoring such kind of space, we are thus at the same
time cartographers, archivists and curators dealing with issues such as selection and interpretation of archival materials from Indigenous collections, and their transferability to other cultures and to other media.

On the part of the cartographer there is a need for a self-reflexive approach to the process of mapping. Her role has to be re-invented and re-negotiated throughout the process by exposing her methods, routes and strategies of re-connection and positioning her ‘outsider’ perspective within the interpretative process. The derived reductions, manipulations and subjective interpretations bring into the ethics of authoring space questions of authorship, ownership, and cultural difference.

The way memories of places are transferred merges two knowledge systems: placed-based and archived knowledge. As they are looking at the signs of the ground, participants are guided by virtual storytellers in the exploration of a microcosm of Australian stories. Connections on the landscape-based interface are constantly rearranged and reshaped by people’s movements interlacing places and narratives in subjective, unpredictable ways.

This experimental practice, grounded in performance, reflects back on intervention and engagement. Considering Fusco’s critiques to the use of maps made by new media, “what gets lost in this focus on mapping is the view of the world from the ground: lived experience.” Here, Mapping Footprints explores an experimental and experiential approach to place-making through a mapping that is performative: it traces trajectories of bodies in movement, it involves the physical body to engage with movement and sound, it requires a downward look “at the patterns and rhythms of the ground” and makes you ask: “who has been here before?”, “what is here now?”.

The map that follows visually explores, and articulates, some of the relations between theoretical perspectives and artistic practices found in the theoretical discourse.
Mapping is a cultural project creating and building the world as much as measuring and describing it.

— James Corner


4 Ibid., p.93.


10 De Certeau, *The Practice of Everyday Life*.


12 Harley, *Writing worlds: discourse, text, and metaphor in the representation of landscape*, p.231.


15 Ibid.


21 Ibid., p.6.


36 Fusco, Questioning the Frame.
38 Ibid., p.74.
41 Ibid., p.195.
43 Ibid., p.175.
48 Carter, Disputed Territories Land Culture and Identity in Settler Societies.
55 Julie Dowling, quoted in Bolt, Shedding Light For The Matter, p.211.
58 Bolt, Shedding Light For The Matter.
Bloomington Indiana University Press, p.66.


66 Ibid., p.120.

67 Ibid., p.120.

68 Ibid.


79 De Certeau, The Practice of Everyday Life, p.106.


86 Kwon, One place after another: site-specific art and locational identity p.159.


88 Lee, The tale of a whale: significant aboriginal landscapes of the northern beaches.

89 Fusco, Questioning the frame.

90 Bolt, Shedding Light For The Matter.
Mobile-location aware technologies are cultural tools for the re-enactment, re-embodiment and re-contextualisation of history and memory in our everyday life. The transformative potential of spatial practices that creatively employ these technologies can renegotiate our experience of place by allowing us to co-inhabit past and present storied spaces of different cultures. This chapter will look at the inscriptive and performative potential of current mobile mapping technologies by interweaving theoretical discourse with reflections on experimental practices. The exploration will revolve around the experimental place making practice at Elvina site, a heritage place of Aboriginal culture in the northern region of Sydney. At Elvina, Mapping Footprints explores alternative means of knowing and making place through a mediation between a cultural heritage site and archival records. Place is made and becomes fluid by transferring archived stories onto the landscape. Sensing the position of the walking, wandering audience traversing the landscape, activates a virtual memory space.

In this process of restoring memory, I explore how mapping instruments can link the physical site to the virtual spaces where Aboriginal memories are archived. In this experiment I reflect on my role as the curator of a re-assembled Aboriginal geography, in particular how the use of the technology and my different cultural background shape this encounter with Aboriginal realities.

Re-storying space, re-storing memory
Since very early times in Western culture, physical and virtual space has mediated the organisation, storage and retrieval of memory. Frances Yates\(^1\) describes how spatial arrangements and fictional settings, developed by mnemonic systems, have become a form of art - the art of memory.

In this research experiment I attempt a mediation between archived oral histories and the geography of a site. This mediation is afforded by an authoring, location aware interface developed specifically for this purpose. The practice contrasts common Western archival practices that disembody and delocalise information for the purposes
purposes of data categorisation, retrieval and storage. Western archival practices have produced a divide between everyday life and archived knowledge. This has not only caused a physical divide between archival records and the actual location, but also has separated previously spatially attached knowledge. This separation is according to Lev Manovich, the distinction between ‘Narrative’ and ‘Database’.

“The database and the narrative are natural enemies. Competing for the same territory of human culture, each claims an exclusive right to make meaning out of the world”.  

Current collaborations and interpretative practices are developing new mediations to renegotiate these two spaces. They aim for interlacing living and archived knowledge to find new means for accessing and preserving history in everyday life. Digital Songlines is an example of how Indigenous narratives can be re-contextualised for purposes of accessibility and memory preservation. The collaboration between interactive designers and Indigenous communities explored new methods to represent knowledges such as the Aboriginal, which are ‘multi-dimensional’ and ‘non-representational’, and the performative narratives associated to them. New media is employed by this project to address new and more appropriate ways to perform and to experience Aboriginal cultural heritage.

The Aboriginal cultural heritage site Elvina in northern Sydney provided a platform where to engage in a process of knowing and mediating place. At Elvina local histories have been eradicated within the colonial process. Therefore the interpretative process of restoring memory is opened to the politics of representation of ambiguous and conflictual territories where Indigenous memories are lost.

This interpretative process looks for a way of knowing a place that can reveal this absence and loss. How can mapping instruments bring forth the disconnection between the geography and its memory? If maps are mediators between the inner self and the outer word, if they connect knowledge to a terrain, how can they transfer what is lost, absent or ambiguous? And then, how can they mediate Aboriginal presence to this landscape?

According to Drew Hemment locative media forces a reassessment of established ways of representing how we relate to, and move in the world. I imagined to use a location

Disconnection between geography and memory
sensitive medium to mobilise Elvina site and turn it into a field of communication that can interface present and past times, absence and presence, where temporal and spatial distance is no longer a divide.

This interface ‘performs’ and ‘enacts’ place in two different ways: on the one hand the geography of a site becomes an interface to an archive – an invisible geography of Aboriginal postcolonial histories. On the other hand, the re-embodiment of these memories through the lived experience of participants hearing them from the site, can reaffirm connections and renegotiate absences and presences within the landscape. The ways in which I came across the archive, which stories I found, and how I ‘storied’ the landscape, brings forth this mapping process which parallels my own personal encounter with Aboriginal culture. In the following section I interweave personal memories with writings of other authors who have guided me through this process.

Aboriginal absence and presence

As a foreigner, it has been hard to locate Aborigines on any level, least of all in person. Yet once one becomes aware of their absence, suddenly in a way they are present... How can I enter or approach the culture of the Aborigines, as a white Anglo-Celt who has lived long in North America? ... Knowledge can only happen as we enter into a dialogue with the other culture, as we dare to look at it within frameworks we bring with us rather than trying to get inside ‘their’ frameworks, and losing ourselves in the process ... Past Aboriginal culture appears difficult to dialogue with, precisely because it is so invisible, because it leaves so few traces for the outsider to experience for her/himself. But perhaps contemporary Aboriginal culture leaves room for dialogue.?

The invisibility of Aboriginal people from mainstream representation is evident to visitors such as the American writer Ann Kaplan and to city dwellers alike. Brenda Croft, Indigenous artist who lived in the city for fourteen years, notices that Indigenous presence is barely perceivable in the everyday space of the city.
During my 14 years in Sydney it was the changing Indigenous history, the realisation that monuments to long-dead, and often forgotten white colonisers exist everywhere: statue in parks, plaques in walls, names in streets and suburbs and towns, but little, if any acknowledgment is given to the local, disrupted, dispersed Indigenous communities.\(^8\)

These two perspectives convey the idea that Aboriginality marks the city space with its ‘absence’. Speaking of the everyday experience of walking in the city Michel de Certeau observes: “It is striking (here) that places people live in are like the presences of diverse absences. What can be seen designates what is no longer there: ‘you see, here there used to be…’. (...) There is no place that is not haunted by many different spirits hidden there in silence, spirits one can ‘invoke’ or not”.\(^9\)

My encounter and dialogue with Aboriginal Sydney started elsewhere from the city space, a space I found Aboriginal presence was blind to. Elsewhere, in the virtual space of the media, books, radio programs, theatrical performances, websites, films and documentaries, Aboriginal presence was visible and alive. In these mediascapes I encountered the plurality and diversity of contemporary ‘Aboriginalities’. Marcia Langton suggests that ‘Aboriginality’ it’s an evolving concept,

> It arises from the subjective experience of both Aboriginal and non-Aboriginal people who engage in any intercultural dialogue, whether in actual lived experience or through a mediated experience such as a white person watching a programme on television or reading a book. Moreover, the creation of ‘Aboriginality’ is not a fixed thing. It is created from our histories. It arises from the intersubjectivity of black and white in a dialogue.\(^10\)

In my own experience, evolving from the space of media, a map of ‘real’ Aboriginal places started to open up the city space with stories and people to encounter. In Marrickville Hospital Koori Radio gives voice to Aboriginal people living in Sydney.
“We broadcast from here”, says Brad Cooke, the general manager, “because we are healing Sydney people”. The radio provides space for discussion on politics, law, health, lifestyle, employment, education, art, culture and music - black music from all over the world. The encounters that followed on from this first one, opened to me a gateway to ‘Aboriginal Sydney’: not a map where locations are marked, but a journey, where connections opened other connections between people, and places. Through these encounters I learnt about contemporary Aboriginal art from Jonathan Jones, young Aboriginal artist and representative of Bomalli, an art collective. Bomalli takes on the responsibility of representing contemporary urban Aboriginal art, as Jonathan explains in his writings.

The mainstream culture tends to recognise only one form of Aboriginality, what’s generally thought to be, and often termed ‘traditional’. (...) This stereotyped notion of Aboriginality, - the traditional - is impressed upon all Aboriginal people so strongly and indefinitely, that instead of being who they are they succumb to society's preconceived ideas of who they should be.

Jonathan claims that this is a form of control through denial of culture to which many Aboriginal artists conform in order to gain recognition.

Continuing in this journey across Aboriginal Sydney, I met Anita Heiss, member of the Wiradjuri nation of central New South Wales, activist and prolific writer. She defines herself as a ‘concrete Koori’, as she explains also in her writings “my experiences and everyday life belong to a land whose sacred sites are now covered in tar and concrete”. She writes about Aboriginal stories of place and connection to country.

When non-indigenous people talk of ‘stories of place’ with an Indigenous context in mind, many immediately think of traditional stories, stories used by our old people to pass on information and knowledge, or the history of a specific geographic region and the significant sites of such areas. In contrast to such expectations imposed upon us, when contemporary authors talk of space, and consider our sense of place and our connection to country, we often do
so in terms of the environments we live in the twenty-first century, especially as many of us are urban dwellers and indeed the largest concentration of the Aboriginal population lives in greater Sydney.\textsuperscript{15}

The encounters with these authors, who are physically living in the city, charged my personal experience of the city space with Aboriginal ‘presence’. When I joined the guided tour organised by the Metropolitan Aboriginal Land Council to Kuringai National Park I was about to encounter another Aboriginal geography. At Elvina rock engraving site, one of the heritage sites of the park, ancient pictographs engraved on the rock are the only living presence left to testify a way of living and keeping culture that is now lost.

\textbf{Elvina: geographies interrupted}

\textit{Elvina} is one of the many rock engravings sites – there are more than 600 - surveyed within the extensive body of rock art that stretches along the coast of Sydney to the Blue Mountains. It comprises of 56 carved pictographs, diverse in sizes and shapes, representing local animals, artefacts, cultural heroes and human figures. These images are scattered across a tessellated rock plane surrounded on each side by the bush of Kuringai National Park. In the name of the park survives the ancient presence of the clan of the Kuringai, traditional custodian of this piece of country prior to the land dispossession that followed the European invasion. The territory of the Garigal tribe, one of the tribes that belonged to the Kuringai language group, used to run across the Barrenjoey Peninsula and West Head region, in the area now protected as a part of a natural-cultural heritage. By various means these Aboriginal geographies were interrupted and disconnected from

\begin{quote}
\textquote{Because of the immediate and dramatic effect of European invasion, very little is known about this vast expanse of engravings sites. Their stories, to a very large extent, have been lost”}
\end{quote}

\textit{Popp, T., Walker, B., Footprints on Rock, Sydney, 1997.}

\textit{Views of the Elvina site from North to South, Kuringai National Park, West Head.}
the land. According to historians, several causes contributed to this disconnection such as
diseases introduced by the invaders, murder, intermarriage, starvation, forced migration,
deprival of land for farming and herding and of water resources and fishing grounds.
What survives today to testify the presence and disappearance of the local culture are the
rock carvings, rock paintings, and middens which are protected as a common cultural
heritage.¹⁶
Knowing about engravings can be a real discovery as often the sites, such as Elvina, are
not marked or included in the maps of the main heritage tracks, and the outlines of the
carvings are so faint that to distinguish them requires an attentive, skilled look between

![Rock engravings and natural tessellations of the sandstone outcrop of Elvina site](image)

the patterns and natural fissures of the sandstone.
Most of the sites sit on hilltops surrounded by spectacular views to the bush and the ocean
in the distance, others are enclosed by vegetation and are to be searched for. Approaching
the site and learning about engravings opened me to the network of rock sites in the area,
many of which are physically connected one to the other by giant footprints [they call
them Mundowes] engraved on rock outcrops.
Much of today understanding of the significance of these sites in traditional cultural
practices is mostly speculative as no record of the making or the meaning associated to
them was retained after the invasion. The specific meaning of these engravings can be
only hypothesised by interpretations based on general knowledge of Aboriginal culture.
A teaching ground, a place for initiation, it is likely that this site was the setting for
performances and rituals, and held different layers of meaning according to the level of
knowledge and initiation of the members of the clan.

To initiated persons, (...) images that appear to be animals, (...) may represent
totemic creatures. Other figures may have been made to ensure success in
hunting or fishing ventures. Some images may have been produced to teach or record, say hunting and fishing strategies, or simply to tell stories about past events (real or legendary).\(^{17}\)

In the tour organised by the Metropolitan Council two Aboriginal guides escort the group from the main track that runs from the sealed main road down to Elvina bay on Pittwater, toward the sandstone outcrop of the site. Scattered over the rock plane are engraved pictographs of diverse shapes. They vary in sizes from a few centimetres up to two metres long. As the guides pour water on the faint outline of the carvings, all different images emerge to the surface: fish, whales, kangaroos and wallabies, goannas, emu, shields, humans and gods. The swallow of the grooves, barely distinguishable from the natural textures and tessellations of the rock outcrop, are sometimes incorporated in the compositions.

In the complex land-based knowledge system of traditional Aboriginal culture the engravings used to function as extensions and objectifications of ritual, performative practices. Barbara Bolt explains ‘performativity’ as the mutual reflection between ritual practices (...) from the divine plane to the human and from the human to the divine. Ritual performances such as painting, singing and dancing can have forceful, constitutive effects in the world.\(^{18}\)

In this sense, rock carvings are considered not as mere representation of the real, but
inscriptive, and performative objects to keep the culture alive.

A kangaroo or a fish picture could represent, apart from a kangaroo or fish, a food resource, a mythical being or ancestor, or the location of a religious ritual. The engravings may have functioned to illustrate a story, or a song, to be a teaching aid, or to be the focus of a magical or religious activity.¹⁹

I use the writings of an Aboriginal author descendant of the traditional owners of the Gai-Mariagal people, neighbours of the Kuringai tribes, in the attempt to instil his living memory of land and custom to the engravings. When reading of these memories I imagined them to guide me in the navigation of the site, as if the author’s memoriescape with his stories of fish and whales would unfold along with my walking.

The whale has immense spiritual significance to us: which is why they are engraved almost everywhere in the Sydney environs. They ventured up the Paramatta river to what is called Homebush Bay and sang our songs to us when our people met. They talked to us and many of our people could talk to them.²⁰

We also have a very close association with several whale species, most importantly the humpback and the pilot whales. Can you ever imagine what it is like to sit on the edge of the rocks in the sheltered bays of Tuhbowgule and see a humpback give birth and suckle its young? Or swim with the pilot whales in the swallows? When they were sick, they were sung and attracted to shore where they were swiftly put out of their misery and readily eaten, not only because they were of immense importance to our diet, it was also out of
respect for them. As children, we used to accompany our uncles fishing for blackfish, crab and prawn. They knew exactly when and where to fish. This was of course before the murder of the lake by pollution.

Reading about these forgotten ways of living and landscapes that no longer exist I wondered how these life stories could be re-performed to inscribe the site with a new living memory. Dennis Foley, the author of the book who guided me through this imaginary landscape, warned me, on the contrary, that this local knowledge was lost.

What you are looking for is knowledge that is powerful and almost forgotten when you talk of the northern suburbs of Sydney you are referring to a landscape that has been destroyed by invasion, by pestilence, by war. Our people have been hunted like animals and even as recently as the 1960’s catastrophic action by government agencies have resulted in the destruction of the remnant shards of our social fabric have been torn apart permanently by the wanton destruction of our sites and remaining habitats. We were displaced into institutions and the land has been without guardians ever since what you are looking for is gone, may I suggest that you seek this information from other areas of Australia where the traditional inhabitants still retain the knowledge and are custodians to this intelligence, but be careful, do not mix up your interest in the exotic with real issues.

Foley’s insight and warning was instrumental in critically reflecting on my role of mapping Aboriginal stories. Wasn’t my different background imposing preconceived ideas and distant perspectives on aboriginal narratives?

**Geography and memory: re-Aboriginalising the landscape?**

Intervening with space to re-contextualise memorised stories poses questions of representation and authorship. How do I stitch these ‘estranged’ memories to the landscape? What guides my curatorial choice of stories, authors and locations? Questions as such play a critical role when engaging with practices of place-making that aim to find
intersections between geography and memory. Authoring space is always contentious, and this doesn’t only apply to the physical space. Candice Hopkins noticed about the early development stages of cyberspace, how the new medium raised questions from Aboriginal authors and artists about the appropriation of this kind of space for Aboriginal narratives\(^\text{24}\). Introducing place-making practices with Aboriginal content inevitably brings forth issues of territorialisation, occupation and reinvention of space. Authoring this memory landscape, I have to ask: how much am I taking part in the spectacle? Paul Carter, for instance, discussed the work’s ‘representability’ when he introduced his sound piece for the Museum of Sydney “The Calling to Come”. The sound-scape mixes sounds and voices speaking the ‘long-silenced tongue’ of Sydney language after 200 years.

The Museum of Sydney occupies a site of disappearance: its monumental appearance may be said to contradict the site’s history, or once again to obscure it. What then? We can colonise it with little theatres that exhibited what has disappeared. Or, refusing to come to the party, siding with the lost subjects, we can persist in enunciating the space of disappearance, where things refuse to quieten and settle down.\(^\text{25}\)

*Mapping Footprints* conceives the site not as a ‘void’ to fill up, rather, as a palimpsest, where disconnections and erasures between place and culture can be revealed. Doing so it offers an alternative to traditional representations of maps developed through a reduced, standardised reflection of reality. These representations exclude what Relph\(^\text{26}\) recognises to be the very notion of place: the subjective, the unmeasurable and the invisible. This approach shares similarities with oral history in the way oral history gives voice to, and preserves people’s life histories, often recalled from their personal memories. These are records from the past which written recording history usually denies access to.

As Ross Gibson observes, in oral cultures “knowledge is conveyed in a linear fashion, occupying time. Knowledge persisted only so long as someone was able to speak it to someone else”.\(^\text{27}\) Resituating archived oral history into the landscape, out of the archive, and making it accessible for people to hear it by exploring a site, we add space and
experience to this history, charging it at the same time with our subjective interpretation. In the life memories collected by the *Bicentennial Oral History Project*, an oral collection of the State Library of NSW, we find a way to re-connect the *Elvina* site to a broader memory of Aboriginal histories. The collection documents the lives of people who were born in NSW before 1907. It records through oral interviews their memories of the first 30 years of the 20th century. Of the two hundred interviews, three are of Aboriginal women: Pauline Gordon, Eunice Robinson and Gladys Ardler. Condensed in the microcosm of their lives is the diversity and plurality of postcolonial Australian histories.

Pauline was born in Sydney from Aboriginal parents. When she was eight years old the Aboriginal Protection Board sent her and her three younger sisters to a girls’ training home in Cootamundra. She spent her childhood and first teenage years there until she was fifteen. She never saw her parents during that time. Eunice’s grandfather Pop Torrens was separated from his twin brother and grew up with white people. She went to missionary school there. Gladys Ardler was born in 1922 in Crown Street Hospital and lived in Sydney in Happy Valley and Botany Bay. Her parents were half Aborigine. Her father died when he was twenty nine.

These stories tell about survival in, and adaptation to, transformed, colonised environments. They speak of isolation in urban settlements or forced migration in the Aboriginal reserves. They recall family separation and cultural loss. Others hold memories of social life within Aboriginal communities and family histories. As they remember the changes that occurred to both places and cultures we could look at these stories as ‘contemporary’ dreamtime stories.

As anthropologist Alan Rumsey explains, in traditional Aboriginal culture dreamtime stories are vehicles to retrieve from landmarks specific memories that belong to myth and to history alike. Dreamtime stories integrate the changes of environment - where a waterway dries up and another is created by flood. In a similar way the contemporary life stories collected from the archive tell about cultural survival, adaptation and assimilation to transformed, and turned estranged, environments, societies and cultures.

The technology we use to virtually emplace the stories in situ simulates further the analogy with dreamtime stories. Location-aware audio technologies employed to retrieve these stories from the site allows hearing them as if they were originating from the natural
features of the site. Although mechanically stitched to the landscape, these ‘contemporary
dreamtime stories’ can bring from the long silenced rock engravings - once vehicles of
dances, songs and storytelling - new, contemporary meanings back to the present.

**Strategies of reconnection**

In this interpretative approach to cultural heritage oral histories are mediated as voices and sounds coming from the landmarks of the *Elvina* site. The location of the engravings defines the space where to store, trigger and retrieve these memories. In defining the compositional strategies to connect histories to the geography, the plane constantly shifts from the site to the archive. The site not only functions as an interface to navigate the archive once the space is ‘storied’, but also as a ‘map’ to orient and to guide the selection when excavating the archive in search for stories.

In traditional times an engraved figure of a ‘shield’ supposedly referred to the identity of a clan. When re-interpreted through the lens of cultural transformation, and displaced into present time, the shield evokes ‘other’ identities. It becomes the ‘locus’ of the identities of Aboriginal communities in forced settlements, or social life of Aboriginal families living in the city, or the identity of being an Aboriginal person in a white society.

‘Shields’ trigger the memory of Pauline Gordon’s separation from her family and culture. ‘Whale and fish’ evoke childhood memories of seascapes, rivers, family histories of ships landing to the shore. ‘Kangaroos, wallabies, goannas’ transfer to the present practices of everyday life from Pauline’s memories of collecting gum leaves, or Eunice telling about
turtle’s eggs and how to search for them when it was the right season. They tell how people used to get food at Happy Valley standing in lines to get a loaf of bread from Gladys’ childhood memories. Daramulan, one legged cultural hero depicted in the act of dancing, and the giant emu recall of contemporary memories about religion, or traditional cultural practices where the spiritual and the supernatural used to be involved. Eunice is the only one, among the three women, who has retained some traditional knowledge passed on to her from her father. She remembers of korrobories, singing around the fire at night, of traditional bush medicine practices and clever men. Gladys remembers going to Sunday school at the church on the reserve. “Everyone used to go to church in those days. It was somewhere to go really other than religion. Everybody went”.  

**voices from the past** The voices of these women are real, sometime they are trembling, hesitating. The ripples of their voices reveal their age as the granular, rough, texture of the sound shows the time when the recordings where made. The choice to use the original audio is to bring that time layer and sound of their everyday past within the present experience of hearing it in the landscape. 

Among all the stories selected, only one has been re-performed by a non-Indigenous women based on a written source. The piece, which I have located at the entrance of the site, on the track that leads to the rock outcrop, works as an introduction to the soundscape, preparing the audience to the stories that they will encounter in their walk. The text is from a journey of the American writer Deborah Bird Rose to the Northern Territory. In her journey she meets five women from the MakMak clan who share with her the knowledge of their country. The following is what participants hear as they begin their field experience.

When strangers visit our country, we observe with a keen interest the way they respond and react to the panoramic view stretched before them. What are they really seeing and thinking? We reckon they may be thinking about the beautiful scenery or just simply enjoying the peace and quiet or the wide-open spaces. Together we stand gazing at the same scenery. We look beyond the pristine beauty of the bush decked out in all its glory. The land contains our stories, it’s enriching and powerful.
This introduction aims to work as a transition from a written to an oral textuality and from a non-Indigenous to an Indigenous perspective. It condenses the opposing ways of seeing a ‘land-scape’- a matter of ‘seeing’, ‘gaze’, ‘panoramic views’ and ‘scenery’- and living the ‘land’, a network of stories to listen.

**A narrative approach to non-linear sound composition**

Walter J. Ong, analysing the cognitive, perceptive and spatial impacts of the transition from oral to written culture, argues that “the shift from oral to written speech was essentially a shift from sound to visual space”. The medium we used at Elvina to embed and retrieve stories and sounds from the landscape is a location sensitive audio-based medium developed at the School of Computer Science and Engineering of the University of New South Whales for ‘AudioNomad’, a research program into location aware virtual and augment reality systems. The system creates a virtual audio environment utilizing GPS coordinates to link surround sounds to a physical environment. The user experience of the sound-scape is immersive, as the 3D spatialised sounds appear to originate from the physical features of the real world, and responsive, as the position of the user in the real space activates the virtual sound-scape. Hence the perception of the user is to be a ‘performer’ who triggers the corresponding sounds with her movements. In this spatial interaction with sound, ‘playing’ and ‘listening’ seem to converge. The role of the user as a performer and interpreter of the sound-scape reminds of Roland Barthes’ reflections on music and text:

> We know that today post-serial music has radically altered the role of the ‘interpreter’, who is called on to be in some sort the co-author of the score, completing it rather then giving it ‘expression’. The Text is very much a score of this new kind: it asks the reader a practical collaboration.

If we think of our interactive map as an oral text, this new kind of mediated spatial textuality renegotiates the relations between the author, the reader and the map. The author hands over to the reader/listener the authority of the text/map. Contrasting a rehearsed performance, the users’ unpredictable behaviours and movements pose one of
the main challenges for the design of the narrative, sound based composition.

Nigel Helyer, one of the authors of AudioNomad system, confirms that the difficulty lies in developing compositional strategies in order to deliver a non-linear but coherent field of audio. Cybertext and hypertext shape a form of textuality that is relational and allows for subjective paths of the user/reader within the text. In our oral/textual interface, the user behaves as an agent for permutations of the text by physically moving across the geographical and the narrative space. Traversing the text and knowing the place thus develop simultaneously through the mutual exploration of space through narratives and of narratives through space.

Based on a narrative approach, we selected points of interest within the site to function as hypertextual links to the distant contexts of the stories. The position of the rock carvings leads the compositional strategies of the narrative-scape. “The main feature of hypertext is discontinuity – the jump - the sudden displacement of the user’s position in the text”. This augmentation of space with stories operates as a hyperlink to a virtual geography of ‘other’ places to which archived memories belong. The site of Elvina then becomes a meshwork of ambient sounds, engraved drawings and long past stories. The augmented landscape creates new relations to ‘other realities’, the one evoked by the narrators and the ones imagined by walkers. We like to think that a new connectivity can emerge by creating and interacting with this kind of space. Stories can open up places, as De Certeau suggests:

In modern Athens, the vehicles of mass transportation are called metaphorai. To go to work or come home, one takes a ‘metaphor’ – a bus or a train. Stories could also take this noble name: every day, they traverse and organize places; they select and link them together; they make sentences and itineraries out of them. They are spatial trajectories.

While looking at the signs of the ground, participants experience synthetic sounds of the bush that surround them as virtually re-created and amplified in their ears. These sounds, mixed with the voices of the narrators, guide them to encounter ‘other’ presences within
the landscape. Ambient sounds work to guide the users in their wayfinding of stories and engravings and to immerse them in the experience. Sounds of water such as seagulls, waves, water streaming, and footsteps moving in the water, are preludes and interludes to narratives of fish, river and waterscapes. Sounds of native birds, forest breeze, wind, insects work to connect the main engraving/story groups together. Transitions between ambient sounds and narrators are designed in such a way to create an immersive audio experience where the distance between the user and the narrator, and between the physical and the virtual environment, tend to dissolve.

Creating this immersion, oral history becomes ‘storytelling’. Abbe Don explains immersion and experience to be the two main characteristics of storytelling. The kind of knowledge mediated by storytelling, she argues, is “an experienced event unfolding in time, rather than objects outside of the audience’s experience”. Through the use of an oral medium we attempt to afford a way of knowing place and history that is experiential. The use of an audio based medium, and the fact that participants encounter stories and narrators along with their navigation, convey the idea that the narration unfolds according to the movements, direction and choices of the listeners/walkers in space.

Walkers become narrators as their routes across the site interlace narrative passages and form new storylines. The relation between stories and narrators within the text unfold according to the rhythm, pace and direction of the walkers’ routes. In order to keep the flow of the narration and the rhythm of the walk parallel, each story is concluded within the perimeter of its audio region –varying in size from two to ten metres wide. The average duration of a narrative piece is of approximately 1:20 minutes -with a maximum duration of 2:33 and a minimum of 0:32 -. Each of these short narrative passages transfers a different perspective, whether it speaks of a memory of a place that no longer exists, or alludes to a landscape that mirrors the bush kind of landscape surrounding the site.

There is neither a narrative thread nor a preferential way to sequence the stories. In fact, the walkers write a plot as they weave narrative fragments and sequence them in subjective, arbitrary ways. This enables an anthology of stories that is never identical. We can look at the tracks of the walkers’ routes in space recorded by the system as the actual
narrative threads of a journey based narrativity. The way the interface affords to navigate geography and oral history allows for multiple reading and authoring of the past. This narrativescape mediated by the interface can renegotiate potential meanings in the journey of people through the site by transposing ‘other’ perspectives onto the participants’ experience of place. This inscriptive experiment, which temporarily inscribes a site with new memories, attempts to find new instruments to renegotiate archived space -the space of collective memory-, and practiced space - the space of lived experience. It looks at how history and geography can temporally converge in a way that geography becomes an interface to navigate layers of history. Walking in the landscape parallels excavating the archive, as distant voices, that belong elsewhere, intervene in the present to guide and to re-orient our way of knowing a place and a past.

The sound map as it appears in the AudioNomad interface. The audio composition uses an archaeological survey of the rock engravings as a calibrated map. The principle for the sound composition was to use ambient sounds as background sound to the stories. In general the audio regions of ambient sounds are wider in order to contain one or more stories from the same narrative theme. The themes are identified by different colours. Ambient sounds worked also to connect the main points of interest within the site, defined by the position of the engraving groups.
- Site survey the with a GPS enabled device
- Mark and record GPS coordinates of the 'points of Interest' within the site
- Use a AudioNotes machine, a Dictaphone with a GPS tag and software to load GPS data to a map with a contextual commentary and navigational directions

**Points of Interests (P.o.I.):**
01 Entrance
02 Whale
03 Emu
04 Shields
05 Men
06 Goanna

**Expected Path:**
- NORTH
- UPPER
- MIDDLE
- LOWER
- WEST
- SOUTH
- centre
- centre
- centre

**Connections between P.o.I.:**
- A, B, C, D, E, F, G

**Themes:**
- Water: (P.o.I. 02)
  - whales
  - fishes
  - watercourses
  - ocean
  - rain
- Air: (P.o.I. 03; 04; 05)
  - birds
  - sky
  - wind
  - stars
  - heroes
- Identity: (P.o.I. 01; 04; 05)
  - knowledge
  - personal memories
  - relation with the land
- Fauna:
  - kangaroo
  - goanna
  - hunting
  - tracks

**Bush:**
- A, B, C, D, E, F, G
  - trees
  - wind
  - fire
  - birds
  - insects

**Type of sounds:**
- environmental sounds: "e" 
- music: "m"

**Example of classification:**
- theme_type_title_number
  - file: water_s_whale01.aiff
  - file: water_s_whale01.aiff
  - file: bush_e_wind01.aiff
  - file: bush_e_wind01.aiff
  - file: fauna_m_kangaroo01.aiff
  - file: fauna_m_kangaroo01.aiff
  - file: fauna_m_kangaroo01.aiff
  - file: fauna_m_kangaroo01.aiff
Here the map is displaced to a different location in order to test the sound composition with homologous interaction to the ones of the real context.
On site testing:
- Verify the correct position of the audio regions in the real context
- Evaluate the coherence of the audio field
- Simulate a walk through the physical and sound space


10 Langton, Aboriginal art and film: the politics of representation, p.98.


13 The word Koori is used by some Indigenous Australians in New South Wales and Victoria to identify themselves.


15 Ibid., p.68.


21 Ibid., p.79.

22 Ibid., p.50.

23 Personal communication via electronic correspondence with Dennis Foley, 19 September 2006.


“The internet was recognised almost immediately for its ability to bring people together and communicate across large geographical divides”. Its potential for storing and retrieving information was also recognised. Although Indigenous filmmaker Loretta Todd questioned whether Native American narratives could find place in that disembodied environment. Hopkins remarks that through Indigenous media con
constant and mutual reflection occurs between cyberspace and real space as in the referral to communities, places, people and lived experience.


35 The theory of computer mediated non-linear text dates back to early literature references in which a new type of computer-mediated textuality is defined by the experiments developed in the 60’s by Oulipo - Ouvroir de Literature Potentielle , which reconfigure the relations between reader, author and text. “The role of the author can become an activity extended to readers, who take part in the interpretation, configuration and construction of the text”. Wardrip-Fruin, N., & Montfort, N. (2003). The Oulipo. In N. Wardrip-Fruin & N. Montfort (Eds.), The new media reader (pp. 147-189). Cambridge, Mass.: MIT Press.


37 De Certeau, The Practice of Everyday Life, p.115.

What is the purpose of using maps? How can maps affect, transform or create our relations with places? How can we become more connected to the space we traverse or inhabit by using them? In this chapter I reflect on these questions in the context of the research experiment that took place at Elvina last November 2007. Despite the remoteness of the location and the, occasionally, extreme conditions of the weather, a small group of participants accepted to volunteer to this experiment. The experiment aims to open up a broader discourse on interactivity and the implications that may be raised by emplacing stories in the landscape. I will look at the role of mediation, performativity, and representation in shaping both the development process and the experience of this augmented, storied landscape. In what ways, for instance, can the notion of intimacy and experiential knowledge found within Aboriginal inscriptive land practices, inform the responsibilities and negotiations involved in mediating the experience of culture through means of – a performative - practice?

**Performative geographies: the experience of place**

“The desire to map is to make familiar”.1 Mapping space and using maps to navigate through the landscape are ways of knowing: knowing about a place and knowing about our position – and ourselves - in that place. At Elvina participants play out the map through a spontaneous navigation through the site, thus uncovering the past and making familiar the unfamiliar. The majority of participants who take part in the experiment are first timer visitors at Elvina. The site is concealed from the main track that descends from West Head road to Elvina bay, with no signs directing to it, so we guide them towards the main access pathway. To avoid creating the atmosphere of an experimental set up with tasks to accomplish and the consequent assessment of participants’ performance, we conceive the experiment as a casual walk through the site, intended to gather inspirational responses from the way people interact with the map in space rather than to judge their behaviour. We use a tailor made scarf to hide all the technical equipment - wires connecting a palmtop to a GPS navigator to earphones -. The idea is to be comfortable, at ease with the technology, as something to be worn as a garment, rather than instruments...
for navigation.
Before the exploration starts, with a maximum of two people at time, we briefly instruct
the participants about what they will see and hear during their walk. We provide a short
description of the size and shape of the engravings and information about the source
of the stories. Equipped with tools to assist navigation – GPS enabled handhelds -, in
this map-making experiment the participants are yet unable to rely on them for their
orientation. With no directions to follow and no site plan to refer to, they start to survey
an unknown terrain only trusting their curiosity, attention to details and sense of discovery.

According to archaeologists:

Part of the experience of learning about the engravings is the task of searching for them.
Once an engraved line is found it is followed until one can appreciate the drawing of the
whole figure, and the composition of the group of adjacent figures.³

We imagine now to follow someone’s footsteps and to immerse ourselves in that
experience of searching. What is it that guides our moves from one position to another?
Is it a blossom of a grass, or the recognition of a manmade sign, a distinguishable shape
of an artefact or an animal, among the natural fissures of the ground? At the entry we
turn right towards the western edge of the rock plane. As we step further toward crop,
we find ourselves suddenly displaced into a seascape, having entered an invisible sound
zone. Following the sound of footsteps moving in the water we encounter a voice, it is
an old lady, we hear her at distance, so to listen we move toward the direction where the voice comes from. She is talking about Botany Bay. How many fishes where there when she was young. “There were many fishermen down at La Perouse in those days” - her father was one of them - “and plenty of fishes to catch, mullets and black fish, they used to come in at Christmas time. There’s no fish today, they don’t come to the beach anymore...”.3 As we start to wonder how this story of fish fits with the environment we are in, surrounded as it is all by bush on every side, with no sights of water, river or ocean, we suddenly recognise a shape of a fish just under our feet, and then another one only a few steps away. They are of different kind, but we couldn’t name them. Yet we notice that they are pointing north, towards Pittwater. Was that a sign to point to the presence of water holes down the escarpment? Or a way to teach children about the different kinds of fish and where and how to catch them? We decide to move in that direction to see if we find more. Invisible sea birds escort us all the way to find a sharp carved line running through the rock surface. Quickly tracing its pattern we discover a big fish, it could be a whale or a big shark. It is very faint, but still visible. If we imagine laying down on the ground, we could fit inside its contours, that’s how big it is! All excited by this discovery we lift our gaze and look at the landscape. The outcrop stretches over there, just behind that tree next to the whale, in a narrow pocket enclosed by bush. We go there and find that another story is playing. The voice sounds familiar. It could be the same lady from La Perouse, but we’re not sure. She tells about her great grandmother. She was there when Captain Cook landed. She was at the beach and saw Captain Cook coming in and landing. That’s part of history now, but is also a family’s story passed down through generations. As she used to ask her grandmother, now her grand children ask her to tell them this same story again, and again... Moving on from the waterscape of Botany Bay we turn back heading south. We thread our way through sounds of birds and leaves shivering at the forest breeze. It seems as if all the murmurs and vibrations of the bush around us are amplified in our ears. We are curious to listen and to see what’s coming next...
On Interactivity

The above narrative describes how I have imagined the experience when we (virtually) stitched sounds and stories onto the landmarks of the site. Despite this imagined narrative space, however, the participants have not been given any navigational instructions or pre-planned routes of exploration. Rather, I was interested in the many, personal ways of reading the ‘text-ured’ landscape. Each of us performs a different exploration thus developing a unique and almost intimate relationship with the landscape. The medium affords the ‘performers’ the possibility of developing a dialogue with place at their own pace, rhythm and degree of familiarity. This is how a participant comments about her/his experience:

The soundscape created a much more powerful, spiritual and profound experience of the site. It made you feel more connected to the experience.

The modalities of interactions enabled by the interface at Elvina transform the landscape into a navigable structure. David Rokeby describes navigable interactive structures as labyrinths where many possibilities are available for the audience to choose from, as different options open up. Rather than visual objects or signs, here it is the natural landscape with its irregularities, its marks, colours and patterns that guides the interest of navigators in the making of their routes. While we can trace the paths they take, the choice that leads a person from one landmark to another, whether conscious or unconscious, cannot be traced. Despite the uninterrupted (GPS) surveillance that we have subjected our participants to, the subjective decisions that guide people’s paths, whether attracted by a crop, the shape of a rock, a smell or a sound at a distance, are yet unknown. That sensorial component remains concealed within the depth of one’s own experience, while the physical act following this decision is revealed in the movements of the bodies in space. The transformative power of the interface works to amplify these movements and to translate them into sounds. When we ask the participants if they had the feeling that the soundscape was responding to their movements in space, one answers that:

I rather had the feeling that it was attached to the landscape –so as I moved around, I would enter and exit different memories, zones, animal colonies...
The experiment was as a playground on which to explore and to reflect on, of the potentials and implications of using locative media to embodying other means of knowing place. In the following paragraphs I will analyse how the participants’ enactment addresses some of the issues involved in this interactive experience, including: connection, mirroring - or self reflection- indeterminacy and ambiguity, freedom, restriction, and manipulation.

The objective for this interface was to create a connection between the audience, the environment and the history of the landscape. If we think of the interactivity afforded by this interface as its capacity to respond to the audience’s actions in space we can go on exploring how the use of an interactive medium in the context of an Aboriginal heritage site can work to create a sense of connection, immersion and belonging. This is afforded at Elvina through a series of displacements, both temporal and spatial. Displacement occurs when the audience retrieves a story from a landmark and is pushed elsewhere in the narrative space. With respect to his film Wild Ross Gibson makes use of a process of ‘cut-and-heal’, an array of ‘displacements and reconstructions’ which he refers to as ‘suture’. This film-form “conjoin(s) citizen and country, subject and object in a way that breaks down a functional separation between the two entities”.

Similarly, but through a different medium, the map at Elvina works like an artificial stitching by attaching together shreds of memories, ‘scars’ on rocks and human bodies walking on the land. This patching of the seeker to the environment in a way re-performs the modes of orientation developed in Aboriginal cultures. Thinking about alternatives modes of navigation, I believe that the power for change raised by this interactive medium relies mostly on the capacity to create connections between the physical and the cultural context. That is to say that, to engage physically, culturally and perhaps emotionally in a way that shapes or refocuses our relations with the environment. Here interaction is developed for purposes of both orientation and drift in the natural landscape. In conceiving the sound augmented walk through Elvina I looked at the ‘experience of country’ in Aboriginal cultures. My approach to Aboriginal cultures was in itself an experience of cultural re-orientation involving a process of constant self-reflection and transformation. Learning from Aboriginal cultural practices
my imagination opened to alternative notions of place and new mediations capable of renegotiating histories and territories by the simple act of walking on the land.

**Digression on modes of orientation: inscriptive practices in Aboriginal cultures**

The anthropologist Alan Rumsey refers to ‘inscriptive practices’ as the practices developed by Aboriginal cultures to use features of the landscape to preserve myth and history in what can be understood as a continuing process of “production and re-production of meaning”.

According to Rumsey, inscriptive practices work to memorialise and to objectify in natural landmarks not only the myth stories of the Dreaming, the mythical path of the ancestor’s journey of creation through the land, but also history – as ‘the past actions of human beings’. Hence landscape becomes a medium to inscribe and through which to retrieve actions from both a mythical or historical past. These inscriptive practices provide modes for orientation through present space and past times. So that country can be understood as a story and “the story itself is seen to be located in the country”.

Incorporating historic events geography functions for each individual as a ‘signifier experience’ as “the landscape becomes a history of significant social events” such as the place where one was conceived, or one’s father was killed and buried. Country is not a set of fixed meanings but there’s always something new to be discovered. Myth and history are a continuum, fluid mix that is geographically indexed and updated in the features of the landscape. This mode of orientation is both inscriptive and interpretative as “capable of being used for the construction of history as well as myth” and their retrieval from the “places through which one moves in the course of social life”.

According to Rumsey country is a form of objectification of both collective and individual memories, he recognises other forms of objectification in songs and paintings. We look at the performative mode of Aboriginal art to incorporate the author’s experience of the landscape as an alternative to the representative mode through which maps describe reality - their abstractness and detached perspective between the observer and the observed, their being un-situated and their presumption of objectivity. Aboriginal paintings are mental maps of the subject remembering the landscape, remembering him/herself in the landscape. They describe “how the landscape has been materialized, how it
has been experienced”. Historian Rosalyn Diprose suggests: “I learn that these paintings are about experiences of the landscape of the dreaming”, they are “expressions of what Marcia Langton refers to as ‘human intimacy with landscapes’ which engenders complex relations of ‘human and non-human biogeography’, ‘sacred geography’, and cultural and gender-specific land practices”. And in the words of Langton: “Aboriginal art expresses the possibility of human intimacy with landscapes. This is the key to its power: it makes available a rich tradition of human ethics and relationships with place and other species to a worldwide audience”.

Through the “intertwining of the body and the world” Aboriginal art renegotiates “the relation between the interior life of the perceiver and the exterior perceived world of the real”, so that the dichotomy between subjective perception and historical facts dissolve in Aboriginal paintings. Stories of inhabitations, intimate experiences with the land, memories of traversing the landscape in childhood with family - Aboriginal paintings are a form of art which involves a re-invention of the world through the experiential perception of the subject.

**Performativity**

Intimacy is what I aimed for in the design of the spatial practice at Elvina. Thinking of the site as an interface I looked at how interactions with sounds can provoke intimacy by enabling encounters between walkers, archived memories, natural landmarks and manmade inscriptions. These encounters may have displacing effects or alter the way we perceive our surroundings as two participants report about their navigation:

It linked me to the terrain in a way that I wasn’t linked before. Surprising: the terrain became bigger! More extensive.

The layering of Aboriginal narratives over other significant sites was a powerful way to create a strong sense of a vast history and large community. It spoke of a shared experience over a large area than just simply the site we were standing on without diminishing the importance or significance of the engravings, having the soundscape enriched the experience.
Engaging further with the medium we found ourselves displaced into a parallel space. Suddenly what was contained becomes expanded, what seemed isolated becomes entangled in a web of threads linking to distant, yet co-present, places: the places recalled by the storytellers, the places we imagine as we immerse further in the soundscape. Our wanderings through meanders of sounds, like in a labyrinth, activate a hyper-geography that seems to stretch the surface of the terrain, now an elastic tissue, to reach points of contacts in other dimensions: the physical dimension of the site, the temporal dimension of others’ and our own memories. Also ambient sounds function to augment this multidimensionality, as an oral comment from a participant suggests:

I appreciated the sound of water because it increased the level of complexity by immersing the listener in a distant water environment estranged to the site. I wish there were more of these displacements through environmental sounds.22

And others more enthusiastic:

Loved the water sound of splashing people while fishing story. Bird sounds was great though I think it could move into different animal sounds.23

The ways participants have witnessed the landscape may suggest that the landscape is not fixed. Rather, it is something in constant becoming, always transformed, deformed and re-shaped by our migrations through space, and by the relations that those migrations activate with other spaces – space of memory, of dreaming, of imagination. The interface only actualises these relational qualities and materialises them in form of sounds. At Elvina it is our walking that ‘sonifies’ the landscape, makes it resonate in conversation with voices from elsewhere. A form of a dialogue then unfolds between our movements and the responsive sounds. By moving through the landscape we search for signs to guide our wayfinding, constantly shifting between the physical and the virtual plane. It can happen that the soundscape orientates our sight and leads our path as this participant explains:
In such an homogeneous environment, where there are no points of reference to a person that visits it for the first time, and that person is not used to recognising the engravings, the sounds worked as landmarks for orientation. By listening to the same sound I knew I had already been passing through that point.²⁴

Movement here is a form of spatial inquiry, a way of knowing, which holds a performative power to create and to affect our experience of place. Walking and knowing are parallel, they develop simultaneously as we perform our wandering, drifting, orientating, pausing and looking, turning, finding, changing direction, getting lost. That is how participants embody a way of knowing place.

In this performative mapping the dichotomy, pointed out by Michel De Certeau between the operations of walking in space and the projections of the walkers’ paths represented by maps, seems to blur. Recalling De Certeau: while on the one hand the footsteps of walkers’ “intertwined paths give their shape to spaces. They weave places together”, but then on the other hand: “it is true that the operations of walking on can be traced on city maps in such a way as to transcribe their paths (...) and their trajectories”, but “surveys of routes miss what was: the act itself of passing by”.²⁵

Mapping here emerges from embodied, inscriptive practices within the landscape, capable of extending the map with the indeterminacy of subjective experiences. Rather than existing as an instrument for navigation fixed in time and space, in this experimental practice, the map can exist only in relation to the position of the subject in space and to
the interaction that the user develops within the map, for it is the users who mould oral histories and the topology together through their own explorative navigations. Being a responsive interface, the map empowers the subject to play out its embedded connections in unpredictable ways. Thus, including the performative component of the users’ experience in the map, can produce transformations on different levels. On an outer level, the enactment of the map revives the performative power of the rock carvings to transfer oral histories back to the present, thus casting the site into a broader geography: the vast expansion of Aboriginal sites in the area, the multitude of Aboriginal histories that belong to those places. On an inner level, by using the interface we explore not only a physical and a sonic environment but also the reflections that this ‘trans-cultural’ journey may generate within ourselves. How did the interface attempt to re-orientate our perceptions, or dis-orientate our pre-conceptions? In the following paragraph I will explore this further trying to get a deeper insight on the reflections of people’s experiences at Elvina.

**Mirroring**

A technology is interactive to the degree that it reflects the consequences of our actions and decisions back to us. It follows that an interactive technology is a medium through which we communicate with ourselves...a mirror.26

Mirrors are specular surfaces that reflect our image, on that image we construct our identity. We trust mirrors, we identify with the image they project. Mirrors are contact surfaces, through which we imagine and communicate to ourselves. Similarly, an interface is often described as a contact surface, a physical and/or virtual boundary that connects or separates two entities. Interfaces, like mirrors, work to create a contact surface between ourselves and the outer world, this being something external to us, a machine, a virtual environment, a physical object, a person, or an itinerary to follow... Interfaces mediate
the presence of the ‘other’ by transferring it from the external world and translating it to us. Doing so, interfaces can magnify reality, reflect it, distort it, or reduce it. How can our subjectivity be affected by the distortion or augmentation processed in this translation? In what ways can we see ourselves differently through the use of interfaces? As the statement from Rokeby reminds us, when creating interfaces, designers and artists not only intervene and manipulate reality, but also transform the way the user perceives herself through the interaction with the interface, her relation with the ‘other’, and how the interface mediates a reflection of that experience back to the user. Within this experience our sense of self and of the ‘other’, our belonging and our identity are at stake.

Setting up an experiment at Elvina offered the opportunity to understand in more depth the reflexive component of participants’ interactions. In such a research setting, questionnaires and conversations provided useful instruments to investigate further the users’ responses and reactions after the experience. To know about participants’ experience is to understand who the ‘other’ is for both the author and the user, ‘who/what’ is that counterpart, that second entity, whose presence is mediated through the interface, and how is this mediation conceived by the author, how is it perceived by the user, and what are differences and similarities between the two.

In the development of the mapping strategies, my intent as an author, was to enhance connectivity through the interface in such a way to sense place through loss and across absences of the ‘Aboriginal’ presence within the landscape. By interlacing personal histories and the site with the exploratory movements of people in space, the medium forces us to interface the ‘other’, to know it by searching for it, to hear it at distance first, then to listen to it closely. As we encounter the ‘other’, we can then reflect on our own experience of being there, on the consequences that follow our moves in space, what it entails to stand or walk on those rocks that once were carved, sung and commemorated.

By creating an interface for mapping a space I looked at the notion of mapping as described by James Corner: “mapping entails searching, finding and unfolding complex and latent forces in the existing milieu”. I use the practice of walking to reveal those latent forces, as if to enact a way of inscribing the landscape with an intention for searching, inquiry and, at the same time, getting lost. Doing so I aimed to distance the map from its usual purpose of assisting orientation to alleviate the fear of being lost.
Losing ourselves in space, with no directions, no expectations of what to find or listen to, thus knowing that something is there, present, to be found, is a way of coming in touch with ourselves, to intensify our awareness, our attentiveness.

Many examples of drift as an aesthetic practice, a form of spatial inquiry, political engagement or activism are found in the history of walking, from the Dadaist experiments in the city, to the Situationists’ *Dérive*, to the most recent explorative experiences of ‘transurbance’ in the suburbs of Rome and artistic practices using locative media. Walking can be revelatory: it can bring the unconscious to the surface, reveal what has been removed, erased or re-written within the environment. At Elvina site drift entails not only a physical stray in the landscape, but also a cultural shift from preconceived assumptions and perhaps common stereotypes about ‘Aboriginality’, or prejudice about what Marcia Langton defines as “the undifferentiated other”. Two comments from participants may provide a further understanding of how self-reflection is involved. The first comment was written as an annotation to a question posed in the questionnaire.

There was this moment in which I just stood and glanced over the landscape... the storyteller told about how people were buried in blankets and suitcases, this was a very touching story obviously, and maybe due to my deep emotional involvement –I don’t know- I suddenly was zoomed in this past –this other time- and I became aware of this ‘otherness’ –difficult to explain. Australia often to me is this country “down-under” and many differences I experience are just small differences between my home culture (European) and this remote Western Colony. But in this very moment I became so drastically –or intensively- aware of how different –how strange, in the literal sense, this country and its environment are –the Aboriginal experience of this country almost impossible to grasp. I was kind of closer and at the same time more estranged than ever before.

The second comment was sent to me via email a week after the field test took place.

Whilst researching sonological works for Recorded Sound’s planned year
Sonology 09, I came across a new work by a student: Francesca Veronesi. Veronesi has created a location sensitive audio installation on a large rock platform – the site of several Aboriginal rock engravings in The Kuringai National Park in Sydney. Her installation launch was held on a searing hot Saturday morning. The low hum of the bush signalled a vast place of stories: stories, which only the bush would reveal - and then - only if you could perceive them. After being armed with headphones and a GPS – Global Positioning System Device, I stepped on to the rock platform, the site, which Veronesi’s installation is designed to interact with. Immediately, I noticed a large, eloquent engraving of an emu in the rock. Veronesi’s audio journey had begun.

I was now hearing a layer of virtual bush sounds in the headphones: birds, water, and cicadas. As I moved towards another distinctive engraving in the rock platform, I listened to the story of Flat Rock, a place where only the indigenous children could swim. People from elsewhere had been be pulled under by a strong current. The speaker recounted how one year, one of the local boys pulled a visitor free from the current – he could do that: he was from there. The stories seem to emerge from the rock itself. As I moved from one engraving to another the global positioning technology triggered layers of natural bush sounds interspersed with indigenous stories.

I step into a ‘story zone’. An indigenous woman is recounting a story about the five indigenous families, which originally inhabited Sydney. She tells how the children of these families formed a football team: The Redfern All Blacks… Some kids came from La Perouse. Her mum used to wash the shirts… So many stories… lost to white history, displaced by colonial settlement. Veronesi’s work wants to put the stories back into the land… As if to re-map the landscape with a culture, which has become invisible but is still powerfully present. “I plan to make the installation transportable.” She tells me, “So the engravings and the audio piece can travel together to other places and be experienced elsewhere. “Great idea!” I enthuse. It will be wonderful that more people will have exposure to this indigenous sound collage, but no urban setting can beat the experience of being immersed in the dense Australian bush with the heat
of the sun beating down on one’s back, the timelessness of the rock underfoot
with Veronesi’s audio journey of untold stories, whispered as though secretly,
in one’s ear.32

“Interactivity’s promise is that the experience of culture can be something you do rather
than something you are given”.33 Taking Rokeby’s statement as an intention and a starting
point in the application of interactive media to this context, I propose that interactivity
mediates the experience of culture through loss and absence, allowing an embodied way
of knowing the tensions that exist within in the territory. Participants can enact loss and
disconnection: for someone can be sensing a cultural loss, a void or absence: “a culture,
which has become invisible but is still powerfully present”, for others a feeling to be
estranged, alienated to the landscape: “the Aboriginal experience of this country almost
impossible to grasp”.

Whatever these reflections might be, we can look at the sonic cartographies performed by
participants’ routes across the site as a way to enact a counter-geography which re-write
history by inscribing the landscape with the intimacy of a personal experience of walking,
sensing, hearing, and remembering what is lost. By mapping what is forgotten, dispersed
or erased, bodies and geography are engaged in an ongoing dialogue, so that the body
and the terrain become as whole, intertwined, sensitive contact surface.

_The representation of the user within the system – restrictions of technology_

How does the system perceive the user? How is the user recognised by the system?
In order to be recognised, the representation of the user embedded within a system is
reduced to a limited number of parameters. In this context users are ‘compressed’ to
their outline, that is, the external contours of their bodies, and then represented as round
shaped cursors on the map. This gross representation fails to convey the articulated
geometry of the human body and the subtle yet distinctive movements that our limbs
perform spontaneously in the act of walking. The GPS sensor detects movement with
a resolution ranging from 2 to 6 meters. This implies that users are ‘invisible’ to the
system as, moving in space, they cover a distance shorter than 2 metres. Influenced by
atmospheric and environmental conditions, the accuracy of the GPS sensor can vary
quite significantly. So it can happen that the soundscape breaks in suddenly and swiftly
starts up with no possibility for the user to control it. In terms of the user experience the flickering of the GPS signal sometimes affected the delivery of the audio field in terms of consistency and quality and often caused confusion, as this participant points out:

I found the way that some stories would stop playing while I was standing still to be confusing and frustrating. Had to try to search for ‘stable’ places to listen to the stories.\textsuperscript{34}

Another participant commented on the experience with the technology: “Slightly confusing at times”.\textsuperscript{35} Referring to my personal interaction with the site in the design of the audio composition, I predicted that the morphology of the terrain would lead the user to walk only on the flat surface of the outcrop and to avoid the grassy slopes around its perimeter, thus I decided not to include a sound boundary to mark the sound zone - this also to achieve a more naturalistic way of navigation and to produce a seamless fusion between the artificial and the ambient sounds of the landscape. Two of the volunteers who participated to the experiment, though, as they started their navigation, promptly contradicted my assumption. As they walked in from the entrance of the site on the northern side, they headed straight off track, to the furthest eastern edge. They wandered through a jagged terrain finding their way back in the audio filled zone after a couple of minutes. No directions or sound would tell them were to go. At the end of the experience one of the participants briefly commented in the questionnaire: “Beeps to suggest ‘edge’ of area”. See Figures IPAQ02 - RUN 3 and IPAQ03 in the following page.

Being aware that variability could often cause confusion in the user experience, I asked participants to rate the following statement in the questionnaire:

‘I was confused and didn’t know where to go’. Generally it had a low rate of agreement (10 = strongly agree, 0 = strongly disagree), ranging from 0 to 5. There was one rating of 7 with a comment: “Only when the GPS was out”. Others commented this statement further: “In the beginning I felt lost”. Arguably, most confusion was due to technical issues, and this is quite expectable when dealing with prototyping technology, more than to a lack of a guidance or plot in the narrative-scape. No one of the participants mentioned the lack of directions or the absence of a narrator as a matter of confusion.
While consistency, evenness and smoothness of the sound flow, on the other hand, turned out to be important factors to create immersion and engagement. To gather a deeper understanding on these two important factors of the user experience I asked participants to rate the following three statements in the questionnaire.

- ‘I was immersed in the soundscape and concentrated on listening’, obtained three ratings 10, two 7 and one 5.
- ‘I became more involved in the experience as time passed’, was rated twice ‘9’, three times ‘7’, once ‘8’ and once ‘5’.
- ‘As time has passed I forgot I was holding a GPS device’, had three ratings ‘7’ and one additional comment: “I have worked with GPS before. I certainly didn’t think about GPS doing my experience but I was attentive to the various zones and zoning”.

While most participants find themselves more involved in the experience as time passed, others commented about being distracted by interruptions to the audio field:

> I wish it was possible to experience the sound islands in a more seamless fashion. It reminded me a bit of listening to an answering machine.36

Negotiations had to be done between the resolution, accuracy and stability of the technology and the articulation and refinement of the soundscape. This affected the
sound map in terms of granularity, that is, the scale and level of details allowed by the system. In the map design, this factor was a crucial constraint that led the design process. Users are recognised by the system as dots on the map: they have no qualities, only quantifiable parameters in the two dimensional space of the map: geometry and position. To the system, the user is an agent with no history. The system is neither programmed to recognise the qualities of the actions of the user in space nor to remember his/her navigational routes. Whether the user returns to the same location, the system cannot remember, therefore it will represent the user as ‘new’ every time. If, for example, people accidentally exit an audio zone, which is a rather predictable eventuality as the sound zones are invisible to them, when entering back in, they would listen to the same story from the beginning, rather than from where it interrupted. To this regard a participant suggests to “allow the story to be started where it was just left i.e if you return to space < 1 second”. Also if returning to the same audio zone in their navigation, participants are not recognised as returning users by system. This prevents them engaging further with the development of the narration, or it triggers their curiosity for exploration, as the search for the same landmarks implies new interactions with the site such as new stories to be found. If the technology allowed tracking of the history of the user I would design the soundscape to enable and further develop a more interpersonal dialogue between the user and the storyteller. That is to say, when returning to the same location a new story from the same storyteller would play, so that a more accurate knowledge of the geography corresponds to a further disclosure of the characters’ personal histories and a deeper excavation of memory layers. This could recall an archaeological practice where digging up lower archaeological strata reveals older remains belonging to earlier times. The following feedback from a participant helped me envisage alternative strategies to the design of site interactions:

It would be nice if the stories actually didn’t start but you come across it and just listen in – as you would if someone had already started.

If we had to follow this track, a whole different scenario would open up for interaction
design. The emphasis, rather than being on the users, who activate the space with their navigation, would be on the storytellers, who stage their stories in the landscape. In this context, the site becomes a stage, and storytellers, not users, would be the performers. When walking through the site the participants would run into a place where a story is playing, as if a storyteller was improvising a performance.

During a site visit, on a Sunday afternoon last spring, I found myself involved in the audience of what happened to be an improvised musical performance. A group of five, six musicians gathered together toward the southern edge of the site at sunset. As people flocked in they sat on the rocks surrounding the performers. The combination of light and sound, and a dense, surreal silence enveloping them together, created an atmosphere suspended in time. I was transported by those vibrations, imagining the landscape resonating again with the sounds of a contemporary performance.
Reflecting further on the representation of the user within the interface, a work by Tim Hawkinson exhibited at the Museum of Contemporary Art in Sydney last January triggered my curiosity. *Sonic* is a bronze sculpture approximately 70 cm tall that represents a figure of a child with two gigantic ears. The feet are slightly lifted from the ground, only the ears are used to support the body. Although the sculpture is static, movement is somehow implied in its stance, so I cannot imagine it without moving, rocking or swinging on those enormous, hypersensitive ears. I picture it wandering around playfully, as toddlers do in their explorations, longing for sounds. I looked at this sculpture as a metaphor to describe the user I had in mind when designed the map at *Elvina*. Here users are reduced to their capacity to hear sounds and to move in space. Yet hearing is what initiates their moves, leads their orientation and feeds their interest for exploration. Ears, not legs, become means of transportation for users as they displace and immerse them into other ‘sonic’ realities.

In the essay *The Eyes of the Skin* Juhani Pallasmaa analyses how the sense of hearing, one among the other senses that has been diminished by what he refers to as current ‘hegemonies of vision’, works to construct and to mediate meanings of the world. Referring to extensive phenomenological studies comprising those of Casey and Merleau-Ponty, Pallasma argues that while the sight discerns and differentiates, the auditory sense integrates, creates immersion. Acknowledging this fundamental difference in the
functioning of the senses is important to understand the potential of interaction design, for its capacity to address specific sensorial perceptions, to create ‘sensible’ experiences for the user. *AudioNomad* is a tool designed to create immersion.

In fact the main navigation activity is the simple act of walking, without the distractions of text, images or buttons. The soundscape is delivered as virtual surround-sound via headphones, and the audio events appear to be anchored at specific points in real space and share similar acoustic properties to the surrounding ambient sounds. Thus the listener experiences a seamless nexus between the real and the virtual.  

It is precisely this seamless continuity between real and virtual space that the interface affords at *Elvina*. It works to link a real, yet silent, landscape to a virtual space inhabited with stories in such a way that to those who explore this hybrid space those voices and sounds appear to be attached to landmarks, as oral maps radiating across the terrain. The following comments help to shed some light to this matter:

Absorbed in the landscape. Very individual experience (almost meditative). Explorative (wanted to find the next experience).

Aware of the surroundings both visually and aurally. Unique landscape colours and shapes. Sense of history.

Increased interest in culture; informative historical narrative with audio immersion.

When asked to chose from a given set three or more adjectives to describe the soundscape they listen to, the participants’ choices were the followings:

absorbing: 8; compelling: 5; captivating: 5; sensitive: 4; immersive: 4; thoughtful: 3; entertaining: 1; responsive: 1
Returning to Hawkinson’s sculpture, *Sonic*, as mentioned before, represents a child. This image suits the idea I had in mind for the users at *Elvina*: like children, who have a short history, most of participants were new to mixed media reality experiences as they were unfamiliar either to the site or to the content delivered. Children are usually enthusiastic about new experiences, they are curious to engage with new challenges. In childhood learning develops mostly from playing. A playful discovery was what I aimed for when designing the experience at *Elvina*. I looked for a way of knowing place, through searching and finding, in a way that resembled children’s games, including excitement and enthusiasm that discovery brings along. This emotional component associated to the experience can be inferred from how participants answered to the question: ‘*How would you describe your experience?*’:

Very new experience. Exciting way of learning about Indigenous life.

Enjoyed the experience loved the personal exploration.\(^{43}\)

Engaging, uniquely educational, original, unusual.

Novel: especially in terms of the story content. Connective: it linked me to the terrain in a way that I wasn’t linked before. Surprising: The terrain became bigger! (more extensive).\(^{44}\)

Although estranged to the environment, and estranged to the medium of interacting with that environment, people showed a playful attitude toward this experiential practice of knowing a place. This recalls how De Certeau described the practice of space in everyday life: “to practice space is thus to repeat the joyful experience of childhood: it is, in a place to be the other and to move toward the other”.\(^{45}\)

**Subjective narrative cartographies**

Two means served the purpose of investigating the experience of the users at *Elvina*: the system’s computational recordings of the tracks of the users in space and a questionnaire.
The latter, which consists of open-ended questions, drawing tasks and rating questions, worked to gather inspirational responses from participants’ about their interactions with the site, the content and the technology.

Here I analyse the qualitative components of the users’ paths through a visual comparison between participants’ routes in space: the user trajectories computationally tracked by the system and the ones traced by hand by the users after the experience. These can be referred to as the user ‘mental maps’ as they provide an insight of how the participants perceived themselves, their position and movements within the site. Due to technical issues that occurred when retrieving the data from the memory of the hand helds used for navigation, some data is missing. Therefore it has not been possible to correlate all the routes recorded by the system to those drawn by the users.

Figures IPAQ01 - RUN 3 and IPAQ01 4_11_07 end time 13.20 show a correlation between the user’s path, in particular the zones more accurately explored, where the trajectories turn or invert direction. The user’s drawings are more schematic, yet show a similar pattern to the routes recorded by the system, as if the user was aware of her position throughout the navigation as well as conscious about all the pausing, drifting and turning that happened in the walkthrough.

Figures IPAQ02–2 and IPAQ02 1_11_07 time15:15 on the other hand, show a lack of this awareness about the user’s navigational path. Overall, the outlines tracked by the system and traced by the users correspond. However, as the user’s mental routes are diagrammatic, they fail to return the articulation of the users’ paths, whereas the intricate
patterns of the computational tracks reveal, in their curling, looping and twisting, the complexity of the wayfinding. Other visual correspondences can be inferred from the images that follow.

Figure I PAQ02 – 2 shows the GPS tracking onto the audio map as recorded by the system. Figure 1.11.07 time15:15 route shows the route on a site plan traced by the user after navigation. GPS data correlated to these figures is missing.
The figures above show the correlations between GPS data and users' trajectories.
Adding to the mental maps developed by the users, the following question aims to infer a visual experiential component from users.

‘Can you name, describe or draw some of the rock engravings you found in your navigation across the site?’ As a term of comparison, I include below the outlines of the engravings as surveyed by the archaeologists.

Above the engraving groups as surveyed by archaeologists
Below: the engraving groups as drawn by a user
Figures above show the Engraving groups as drawn by the users.
The following are written descriptions:

- Leaf, possible grinding bowls.
- Animals - could be wallabies, echidna or fish; humans: could be man could be representing journey like the central Australian; moonscape especially when speaker described it as such.
- Fish, animals, people.
- Emu and large four legged animal; leaves or shields; groups of small fish; small four legged animal; whale or large fish.
The following questions attempted to draw a parallel between the users’ memory of the narrative-scape and the landscape. Firstly participants were asked to choose from a list one or more stories that were more significant to them and/or that they could better remember – which stories were chosen and how they were described by participants will be analysed in more details in the next section of the chapter-. After selecting the story/ies participants were asked what they remembered about the physical location of the story on the site and to indicate its position on the site plan. The following images show the location of the stories as it appears in the author’s map, and as remembered by the users.
To acquire a further comprehension of the associations between the soundscape and the physical environment, that is to say the relations that exist in the memory of the participants between the stories and the landmarks of the site, and the association of stories and engraving groups, we asked the participants:

‘Can you remember any of the engravings pictured below related to the story/ies that you previously selected? Can you tell us what helped you identify the engravings?’

The answers are the following: (codes in parentheses refer to the user code)

1. (Emu group) Beauty and visitors (IPAQ 02/04_11_07/13:10 end time); The lost memories, some guy with sticks, Corroborees (IPAQ 01/4_11_07/13:20 end time) (IPAQ 01/4_11_14:22 end time)
2. (Fish Goanna group) Flat rock, Life in Sydney (IPAQ 02/04_11_07/13:10 end time); I think the activist area… (can’t remember though) (IPAQ 01/4_11_07/13:20 end time)
3. (Men) Burial /Aboriginal Rights (IPAQ 02/04_11_07/13:10 end time); Sunday school - not sure though (IPAQ 01/4_11_07/13:20 end time); Social life in Sydney (IPAQ 01/4_11_07/14:22 end time)
4. (Shields) Tents (IPAQ 02/04_11_07/13:10 end time) “back then we lived in tents” or/and visiting relatives at the reserve (IPAQ 01/4_11_07/13:20 end time)
5. (Whale, mullets) Fishing (IPAQ 02/04_11_07/13:10 end time); Didn’t see that at all! (IPAQ 01/4_11_07/13:20 end time); Flat rock (IPAQ 01/4_11_07/14:22 end time)

If we compare these answers to the story map which shows the exact relations between the story space and the landmarks of the site we can see that most of the users’ associations correspond to the ones in the map of the author. To understand further how they developed these associations we asked them to rate the following statement:

‘The soundscape helped me finding the engravings’. The ratings to this statement differ significantly, ranging from 0 to 10. No correlations can be found between low ratings and incorrect associations of waypoints and stories, or high ratings and correct matching.

The aim of these questions was to understand if listening to a story and thus standing still or moving within an enclosed area entails a further observation of the surroundings, in particular the signs of the terrain.

Two users out of ten were equipped with a site plan that provided the location of the
engravings within the site. This aimed for a further understanding of how a visual tool could work both to support navigation and to enhance the visual memory of the field experience. Both participants clearly showed that they remembered the exact relations between stories and the engravings groups, while others, not supported by a map, were not as sure in connecting stories and pictographs.

One of them commented about his/her experience:

More than the stories, carrying the map with the images helped identify the engravings. Without this I would not have found so many—they are very subtle compared to the natural water erosion.

Looking at the visual appearance of the GPS threads representing the trajectories of the users as they were recorded by the system recalls figures made with strings. I like to propose here that this analogy may not be only a visual one. String figures are often used in children's games. They involve the use of fingers manipulating a string according to a design. String art or string games are associated with the simultaneous creation of string artefacts and the narration of stories. The string figures collected by the anthropologist Fred McCarthy and exhibited at the Australian Museum of Sydney show the range of designs and stories expressed with string games among the Yirrkala people in Northeast Arnhem Land.

The reason why I recall string figures in this context is because the threads of the users at Elvina can be also looked at as strings holding stories, or the experience of listening to stories. As string figures, they can exist only temporarily and they are the result of a performative gesture: the act of walking for the users’ threads, the movements of the hands and fingers in string games. Some of the traditional design of string figures resembles animals, everyday objects or more abstract concepts. In oral cultures they were used as teaching aids, as well as vehicles to tell stories to children and to pass on knowledge. In a way we can think them as extensions of the body that construct the world. In proposing this parallel, I look at how these cultural objects share with the practice of walking an engagement of the body in knowing the world, and thus making sense of the world through the body. At Elvina, participant’s walking
strings interweave personal anthologies as they tangibly interlace geographical features with narrative threads by engaging the body in a corporeal reading and re-writing of the landscape.

"Of authors, readers and textual interfaces"

Typical of interactive art is the integration of the audience into the creative process in ways that the audience can become co-author of the artwork. This integration can be looked at with Manovich as either working to empower the audience or to manipulate it. Here I would like to draw the attention on the role that the user plays in the interaction with the story space. Following the narrative approach to map design presented in the previous chapter, I look here at the creative contribution of the users/readers in the construction of the map/text.

When I designed this textual interface at Elvina I was aware that no narrative cohesion, or common narrative thread as such, was possible. I conceived the ‘text’ more as a ‘texture’, where stories are mechanically re-attached to the landscape, as to renegotiate the loss of traditional stories that belonged to that place. I designed the interface for the reader/listener to make sense of a plurality of voices by interlacing them in ever different combinations and permutations of arrangements to create new meanings. The user is the place where the plurivocality of histories can converge as in the words of Roland Barthes:
A text is made of multiple writings, drawn from many cultures and entering into mutual relations of dialogue, parody, contestation, but there is one place where this multiplicity is focused and that place is the reader, not, as was hitherto said, the author. The reader is the space on which all quotations that make up a writing are inscribed without any of them being lost; a text’s unity lies not in its origin but in its destination.  

At Elvina walkers are listeners, interpreters and performers. Through their personal journeys they weave narrative passages and form new story networks. The user-generated narrative maps are a collection of stories that differ one from the other as they reflect a personal exploration where, as stories unfold spatially, place emerges incrementally, according to the pace, rhythms and directions of the walkers’ moves in space. In this context locative media afford users to become cartographers, to author space in such a way that “making and marking are contemporaneous”, as Paul Carter suggests in ‘Inscriptions as Initial Conditions’. The following are the main narrative themes described by the participants in the questionnaire. (The code in parentheses refers to the user code)

Recreation, or being together as a group (IPAQ 01/27_10_07/ 12:00)

Hardship of being Aboriginal in white society (IPAQ 01/27_10_07/ 12:00)

Remembering a time before white people settled in the area (IPAQ 02/27_10_ 07/11:16)

Stories of their lives when growing up as kids and having to integrate into ‘white’ society (IPAQ 02/27_10_07/11:30)

Social Relations; Everyday life; Constraints (limits) misunderstanding of white community/welfare (IPAQ 01/4_11_07/13:20 end time)

Gathering of food, living in the white community, past times (IPAQ 02/28_10_ 07/ 11:45)
Social life; Activism; Food; Living (in tents – two brothers in one room); Fishing; Rivers (not dangerous) – Sunday School (religion) – Funeral. (IPAQ 01/4 11 07/13:20 end time)

Aboriginal, We, I remember, Was eg Past (IPAQ 01/4 11 07/14:22 end time)

Aboriginal people talking about their culture/past/families (IPAQ 02/27 10 07/10:40)

Techniques for medicine, eating catching fish (IPAQ 01/27 10 07/12:00)

Water; People; Fire (IPAQ 03/27 10 07/11:28 end time)

River, father, white people; eat (IPAQ 02/1 11 07/15:15)

Reservations (not being able to live there), the coming of Cook/Strangers, religion (church, burials) (IPAQ 02/04 11 07/13:10 end time)

The story space is sequenced and recorded by the agency of the walkers/readers. Here are the stories as participants remembered them:

n.14: The healing process – The belief of the round rocks. They believe they were real people. They needed these because there were no doctors and needed something to believe in. The storyteller describes how they really worked to make people better. (IPAQ 01/27 10 07/12:00)

n.6: The narrator shared a large room with mother and father for sleeping with fire for cooking and heating. Brothers had tent for sleeping. Only dark people could live on reserve. Used to visit the reserve. (IPAQ 02/27 10 07/11:16)

n.11 How Aboriginal children are loved and cared for by their community. If a mother is sick the other community members will take her children and
care for them until the mother is well again. Children were always shown love and always had their family around them (IPAQ 02/27_10_07/11:30)

n.1 Her father used to travel up and down the coast campaigning for Aboriginal rights. He wasn’t allowed on the missions cause they thought he was an ‘agitator’. He also used to publish a newsletter/pamphlet. (IPAQ 02/28_10_07/11:45)

n.12 A time when there were only 5 Aboriginal families living in Sydney. They formed a football team called the ‘Redfern Allblacks’! This person’s mother used to wash the shirts and some kids came from La Perouse. They had regular dances at the local hall” (IPAQ 02/27_10_07/10:40)

n.9 She used to eat yams but not berries because they were poison;

n. 15 The arrival of Captain Cook in Botany Bay, kids still like listening about these stories, 2 men were shot.

n. 16 There used to be many fishermen in the past, there is just one left. Fish are disturbed by human activities (IPAQ 02/1_11_07/15:15)

n.4 The author recalls going down to the Corroborees nearly every night. She is sad that the techniques have not been passed on to modern day. In her childhood there were no lessons for Corroboree, only the children would watch and learn. But as she grew up she was gradually assimilated into white culture as were other children and the tradition was lost. (IPAQ 01/4_11_07/14:22 end time)

n.13 An old leader being wrapped in a government blanket and a child being buried in a port, a suitcase, as there were no coffins (IPAQ 02/04_11_07/13:10end time)

n. 11 was particularly interesting as the narrator talked about how the white welfare people told them that they did it “all wrong” – They just didn’t understand the way that the community care –overtake- the parent’s duties.
n. 13 That was sad – they didn’t have coffins so they had to bury the child in a suitcase – it reminded me of a murder that recently happened in an Aboriginal community where the child was found in a suitcase too.

n. 12 They hardly had any social life – but there was this community dance hall – I was wondering what kind of dances they were dancing too – Only 5 families – How many people that might have been?
And remember many more... (IPAQ 01/4_11_07/13:20 end time)

When re-tracing these ‘memoryscapes’ the users/readers take over the authority of the text/map, thus re-writing the story space. The metaphor of the ‘suture’ returns here to picture the role of the users in sewing the script together. In fact users actualise with their agency the potential of the text, to be parsed, sequenced and restructured, away from the control of the author. The role of the interface is critical in the mediation of the text. The interface is a vehicle of meaning. That is why “the creation of interactive interfaces carries a social responsibility” as Rockeby reminds:

We are laying the foundations for new ways of seeing and experiencing the world. And through communication interfaces we’re building new social and political infrastructures... Accepting responsibility is at the heart of interactivity. Responsibility means, literally, the ability to respond.52

The role of experience
As parting thoughts to this chapter I would like to reflect on the role that experience can play within practices of cultural memory and heritage preservation. We can think of these practises as operating within two different realms: the geophysical domain, through practices of land management, natural preservation and heritage site conservation, and the cultural domain through archiving and maintenance of material cultural records. These two domains can be thought as the ‘firstspace’ and ‘secondspace’ theorised by Edward W. Soja, “the former being the perceived space of measurable spatial forms, the latter the conceived space of mental representation and ideologies of human spatiality”.53 Both spaces are fixed, hierarchically structured and regulated by mechanisms of power.
context of this case study, ‘firstspace’ is the space of colonial geography where clearance, renaming and ownership of the land are carried out through invasion, dispossession, and authority, and where contemporary practices of land conservation are fixing the landscape in natural and cultural heritage enclosures. The ‘secondspace’ is the archive where survival relics of Indigenous cultures disconnected from the land are selected, surveyed, and indexed according to assimilating procedures of the dominant mainstream. ‘Thirdspace’, is according to Soja the ‘lived space’ of spatial practices, explained as embodying “the real and imagined lifeworld of experiences, emotions, events, and political choices”.54 ‘Thirdspace’ is an unfixed, fluid, in-between space whose inherent potential of transformation operates on the first and second space through intervention (from the Latin ‘intervenire’, to come in-between), an unfixing and remapping creative practice of resistance, activism, and cultural re-appropriation.

I envisage the space opened up by the interface at Elvina as ‘thirdspace’, where temporary and partial knowledges can be performed. By temporarily re-territorialising archival histories or mediatising the geography with archived memories, the interface makes the space responsive for experiential ways of knowing place. This kind of embodied, situated knowledge is often referred to as ‘enactive’. In this context enactive knowledge reshapes the landscape and turns it into a cultural interface by allowing space to be authored and then re-constructed culturally by people inquiring into it through exploration. Authoring such kind of space means to “reoccupy lost cultural spaces and propose historical counter-memories”.55

Practices of memory and land preservation have to adjust to the mutant nature of our contemporary space, “a fluid, migrational construct which we always only temporarily belong to, rather than as something geographically fixed and bound”.56 This raises questions of how performativity can renegotiate practices of heritage conservation by integrating them in the dynamics of culture and its ongoing process of ‘cultural continuity’, which Raymond William57 explains as the convergence of the dominant, the emergent and the residual.
I REMEMBER CARRYING THIS OLD – HE MUST HAVE BEEN AN OLD LEADER OF THEM ALL UP THERE – CARRIED HIM OVER TO THE CEMETERY.

NOW WHERE IT EXISTS UP IN TABULAM, IN A BLANKET; AN OLD GOVERNMENT BLANKET. THEN I WAS VERY SMALL BUT I STILL REMEMBER THAT DAY, AND A FEW MORE. I REMEMBER HOW THERE WAS A YOUNG BABY PASSED AWAY THERE AND THEY HAD NO COFFINS AND THAT FOR US THEN, SO THEY HAD TO PUT HIM IN THIS PORT, OLD PORT, SUITCASE, AND BURIED HIM IN THAT MAPPING FOOTPRINTS / III / ENACTMENT / Elvina Diaries ii

The following images show the participants in the field experiment. As a commentary to the images I have selected some excerpts from the transcripts of the oral histories.
OH, IT WAS BUSHLAND. ALL VERY BUSHY AND LOTS OF PEOPLE THERE. THERE WAS LOTS OF PEOPLE LIVED IN THE VALLEY, WHITE PEOPLE AND ALL. THERE WASN'T TOO MANY DARK PEOPLE BECAUSE THE RESERVE WAS THERE AND DARK PEOPLE LIVED ON THERE AND WHITE PEOPLE WASN'T ALLOWED ON THE RESERVE IN THOSE DAYS. MY FATHER WASN'T ALLOWED THERE BUT MY MOTHER USED TO GO DOWN AND SEE HER FATHER AND HER BROTHERS AND SISTERS. THEY LIVED THERE AND WE JUST WENT DOWN THERE FOR VISITS.

Gladys Ardler, Transcript ML MSS 516371/1 p.2
IT WAS A CLASH OF CULTURES AND IDEAS, DIFFERENCE THAT WAS. IT MUST HAVE BEEN THAT WAY, YOU KNOW, BECAUSE ABORIGINAL PEOPLE DON’T
NEGLECT THEIR KIDS, NOT IN THE ABORIGINAL WAY, YOU KNOW. THEY WERE NEVER HUNGRY, NEVER SHORT, YOU ALWAYS HAD YOUR FAMILY AROUND
YOU AND PLENTY OF LOVING AND CARE, YOU KNOW, THAT’S WHY I THINK THEY JUST GRABBED THEM AND TOOK THEM AND ALSO TO BREAK THE CUL-
TURAL LINK BECAUSE MY MOTHER NEVER SPOKE HER LANGUAGE TO ME AND I ALWAYS WONDERED WHY.

Paruline Gordon, Transcript ML MSS 5063 200/1(2) pp.10-11


Written comment from a participant of the field study, retrieved from the ‘Participants field study questionnaire’, 4 November 2007.

Rokeby, The Construction of Experience: Interface as Content.


Ibid., p. 126.

Ibid., p. 122.

Ibid., p. 126.

Ibid., p. 125.

Ibid., ‘Aboriginal myths were not and are not recited in a prosodically fixed form. I suggest this may be related to what I have said above, that the ‘story’ itself is seen to be located in the country, the verbalisation being only a mean by which it can be, in Povinelli’s terms ‘retrieved’. The same goes for at least two other characteristic forms of objectification beside country, namely songs and paintings (…)' , p. 126.


Ibid., p. 34.

Ibid., p. 34.


Ibid., p. 36.

Written comment from a participant retrieved from the ‘Participants field study questionnaire’, 28 October 2007.

Ibid.

Oral comment from a participant, from my notes, 4 November 2007.

Written comment from a participant retrieved from the ‘Participants field study questionnaire’, 27 October 2007.

Oral comment from a participant, from my notes, 4 November 2007.


Written comment from a participant of the field study retrieved from the ‘Participants field study questionnaire’, 4 November 2007.

Personal communication with a participant of the field study, via email, 31 October 2007.

Rokeby, The Construction of Experience: Interface as Content, p. 27.

Written comment from a participant of the field study retrieved from the ‘Participants field study questionnaire’, 4 November 2007.

Written comment from a participant of the field study retrieved from the ‘Participants field study questionnaire’, 4 November 2007.

Written comment from a participant of the field study retrieved from the ‘Participants field study questionnaire’, 4 November 2007.

Written comment from a participant of the field study retrieved from the ‘Participants field study questionnaire’, 4 November 2007.

Written comment from a participant of the field study retrieved from the ‘Participants field study questionnaire’, 4 November 2007.
38 Written comment from a participant of the field study retrieved from the ‘Participants field study questionnaire’, 27 October 2007.
41 Written comments from participants of the field study retrieved from the ‘Participants field study questionnaire’, 27 October 2007.
42 The complete question is provided in the questionnaire in the appendix.
43 Two written comments from the participants of the field study retrieved from the ‘Participants field study questionnaire’, 27 October 2007.
44 Two written comments from the participants of the field study retrieved from the ‘Participants field study questionnaire’, 4 November 2007.
46 Three written comments from the participants of the field study retrieved from the ‘Participants field study questionnaire’, 27 October 2007.
47 Written comments from a participant of the field study retrieved from the ‘Participants field study questionnaire’, 4 November 2007.
48 Written comments from a participant of the field study retrieved from the ‘Participants field study questionnaire’, 4 November 2007.
This chapter explores the transferability of the site-specific experience at Elvina site to another context. A second experiment looks into the act of transformation and reflects on the documentability and reproducibility of knowledge produced through experience. In what ways, for instance, can the interaction with sound, archival histories and movement, performed at Elvina, inform another experience to a different context? How can this experience be mediated? And what gets lost in this transfer?

At Elvina, walkers activate a story space by traversing the geography of a site. The tracks of their wanderings through the landscape are recorded by the system’s memory and can be conveyed with a time-based map. GPS data shows the exact routes of participants through the site, which areas they surveyed, which sounds and stories they retrieved. Despite the accuracy of these maps, the routes computationally recorded are only relics of movement fixed in space and time. They cannot transfer the experience of searching, moving, drifting, changing direction. They cannot mediate the immersion in sound, the displacement through the stories, the tactile matter of the textures of the landscape.

Is this experience transferable to another context, or to other people?

These questions involve looking for ways to embody place with a map when place is distant and inaccessible. And yet the objective of this map would be to make the experience of the participants’ search, exploration, and perhaps disorientation, available and — in some sense — reproducible in this other place. In short, can we develop a mapping instrument capable of transferring and mediating the visual, tactile, auditory, and possibly sensorial experience of another, remote place …like a skin?

**Remembering through skin**

We become aware of skin as a visible surface through memory. If someone touching our skin brings us immediately into the present, the look of our skin—both to others and to ourselves—brings to its surface a remembered past. It is a phenomenological function of skin to record. Skin re-members, both literally in its material surface, not only race sex and age, but the quite detailed specificities of life histories. (...) Skin is the body's
memory of our lives. But if skin constitutes a visual biographical record, by no means is this record historically accurate. Indeed the fact that we continue to invest the legibility of identity in the skin in spite of knowing its unreliability, suggests skin to be a fantasmatic surface, a canvas for what we wish were true—or for what we cannot acknowledge to be true. Skin’s memory is burdened with the unconscious.¹

Skin reveals in its marks and scars the memory of past actions. What if skin could remember a past lived by others? In a second experiment, I used a skin as an interface to transfer the—lived—memory of Elvina into the present. I call it ‘Skin-Memory’.

In the *Eyes of the skin*, Juhani Pallasmaa argues about the primacy of the haptic realm among the other senses: “All the senses, including vision, are extensions of the tactile sense; the senses are specialisation of skin tissue, and all sensory experiences are modes of touching and thus related to tactility”, and includes the view of anthropologist Ashley Montagu: “[The skin] is the oldest and most sensitive of our organs, our first medium of communication, and our most efficient protector... Even the transparent cornea of the eye is overlain by a layer of modified skin”.²

Imitating the sensitivity of a skin, although out of the body, the interface we develop works as an extended connective tissue. Like a sensitive contact surface it connects *Elvina* to a present, and the present to other realities.

*Elvina remapped*

*Skin-Memory* develops an interface by using a piece of leather integrated with sensors, the artificial memory of the skin. It remaps the physical site of Elvina together with its sounds and stories. Moreover, it incorporates the memory of how the landscape, augmented with sound and stories, was navigated and explored by conveying to new users the soundscape that each participant in the field experience has created in their navigation of the site.

The physical space of the site is scaled and imprinted onto the surface of the skin-based interface, it is shrunk, compressed to become an everyday object—a map. Of the landscape *Skin-Memory* keeps the textures, the patterns of the outcrop, the pits, the fissures, the natural erosion, the grain. This condensed, abstract, projection of the landscape transferred onto the skin-scape misses out the details of the ground, the outlines of
the rock carvings, details that are too fine and ephemeral to be rescaled. The appearance of the skin features the same smoothness, the lack of landmarks or references of the landscape.

The original soundscape has been remapped and rescaled onto Skin-Memory in a way that retained the same relative positions of sounds and stories. The resolution of the soundscape is determined by the size of the sensors (RFID tags) used to store and to remotely retrieve the sound. To interact with Skin-Memory users are afforded with a stethoscope integrated with earphones and a sensor. The interaction with Skin-Memory develops in such a way that when the sensor within the disc of the stethoscope is placed onto a tag, it reads the information and immediately plays the corresponding sound. As the RFID reader is moved away from the tag the sound stops. Transitions between sounds are more sudden, instant, abrupt, in a way. This instrument, typically used for auscultation, is here employed as an instrument to hear the sounds as if they were resonating from a distant site to the surface of the (our) skin.

The story space of this interface is defined by the paths that users in the field have walked through the landscape augmented with sounds. As described in the previous chapter, each user developed a unique soundscape - the user’s narrative cartography - where stories and sounds are sequenced in different ways. Each of these storylines creates a contained environment, a state, which is defined by the stories and the ambient sounds retrieved along the user paths.

We collaborated with the computer scientist Rob Saunders to remap these individual
storylines onto the surface of *Skin-Memory*. Firstly, we made an abstract model of all possible storylines by using the analogy of a finite state machine, ‘a machine with a primitive internal memory’. This model comprises ‘a finite number of states, transitions between those states, and actions’. Each state stores information about the past. In our case, the information is about the audio data retrieved by each user in the field experiment. The action performed by our ‘state machine’ is to play and stop a certain sound at a certain time, depending on the user’s current position and past choices. This required a set of conditions for transitions between states. These conditions are based on the correlations that exist between the narrative sequences within the users paths. We then remap states, actions and transitions onto a matrix. The matrix consists of carefully layed out RFID tags. This technology allowed us to remotely store the audio data in the tags and to retrieve it according to the actions defined within each state. The RFID tags got integrated into the surface of *Skin-Memory*, according to the mappings defined in the software program (state machine). Moving across the surface with a device that can read the information stored in the tags, we can retrieve the soundscape created by the users of the field experiment.

The idea behind this modality of interaction was to find a way to transfer the information retrieved in a past experience, where a sound-scape was produced according to the participants’ exploratory movement in space. More in general, this model looks at ways to create an experience by storing and retrieving the recorded paths of another experience. *Skin-Memory* contains the storylines of each participant in the field and stores it in its ‘states’. Some states include more information than others, yet *Skin-Memory* allows for the transition between states. In this way a new user can achieve a comprehensive knowledge of the whole sound-and-narrative-scape by navigating the paths that all the previous users have performed in the field. This new displaced soundscape opens up the potential of an
endless seeming combination of storylines; transiting from one state to the next, a new piece of the memory becomes available to the user, like a jigsaw puzzle that gradually reveals an image fragment by fragment.

**Skin-Memory/user interaction**

The second experiment takes place in an indoor environment, the faculty of Architecture, Design and Planning at the University of Sydney. Before starting the experiment, the participants were informed that the soundscape they were about to listen to had originally been developed for an Aboriginal heritage site.

One user at a time engages with the interface for 10 to 20 minutes. The experiment involves sitting at a desk, wearing the stethoscope and moving it across the surface to hear sound. The users perform the auscultation at a different pace. As they do not have clues about where to find the stories, they start by sweeping the disk of the stethoscope slowly across the skin. The uncertainty of whether sounds may be ‘hiding’ causes them to ask if the system is working as they encounter zones of silence. When they stumble upon a story, they pause to listen. Some participants remove their glasses before commencing the auscultation, and appear to stare at a distance when they find a story. Others keep their gaze onto the skin. We can follow their path across skin-memory on a screen-based version and doing so we can relate to what they listen in real time by tracking the tags that were activated along with their auscultation.
We used a questionnaire to understand how the participants perceived this way of interacting with sound and stories. In the following, I report the responses of three participants in the form of a fictional conversation between me as the author and the participants as co-authors. Along with this conversation I will present extracts from the transcript of the oral histories, particularly when the users explicitly referred to people or places in the stories. This fictive dialogue includes the questions provided in the user questionnaire and the answers of the participants in form of a conversation between the author and the users. It should be read as a performance, where the participants interact with each other, the author and the stories’ narrators. This way of interweaving questions, answers and extracts of the oral histories allows for a more fluid reading of the participants’ responses through a discursive narrative rather than separate statements.

Note: quotes from the participants are shown in different colours, sentence connectors in brackets, questions and comments from the author in italic, extracts from the transcript from the Bicentennial Oral History Project are in dark grey.

**How do you imagine the landscape? Which kind of setting would you imagine for the stories to play?**

I imagine an Australian landscape, gum trees moving in the wind, bushland littered with leaves and bark, birds singing in the branches, the sound of walking through the bush... I also imagine sun dappled near a river and the ocean, a creek, rocks sandstone and cliffs.

**Why do you imagine a bush type of landscape?**

Because of the sounds of birds, of the creek. I could visualise the bush, all the abstract elements of the experience, as if I was exploring it, as if I was actually there.
indigenous stories became part of that landscape, part of that experience, walking in the
Australian bush.

Did you have the impression that the sounds of birds, wind or water were in some ways
related to the stories?

Yes, [for me] the sounds of the natural environment became part of the storytelling, [as if
they would] set the scenario in which stories would be told.

[I imagined] bushland and nature were surrounding the places where the stories were set.
[This is how I thought] the sounds were related to the stories.

And what about the places described in the stories? Can you remember any of them?
The Australian bush. I recall the story about yams and the storyteller recounting how she
learnt when she was a young girl what to eat.

That’s a story from Eunice Robinson. Let’s hear it from her voice:

We used to go looking for yams and gurabay. That’s all we used to eat. (…) we knew what
to eat and what not to eat. You know, like berries. We knew which berries were poison and
then what was good to eat. Like with the leaves and yams and gurabay.

I felt like I was experiencing the bush through [her] eyes. [I remember] one of the stories
talked about a baby that was buried in a suitcase. The other described a shack or a tent,
where the girl used to stay with her family. [I remember they talked about] humpies, [and]
country places away from ‘Europeans’.

Can you remember anything the stories had in common?

[I imagine they were telling about] people experiences of their lives [like] the experience
of prejudice and colonisation, separation. People were telling about earlier years of their
lives, [of] life in past times: what they experienced in the bush, [about their] childhood
[and] growing up, where people lived, [their] family, good times [and] hard times.

Which story was particularly significant for you?
The story about black people living on the reserve.

Why?

It reminded me how connected Indigenous people are with the land. [For me it was] the
death of a baby. Because I can relate to the story. [I found] the story which described a
man, white man, not being allowed to visit the aboriginal members of his wife’s family
was distressing and painful. The stories about Patten family were significant as these are
the family of my friend, also a distant relative.
So you discovered a family story! The storyteller you recognised is Pauline Gordon. She recounts the life of her father Jack Patten, how he dedicated his life to the Aboriginal cause. When he moved to Sydney from Tabulam he helped Aboriginal people to get medical assistance. He formed the first Aboriginal progressive Association in Australia to fight for Aboriginal rights. He then started to visit the missions around the country and to report about the conditions of Aboriginal people living in the reserves. The managers wouldn’t let him go on the mission because they call him an agitator and a stirrer. So the blacks used to all come down onto the beaches and meet him there and talk to him there and they’d pass a hat around and he’d hand out a paper (...) that he edited, my father edited, and it called the Abbo call.

Did you give a face to the voices you heard? How many were they?

Four. I imagine they were aboriginal ladies, three of them old. I think I recall about six, all Aboriginal, all female. I remember four Aboriginal women, probably Elders. I pictured their faces as they recounted their stories, their hair their eyes and their facial expressions. I also remember one story told by a white woman.

Have you ever visited an Aboriginal heritage site?

Yes in the Blue Mountains with friends. I was involved in designing a suburban sub-division in the vicinity of an Aboriginal heritage site, and land under Aboriginal ownership. Also, I have visited sites bushwalking, or as an interested tourist. I am interested in painting, art and Aboriginal culture. A boyfriend took me there by surprise at night, we looked at the drawings with a flash light and marvelled at the age they may have been created.

About the way you retrieved sounds and stories from the surface, did you have the impression that the sound responded to your movement? How would you describe your experience with the technology?

I thought the sound responded to my gestural movements. This was exciting because I felt like I was creating music and navigating various storytelling. The experience was immersive, thoughtful, captivating because I was gesturally controlling sound. Yes I thought the sounds were corresponding to the movements. It was fun to try to search where ‘people’ were hiding. I felt ‘locational’ tone, so that the sound responded to my location on the surface. This was very engaging, creative, interesting. The experience was synesthetic because it involved more than one sense: touch, sound, vision. I found it was mostly a pleasant experience [and] very engaging. I found the ‘nature’ sounds enticing,
pleasant and absorbing, and the stories compelling, and some of them disturbing. Overall, the combined effect was entertaining, sensitive and thought provoking.

**Skin conductance response: a measure of change**

In the following paragraphs, I will reflect on both the experiments, *Elvina* and *Skin-Memory*, by considering their potential to alter and produce change in the existing environment. I will use the metaphor of ‘skin conductance response’ as a measure to further understand, from the response of the participants, how the interfaces developed in the two experiments have produced an alteration to the environment. I will look at the response of the participants, as if it could be measured through their skin, as a parameter to ‘evaluate’ the change afforded by these experimental practices.

‘Skin conductance response’ (SCR) measures a transient change in the conductivity of a skin stimulated by an electric current. It is usually measured to assess the changing impact of internal or external stimuli, such as emotional events. We can think of the interfaces developed in both these experiments, *Elvina* and *Skin-Memory*, as instruments to alter a situation, or to stimulate a change. The skin, that is, the skin of the participants, could be thought of as a medium to evaluate the response of the participants to this external stimulation.

The experiments afford different ‘skin’ responses, some are related to a physical stimulation, a gestural or kinaesthetic interaction with the interface and/or with the physical environment, others are more subtle, they involve emotions or address culture and identity.

At *Elvina* users experience the soundscape to be attached to physical landmarks of the site, as if it was originating from geographical features of the landscape. Their modality of interaction with sound is perceived to be one of encountering, or entering, different sonic environment and ‘story zones’, as these responses from participants suggest:

> I rather had the feeling that (the soundscape) was attached to the landscape –so as I moved around, I would enter and exit different memories, zones, animal colonies...⁸

The stories seem to emerge from the rock itself. I step into a ‘story zone’, an indigenous
woman is recounting a story about the five indigenous families, which originally inhabited Sydney.\(^9\)

Very individual experience (almost meditative).\(^{10}\)

In this kind of interaction the landscape works as the actual interface. The second experiment, Skin-Memory afforded a different, more immediate, response between gesture and sound.

It gave the idea I was making music as I moved across the surface.\(^{11}\)

I thought the sound responded to my gestural movements. This was exciting because I felt like I was creating music and navigating various storytelling.\(^{12}\)

The physical responses to these experiences are different, with the field one more passive and contemplative, while conversely, the indoor one was more active, or we could say performative, as sound responded in a more instantaneous, sudden way to participants’ movements across the surface of the skin.

This difference may be explained with Rokeby’s consideration about the limitation of the system and the perception of the user: The more constraints, the more sense of personal impact on system, thus “the tangible experience of creativity is because the medium is restricted”.\(^{13}\) Although these experiments are different in terms of setting, and overall experience of the users with the soundscape, we can try to compare them in terms of constraints.

The AudioNomad system employed in the field allowed for transition between audio regions, nesting of multiple audio layers, control of loudness and angle of a sound source relatively to the position of the walker. In Skin-Memory no transitions or spatialisation of sound are afforded by the interface, and this may be significant in the way the participants felt to be effectively impacting on – and controlling - the interface with their gestures.

In terms of user experience, the setting, also plays an important role. In the second experiment being the physical environment limited to a room, a desk and a chair, and familiar to the majority of participants, all their interest, curiosity and attention was
focused on the interface, how it responded to their auscultation. The landscape, on the other hand, worked as the actual interface by affording a seamless fusion between the sound and the environment. The novelty, the unfamiliarity with the site, are all factors that stimulated the interest of the users and captured their attention. In this sense the interface and the physical space become inseparable. This implied for many that the auditory experience was a part of a whole sensorial experience of the natural environment, consistent with how the interface was conceived: to mediate, to integrate yet not to transcend the natural surrounding, as the comment from this participant reports:

It will be wonderful that more people will have exposure to this indigenous sound collage, but no urban setting can beat the experience of being immersed in the dense Australian bush with the heat of the sun beating down on one’s back, the timelessness of the rock underfoot.¹⁴

Other technological constraints affected the users response in terms of continuity of the audio field. The instability of the GPS signal caused frustration as participants experienced the audio to be stopping and playing as they were pausing in their navigation. The lack of a sound boundary of the area affected the experience of some users as they found themselves ‘lost’ out of the sound zone. The lack of direction to assist with navigation, although intentionally chosen as a design principle, is it likely to have affected the way some participants missed out stories and engravings.

In the indoor experiment the surface of the skin did not provide any information that could assist with auscultation, or suggest where sounds and stories were ‘hidden’ within the interface. This lack of information is intended to resemble the lack of reference points and guidance of the field experience, where to an eye not used to read the signs of the terrain, the environment could appear rather homogeneous and smooth.

“Smooth space is filled by events or haecceities, far more than by formed and perceived things. (..) It is haptic rather than optical perception. (...) It is intensive rather than extensive space, one of distances, not of measures and properties”
This ‘disorientation’ was conveyed in the indoor experiment alike, as participants’ auscultation became more hesitant when encountering ‘silent areas’ within the surface of the skin. This uncertainty resulted in asking for assistance, as some participants assumed that the system wasn’t working as expected.

The instruments provided to interact with both interfaces are also significant to understand further how response may be influenced by factors other than constraints and limitations within the system. In the first study the GPS and gear provided for navigation reminded of retrieval of geographical data, which is usually associated with the user interrogating the system and retrieving information in a kind of ‘passive’ fashion. In the indoor experiment, on the other hand, the stethoscope evoked an action of listening to be ‘actively’ performed in order to obtain a response. The image that this instrument reminded of is the auscultation of the internal sound of the body for purposes of medical diagnosis, an intimate experience which requires attention and skills.

Beside the physical interactions, these interfaces have a far more powerful effect on the environment than only augmentation with sound. They mediate a living presence into a landscape or an everyday environment. Doing so they open up the space to the encounter with Aboriginal women speaking to the audience as if they were real.

In the following section I look at the response of participants to understand further the impact of the interfaces, whether they created an emotional charge to the place they temporarily occupied, or raised an the interest for Aboriginal culture. I will try to understand how this mediation of ‘other’ presences afforded by these interfaces has been culturally meaningful for the participants, in terms of knowing the ‘Aboriginal other’, or finding reflections of personal memories, past experiences and how it affected their emotions, triggered their memory or imagination.

Let’s try to re-create for a moment the polyphony of voices from who has experienced this ‘transient change’ whether cultural or emotional afforded by these two different ways of interacting with story spaces.
The soundscape created a much more powerful, spiritual and profound experience of the site. It linked me to the terrain in a way that I wasn't linked before. I felt like I was experiencing the bush through the eyes of the storyteller. I suddenly was zoomed in this past –this other time- and I became aware of this ‘otherness – difficult to explain.

Increased [the] interest in culture. I can relate to the story. The layering of Aboriginal narratives over other significant sites was a powerful way to create a strong sense of a vast history and large community. It spoke of a shared experience over a large area than just simply the site we were standing on. It reminded me how connected Indigenous people are with the land. The story which described a man (white man) not being allowed to visit the aboriginal members of his wife's family was distressing and painful.\textsuperscript{15}

The descriptions of the stories as remembered by some participants after the experience are also charged with a emotional connotations.

In describing Pauline Gordon’s social life in Redfern one participant asks questions related to the stories:

They hardly had any social life – but there was this community dance hall – I was wondering what kind of dances they were dancing too – Only 5 families –How many people that might have been?\textsuperscript{16}

And this is the excerpt from the original transcript:

See there was only about five black families in Sydney living in that time. There was only five black families and they kept pretty well much to themselves (...) So talking about social life, there was none.\textsuperscript{17}

Another participant uses the same words of the narrator when describing the social relations within Aboriginal communities as remembered by Pauline Gordon.

How Aboriginal children are loved and cared for by their community. If a mother is sick the
other community members will take her children and care for them until the mother is well again.\textsuperscript{18}

Here we can somehow infer the sad tone that accompanies these descriptions:

But as she grew up she was gradually assimilated into white culture as were other children and the tradition was lost.\textsuperscript{19}

The death of a baby. Because I can relate to the story.\textsuperscript{20}

The following comment actualises the potential of transformation inherent in transferring archival knowledge into an everyday experience:

The stories about Patten family were significant as these are the family of my friend/also a distant relative.\textsuperscript{21}

\textit{the encounter with family history}  This mediation of archived knowledge can be significant to re-connect with the past, especially when the past is part of a family history. The unexpected encounter afforded by this experiment has revived the life of Jack Patten, Aboriginal activist and father, through the memory of a distant relative and family friend. The recognition is enabled through the story, not the voice of the storyteller, who is heard for the first time by the participant. Finding connections to what link us to the past suddenly makes the past become familiar.

The interfaces provided a way to ‘encounter’ this oral history in an experiential way. Enacting a navigation or an auscultation in search for sounds and stories, the participants had the impression that they were actively performing a search as if they were travelling through time, rather than being passive listeners retrieving oral history from the archive. This opened up the space to the unexpected, unforeseen encounters as it triggered interest and engagement.

The re-contextualisation of archived knowledge in everyday life can happen in many ways. The mediation can be afforded by an interface or a person who mediates the relation between archived and living knowledge. This reminds of last September
when I participate to a conference at the State library of NSW titled *Indigenous Elders, Archives and Cultural Survival in Remote Australia*. Joe Naparranja Gumbula, an elder representative of the Yolnju community of Arnhem Land explained his role as a mediator between the archival records within the collection of the anthropologist A.P Elkin, now at the University of Sydney, and the living knowledge of his community. Some forgotten parts of ceremonies have been restored through the documentation provided by archived footages and photographs. The elders of his community recognised people and places in the archival records. The impact was very significant for those who had family connections to the people in the photographs. Joe's family has been documenting and archiving songs and ceremonies since 2002. In his view this information benefits the descendants by passing the memory down to the younger generations.

When not practiced, paintings and dances drop off. As the necessity to do ceremonies is removed, they get forgotten. There is a need to find new reasons for doing old things.22

Through this ongoing dialogue with the community, where knowledge is kept alive, not only the archive is re-emplaced and embodied, but also the living culture of the whole community is sustained with new memory, which can then be re-incorporated in local cultural practices.

These mediations between archived living knowledge offer a way to explore how the divide between ‘Narrative’ and ‘Database’ can be renegotiated within everyday life. The interpretative practices I develop can be looked at as a form of dialogue between cultures and their different ways to remember and to access the knowledge from the past.

In describing his sound installation *Mirror States*, a specific sound-history of a section of the Yarra River, Paul Carter describes the water of the Yarra river as a mirror through which Aboriginal and European reflect their image and mirrored each other during their first contact. The river suggests Carter “had served a permeable membrane, an interval that defined a difference”.21 This dialogue through mirror, the knowing of the other through the reflection of the image from the water, ceased its reciprocity when, on the European side, the mirror, instead of a tool for ‘dialogical relation’ begin to be used to “entrap difference,
to imprison it in an image of itself and, when it had forfeited its independence, to destroy it”.  

I like to imagine the mapping instruments I developed in this research as instruments for a dialogic reflection to afford a mirroring of ourselves in the ‘other’, being this the Aboriginal Other, archived memories, an estranged landscape, or unknown histories.

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5 Ibid.
6 Written comments from participants of study 2, retrieved from the ‘Participants questionnaire for Study 2’, 13 August 2008.
8 Written comment from a participant of the field study, retrieved from the ‘Participants field study questionnaire’, 4 November 2007.
9 Personal communication with a participant of the field study, via email, 31 October 2007.
10 Written comment from a participant of the field study retrieved from the ‘Participants field study questionnaire’, 27 October 2007.
11 Written comment from a participant of study 2, retrieved from the ‘Participants questionnaire for Study 2’, 13 August 2008.
12 Ibid.
14 Personal communication with a participant of the field study, via email, 31 October 2007.
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18 Written comment from a participant of the field study retrieved from the ‘Participants field study questionnaire’, 4 November 2007.
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Written comment from a participant of study 2, retrieved from the ‘Participants questionnaire for Study 2’, 13 August 2008.


Mappings, such as *Elvina* and *Skin-Memory*, embrace the relational dimension of contemporary spaces. In the way they enable new relations between absent and present space, the past and everyday life, they produce a way of knowing places and histories that is embodied and performative. This knowledge can challenge domains of power such as the archive, where knowledge is ‘de-programmed’ from the context and from experience, and practices of heritage conservation, which establish enclosures, perpetrating what Giorgio Agamben refers to as ‘today’s museification of the world’.¹

These experiments enable new appropriations for re-embodiment of geography through memory, opening up a space for inter-cultural dialogue. The interfaces developed in these practices not only created a mediation between physical and virtual spaces, archived and living knowledge, but also between histories and aesthetics of different cultures. These creative practices address the complexity of our contemporary space, and its relations with culture in a dynamic negotiation between the old and the new.

The maps that have resulted from these experiments intensify our connectivity with a place and with the past. Reconfiguring our relations with space, cultures and the present, these maps have been, at the same time, reconfigured by the context of use to which they apply. They function as a lens, manipulated by the author [the map-maker] and the co-authors [the map-users] for subjective interpretations of history and place.

The mapping instruments we have produced resist the reductive logic of maps and the very purpose of surveillance whose objective is to detect what is there, before our eyes. In fact they allow for the inclusion of what cannot be seen, the invisible, archived, oral histories. The map-making process made use of surveillance, ubiquitous technologies to mediate absence and disconnection that has occurred between a place and its culture. This loss cannot be fixed but only revealed in the provisional links mending a past. These temporary links are subjectively produced by means of interpretation to articulate materials and thoughts, contingent on time and circumstances.
Conceiving a cultural heritage site as a network of sounds from the past, the research sought to explore how archived memories, when emplaced in situ, can create an experience of knowing about Aboriginal places and histories. The way the landscape/skin-based interfaces allow us to encounter this ‘performative geography’ is subjective and embodied. It develops through the experience of being there, walking or auscultating, and thus engaging in a fictional conversation with voices from other places and other times. This performative way of knowing can only live in the present. Therefore the performances, and experiences that participants enacted resist transferral and reproduction. When transferred to other contexts they become something different, they become other performances. This act of transformation has produced the second experiment, a different performance, a different landscape again.

Irit Rogoff’s notion of embodiment and performativity brings forth the kind of knowledge that is produced by such experiential maps, texts, spatial practices that intervene in the networked, multi-inhabited, complex contemporary space. For Rogoff this is something which transgresses any logic that we have inherited:

Thought has taken on a more and more relational dimension with the ability to use our own passages as the mapping logics for connecting phenomena and artefacts and conditions. (...) The conjunction of facts and fiction, of experience and learned principles, the permission to start in the middle and to recount our narrative in whatever voice comes to hand (...) all of these have come together to a knowledge which is not just ‘situated’ as critical movements such as Feminism and Post-Colonialism advocated as necessary, but is also embodied and performed.  

This consideration also sheds some light on the knowledge that emerged from Elvina and Skin-Memory. How did they change what was there before? It is a kind of knowledge that emerges by giving a ‘place’ to histories, which have been de-localised into archives. These two experiments sought to fuse compressed and disembodied knowledge of the archive into a participatory narrative. Storying space with
archival history, the experiments afforded a means of knowing, about place and history, that developed as a form of exploration, by walking, searching and getting lost. This kind of knowledge is performative and experiential, it happens in the instant when we find a familiar voice speaking of the past of our family, or look under our feet and recognise the layout of a whale, and at the same time learning of a place called the ‘flat rock’, where ‘there was something in there...’

Apparently this process deals only with something that already exists: the site, the oral histories. Yet, the production of knowledge happens in the present where the geography, oral histories, experience and imagination converge. These new relations mutually transform the context and the content. Elvina site is temporarily inscribed with a living memory. Albeit this inscription is only provisional, for those who have experienced this temporal charge, the place will never be neutral again. One could argue that the ‘emotional’ state of the terrain has been changed. It is a kind of connectedness to place one feels under the skin and perhaps, when returning to that place, memories will reappear to the surface of the terrain.

In this process it is not only the landscape that has changed, but also the oral text, temporary layering the site, has been affected in a reciprocal relation. The site, with its topography and ancient carvings, stretches and moulds the tapestry of sounds and stories temporarily coating its surface. While adjusting to the terrain, this patch-worked blanket of stories and sounds uncovers new correspondences between ancient remains, contemporary histories and new imaginaries - a shield evokes the memory of mothers and children living in Aboriginal reserves, a fish recalls of children games at the river, an emu tells about singing at night around the camp fire...

In comparison to conventional, fixed maps, the maps we have produced - experiential, living maps - are also more ambiguous because the oral/text, becoming one with the landscape, or with the skin, is traversed, interlaced and sequenced by the individual paths of the performers in ways that are non-linear, subjective and unpredictable. The medium turns the audience into a co-author of the text/map. The choices of the participants/
interpreters remain concealed to us, even though their routes and paths can be retraced, exposed to the gaze of distributed eyes. The storylines they interweave are a network of different re-reading and re-writing of this text-ured landscape.

Having said so, we are aware that any attempt to resituate, embed and contextualise memories and histories in space is a form of territorialisation. Looked at from this critical viewpoint, this process shares the practices of fixating space and its representation with hegemonic procedures of conventional mapping. We thus need to be conscious that any form of spatial intervention, or place-making practice holds this inherent tension between re-territorialisation and re-embodiment.

In many ways this research has become intertwined with my life, springing from the motivation and interest of knowing the Indigenous culture of a place, which I now call home. As I embodied this research journey, many turning points have steered its direction. I recall the first contact with the Elvina site, a moonscape so alien and different from anything I had ever seen before, enticing me at first sight. The correspondence with Dennis Foley, Aboriginal writer and scholar, was significant to critically reflect on my position within the curatorial process and the responsibilities involved. The responses from the participants have been a measure to examine the impact of this work, out of the academic environment, into the lived experience of the people who encounter it in real life. Feedback has provided encouragement and inspiration, especially when it came unexpected and unsolicited. The familial connection disclosed in the interaction with Skin-memory is the actual manifestation of how the past can intervene in, and transform our everyday. In this way I see my engaging with the inter-cultural experience of telling other people’s stories and borrowing a specific cultural aesthetic as a mirroring practice, which fosters a coming back, a reflection on ourselves and our culture.

My desire to learn about Aboriginal culture was similar to the motivation that drove Bruce Chatwin’s to come to Australia: “My reason for coming to Australia was to try to learn for myself, and not from other men’s book what a Songline was, and how it worked”.

Getting to know - as far as an understanding from the ‘outside’ is possible - about
Aboriginal intimacy with land and of how performance keeps alive both country and culture, foregrounds questions of loss and dis-connectedness. Such loss not only concerns a place, such as Elvina site, deprived of its stories. Recalling Chatwin’s understanding of the Songlines we can look at this place as a silenced, interrupted ‘episode’ of the musical score representing the whole of Australia:

There was hardly a rock or creek in the country that could not or had not been sung. A Dreaming Track might start in the north-west, near Broome; thread its way through twenty languages or more; and go on to hit the sea near Adelaide.\(^5\)

Hence, this dis-connectedness not only concerns a particular place, but also results in a reflection on our own condition of being disconnected, not to belong. Understanding how the country was sung and chanted - this mutual interdependence of nature and culture, of ancestral memory, historical past and the land - which still survives in the living memories of the women we heard recalling their past, raises questions regarding our desire to deliberately mediate a connection with place. For these connections to be made, we had to excavate history from the archive, transfer this data onto a digital map, track our position in space and on the map through satellites to activate an artificial memory-scape. This struggle poses questions as to whether the knowledge we pretend to ‘perform’ and to ‘embody’ through our ubiquitous-location-aware prostheses, is only a surrogate of a way of knowing, performing and embodying knowledge that is lost.

So at last, taking a distance from the ubiquitous connectedness afforded by technology, this practice looks at the performative, experiential relations that are produced. It uses technology to do so, even though these relations may only estrange us from a place and its culture, thus inducing a sense of being disconnected, and reinforcing the awareness of a way of knowing that we have lost.

What we have learnt is what Stephen Muecke refers to as ‘the mimeticism’ of Aboriginal philosophy: “a way of keeping things alive in their place”.\(^6\) Thus, these experiments have
attempted to open up alternatives for performing meanings and knowledge from a past, a place and a culture in our everyday life. This way of practicing knowledge can live only in the present. It requires us to be open to cross boundaries, and thus, maybe only for a moment, to take a leap and allow ourselves to be displaced ‘elesewhere’, in the space of the ‘other’.

5 Ibid., p.58.
BIBLIOGRAPHY


The following transcripts are part of the two hundred transcripts that form the NSW Bicentennial Oral History Collection. Two hundred men and women born before 1907 and who lived in NSW between 1900 and 1930, were interviewed. The project was financed by a grant from the NSW Bicentennial Council to the Oral History Association of Australia (NSW) and the NSW Council on the Ageing.

Interviewee: Pauline Gordon
Interviewer: Inge Riebe
Date of Interview: 3 March 1988

Transcript ML MSS 5163 200/1(2)

Note: the excerpts of the oral histories that we have included in the sound environments of the research experiments are in italic. // This symbol identifies the excerpts of the transcripts that gave been paraphrased.

Q: “You want to start with what you can remember as early as you can?’
A: “I think I can remember right back to during the Depression years, and I remember us living over at Manly and Dee Why, French’s Forest. All around that area it was all scrub then, bush. And my grandparents, me father’s parents used to look after us and that Dad was away overseas. He joined up and went to the Middle East and during that time I remember Mum used to go round and collect gum tip, you know, the reed ends of the gum tip leaves, the real pretty tips and she used to bunch them together and then catch the Manly ferry over and sell them for sixpence a bunch at the white people’s houses. You know, just to supplement our food, you know, during that time it was very hard. We used to line up for soup kitchens and all that to get a feed”. [200/1 p.1]

Q: “Do you remember why your family was down there in Sydney?’
A: “When Dad came up and married Mum, he married her at Tabulam at the church up here. And they were sitting on the riverbank up here at the Rocky there and all Aboriginal
people used to walk around, living in little humpies then and bark huts and things. They used to walk around naked, big people and all, you know. No clothes or anything. And Dad said to Mum there, he said, ‘Selina’, he said, ‘when I get back to Sydney’, he said, ‘I’m going to fight for rights for the Aboriginal people, you know.

And that was the time when he dedicated his life to fighting for the Aboriginal cause. And so when they went back to Sydney, and that’s when he was living down there, and then Dad used to send Aboriginal people, get them put on the train and sent down, to get their eyes fixed at the eye hospital. They had bad eyes and ears. And Mum used to meet them at the station and take them around like that. And then when he came back, he used to go round and visit all the missions and find out the conditions and what’s happening on all Aboriginal reserves and he used to work in an office in Elizabeth street there. And I remember visiting him there when I was a young girl. And I think it was Stevens give him that, a Mr Stevens, and Miles, a Mr Miles. And he had a half an hour on the air a programme once a week. He used to go down the Domain and talk every Sunday on the plight of the Aboriginal people. And he used to travel around from mission to mission, in those days no cars, and the used to, him and Billy Ferguson and pearly Gibbs and my father –his name’s Jack Patten, he used to come around. They were the first Aboriginal people to form the first Aboriginal progressive Association in Australia, you know, to fight for the Aboriginal rights. And then he used to come around and they used to pass a hat around, round at the missions and they weren’t allowed on the missions because the managers wouldn’t let him go on the mission because they call him an agitator and a stirrer. So the blacks used to all come down onto the beaches and meet him there and talk to him there and they’d pass a hat around and he’d hand out a paper called the ‘Abbo call’ that he edited, my father edited, and it called the ‘Abbo call’. They used to sell them for sixpence a paper. It was a monthly issue. And then he’d travel, them hitch-hike back right up to the Tweed, all the missions along the coast here and out around through Tenterfield, Armidale and back down right through Victoria. And that’s what he used to do”. [200/1 pp. 2-3]

// Pauline’s father, Jack Patten, was from Riverina, outside down of Cootamundra. His father got married to the daughter of a Scotchman, Chrissy Middleton. They used to live in a reserve. The three daughters of this Scotchman all married to 3 Aboriginal boys, one of them was Pauline’s
grandfather. Her grandfather used to work at the Police force in Moama. His father won a scholarship and wanted to join the Navi but they didn’t let him because he was Aboriginal so he move to Sydney to search for a job. Only temporary jobs and seasonal work. They wouldn’t employ Aboriginal people. He then went to jail for disturbing the peace and causing riots. Pauline’s mum grew up near Grafton. From 8 to 15 Pauline was sent to a girls’ training home in Cootamundra. She never saw her parents during that time. They weren’t allowed up there. None of the girls in the house ever had any visits from their people. He’s father then died in a car accident. [200/1 p.5]

The Welfare Board took Pauline and her three sisters. They allowed her older sister and brother to stay at home with their Mum.// [200/1 p.7]

“I always remember Mum crying at the station and that as the last I seen her from the time I was eight to the time I was fifteen” (...) “And I remember Mum crying at the station and I said to Mrs Healey –she was the woman that took us to the home, one of the officers of the Aboriginal Protection Board, I remember saying to her: ‘What’s wrong with Mum? What’s Mum crying for?’ And she said, ‘Oh’, she said, ‘she’s only got soot in her eyes.’ You know, she had the soot”. [200/1 p.8]

Q: “So have you got any idea now of why Welfare took you when you were little at that time, what the excuse was?”

A: “No, thinking back on it, you know because, I mean and coming back here and living amongst in an Aboriginal community and seeing how Aboriginal people live and amongst each other, they share and if someone’s kid got sick or if her mother got sick they’d grab that child and they’d look after that child till the mother comes back. It was never, ever starving. You know, but I suppose according to their way of welfare, like how the white people how they look at it in regards to welfare, like, you know, you’ve got to do this, this is the way you’ve got to do it, this is the way you’ve got to do it, you’re doing the wrong way sort of thing. It was a clash of cultures and ideas, difference that was. It must have been that way, you know, because Aboriginal people don’t neglect their kids. Not in the Aboriginal way. You know, they was never hungry, never short. You always had your family around you and plenty of loving and care. You know, that why I think they just grabbed them and took them and also to break the cultural link because my mother never spoke her language to me and I always wondered why. And when I was grown up
and I said, ‘Mum’... and I didn’t even know until I had me own three kids up here and I came up here to Grafton in 1960 and I met my husband and married him, and I live here ever since to the present time. And I always said to Mum, ‘Mum, why?’ I said, ‘I didn’t know you can talk another language.’ And it’s Bunjalong language. And she said, ‘No we weren’t allowed to speak it Pauline, or we’d get into trouble.’ And they got out of the habit of talking their language to their children. And also she could speak another dialect, Goom? From down Yamba and Maclean. There was two dialects that I didn’t even know she could speak apart from English. And that was the reason they didn’t want that culture. They wanted to break that cultural link with the family, you know, when thy put them into the home sort of thing”. [200/1 pp.10-11]

// To avoid their children to be sent away by the Aboriginal Protection Board, Pauline’s husband used to tell her that up there in Grafton Aboriginal people used to hide in the bush until the people of the board were gone. When she left to the girls’ home she thought she was going to a holyday place. She was told: //

“Oh you are going to have a good time, plenty of kids where you’re going, big holyday place there”. [200/1 p13]

// After many years she went out of the house, a friend of her who was also in that home, told her about her younger sister Cecil who was stripped and belted and bashed.//

“We can’t do nothing about it now, but it just goes to show you how cruel they were”. [200/1 p.17]

“Oh I remembered of getting caned and belted. You know, we sort of accepted that as a normal thing. Just for speaking at the table.”

Q: “What do you think made it so hard to live properly after?”
A: “When we went in we were young. They used to brainwash you, and we didn’t know what as black and white then when we was in there. And they had us thinking like white people right, and we were black, and then when you’d come out, that’s when you’d find, when you come back out in society then you found out about this prejudice business. You know, that you was black and then you was nothing because you’re an Aboriginal.
We didn’t have of those feelings or thoughts when we was in there. We thought sort of like white thinking, and then when we come out and we sort of couldn’t adjust in with our own people, because we had these minds like white people thinking. And then you couldn’t adjust with white people because they looked upon you like dogs, and you found out all about this bloody prejudice business and you couldn’t get jobs because you were a black person. You know, you weren’t allowed here, you weren’t allowed to go there. You know, you were nothing. So a lot of kids couldn’t cope with that sort of hassle, as well as searching for their parents and being away from their family units, groups, and that you know, they had that hassle on top of it so that when they come out. Like I mean, take for instance my sister, when she come out she couldn’t fit in with us, she went back. That’s how she was. She cried to go back into the home again, because it was the only home she ever, ever knew. She couldn’t even fit back, settle down with us and me brothers and sisters and Mum at home, when we come out of home when I was fifteen. You know, even though it wasn’t up to their standard of how you should look after kids and that, what right have they to interfere in our lifestyle, and tell us what to do. You know”. [200/1 pp.18-19]

// Her life in the girl house: //

“We were kept away from people and no contact with anything. Well, no wireless, no news. You weren’t allowed to read papers or anything like that. And that was very isolated”.

Q: “no papers, no wireless, no news and no visitors?”

A “No, that’s it. Nothing. Nothing, just milking cows and scrubbing the floors and lining up for lollies of a Saturday, boiled lollies. Or picking mushrooms out of the paddock when they were out, chasing rabbits. That was our life. That was it”.

// When she went out of the house she moved to Sydney to find a job. Her mother used to live in Redfern://

“See there was only about five black families in Sydney living in that time. There was only five black families and they kept pretty well much to themselves. The only time you’d meet up with them was when they formed the first Aboriginal football team, Redfern All
Blacks, and Mum used to be there, sell tickets and wash their gears and the women from La Perouse used to take turn about and wash their gears and things like that. We used to have a dance, which is very hard. We sort of never have any social life then Aboriginal people because we couldn’t get a hall and the only dance that they could go to, we had to go to the Trades hall. And then we used to sign a bodgie name on a sheet of paper, because it’s supposed to be a Communist hall or something. Something like that. We used to sign this, put bodgie names down and have a dance and attend the dance there. I remember that. That only happened about once a month or something like that. Then we was holding our breath in case the coppers come up and scattered us. You know, because you couldn’t rent a hall out anywhere else. There was only the Trade Union Hall that we could hire that hall for Aboriginal people to get together. And there was hardly any there because there was only five families there anyway in Sydney, you know. So talking about social life, there was none”.

[200/2 p.19]

Interviewee: Eunice Robinson
Interviewer: Inge Riebe
Date of interview: 29 February 1988

Transcript: ML MSS 5163 199/1(2)

Q: “Can you tell me what you know about Pop Torrens?” [199/1 p.1]
A: “What I was told? That’s going back years ago, Aboriginal ladies, when they had twins, one had to be taken, so with my Pop Torrens, he was taken away and was put in with white people, you know. White people took him and the other Pop Darley and they are identical twins, two different names now.

// Pop Torrens was Eunice’s mother’s father. He used to live Baryulgil and worked in a laundry, doing all the laundry for the castle. And that’s where Eunice was born. Then she moved with her Mum and Dad to Tabulam. She went to missionary school there. Pop Torrens never told stories or taught her because he was taken by the white people. As well as her grandmother she didn’t tell
Q: “Did you go hunting much before you went to school?”
A: “We used to go, yes. We used to go looking for yams and gurabay. That’s all we used to eat. We’d go to this… we knew what to eat and what not to eat. You know, like berries. We knew which berries were poison and then what was good to eat. Like with the leaves and yams and gurabay”. [199/1 p.7]

Q: “What’s a gurabay?”
A: “It’s like a yam. It’s a little plant its’ got a purple top. We just go and look for that and then we’d know it’ the right one to eat and we’d dig in the ground there”. [p.8]

She used to collect turtle’s eggs with other kids. They used to know when it was the right season, when the turtles laid their eggs. They used to go out in the storm and dig the ground until they found the eggs. They weren’t scared of lightning and thundering. [199/1 p.11]

Q: “Did you remember any flood times when you were little?”
A: “I remember at Tabulam there the boys used to come down in on big logs, coming down the river in the big flood you’d see these logs coming down. And these boys, like my brothers and their friends, you know, all form Tabulam, round the age of about eleven and twelve coming down this big flood on the log. Some of them would be standing, some of them would be sitting. See them coming down the river. And now we tell our kids today, ‘Now, don’t go, there’s a flood down there. You’re not allowed down the river.’ And yet there was no danger, We never used to think of danger in those days. Do you remember that time they were coming down on them big logs, that flood coming down the island there, Oh, truly”. [199/1 p.13]

Q: “When you were living in the old reserve did you always sleep in the reserve or did you sometime go down the river?”
A: “We used to sleep in the reserve, old reserve. Sometime when Dad used to go out working –he was corn pulling in those days – where he used to go and they had that contract corn pulling, we used to have to sleep there, No matter where. If he worked for
Mervin Smith, say, right up Calrence, we used to have to sleep there, make a humpy and sleep there. All of us.” [199/1 p.25]

Q: What with?
A: “With leaves and sticks and, well, it was mostly with leaves. Well, we’d cut these sticks down and make like a frame and get the leaves. We never used to get wet, you know. We’s talk about it now and again, how we never used to get wet in this rain, when it rained. But we used to survive, we survived”.

Q: “So you’d have to walk back to the school?”
A: “We’d have to walk. Mostly on horseback to school from that place. Where Dad used to work we used to stay there. We used to go to school from there. Just grab anything. You know there were no sandwiches in those days. We’d just grab bread and put a pit of dripping on it and that’s it, that’s out lunch. And now they want sandwiches (laughing), and pies. Yes, no matter where dad used to work we used to always walk. No matter if it was fifteen miles away, we’d still go to school”. [199/1 p.26]

Q: “Can you remember when you were little the old people still doing korrobories and things?”
A: “I used to korrobory”
Q: “Who taught you?”
A: “No, we just sat and watched them do it. And so we just joined in and that’s how we learnt”.
Q: “And how often were they doing them still?”
A: “Every… pretty every night. Well, going back then, I think nearly every night, they’d korrobory down the Old Reserve. So plain I can see old Grannie Moon we used to call her. Old Grannie Moon, she was there with this grey hair with this pillow hitting it there and I think me husband’s father, his name is Russel Robinson, he used to sing, beside him a couple of old fellows used to sit down and sing too and clap the sticks together and this old lady there with this pillow and there would be there kicking up dust, korrobory”. [199/1 p.31-32]

Q: “Did they have stories with them or did they just do different songs all the time or
what did they talk to you?”

A: “Well, they’d tell stories but it was taken… we forgot about them, you know. They really had stories to those korrobories we used to do”.

Q: “But you weren’t taught those stories?”
A: “We were taught but over the years we lost it. I can’t remember now”.

Q: “But you were taught at the time?”
A: “Yes, we were taught”.
Q: “And you were taught the words to sing and everything?”
A: “Yes”

Q: “And when did they stop?”
A: “As we grew older, sort of we had to adjust into what the white society then. We gradually joined in with the whites then and lost all that”.
Q: “And no-one else was doing it, the young ones weren’t getting it any more?”
A: “No”
Q: “Was is still happening at the new reserve?”
A: “No but I remember the old people used to just lay down and sing the old korrobory songs”. [199/1 p.33]

Q: “Can you remember when you were little where people were buried, where you buried people that died?”
A: ‘Yes, at the Old Reserve there. I remember carrying this old –he must have been an old leader of them all up there –carried him over to the cemetery now where it exists up in Tabulam, in a blanket. An old government blanket. Then I was very small but I still remember that day. And a few more. I remember how there was a young baby passed away there and they had no coffins and that for us then, so they had to put him in this port, old port, suitcase, and buried him in that”. [199/1 p.33-34]

Q: “And was there any ceremony or something burying him or what happened?”

120
A: “Just as far as I can remember, you know, we all in those days we used to mourn. We used to mourn terrible you know”.

Q: “Yes, how?”

A: “We used to cry and mourn all day and all night for about three months”

Q: ‘Always cry?’

A: “Always cried, yes”.

Q: “What sort of things did people say that were crying?”

A: “They used to talk in the lingo, in our lingo”.

Q: “Did you know what they were saying?”

A: “I used to know then. Such as, like you know say today, if anyone died we’re at the grave side, some of them go there. But the old people just like us and Tuggie and old Adelaide and old Fidge and them, talked in the lingo for them not to come back and frighten us all, or the kids. And we believed it then. We believed they wouldn’t come back. We still do that today”. [199/1 p.34-35]

Q: “Can you remember things when you were little about healing, you know, if you got sick, things that your grandma or mother did, medicines they had or other things if you got sick or other people that came in to help heal you?”

A: “I don’t remember much but I was told. See when I remember there was a bush nurse then, we used to live in old George’s place in that Tabulam town there now, bush nurse, they come on then when I was. that’s when I, as far back as I can remember, but I was told, you know by Mum and Dad, they used to have these clever stones and that. They must have had that much faith that healed this person, that they’d heal right away.”

Q: “When you say, what, clever stones, what was that, the stones?”

A: “These stones they used to keep and they’d have these stones and they were smooth, they’d believe in these stones that these stones will heal people by them rubbing this stone on them like it would heal them. (p.36) I suppose that we had to have things in those days before white people come out. It must have been that way, because there were no doctors”. [199/1 p.35]

Q: “When you were little, going back to Tabulam growing up there, were you ever told stories about what happened between Aboriginal people and the whites and so on? Did
your people ever talked about that?’"
A: ‘Well, Daddy told me a little bit but then it was too late. About when they was ‘clever’. Daddy only told me a bit because he died then, you know, not long after, where we, you said about these Aboriginals was ‘clever’.
Q: “What sort of things that he used to say to you?”
A: “He said, like when one tribe was wanting to get the other tribe, you know, wanting to fight the other tribe, and if this tribe would go and try and sneak on the other tribe, that other tribe will know these tribes were coming, you know. And then they’d meet up in the air, like spiritually up in the air, and they’d fight up in the air. And then he said, told me that he can remember, he was laying down there watching the, he could under this tree as a boy, he said he can hear these things clicking up in the air, you know. And he said they were fighting between these tow tribes not far away from where he was under this tree. And as for the Square here, it’s very sacred you know. Where we used to live down in the bottom end of the Square here, it was getting that bad you know. I used to send all the kids to school and I’d be by myself and through the day I can hear things. One day I was laying down there just after dinner, laying down and the breeze coming through the door, and I turned around and see what it was and I can see this chai, you know, moving up and down like someone’s sat down on it. Oh, and I got out of it. Well, I couldn’t see them but I could see the chair moving, you know. So I just got up and off (laughing). I know it’s very creepy back in the Square, it still is today”. [199/2 p.14]

Q: “Is there any story why that’s a particularly bad spot for it?”
A: “Yes, all our ancestors used to roam around there then. Like Linky. You know, that Pauline and Linky we have just come from there, he said when he was a kid they wasn’t allowed down that part of place where we used to live because they wasn’t allowed down there just after dark. It is you know. I’ve witnessed it, you know”.
Q: “Where there places like that in Tabulam too that you know of?”
A: “Wait there. Yes, there’s one place we call the ‘Flat Rock’ up the Rocky River. In the Rocky River, there, yes, there is a place at the flat rocks where there is something in there. Like if strangers come along –we can go there and swim – but if a stranger come along and started swimming there, there’s someone there, something to pull him under. One fellow was pulled under down there. Johnny Robinson pulled him out. Because he was
Interviewee: Gladys Ardler
Interviewer: Catherine Johnson
Date of Interview: 1 July 1987

Transcript: ML MSS 5163 71/1(2)

// Gladys was born in 1922 in Crown Street Hospital and lived in Sydney in Happy Valley and Botany Bay. Her parents were half Aborigine. Her father died when he was twenty nine.//

Q: “What sort of house did you live in? Can you tell me a little bit about Happy Valley?
A: “Oh, we had a tent and he had a big shack built. We lived in that. That was all regular board in those days.”
Q: “What was the general area like, were you with other people?”
A: “Oh, it was bushland. Oh, very bushy and lots of people there. There was lots of people lived in the Valley. White people and all. There wasn’t too many dark people because the reserve was there and dark people lived there and white people wasn’t allowed on the reserve in those days. My father wasn’t allowed there but my mother used to go down and see her father and her brothers and sisters. They lived there and we just went down there for visits”. [71/1 p.2]

Q: “Would you have wanted to live down there or not?”
A: “We would have liked to live there but just weren’t allowed. Just go for a visit, that’s all”. [71/1 p.3]

Q: “So how were people surviving, how would you get food?” (p3-4)
A: “Oh, they used to stand in lines to get a loaf of bread a day and they’d go to Botany from La Perouse and do that and we had people used to donate fruit and milk everyday. We used to go to an office, a Government office, and you’d take a can and get a pint of milk a day like that and some oranges or apples or whatever and different people would leave clothes and give clothes, donate things. And that’s how we lived then. My father fished and sold a bit of fish at the different places, to the shops and there was a little bit of
work around about in the Chinaman’s gardens, down there at La Perouse. Not everybody had it. They just did a bit of weeding for a bit of vegetables and things like that. That’s how they lived. Other than that there was scratch, scratch, scratch. There was no money for anything. Very tough”.

Q: “What about things like water?”
A: “Oh, there was water laid on there in the valley. They had a tap. We had to walk about quarter of a mile to the tap and carry water in buckets and that was washing water and we was lucky we were living near a well so we used to wash out of the well and the things like that and get the drinking water from the tap and everybody did the same. Different places in the Valley they had a tap. They had one three or four miles down in the Valley and one round in the bush and that’s how we survived that”. [71/1 pp.4-5]

Q: “How was the tent set up, can you describe that?”
A: “Oh, well, just a tent, an ordinary tent with a fly on. My two brothers used to sleep in that and we had a big room, one big room with a fireplace and eating. They'd eat there and sleep in there, mother and father and my sister and me slept in the room”.
Q: ‘So was kitchen, living, sleeping?”
A: “Kitchen and everything. Yes it was in a room bigger than this. We had plenty of room in it and the tent for the boys to sleep in”.

Q: “Can you tell me a little bit about the school you went to and how many students there were?”
A: “Oh, there was a lot of students there. White people, poor white people and dark kids. We had a one-room school and the teacher used to come from town and we had a sewing teacher, his wife, and she taught us that and we just used to walk home for lunch everyday and go to school. Walk to school from La Perouse. It was a couple of miles through the bush tracks and down the school. Now they’ve got a big modern school built there. My children went to school up there for a while too”. [71/1 p.6]

Q: “Were there ever any problems between the white children and the children from the reserve?“
A: “No, that I remember, no. There never was any trouble like that. These days there’s more trouble but there ever was any between dark children and the white children. We got on very good. I suppose because we were all poor”. (laughing) [71/1 p.7]

Gladys’ mother received a widow’s pension. After she re-married and they left the valley and moved near La Perouse Church. Gladys step father was half Aborigine, he came from Braidwood. His wife died and he met Gladys’ mother in La Perouse. They built their own place down there. He made boomerangs and she made shell necklaces and earings. Gladys was employed at the boys’ home doing laundry. She was about thirteen.

Q: “What about religion in the area?”
A: “Oh, there was a church on the reserve. United Aboriginal Mission they called it. We used to go to Sunday school and church there and in the night we’d have a social night once a week at the church and a couple of nights a week they’d have church”

Q: “Would your parents go to church with you?”
A: “Oh yes they used to go to church. Everyone used to go to church in those days. It was somewhere to go really other than religion. Everybody went”. [71/1 pp.21-22]

Q: “What about Aboriginal traditions, did your mother ever talk about them or pass them down?”
A: ‘No. She talked about her grandmother who was here when Captain Cook landed and she told about that and they still talk about that today.

Q: “What sort of stories would she tell you?”
A: “Well, she’d tell us how they was on the beach at Kurnell on the ridge and Captain Cook came in and landed and how they shot a couple of them on the ridge. She’d tell us about grandfather and her great-grandmother and that’s all history down Botany Bay. But that’s what we was just told, that our grandparents saw Captain Cook landing”.

Q: “And was that a story that she often told?”
A: “Oh yes. Told and asked told the same things. We just tell it to our kids now and they think it’s great”. (laughing) [71/2 p.1]

Q: “What other sort of things. Would she tell you about where they lived and the type of life they led?”
A: “No. She said they lived… used to walk from Lane Cove, Port Jackson out to Botany Bay and they reckon they used to go the same route and that’s where they built the tram line from Sydney out to La Perouse. On the black fellows track. And they had a camping ground at Maroubra Bay. Maroubra where the tram stop was and they used to come out there and camp halfway between Sydney and La Perouse and spend the night then continue out to get food whatever they did or ate. Then they got the settlement there at La Perouse going. They used to travel around there from Lane Cove out to Botany Bay and fish. There’s a lot of fishermen down there, timberies and that la Perouse. But there’s none of that now. They’re all finished, like here the fishing. It was going on seven or eight crews here years ago. Now there’s just one battling to get a feed but you couldn’t live out of fishing now like they used to.

Q: “What changed?”

A: “Well, there’s no fish. I think there’s too much activity around for fish to come in to the beaches to be in the nets. Boars and skiers and all that sort of stuff. Divers, skin divers, they’ve scared off the fish. There’s no fish at all now. Charlie Ardler, he fishes but he gets a pension now because there’s no fish. His sons over there tried to fish but there’s nothing to catch. We used to make hundreds and hundreds of dollars out of fishing but now… you used to have seasons for fish. Black fish and mullet that came but there’s none of them. Christmas time you’d get black fish but we never seen a black fish Christmas time. They just don’t come this way. They just go past or something”. [71/2 p.5]
APPENDIX B

USER QUESTIONNAIRES
Questionnaire for Study 1

Section 1: To be completed before the navigation

Date: ........................................       Time: ........................................

Equipment number:

1. In what age group are you?
   - 19 and under
   - 20 - 29
   - 30 - 39
   - 40 - 49
   - 50 - 59
   - 60 +

2. Gender
   - Female
   - Male

3. Which is your level of knowledge of the rock engravings site located on the Elvina Track?
   - It’s the first time I visit this site
   - I visited the site once
   - I’m familiar with the site
   - I know the site very well
   - Other (please specify)......................................................................................
Section 2: To be completed after the navigation

⚠️ To avoid invalidating the test please do not turn the page before completing the answers.

4. Can you name, describe or draw below some of the rock engravings you found in your navigation across the site?
Section 2: To be completed after the navigation

5. Can you retrace your routes through the environment on the map and indicate the direction of your path with an arrow?

> Research Title: Mapping Footprints. Lost Geographies in Australian Landscapes   > Student Investigator: Francesca Veronesi
Section 2: To be completed after the navigation

6. Below there is a map of the site and a list of the engravings situated on the site. Can you locate onto the map the position of the engravings?

![Map of the site with engravings]
Section 3:

7. Can you select the story you better remember among the ones listed below and describe it further?

1. The storyteller tells about her father’s activism within the Aboriginal community.
2. The storyteller remembers when she used to go to Sunday school.
3. The storyteller remembers her father talking about clever men.
4. The storyteller recalls a time of the past when she used to take part to Corroborees.
5. The storyteller talks about the behaviour of strangers visiting country.
6. The storyteller describes the house and the place where she used to live as a child.
7. The storyteller remembers how people used to get food from the Government office.
8. The storyteller recalls when her mother used to collect gum leaves.
9. The storyteller remembers when she used to go food gathering.
10. The storyteller talks about the relations between children at school.
11. The storyteller describes the children-parents relations within Aboriginal communities.
12. The storyteller remembers the social life of Aboriginal families in Sydney.
13. The storyteller remembers the funeral of a child.
14. The storyteller remembers how a bush nurse used to heal people.
15. The storyteller tells about Captain Cook’s landing.
16. The storyteller tells about fish and fishermen.
17. The storyteller remembers a place called the “Flat Rock”.
18. The storyteller remembers the boys going down the river with logs.

Story number: ..... 

The story is about:

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Section 3:

8. Can you locate the story you have previously selected onto the map?

e.g
Section 3:
To be completed by participants who used audiotenchnology for navigation only

9. How many storytellers are there?

1  2  3  4  5  6  7  8  9  10  more than 10

10. Can you summarise the major themes of the narrative-scape?

.......................................................................................................................................................................
........................................................................................................................................................................

11. Can you associate the sentences in the column on the left hand side to the storytellers listed in the column on the right hand side?

She used to visit her mother’s relatives at the reserve.  
For a long time she didn’t know her mother could speak two Aboriginal dialects.  
She forgot about the stories that she used to be told during Corroborees.  
She remembers hunting birds and rabbits in the bush.  
She used to go to school with white children.  
She tells of a stranger who was swimming at Flat Rock and was saved from drowning by a local.  
Her family used to live in the area of Manly, Frenchs Forest and Dee Why.
Section 3:

Please tell us about your experience by rating the following statements;

“10” correspond to “I Strongly Agree”. “0” correspond to “I Strongly Disagree”

12. The soundscape helped me finding the engravings.

Strongly Agree 10 9 8 7 6 5 4 3 2 1 0 Strongly Disagree

13. I was confused and didn’t know where to go.

Strongly Agree 10 9 8 7 6 5 4 3 2 1 0 Strongly Disagree

14. I was immersed in the soundscape and concentrated on listening.

Strongly Agree 10 9 8 7 6 5 4 3 2 1 0 Strongly Disagree

15. The soundscape was responding to my movement in the environment.

Strongly Agree 10 9 8 7 6 5 4 3 2 1 0 Strongly Disagree

16. I became more involved in the experience as time passed.

Strongly Agree 10 9 8 7 6 5 4 3 2 1 0 Strongly Disagree
17. How would you describe your experience using 3 or more key words?

......................................................................................................................................................................
......................................................................................................................................................................

18. Circle 3 of the following adjectives to describe the soundscape you listened to

pleasant  entertaining  monotonous  repetitive  absorbing  compelling
tedious  rigid  immersive  sensitive  unvariable  disturbing  responsive
inappropriate  thoughtful  captivating  unfitting  distracting

We are interested in your comments and suggestions for further improvements

Thank You for Your time

> Research Title: Mapping Footprints. Lost Geographies in Australian Landscapes  > Student Investigator: Francesca Veronesi
The aim of this study is to navigate a soundscape that was originally designed for an Aboriginal heritage site. A surface integrated with sensors resembles the appearance of the site where other people have previously experienced the soundscape in a field study.

1) How do you imagine the landscape in which the previous field work took place? Or, if you had to place these stories onto a landscape, what kind of site would you choose? Could you briefly describe it? (you can use key words)

2) Do you remember of the environments these stories took place in or talked about? Can you briefly describe them?
3) In your experience how did you have the impression that ambient sounds such as birds, wind or water were related to the stories you listen to? In what ways?

4) Did you find any common themes among the stories? If so, can you remember what they were?
   For example: “childhood”

5) Is there any story that was particularly significant to you? If so could you briefly tell us what is the story about and why is it significant to you?

6) How many narrators do you remember? Did you picture them in your mind? How do they look like? (Women/Men; Aboriginal/Non-Aboriginal, Young/Old)
7) About the technology: Did you have the impression that the sound responded to your movement on the surface? Would you like to comment further on this?

10) Circle 3 or more of the following adjectives to define the soundscape you listened to

- pleasant
- entertaining
- monotonous
- repetitive
- absorbing
- compelling
- tedious
- rigid
- immersive
- sensitive
- unvariable
- disturbing
- responsive
- inappropriate
- thoughtful
- captivating
- unfitting
- distracting

11) Could you please add a brief comment to motivate your choice?

12) Have you ever visited an Aboriginal Heritage site? We would appreciate if you could tell us why and in what context.

We will appreciate any further comments and suggestions that you may want to share with us.

….Please use the back of the sheet if you need more space……………………