Sustainability and the Material Imagination in Australian Cultural Organisations

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A thesis submitted for the degree of PhD

University of Technology Sydney
Declaration

I certify that this work has not previously been submitted for a higher degree at any other institution, and that the thesis presents original research, except where otherwise indicated.

Tania Leimbach, July 2015
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List of publications

**Journal Articles**

**Book Chapters**

**Conference Presentations**

Leimbach, T. 2013, 'Sustainability is a cultural change project: Innovative programming in Australian art and design museums', Sixth International Conference on the Inclusive Museum: *Museums and Active Citizenship*, Copenhagen, Denmark.

Leimbach, T. 2011, 'Making it visual: Growing ideas for sustainability', *Animation of Public Space through the Arts: Towards More Sustainable Communities Symposium*, Centre for Social Studies (CES), University of Coimbra, Portugal.

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Abstract

Sustainability is an ongoing engagement across material, economic, moral and political orders and one that raises complex questions of intention, agency and choice. While the meaning of the term ‘sustainability’ is itself a matter of debate, there is resolve within the discourse toward a shared sense of responsibility for the conditions of life on the planet, now and into the future. This thesis is an attempt to understand how museums are engaging with the political and material complexities of sustainability and global environmental decline. With their collections of material culture and the capacity to interact with diverse audiences, museums have always played a role in extending public imagination. The point of focus in this investigation is the role that museums play in shaping new understanding of the interdependence of natural and cultural systems, and the creation of public encounters with concepts, practices and embodiments of sustainability.

Across three distinct settings (inner / outer metropolitan and regional), this ethnographic study offers contrasting accounts of cultural practice and an examination of connections between local conditions and global concerns. Diverse modes of cultural work, which include contemporary initiatives, projects and processes of institutional change within the Australian context, are presented. The analytical work of the thesis involves examination of how sustainability imperatives translate into cultural conversations and political processes. The tools that support the analysis are theoretical understandings of social and material agency, material thinking and new forms of public participation. A rhetorical strategy of informing, engaging and inspiring is used to tease out differences across the three sites and to consider how each one positions the viewer through its mode of address.

Material thinking and furthermore, a material imagination have designs on the material world, and manifest thinking into made matter. Drawing on Paul Carter’s vision of the creative process as material thinking, sustainability is framed as an act of local invention and the cultural organisations examined in this thesis are
presented as unique forms of invention. They include scientific and socio-ecological understandings that generate a larger picture of humanity within the bio-physical world; inter-disciplinary projects that attempt to bring natures and cultures into closer dialogue through imaginative engagements; and institutional approaches that actively care for place through custodial ethics. The material culture of exhibitions and museums are evidently spaces in which social and material relations can be imaginatively examined and re-configured. Each of these examples contributes to the larger trajectory of sustainability. They also contribute to the central argument of this thesis that we need to generate closer connections between human beings and the worlds they inhabit and design. This is in order to encounter the Anthropocene, and to become much more sensitised to all modes of our material existence.

**Keywords:** material culture; art and design; museums; sustainability; agency; material thinking; material imagination; Anthropocene
INTRODUCTION

The museum as a social and material process

This thesis is an attempt to understand how museums are engaging with the political and material complexities of sustainability and global environmental decline. It is argued that museums have a role in helping people encounter the Anthropocene as an object and event of human design, and to extend public imagination of the interdependence of natural and cultural systems. In the analysis, sustainability is framed as a dynamic and situated process of change. It is an ongoing engagement across material, economic, moral and political orders and one that raises complex questions of intention, agency and choice.

With their collections of material culture and the capacity to interact with diverse audiences, museums are places where dynamic social and material processes may be observed and where questions of materiality and sustainability can be vividly examined. In recent decades there has been a substantial effort to challenge and extend the mandate of these richly resourced cultural sites. Arguments in New Museology place museums in a position where they can and should respond to issues of the present as well as the past, and play a part in shaping conjectured futures.

Museums are relational, complex and dynamic micro-cultures. They are sites of planned and unplanned activity with their own origin myths, values, narrative histories, cultural stories, professional hierarchies and publics. Allen and Hamby suggest, 'the contemporary museum environment is a field site where knowledge is negotiated and created' and a 'place where people might engage in the regeneration and maintenance of knowledge and the construction of group identity' (Byrne et al. 2011, p. 17). As such, museums are fundamentally political
institutions and any effort to address and construct group identity or answer questions of what it means to be human will be a negotiation, approached within particular contexts and at specific moments in history. Additionally, there will always be forces of stasis and change at play, which inhibit or extend what is possible.

Museum labels and the lenses for studying them are profuse. Cultural organisations have been considered as:

Temple of civilisation, sites for the creation of citizens, forums of debate, settings for cultural interchange and negotiation of values, engines of economic renewal and revenue generation, imposed colonialist enterprises, havens of elitist distinction and discrimination, and places of empowerment and recognition' (Karp & Kratz 2006, p. 1).

Contemporary museums can be studied across many levels and each level of inquiry may be taken as an isolated point of departure for a research project in pursuit of in-depth scholarship. Rather than isolating a single concern within museum practice, this ethnographic study has considered art and design museums as networked entities, sites in which social and material worlds converge in dynamic ways. It is about collections, exhibition practices and professional decision-making, observed at the level of routines and practices performed by professionals. It is also about the larger physical and metaphysical contexts in which museum sites exist.

Forums for the future: Responding to sustainability

The larger physical and metaphysical realities of this inquiry include a set of inter-related global challenges. These ‘real-world’ challenges inform the evolving discourse of sustainability, which attempts to locate environmental concerns in a broader arena that encompass social and economic factors. They include widespread threats to biodiversity and living systems, global inequity, the pressure of managing finite resources in a ‘carbon challenged’ world and the many dimensions of climate change. While the meaning of the term ‘sustainability’ is itself a matter of considerable debate, there is resolve within the discourse toward
a shared sense of responsibility for the conditions of life on the planet, now and into the future. An alternative of the well-known triple bottom line of the social, economic and environmental within sustainability studies is found in the 'triptych of biodiversity, cultural diversity and human well-being' (Kagan 2010, p. 1094). This subtle re-orientation of triple bottom line assessment has influenced my own thinking about the aspirations of sustainability, evidenced throughout this thesis. The domains of cultural and biological diversity are considered vital to the healthful functioning of life on the planet (Pretty et al. 2009) and the preservation and the advancement of both biodiversity and cultural diversity are key normative targets for cultures of sustainability (Kagan 2010, p. 1095).¹

There is a strong case for the aspirations and values of sustainability to become embedded in the 'fabric' of decision-making in society and by extension, in the fabric of cultural organisations. However, the aim of this research has not been to impose or test a pre-existing framework of sustainability or to search for an explicitly instrumental approach to change creation. Instead this study examines contemporary institutional responses to sustainability concerns in order to reveal concepts, practices and embodiments within situated communities.

Finding the balance between contemporary aspirations for the museum in society, and the acknowledgement of real limits, is necessary for each institution, on its own terms, with sensitivity to local context (Message 2006a; Cameron 2007). The design of the empirical study was informed by the spectrum of innovation and stasis across the sector and an interest in how geographical context impacts upon what is possible. The larger global context forms the backdrop for this localised ethnographic research within Australian cultural organisations. Three fieldwork sites were selected across a geographical spread of inner-metropolitan, outer-metropolitan and rural communities. The selection was based upon organisations that have an active, reflexive engagement with their community, and an identifiable response to sustainability in their exhibitions and public programming.

¹ In this thesis the term ‘culture’ implies in the anthropological sense, the ‘combination of values, beliefs, symbols, practices and “scripts” or rationalities that characterise social life in a specific spatial and historical context (Kagan 2010, p. 1095). Culture also refers to something that is fundamentally shared, as Daniel Miller (1997) highlights. Kagan (2012) expands this interpretation further by making explicit the ecological within definitions of culture, arguing that evolution of human cultures has been co-determined, since cultures
Aims of the research

In summary, the three central aims of this research have been:

1) *To explore the conditions of agency that effect processes of change within the structural parameters of art and design museums*

2) *To reveal the ways in which intentional design and programming decisions engage imaginatively with sustainability as a future-oriented change process*

3) *To identify what a material culture approach may offer to sustainability research, debates and understandings.*

Questions of agency are significant within the museum context and they are given close attention in this thesis. Looking at the work of cultural professionals within their affiliated institutions allows for an examination of personal and professional agency, combined with attentiveness to material artefacts and how they come to be socially alive (Knappett 2002). Agency refers to the capacity for action, acknowledging that individuals exist within socio-cultural contexts that enable or constrain their activity. People also take action from within a material existence and they require the scaffolding of other people and things to make actions happen in the world (Byrne et al. 2013). In this thesis there is a combined focus on social and material agency within the museum environment, informed by the assertion within material culture studies that both art and design as 'things' in the world are efficacious and manifest their efficacy in different ways.

Intentional design and programming decisions have the potential to engage with diverse publics on global sustainability issues and assist people in re-imagining relations between culture and nature. This claim is predicated on the assumption that society is made up of symbols and signifiers that are closely linked to real, material life-ways that may need to be altered if sustainability is to be achieved. The question of how to engage publics in changed understandings of the environment in ways that prompt new material and political practices is complicated. Because museums grant meaning and signification to important
inter-subjective relationships between humans and their material life-ways, they are valuable sites for sustainability-oriented research. They can play a significant role in shaping our understanding of the complex challenge of communicating contemporary sustainability concerns. This study aims to extend understandings of the cultures of museum environments, and how they intersect with the aims of sustainability as a future-oriented change process.

One of the central aims through this research is to explore what happens when art and design objects, and the environments in which they are kept and displayed, are understood as material culture. Emerging out of the material ‘turn’ in anthropology, studies in material culture are based upon the understanding that material things reach beyond the limitations of words, speaking directly to people beyond the constraints of language (Bennett 2010). Theoretical insights from the interdisciplinary field of material culture studies offer nuanced accounts of the relationships that exist between people and their material world, developed within diverse social and cultural contexts. They highlight how the social, cultural and material world is co-constitutive and give recognition to the powerful effects and the potent force that material things play in political processes. This perspective affords a layered and contingent understanding of materiality that may have value in sustainability research. The following sections describe the theoretical concerns and the analytical framing that inform this thesis.

Material thinking and the material imagination

Museums like artists and designers think with materials. Drawing on the insights of cultural theorist and historian Paul Carter, the museum is conceived as an environment where a kind of material thinking – on the part of both professionals and of visitors – is active. Carter’s is a meta-level discourse, which attempts to describe the combination of raw materials, the creative process and the distinctive attributes of those who design, manipulate, wrestle with and transform matter.2 There is no single articulation or consensual account of material thinking, however:

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2 Creative practitioner is a term used to describe artists and designers in this thesis.
It can be seen to act as a common locus (a locatable thread) in the larger project of articulating, presenting and making present, practices and poetics of the thinking-in-making-of-the-useful (whether notional or actual use) of designing (Rosenberg & Fairfax 2008, p. 2).

Material making combines forms of creative invention and discursive work, which Carter calls *material thinking* (2004). The framing of discursive materiality as material thinking has value in this study for theorizing what it is that museums do, as does Carter’s definition of sustainability as an act of local invention. Unique forms of local invention help us to understand how identity and connections to place are made, connections which are integral to the generation of new collective imaginaries and to the task of sustainability.3

Inspired by the philosophy of Gaston Bachelard, Anderson and Wylie (2009) suggest that a researcher’s way of grappling with matter and materiality should be properly considered as a distinctive ‘material imagination’. My approach to research has mobilised its own kind of *material imagination* through the project of fieldwork, paying close attention not only to the humans, but also to entanglements of the social, material, physical and biophysical worlds within each site. In this thesis the notion of the material imagination links the work of artists and designers to the work of museum professionals, each of whom is invested in processes of *discursive materiality* through acts of making, collecting and displaying.

**Concepts, practices and embodiments of sustainability**

This ethnographic study investigates the creative work of cultural professionals and visitation experiences for diverse publics across three locations in NSW, Australia: the Powerhouse Museum, Casula Powerhouse Art Centre and Bundanon

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3 Throughout this research creativity is acknowledged as a situated phenomenon, something that emerges in connection with, and in response to greater dynamics and forces. Kay Anderson’s description is helpful here. Anderson speaks of creativity in the metaphorical language of an assemblage, as ‘neither an individual achievement nor a property of social entities (whether artists, or a creative class or a form of labour in the cultural industries). More fundamentally, creativity is a *way of doing* that is made to happen in the interaction of ideas, partnerships, material works and [...] regions and localities’ (2011, p. 149).
Trust. They are distinctive cases that allow for differences, as well as the relations between the cases to be teased out. Following a preliminary phase of research (see Chapter One and Appendices), and prior to any fieldwork, I carried out detailed research into the three field study sites in order to gain an understanding of the history and broader context of each organisation. Following this, I made repeated visits to each site over several months, to participate in, and observe events and exhibitions, and explore texts, images and objects related to each site. My focus was spread between theoretical concerns and the emergent reality of being in the 'field'.

The empirical cases reveal modes of participation with sustainability that include social and material forms associated with art, science, design and experiments in living. Designs for Informing, Engaging and Inspiring are relational processes emerging through material thinking, and are used here also as an ordering strategy that is useful for teasing out differences between the generative effects of the three organisations and their respective creative practice. This rhetorical strategy was developed to consider the position of the viewer, and the way audiences and publics are addressed within diverse cultural organisations.

The rhetorical strategy of informing, engaging and inspiring is a relational ordering, rather than dialectic, and the three aspects interlock in meaningful ways. Each institution’s relationship with its public entails all three, in interrelated ways. However, in each ethnographic case study one is more pronounced, and this is emphasised in the empirical chapters and by comparisons between the modes in the analysis in Chapter Seven. This allows rich juxtaposition to reveal how sustainability may be conceived as a cultural change process within distinct regional contexts and how material thinking is used to extend public imagination. These different modes of address are all aimed toward the goal of ‘environmental action’; however this is achieved through the deployment of distinctive techniques, methods and concepts and on varying scales.

Designs for informing emphasise the science of sustainability. As a mode of address, they provide efficient, clear and concise representations of sustainability as a
global headline issue, reflecting top-down pedagogical techniques in museum practice. The ways in which this information is presented however invites audiences to become informed and to embrace change as active citizens with ‘collective self-interest’. The ‘re-making’ of the world is presented as an exciting and challenging proposition for the twenty-first century and one in which design and science, support individuals and communities in resolving the dilemmas of the present.

*Designs for engaging* foreground the complexity and diversity of contemporary publics; and as a mode of address it uses creative tactics that seek to call new, more sustainable communities into being through open processes of dialogue and storytelling and a ‘re-telling’ of the world. This is a bottom-up approach to cultural production and the negotiation of public knowledge, which emphasises sensitivity to cultural difference and facilitates creative experimentation.

*Designs for inspiring* attempt to reconfigure relations between nature and culture through experiential encounters. They present creative engagements across nature-culture boundaries, where the sciences and the arts are both valued as practices enrolled in ‘re-imagining’ the world. As a mode of address, this is an invitation to participate in the long-term creation of healthy socio-ecological systems through active forms of care and the use of the cultural institution as site for the mediation of community discourses.

This in-depth empirical study provides the opportunity for examination of diverse modes of cultural work. The tools that support the analysis are theoretical understandings of social and material agency, material thinking and new forms of public participation. The analytical work of the thesis involves examination of how sustainability imperatives translate into cultural conversations and political processes. This is an examination of institutional capacities to support complex communications and facilitate new understandings about our being in the world.
New modes of research and knowledge creation

As an interdisciplinary piece of cultural research this thesis is unconventional in a number of ways. Its direction is predominantly informed by developments in material culture studies and the environmental humanities. Both of these interdisciplinary fields have mobilised new modes of investigation that challenge the neglect of non-human things, and address environmental concerns from within the social disciplines. The theorists whose ideas most inform the analytical work of this thesis are Jane Bennett, Bruno Latour and Alfred Gell. Each one provides a distinct understanding of matter and materiality and the dynamics of agency. Their work is part of a greater effort to write nature, bodies, and things more fully into the humanities, through diverse scholarship. This scholarship challenges binaries of nature and culture, and subject and object, producing accounts of a much more complex interplay of worlds. It broadly argues that human existence should be understood within a thoroughly dynamic overlapping and interacting reality, defined by the entanglements of the social, material, physical and biophysical world. Within my own research this positioning is significant. It challenges a separation that has been produced within social and cultural studies, which have reified the social and cultural and produced new knowledge against the backdrop of passive, universalised nature (Potter 2008).

Within material culture studies, the response to the inadequacy of thinking in binaries has been varied, producing debate about how traditional boundaries between subjects and objects, humans and non-humans and mind and matter could potentially be re-configured (Chalk 2012). Material culture studies are not defined by a homogenous group of things; rather it is a 'framing of the material world that allows for tremendous scope, with no conventional dimensions of similarity' (Daston 2004, p. 10). Various categories of material culture studies include everyday objects, art objects, 'magical' objects and networks of things, which all resist tidy classification and emphasise the fluidity between different materialities. This presents the researcher with the challenge of how to design and conduct a study of material culture. Furthermore, it suggests that how a researcher understands the relationship between people and objects and how this
relationship is configured will have a bearing on how an approach to material culture develops.

**Places, Objects and Events: A heuristic**

This study teases out specific examples from the ethnographic project and considers contextual realities that may gesture beyond themselves, contributing to the momentum of sustainability. The empirical chapters are written as ‘thick’ accounts and a heuristic of *places, objects and events* provides a filter for the observations and analysis across three unique sites. This framing sits within the larger theoretical framework of material culture, theorisations of agency and sustainability discourse. Developing the heuristic was an interdisciplinary engagement that involved working across the intersections of several literatures in order to produce a satisfactory way of thinking about the museum site as a relational network where humans and non-humans intermingle in lively and dynamic ways.

How *place* is negotiated by museums and the relationship that an organisation develops to the wider social, cultural and environmental context is significant. Writings of place are concerned with the social and cultural construction of place, alongside the combined individual and institutional agency that is embodied through practices of care within the materialities of distinct physical regions and with discrete publics. New understandings emerge by framing place as a dynamic and lively zone of contact and paying attention to the creative engagements with place facilitated by creative practitioners and museum professionals.

How *objects* are understood and the ways in which they are assembled within museums is equally significant. Histories and debates within object theory get at the nature of objects, unveiling the deceptive simplicity and compelling quality of the material world. More specific to this study, objects are considered in relation to habits of collection and display within cultural organisations. Within the contemporary museum environment material things are increasingly assumed to have a more active role to play in shaping and informing political agendas within
museum environments. Studying objects within museum networks allows for the relationships that exist between humans and their material culture to be conceptualised.

Finally, events are framed as critical moments whereby contemporary sites may provide unique and materially situated learning opportunities for their publics. Events are seen as experiments in which the degree of creativity and curiosity that an organisation embodies is significant. Experimentation relates to how an organisation participates in processes of change. In this study, notions of learning are influenced by phenomenological understandings of the ‘learning self’. This is aligned with the unfinished narrative of sustainability, which are both considered as processes of becoming, influenced by the specificities of place and materiality.

The Place, Object, Event heuristic is about local specificity, about noticing and being aware of where you are placed, and of the historical and institutional histories that inform how concepts, practices and embodiments of sustainability develop in specific contexts. It has become clear through observation of each organisation through the heuristic of place, object and event, that the history and material infrastructure that make up the identity of an organisation, influences the kind of material thinking and local invention that is possible in each case. Actions materialise at a local level through dynamic processes of material thinking and imagining.

An outline of the thesis: Chapter synopsis

This brief introduction sets the scene of inquiry, while the central developments of the thesis can be found in the chapters themselves. As I hope to make clear in the chapters that follow, social research and cultural analysis has a particular contribution to make to the understanding of environmental participation and sustainability. The following thesis summary outlines the content of each chapter and connects the empirical study to the research aims.
Chapter One

This chapter establishes the territory and scope of the project and begins by introducing material culture studies as the lens I use to investigate cultural organisations and the ways they address their publics. Material culture studies provides a particular approach to studying the array of material objects, technologies and artefacts in the world, challenging insufficiencies in how we understand the relationships between people and things. The inquiry centres on the concept of agency and considers its effects within the museum. In Chapter One I provide a theoretical account of agency and the disciplinary perspectives and key theorists who have influenced this research design. Agency is framed in this study as the capacity to act, however I acknowledge that human capacity is always mediated by social, cultural and material conditions. My approach to agency acknowledges that different modes of agency exist, and in doing so it extends the concept beyond the isolated human actor, toward something that is distributed across networks of social and material things. Chapter One also focuses our attention on how I have approached sustainability. In this study, sustainability exists as a contemporary concern, aspiration and contested concept, one that must remain dynamic in order to remain relevant. I argue that a greater understanding of how processes of meaning and signification in the social world develop may be of value to the sustainability discourse. From this perspective, the museum as a social and cultural institution is considered to be a significant site for research because of the influence that museums have had in generating cultural meanings since their inception, and because of their ongoing relationship with wider social systems of meaning and value.

Finally, Chapter One provides information on the empirical design, and includes a discussion of the preliminary research process which led to the purposive selection of three sites for ethnography. These sites were selected based upon a recognition of sustainability as an active concern and priority addressed through programming and operations.
Chapter Two

In the following two chapters I focus further on theoretical and methodological elements and how these help to address the concerns and aims of this thesis. This chapter is divided into two parts; the first examines the intersections between the museum as a stable and conservative institution and the conditions that bring about change. Museums operate to 'provide for' and 'receive from' the world through various forms of exchange (material, social, cultural, ideological and political). The combination of stability and ongoing transformation has ensured the institutions' survival over time. It is a combination that is at once reflective of, and reactive to, social and cultural developments. Change is contextualised in relation to museum critique which has highlighted the various ways in which institutions reinforce social distinctions and operate as functions of state control (Bennett 1995, 1998; Barrett 2010). The obvious tension in the literature between ideas of stasis (reproduction) and change (transformation), as well as the broader agency-structure debate of practice theory (Bourdieu 1978; Giddens 1979; Sahlins 1981) have informed this discussion, along with the body of thought which makes up the New Museology.

The second part of Chapter Two presents an innovation of this thesis, a heuristic framework of place, object and event, and it provides a theorised account of each thematic and a discussion of how each one has informed the ethnographic research. This framework has served two purposes. Firstly, it has been a useful way to organise the ethnographic research process and secondly, it has its own value as an alternative way to conceptualise cultural organisations, bringing in theories and ideas which extend how we think about these environments and what may be possible within them.

Chapter Three

Chapter Three discusses multi-site ethnography as a contemporary research method which challenges the practice of ethnography as an extended stay in a single locale, to incorporate observations across multiple sites. Each of the
organisations are not just the group of practices which I happened to observe and examine, they exist as sites that are durational, ongoing and changing. As Gosden et al. suggest, 'to study a museum is to study an endless, endlessly shifting, assortment of people and things' (2007, p. 5-6). The aim is to generate rich contextual insights across diverse locations in a world now conditioned by the complex circulation of people, objects and cultures in diffuse time and space.

Chapter Four

Chapter Four is the first of three empirical chapters, written as individual 'thick' descriptions, tacking between the empirical detail and theoretical dimensions of this inquiry. Each written account is organised into the place, object, event framework, and each account emphasises one of these, reflecting the priorities of the institution, drawn from ethnographic observation. Three distinct environments, across inner metropolitan, outer metropolitan and rural locales, provide a diverse dataset for these 'thick' accounts.

Chapter Four explores objects, collections, the process of exhibition creation and the concept of object agency through an examination of the Powerhouse Museum, an inner-metropolitan design and science institution in Sydney, NSW. Within this field study I investigate one exhibition closely, contextualising it within the larger historical legacy of this very old institution. Material agency and the qualities that give certain objects their efficacy within this exhibition are closely examined. In this case, the curator orders and manipulates materials for effect and is quite surprised by the efficacy of certain objects within the space. The objects become active within the exhibition assemblage, and expose tensions within the larger organisational imaginary, highlighting the curator’s efforts to create a counter-narrative that is responsive to the aims of sustainability. Curating this exhibition was primarily a process of designing an informing experience for the diverse inner-metropolitan audiences who visit the Powerhouse Museum. The exhibition is information rich, and while its content and development initially challenged the institution, it also provided an opportunity for new practices and ideas of purpose and meaning to emerge from within the organisation. Importantly it also
demonstrates that informing is a relational process that can invite an active rather than a passive response from its audience.

Chapter Five

Chapter Five explores events as constellations which draw places, people and things into dialogue, through an examination of Casula Powerhouse Arts Centre, an art centre in the outer suburbs of Sydney, New South Wales. It is easy to see the engaging quality that a civic space may foster when one is looking through the events lens. Events are temporal and spatial and their creation is linked to ideas of audiences, and individual and collective experiences. This site is a social field operating with multiple levels of exchange, negotiation and translation. The organisation seeks to serve the particular communities of Western Sydney within and beyond the Art Centre in innovative and engaging ways. How these different modes of engagement activate, enliven and strengthen diverse communities within this social and cultural context has been a central interest here. However, since engagement is a contested term the nature of engagement, how and for whom is it designed, in what ways and with what intent, for how long and to what effect, also need to be examined. This exploration focuses on the work of one artist who was in residence during my ethnographic research. The Art Centre facilitated the development of his participatory process with people from the region. His creative tactics and long-term engagements with the communities of Western Sydney, both human and non-human, raise many issues pertinent to land management, cultural values and ideas of Australia as ethnically and ecologically complex. Within this situation, concerns for environmental sustainability have been closely considered in relation to ideas of community, diversity and belonging. This study highlights the innovative qualities of this organisational model, since it is one that challenges established museum hierarchies and provides greater scope for a network of actors to share in creative decision-making and transformative social processes.

Chapter Six

Chapter Six explores how the significance of place informs what is possible within a cultural organisation, through an examination of Bundanon Trust, an arts
organisation in rural NSW. Bundanon Trust is located in the Shoalhaven region, on a large property of bushland, where the qualities of the site continually influence the practices, values and processes of the organisation. Their effort to maintain a resilient organisational structure, which is capable of inspiring publics in experimental and experiential ways, is an ongoing challenge and opportunity. Bundanon Trust is a very complex organisation because of its many cultural and environmental assets. The complexity of the organisation is one of its great strengths, but it is equally one of its vulnerabilities. The organisational mandate has been changing to incorporate themes of diversity, resilience and sustainability across its operations and programming, reflecting a shift within management from a previously narrower remit. The reasons for, and the conditions of, this change was a central focus in this field study. The larger environment and how it is managed is a potent aspect of the identity of the organisation, as is the quality of programming that is designed in relationship to the physical surroundings of the site. This study reveals how an arts organisation may respond to lively non-human ecologies, highlighting the efforts of professionals to challenge established orthodoxies of nature as a passive backdrop on site, instead bringing the living world actively into all manner of visitations.

**Chapter Seven**

In Chapter Seven I explore the implications of this fieldwork bringing together a discussion of the institutional responses to sustainability, which are informed by the observation and the analysis of practices of cultural professionals at the three sites, as well as from their broader institutional initiatives. This chapter incorporates a discussion of sustainability as an act of local invention and a perspective on discursive materiality and the material imagination within the museum environment. These involve new conceptions of agency and the dissolving of traditional binaries between subject and object. I argue that new (historically attuned) material imaginations at both the local and global level are valuable for museums in their work. I discuss each field study in terms of informing, engaging and inspiring visitors, and these differing approaches are identified as the enactments of sustainability adopted by each organisation. I use the three field studies to highlight how each one uses material thinking to propose alternative
material imaginations, including scientific and socio-ecological understandings of the world, and how these generate a larger picture of humanity within the bio-physical world.

Conclusion

The concluding chapter draws together the central insights of this research and I summarise the arguments and key contributions that this thesis makes to new knowledge, reflecting on limitations and further research that could follow. In the discussion I demonstrate how ethnographic research embodies many qualities of transdisciplinarity and hence the valuable role it plays in addressing sustainability concerns. The final speculative analysis proposes that alternative material imaginations are needed to encounter the Anthropocene. Within this imagining a larger picture of humanity becomes central and the bifurcation between nature and culture is forever altered. I return to the Anthropocene and the project of sustainability as the central thread that has run through this inquiry and in finishing, I emphasise the importance of a material imagination that can comprehend the material world as agentive and the human being as ‘world-agent’.
CHAPTER ONE: The material is material (thinking through things)

Introduction: Establishing the research territory

The field of knowledge production replaces the conventional title of Literature review in Chapters One and Two. This title provides an alternative conceptualisation of the process of working with literature, transforming it into an active form of production, a process of assembling in order to bring diverse ‘worlds’ into dialogue. It becomes a process that is 'physical, mental and emotional, rather than a form of passive review' (Kamler & Thomson 2006, p. 45). The field as a spatial metaphor has obvious links to ethnographic practice. The process of working with literature is envisaged as a geographical field in which the researcher is cast as mapmaker. As Kamler and Thomson point out, ‘this kind of mapping encourages a grouping of articles, chapters and books that share common characteristics either theoretically, methodologically or substantively in terms of thesis topics’ (2006, p. 47).

The image of discrete bodies of work that can be neatly and comprehensively applied to an inquiry is an inaccurate representation of the contemporary research process. Advances in knowledge are produced within and outside of scholarly domains and the notion of literature may even be irrelevant in certain situations. Charting a course between prior knowledge, present debates and outlier views, this alternative image of a process of aggregating, re-combining and re-presenting is representative of the approach taken in this study to the 'literature'. It emphasises a reflexive and active entanglement between the researcher and the research ‘territory’.

This research takes a number of unusual steps in bringing different disciplinary perspectives into dialogue, and Chapter one introduces the main threads of the overall direction. The first part of this chapter engages with material culture
studies and locates this study within the interdisciplinary field, acknowledging that it is a complex and evolving territory. I argue that art and design objects may be observed together, through the lens of material culture if the emphasis is placed on their agency and effects. The binaries of art and design are dissolved somewhat through the recognition that material things are mutable in terms of their meaning, signification and effects over time. Following this, the discussion turns to agency and considers how this abstract concept has been taken up in this study, comparing definitions and uses across disciplines and defining my reasons for engaging with it. Following on, I survey the problématique of sustainability and describe how it has informed my research aims, and how it has shaped the contribution that this research makes to new knowledge.

PART ONE

Meaning in matter: Making, displaying and collecting

Challenges to the dualism of subjects and objects and the division between people and things, have become increasingly widespread across diverse areas of scholarship, demonstrating a commitment to the grounded study of the concrete, material world. Each of these challenges to dualism wrestles with the ontological separation of people and 'things', explores how this has occurred and seeks adequate ways of turning toward the 'material' in order to challenge how knowledge claims are made.4

Despite the fact that 'we live our lives in the middle of things' (Turkle 2007, p. 6), placing objects and the material world at the centre of scholarship in the social

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4 Scholars in anthropology, sociology, literary theory, design theory and archaeology contribute to studies of the material world from their disciplinary vantage points and demonstrate the diversity of perspectives informing the material turn and dedicated publications like the *Journal of Material Culture* have placed materiality at the centre of scholarship. Significant texts influential in this study include: Appadurai's *The social life of things: Commodities in cultural perspective* (1988), Daston’s *Things that talk: Object lessons from art and science* (2004), Brown's *Things* (2004), Miller's *Materiality: Politics, history and culture* (2005), Bennett's *Vibrant matter: A political ecology of things* (2010). For a recent example of material culture methods applied in museum studies see: *Unpacking the collection: Networks of material and social agency in the museum* (Byrne et al. 2011).
disciplines has been slow to develop and the reasons for the reticence to examine objects as centrepieces of thought are complex. The humanities and social science tend to prioritise culture over nature, minds over bodies, and words over things (van der Tuin 2014). On a fundamental level the tendency to turn away from the material world is suggested to be the outcome of the 'value placed, at least in Western tradition, on formal, propositional ways of knowing' (Turkle 2007, p. 6). Within this tradition, an emphasis on abstract propositional thought as the highest form of knowledge evolved alongside the pursuit of scientific understanding and became a canonical style of accepted knowledge. The analytical force of this tradition and the influence of the natural sciences on knowledge production informed how 'things' in the world came to be recognised and studied. The influence of structuralism and the linguistic turn during the twentieth century also made research into the material force of 'things', a problematic point of focus.

This legacy translated into studies of the social world with the development of the social sciences. Anthropologist Daniel Miller emphasises how it has informed the 'study of all phenomena that stand for what we now call society, social relations or indeed simply the subject' (2005, p. 34). However, studies in material culture now make it clear that our daily interactions with 'things', 'stuff', 'objects' and the colloquial language of their everyday use veils a more complicated reality of reciprocal meaning and value, co-arising out of the material world. Much of what we are as humans, 'exists not through our consciousness or body, but as an exterior environment that habituates and prompts us' (Miller 2005, p. 5). Miller seeks to 'de-sacrilise' the social through the interdisciplinary work of material culture studies. He claims there has been a reification of 'social' and 'social relations' in British anthropology and of 'culture' in American anthropology. In simplified terms, Miller traces the origins of modern anthropology and sociology to Durkheim and the study of the social world influenced by Durkheimian traditions. The possibility of modern anthropology emerged from a radical secularism that

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5 Design theorist Cameron Tonkinwise notes how little attention Western philosophy has paid to the making of things: 'Philosophers rarely think of things, and even more rarely think of them as having been made. If they do, they tend to refer only to artworks, not the useful things of everyday life. From Aristotle, you have to jump all the way to Marx, Heidegger and Arendt' (2014, p. 6).

6 Further reasons for the reticence to examine the power of objects has come from concerns that what was being studied was materialism, disparaged as excess, or collecting, disparaged as hobbyism, or fetishism, disparaged as perversion (Turkle 2007).
'viewed religion as the emanation of the social collective. At the same moment that Durkheim de-sacrilised religion, he sacrilised the social' (Miller 2005, p. 34).

According to Bruno Latour, who has also challenged the Durkheimian tradition of sociology, the privileging of the social misses the profusion of non-humans and the effects of their agency. Latour, on the other hand, contends that 'if a sociology is to exist, the social fluid has to be followed wherever it circulates, even through things made of non-social stuff' (2004, p. 225). The 'material turn' across the social disciplines has placed materials and their efficacy in a central position in ways that challenge the conditions of agency, who and what has it, and what shape it takes. Each disciplinary perspective sheds light on particular concerns and ways of understanding the power, presence and meaning of material things, and they share a common interest in subject and object relations or, put otherwise, the qualities of human and non-human relations.

While it may seem obvious to suggest that museums and their collections are 'material', and to emphasise the value of studying them as material culture, the reason for taking this approach is that many analyses within museums have 'ignored the distinctive sensual and corporeal qualities of the actual objects, in favour of research which explores them as symbols or texts' (Byrne et al. 2011, p. 12). The recognition that material 'things' have powerful qualities has fundamentally challenged prior assumptions, and fed new fascinations. Cultural theorist Gay Hawkins highlights the potent force of non-human things within the political process, arguing for greater recognition of the social, cultural and material world as co-constitutive, since:

Matter doesn’t simply challenge the anthropocentrism of much political thinking, it also reminds us of how many contemporary political disputes now involve the management and regulation of the nonhuman, generating increasing crossovers between the political, the scientific, the technical and the ethical (2009a, p. 1).

7 Studies in the history, sociology and philosophy of science have been important within the material turn. Relatively recent accounts of science have begun to focus on the study of science as practice and culture. Woolgar & Latour’s ethnography Laboratory life (1986) and Centina’s The manufacture of knowledge: An essay on the constructivist and contextual nature of science (1981), show how laboratories produce knowledge through combinations of abstract and concrete work and reveal the importance of concrete contextual reasoning. Science studies reveal how Laureate scientists, such as Richard Feynman arrive at discoveries in ad hoc and playful ways, emphasising the importance of tinkering and everyday material practices.
One of the central aims throughout my research has been to explore what happens when art and design objects, and the environments in which they are kept and displayed, are understood and researched as material culture. Material culture studies now broadly engage with formal and informal social practices across diverse areas of life, pursuing new knowledge in innovative ways. Originating out of anthropology and archaeology, the field has diversified beyond these disciplines.\(^8\)

The exploratory, expert and public nature of museums separates them from smaller sites of research in material culture studies, such as domestic settings. Given that objects in museums have been wrested from other places and kept in perpetuity, they attain a peculiar status within this setting. Objects become part of a process of amassing and assembling which is not 'natural' or predetermined (Bennett 1988), and it is less likely that objects of art and design within museum collections 'fade out of focus' in the same way that objects of everyday use do (Miller 2005; Brown 2004). Therefore the nature of their object-ness must be considered as distinct from what it would be in other environments. By accessioning or displaying objects, the creators of museum exhibitions both create and enhance value, and society’s acceptance of the value of museums likewise transfers value to their objects (Gurian 1999). Material culture displayed within the complex of these environments is the result of a range of organising and synthesising forces. The museum is responsible, consciously or unconsciously, for providing a symbolic commentary on objects, imbuing them with value (Knappet 2005). The material world of 'objects, artworks and historical collections' and the 'collections and galleries that explore the meaning of objects' (Robin et al. 2014, p. 2) become part of complex material/cultural networks that are invested with significance, through practices of disciplinary expertise and public visitation.

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\(^8\) Historical developments in the field of material culture studies have been addressed by a number of authors. For a historical overview see Tilley et al. (2006) and for a more critical history see Hicks (2010). In their 2010 work, Hicks & Beaudry offer a critical appraisal of a 'post-disciplinary' material turn. They argue against the post-disciplinary, stating that while interdiscipilary contributions from anthropology, archaeology, geography and Science and Technology Studies (STS) and other fields overlap, providing value to each other, the importance of a disciplinary orientation remains. In my case, I have drawn insights from authors working from within their disciplinary traditions in material culture studies, as well as from cultural theorists and other authors who broadly reflect on materiality across the humanities.
This research considers cultural organisations as a mix of social structure and material infrastructure, which exist within distinct material landscapes. The museum as a social structure responsible for the control and management of material culture is explored further in Chapter Two. Within each of the empirical chapters (Chapters Four, Five and Six), the combination of social structure, material infrastructure and landscape are explored through the framework of *places, objects and events*. As an interdisciplinary piece of research, with foundations in art and design theory, I have co-joined art and design with material culture in order to examine both types of materiality in this study. The following section elaborates on this process.

A material culture perspective: Reconciling binaries between art and design

Art and design have been coupled in this research and I have done this with a degree of self-conscious criticality. While recognising and appreciating the distinctions between these creative fields (briefly overviewed below), I have sought to reconcile these differences by regarding them *both* through the lens of material culture. This research is predicated on an understanding that material things reach beyond the limitations of words, speaking directly to people beyond the constraints of language (Bennett 2010). Working with the underlying assumption that both art and design objects can be efficacious (that objects can do social work) (Gell 1992), grouping objects of art and design together has also been possible by assuming an action-centred approach to the study (Knappett 2005).

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9 My self-conscious criticality is the result of having disciplinary training in the fine arts and professional experience as an educator in design and visual art in secondary and tertiary educational institutions and in museums. I recognise the integrity of both art and design as separate and independent disciplines. However, in the present era artists, designers and exhibition curators are comfortable to explore intersections, frontiers and cross the boundaries between disciplines. Recent exhibition examples in Australia include curator, Katherine Moline’s exhibition, *Feral experimental: New design thinking*, at the University of New South Wales Art and Design. Moline exhibited a slew of national and international design projects that demonstrate productive exchange across disciplines, many with aims to ameliorate real-world problems by experimenting across disciplinary boundaries.

10 Saying that ‘objects’ of art and design have agency and are efficacious will appear contentious to many, since it challenges notions of agency as exclusively human. However, this position aligns with currents in contemporary thought that argue for the development of new ways of thinking and talking about material things, based on the assertion: ‘that there is something more to things than our current ways of talking about
Joining art and design together has meant looking at both of these material registers in terms of what they do within the social world and the processes they are a part of. They are examined as part of larger forms of assembly and exchange and are considered as active and mutable material forces. The decision to take this approach is not a rejection or denial of material differences or of the literature within the individual disciplines and their rich analytical traditions. However, the dominant framework for theorising objects comes out of the interdisciplinary field of material culture studies because of the vantage point it affords.

Both art and design are integral to practices of collection and display, and while both sit within domains of making, the objects of art and design are often considered distinct in the ways they act upon us and in the world. They are examined briefly here in order to clarify further how they have been brought together in this study. Several binaries exist in the categorisation of these objects. They include: use-value and sign-value, the functional and symbolic, technology and magic, and gift and commodity (Knappett 2005). Although distinctions between art and design are useful to some extent, these distinctions continue to be scrutinised in material culture studies, particularly in relation to material agency and the efficacy of objects.

In a general sense, they are often differentiated to the extent that design is considered a fundamental response to issues of utility and the provision of means. Design objects are often considered objects of use in the world (sometimes referred to as 'everyday objects'), whereas art is considered to be a fundamental response to issues of meaning and does not have a provisional use (Tonkinwise & Lorber-Kasunic 2006). Art objects provide an opening for interpretation and affect which may come to influence direct actions in time, but only circuitously. Art may generate actions through suggestive intent and may be deemed useful in meeting psychological and emotional ends through affect, however art is often not defined by its usefulness in the way that design is. Art is more often recognised and

them allows. What that more entails can be metaphorically captured by referring to it as agency, but we also need to understand agency differently’ (Tonkinwise 2014, p. 2).

11 This thesis has been informed by critiques of contemporary design practice by Tony Fry, Abby Mellick Lopes and Anne-Marie Willis. Their arguments highlight the role of design in structuring practices and the ontological function of design (Fry 2009; Willis 2007; Lopes 2006).
celebrated for its inherent *uselessness*. Although Tonkinwise and Lorber-Kasunic stress that:

> There is always a kind of meta-use to art - futile objects should usefully frustrate the imperial economy of instrumentalism, for instance - and to a certain extent, even mere contemplation of mounted artworks in rarefied galleries is a kind of use (2006, p. 2).

Archaeologist Carl Knappett (2005) highlights distinctions between design and art objects based upon *pragmatic* (hence non-significative) value and *significative* (hence non-pragmatic) value. Knappett's exploration of these distinctions, much like Tonkinwise and Lorber-Kasunic, emphasises the notion of perceived purpose and the acquisition of meaning in the world. Knappett suggests that a general tendency is for design objects to derive their meaning from their pragmatic *use-value* and art objects from their *sign-value*. By extension the meaning of design objects is assumed to be ontologically more secure than that of art objects, which derive their meaning from their sign-value and have a more open, free-floating, changeable quality.

However, the use of the binary of pragmatic and significative value to distinguish how meaning is ascribed to art and design objects is problematic since:

> Objects can escape the intentions of their creators, they have a mutability that often sees them move between the categories we impose upon them. These categories derive from our own deep-seated assumptions about objects, or from our refusal to pay them much serious attention. The dualism constructed between the everyday object and the art object is just one of a series of dualities that are not unrelated (Knappett 2005, p. 117).

The *mutability* of objects across time and space suggests that the strict categorisation and the imposed binaries between objects of designed everyday use and objects of art need to be loosened. Objects function differently and come to mean very different things at different times, and conversely can have multiple meanings to diverse social groups at the same time. As Knappett points out, ‘artefacts can slip between different categories as they find their positions newly configured within subject-object networks’ (2005, p. 118). This is true of art, design and technological things in different ways. There is nothing stopping an
everyday design object from becoming an art object (most obviously demonstrated by Duchamp 100 years ago), as Gell contends:

Western art became well accustomed to the notion of functional objects as art, ever since Duchamp's ready-mades. Such objects are considered not on aesthetic but rather on "interpretive" grounds; they qualify as artworks when evaluated within a system of ideas espoused by the Western art-world (1999, p. 187).

To illustrate the mutability of objects Knappett cites diverse examples. He insists that rather than objects being placed in different categories as a result of imposed binaries, there may be different registers of object-hood that certain artefacts may enter and exit at various times. Knappett's observations highlight three significant points that have informed this research. Firstly, the status of objects is transitory rather than fixed. Secondly, the status of objects relies not only on the objects themselves but on the manner of their configuration within human-non-human networks. Finally, objects should be conceived of as leading lives that may be eventful and multiphased. These core perspectives challenge established dualisms between design and art objects, particularly the notion that object binaries like sign value and pragmatic value are fixed or oppositional, asserting instead that they are fluid and co-dependent (Knappett 2005). They also influence how collections and the processes of display, of which countless objects are a part, are understood.

This brief discussion of art and design objects and their mutability over space and time is included here to introduce how I have conceptually linked these two kinds of material making, while acknowledging that clear differences exist between design and art, both in theory and practice. In the section that follows, I take up the theme of agency, and describe how it is positioned in this study. I have considered the changing understandings of agency, looking at ideas of both the social and the material world and how agency is understood from different disciplinary

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12 Other studies in material culture emphasise this malleability (Daston 2004; Turkle 2007). The theory of boundary objects suggests that meanings change across cultural contexts and that objects provide a rich inter-cultural passage between different ways of being in the world. Daston shows that 'the literature of the gifts, commodities and exchange is more illuminating on these specifics. Detailed studies examine how the same thing may become sacred or profane, gift or commodity, alienable or inalienable in different cultural contexts' (2004, p. 16).
standpoints. I discuss debates about the concept of agency and its sociological roots as something exclusively human and the more recent challenges to this intellectual tradition. Exploring changing perspectives on agency is a significant aspect of this research, since it allows for an investigation of the social (both individual and supra-individual) as well as the material dimensions of human choice, intention and action in the world.

**Perspectives on agency: The capacity to make a difference**

In approaching cultural organisations as dynamic, networked entities and examining professional practices within them, my aim has been to investigate how contemporary cultural organisations engage with sustainability. Within the structural parameters of each institution, the abstract concept of agency was examined in relation to the texts and materials, spatial arrangements, the broader environment and temporal events. Given the contested position of agency in theoretical debates and its importance within this work, I must adequately address the questions of *how* and *why* I am using it, and link the foregoing concerns to the broader domain of sustainability studies. This first requires an elaboration of the notion of agency.

The agency discourse wrestles with notions of intent, choice and action, and has been an ongoing consideration, useful because it theoretically examines different forces acting within a given context (Sewell 1992; Ortner 2006; Gallagher 2007). The enduring 'structure-agency' debate within anthropology, sociology and political science contends with the duality of agency and structure in the attempt to define the more potent force between them (Emirbayer & Mische 1998; Bennett 2005). To engage with questions of agency is to examine visible and invisible constraints and capacities for action. Contemporary debates address how to adequately define the term and build on the question of whether agency only rests with the individual. These debates also examine the extent to which agency is conscious, intentional and effective (Giddens 1979; Sewell 1992; Ahearn 2010;
Ortner 2006). In addition, debates on the subject of agency also address whether non-human things (for example plants, animals, institutions, technologies and artworks) may be agentive and how such supra-individual agency exists and operates (Gell 1998; Pickering 1995; Dobres 2000; Bennett 2002; Latour 2005). In this study I have taken agency to be both individual and supra-individual, recognising that agentive forces exist across the social and material world in entangled and messy networks, a view informed by Actor-network theory.

I have endeavoured to identify agency by working backwards from its observable effects within the museum environment. Such effects are the evidence that something has happened, or put differently, they may be considered as the traces of agency. By thinking about and observing agency in this way, I have engaged with abstract theoretical debates while grounding ideas in what has been observable within the given social and material context of ethnographic research. I did not test the impact of these effects on museum visitors; my interest lay in examining the people, places and things that make up a museum as a network, and the modes of agency operating within these structured environments.

In my own approach to agency, I have built upon a succinct definition of agency from linguistic anthropologist Laura Ahearn, who refers to agency as ‘the socio-culturally mediated capacity to act’ (2010, p. 28). Within her ‘bare bones’ definition are central concerns informing a picture of agency as the capacity of an individual to act independently, while reckoning with the factors of social class, religion, ethnicity and gender (embedded in material and non-material structures), which may delimit an individual’s opportunities.14 This perspective is informed by Practice Theory, and the notion that agency exists, but is conditioned by given routines and external social and material structures which determine (mostly

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13 Efforts to classify agency may be traced back through the lineage of classical sociology commencing with George Simmel. Other philosophical accounts include the phenomenology of Maurice Merleau-Ponty and Martin Heidegger, whose theories of agency acknowledge the embodied character of human action and the inter-subjective field of human acts. There is a lack of agreement about the adjectival form of agency. In this thesis I use the term ‘agentive’, as proposed by Ahearn (2001).

14 The term structure needs some clarification given it is used across disciplines in different ways. Here its use is informed by sociological traditions, where structure is seen to be: ‘constituted by mutually sustaining cultural schemas and sets of resources that empower and constrain social action and tend to be reproduced by that action' (Sewell 1992, p. 27).
unconscious) action. Anthony Giddens's (1984) explication of agency concludes that agency is always part of larger social and cultural formations, not a 'freestanding psychological object' (Ortner 2006, p. 134) and that human activity produces structure as much as structure conditions human agency. At a fundamental level, Practice Theory provides a rich account of the dialectics of social life, through the recognition of the dialectical relationship between structure and agency.

In assuming a focus on material things and a concern with materiality, I think it is appropriate to add to Ahearn's definition that (in fact) agency refers to the socio-culturally and materially mediated capacity to act. Individualist accounts of agency often preclude the agentic power of the material world. Individuals may or may not have the socio-cultural capacity to act, but it is from within a material existence that people take action, and they require the scaffolding of other people and things to make actions happen in the world (Byrne et al. 2011). The two theorists who have most informed my perspective of material agency are anthropologist Alfred Gell and sociologist Bruno Latour. They contend with the idea of agency from different disciplinary standpoints. Gell's anthropology of art has been influential as a theoretical account of objects within a nexus of social relations, from which he recognises agency as a form of 'distributed personhood' (Gell 1998). His perspective on art objects also provides a theorised account of the technical mastery of objects, which he casts as 'technologies of enchantment' (Gell 1992). Objects are viewed as things imbued with a kind of material virtuosity via the skilful production of the artisan. In contrast, the position taken by Bruno Latour (and others working in the Actor-network theory tradition) is that objects become

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15 Practice Theory is widely considered to offer resolutions to problems in social theory by restoring the actor as an essential part of social processes, without losing sight of the larger structures that constrain (but also enable) social action (Ortner 2006). The theory developed out of three seminal works: Pierre Bourdieu's Outline of a Theory of Practice (1978), Anthony Giddens's Central Problems in Social Theory: Action, Structure and Contradiction in Social Analysis (1979), and Marshall Sahlins's Historical Metaphors and Mythical Realities: Structure in the Early History of the Sandwich Islands Kingdom (1981).

16 Daniel Miller examines the foundational logic of the philosophy of Hegel and his theory of objectification. Miller claims that it offers an 'encompassing and definitive definition' from which it is possible to work downward into the social and material world and argues that Hegel's theory of objectification supports the dialectic of practice theory. The fundamental argument in Hegel's Phenomenology of the Spirit (1807) suggests: 'there can be no fundamental separation between humanity and materiality. That everything that we are and do arises out of the reflection upon ourselves given by the mirror image of the process by which we create form and are created by this same process' (Miller 2005, p. 7).
agentive within networks (see Chapter Two for an extended account of material agency).

In approaching non-individualist notions of agency, the Actor-network theory of Bruno Latour, Michel Callon and John Law provides a way of thinking about the multiple agentive dimensions within organisational settings, through their assertion that people, materials and institutions cannot enact agency on their own. Instead, agency is something distributed across a network, and these relational dynamics attest that agency is an emergent effect, rather than an attribute of a single individual or thing (Chalk 2012). From this perspective, material things may assert themselves in rather ad hoc and unexpected ways at a level below human agency, so that agency may in fact be accidental or the result of unintended consequences.17

In ways similar to Latour, political theorist Jane Bennett also challenges traditional models of agency drawn from moral philosophy, with her distributive notion of agency, which shifts focus away from a single effect to pay attention to a linked series, cascading, like a neural network. She notes that in moral philosophy, efficacy is understood as one of the central notions ‘curled up inside the idea of human agency’ (2005, p. 456). Bennett suggests that efficacy names the productivity of agency and its power to create, and points to the fact that something has been made to appear or occur. However, in redirecting our focus toward a distributive notion of agency and a ‘cascade of effects’, Bennett contends that:

> To focus on the cascade of becomings is not to deny intentionality or its force but to see intentionality as less definitive of outcomes. It is to loosen the connection between efficacy and the moral subject and bring efficacy closer to the idea of the power to make a difference, to generate changes that call for responses (2005, p. 457).

The power to make a difference can emerge from the material, non-human world as equally as from the human. Therefore, 'a distributive theory of agency does not

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17 John Law states, ‘In this way of thinking agency becomes ubiquitous, endlessly extended through webs of materialised relations. But where to localise agency in such a web? Where to pin it down? This becomes a matter of attribution, post hoc and after the action’ (2008, p. 58)
deny that human persons are capable of reflective judgements and thus are crucial actants in many political transformations' (2005, p. 454), but what becomes important is the full recognition of a much more networked and unpredictable assemblage, so that:

Even what has been considered the purest locus of agency - reflective, intentional human consciousness - is from the first moment of its emergence constituted by the interplay of human and non-human materialities (2005, p. 454).

Underlying these arguments is a fundamental concern with how humans are positioned in relation to non-human things, whether animals, artefacts, technologies or elemental forces and Bennett questions whether accepted views on agency understate other actants. As she suggests, 'the issue [...] is whether figurations of agency centred around the rational, intentional human subject - even considered as an aspirational ideal - understate the ontological diversity of actants' (2005, p. 453). A significant reason for not restricting the application of the term agency to humans alone has emerged out of a concern about the ontological privileging of humans, a feature of moral philosophy and Western thought for centuries and one that has been problematised by other authors in the humanities (Rose 2005; Hawkins & Potter 2006; Muecke 2009; Hawkins 2009).

The empirical approach of the Actor-network theory sensitises us to patterns of connection across the social and material worlds, challenging the bifurcation of culture and nature, while the insights of authors in the humanities, such as Jane Bennett, seek to articulate a challenge to the ontological privileging of humans. Actor-network theory is both co-constructionist and ecological (Murdoch 2001) and it shifts attention away from humans and the social to collectives and complex ecologies.18 Murdoch suggests that an implicit aspect of the arguments of Actor-network theorists is that this kind of 'ecological' approach to research is well suited to the study of the many environmental problems that currently confront humanity. However Murdoch also argues that any implicit assumption of the value

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18 Murdoch (2001) suggests that Actor-network theory is co-constructionist in its emphasis on relations and the way that discrete entities of beings emerge as these relations are consolidated. It is ecological in the sense that it seeks to overcome distinctions between natural and social entities, thereby extending agency to non-humans as well as humans.
of a network approach in studying environmental 'problems' needs to be unpacked. He makes the point that despite the embedded relations of 'nature and culture', humans still carry responsibility for the 'fate' of non-humans. Similarly, sociologist Soper argues:

Unless human beings are differentiated from other organic and inorganic forms of being, they can be made no more liable for the effects of their occupancy of the ecosystem than any other species, and it would make no more sense to call upon them to desist from destroying nature than to call upon cats to stop killing birds (1995, p. 160).

The need to act ecologically and the need to pursue sustainability as a set of values, principles and practices, is a human need, and one that is given voice within human languages and cultures (Murdoch 2001). These primary assertions, that humans are part of heterogeneous networks, while also being distinguished from them in terms of language, culture and degrees of responsibility, are central to how this study of museums has been configured. Bringing them together is predicated on the recognition that while agency may be distributed across networks and may operate in unexpected ways, a defining aspect of human agency is a capacity to think, to decide, to make, and to act. This is the distinct human capacity to make a particular kind of difference, one which does not privilege us ontologically, but which nonetheless places an onus on the human as a distinct kind of actor within socio-ecological networks.

In summary, I have gravitated towards and brought together particular theoretical ideas. Some of them were outlined in the first part of this chapter. In this section I have described how material culture studies, notions of agency and the potential for the effects of agency to be taken seriously, are combined. My focus now shifts toward the research design and its aims, beginning with a discussion of concerns for sustainability, followed by a description of the preliminary research into contemporary practice within Australian organisations and the ethnographic research that followed.

19 The insights of philosopher of science Ian Hacking are helpful here. Hacking has explored how Actor-network ideas both challenge and enhance traditional sociology, by bringing socio-ecological relations into the frame of sociology. Hacking acknowledges the heterogeneous actors within complex networks, however he distinguishes between natural and social actors by proposing different kinds of actions and differing forms of action, labelling the social as 'interactive' and the natural as 'indifferent' (Murdoch 2001).
PART TWO

The sustainability *problématique*: A research priority

In the next part of this chapter, I clarify how I have approached sustainability as a research agenda that crosses disciplines. It is a meta-level and evolving discourse that has developed in response to global conditions, which are placing increasing pressure on the living systems that support life on Earth.\(^{20}\) I have adopted the word *problématique* as a concept noun that encapsulates the complexity and difficulty of debates about sustainability. Used in this way, the ‘sustainability problématique’ anchors the complexity of sustainability as an interconnected and entangled set of *challenges and choices*, which are dynamic and ongoing.\(^{21}\) The first part of this section gives a brief review of key concepts within the broad trajectory of sustainability discourse (including the Anthropocene, the ‘Great Acceleration’, resource limits, pre-caution and risk). This provides background for the particular approach I take to researching sustainability within the museum context. My own approach has emphasised the role of contemporary culture at a local, situated level, exploring museum practice at both an operational level (‘back of house’) and a visitation level (‘front of house’).

The question of how humans live sustainably has been a human question for centuries, however it is within the conditions of the Anthropocene that the question has become more global and more urgent. The era in which we live, the Anthropocene, is acknowledged from within the science community to be a time in which the effects of human habitation on the planet are so widespread that they are a defining force for all other systems of life (Crutzen & Stoermer 2000). The use of the term Anthropocene is not ideological or normative. It is a determination

\(^{20}\) While the meaning of the term ‘sustainability’ is itself a matter of considerable debate, the concept emerged out of an attempt to locate environmental concerns in a broader arena that encompassed social and economic factors (Robinson 2008).

\(^{21}\) The term was coined in antiquity and has developed within Western philosophical thought. Within the French intellectual tradition the word is commonly used to refer to the complex and often conflicting elements within a research inquiry. It also describes a structural model and graphical device to aid in the conceptualisation and visualisation of complex problems, which in turn can assist the human mind to cope effectively with complexity (Warfield & Perino 1999).
made by scientists with enough global data to make the claim it implies, based upon established geological conventions (Steffen, Crutzen & McNeill 2007; Costanza, Graumlich & Steffen 2011; Robin et al. 2014). In the final decades of the twentieth century, given the rapid rate of change and the visible impacts of human development, scholarship converged around the Anthropocene and the concept of *The Great Acceleration* (Robin 2013; Robin et al. 2014). The visualisation of this acceleration in human-induced changes, with its multiple J-curve diagrams, produced an alarming picture of the transformation of earth systems. As many scientists warned of the potential threats of 'system collapse', there was an increase in scholarship across disciplines as well as a groundswell within the general population (Hawken 2007), concentrating on how these threats might be reduced.

The goals of sustainability evolved and developed as a response to the set of inter-related, complex problems that the planet and a global humanity faced in the late twentieth century and into the twenty-first. These include widespread threats to living systems, the complex pressure of managing resources, global inequity, a 'carbon-challenged' world and the many dimensions of climate change. Finding ways to balance multiple needs across environmental, social and economic systems became the broad goals of sustainability. However the challenge of addressing these needs makes sustainability a contested concept like liberty, literacy or justice (Dresner 2002). This is partly because sustainability emerged as something of a grand narrative, at a time when the grand narratives of the twentieth century (religion, communism, progress) had been in steady decline. The old belief systems, which had provided many people with strong identities and conviction for many generations, had gradually fallen into disuse. Defining a new paradigm based on a collective ideal of equity, precaution and protection in the twenty-first century in an era of widespread pessimism is 'a goal at least as ambitious as any of the aims of the Enlightenment or socialism' (Dresner 2002, p. 164).

Equity between and within generations became central in the conception of sustainable development put forward by the Brundtland Report in 1987. The
environmentally driven argument for a 'precautionary principle', in which the burden of proof should 'shift from those who want to avoid risks to those who want to take risks' (Dresner 2002, p. 138), runs counter to the 'assumptions of the utilitarian philosophy underlying mainstream economics' (Dresner 2002, p. 4), which tends to average out economic, social and environmental risks and minimise worst-case scenarios in futures decision-making. The argument about how to adequately assess for risks in recognition of environmental limits highlights a significant philosophical position within the tenets of sustainability. If the world is recognised as having environmental limits, then the justification for private property rights and material acquisition more generally, widespread Western liberal ideas established in the seventeenth century, are tested.

After reviewing decades of recent scholarship on sustainability, social and political theorist Lipschutz (2009) suggests that although we are not much closer to a consensual definition or set of practices in sustainability research, it is now possible to identify three somewhat distinct agendas. The first is a largely instrumental approach to sustainability, proposing interventions at the level of the technological, economic and biological. In this approach human behaviour is assessed in terms of linear, causal impacts on ecological systems and research is designed to reduce these impacts. In a general sense within this paradigm, sustainability is largely about species preservation and ecosystem protection, especially where adverse conditions of habitat loss from human encroachment are recognised as the causes of threats to sustainability. According to this model, people's behaviours and preferences can be induced to change through policy and pricing. Its epistemological framework assumes that both 'ecological modernisation and preservation/restoration' focus on the means of reducing 'harmful losses and flows as a way of conserving stocks, whether of species, pollution or energy' (Lipschutz 2009, p. 137).

The second research agenda outlined by Lipschutz engages with greater nuance in the significance of social organisation and the human dimension of sustainability. Humans are recognised as complex rational and irrational actors living 'deeply embedded lives in dense networks of social relations' and are identified as more
than 'readily-stimulated nerves and preferences' (2009, p. 138). Informed by sociology, this area of research is concerned with the social factors involved in organising production, consumption and reproduction and the constitution of rules and relationships that make up the social world. All of these social factors are considered of importance in meeting sustainability imperatives. The social is mostly regarded within a framework of normative change that rests on the assumption that instrumental changes through newly devised norms, regulations and laws will be embraced and adopted based upon each individual’s capacity to connect self-interest with collective good (the survival of the human species). This amounts to a focus predominantly placed on the 'greener' functioning of social institutions and behaviours. The concern that Lipschutz raises in regard to the second approach is that much of this research and the epistemologies underpinning them fail to engage with deeper ontological questions of what sustainability means and why it is culturally significant.

The third element within Lipschutz’s synthesis suggests that sustainability, beyond the role of stimuli or institutional reform, is significantly about meanings and culture, neither of which is easy to define, measure or control. Society is made up of symbols and signifiers that are closely linked to real, material life-ways that may need to be altered if sustainability is to be achieved. Seen at this level, the intersubjective relationships between humans and their material environments are foregrounded in ways that engage with questions of meaning and how signification is granted to both people and things (both living and non-living). To contextualise this notion within everyday practice, Lipschutz explores the example of auto-mobility. He contends that it is not enough that we drive more energy-efficient automobiles or even drive them less. Rather, individuals must normalise and internalise a new and different ethic of individual auto-mobility (so as to grant signification to mass transit and low mobility). This presents a challenge to the signification given currently to individual auto-mobility, which is powerfully linked to values of personal freedom and notions of personhood. According to Lipschutz, if change can be generated at the level of meaning and signification,  

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22 This theme is explored at length in the context of the Powerhouse Museum (the first field study), where the strong attachments of museum visitors towards an object within the exhibition revealed what I describe as complicated materiality (see Chapter Four).
there is a chance that people will not revert to old ways of being in the world when incentives are removed, and will actively pursue alternatives because of the powerful meanings they ascribe to them.

These loosely grouped research approaches have different epistemological orientations. According to Lipschutz, the last of these is the least understood, observed and acknowledged, and the most difficult to address in research. However, it is in the area of meaning and signification that the social disciplines can make a significant contribution toward addressing - at an ontological level - the *why* and the *how* of sustainability. Lipschutz suggests that by recognising, understanding and potentially altering cultural meanings, individuals and society more broadly may become more sustainable. The argument for the instrumental *use* of culture and meaning to obtain the goal of sustainability is problematic, especially for museums where claims of neutrality (however contentious) are significant. Nonetheless, museum institutions have been incontrovertibly influential in generating cultural meaning throughout their history. For this reason, I have sought to understand where sustainability sits within the historical momentum of the museum.

The research outline

In grappling with competing claims and aspirations for sustainability I have regularly returned to the suggestion by Lipschutz (2009) that sustainability will remain a meaningful term if we realise that ‘we need to learn from cases and examples in which social transformation did occur [...] to determine how the sociological, cultural and technological elements came together’ (p. 140). This is to say that there is value in mapping change and transformation in individual identities and behaviours and in relationships between local social organisations and global forces, in order to recognise how change occurs across multiple, interconnected scales. Clearly, this is an ambitious aim and one that resonates with the method of multi-site ethnography and with the aims of this research.
I consider the 'greenfield' imaginary of a sustainable future to be of great value. However, it is always necessary to keep a foot in the realm of the imperfect here and now - the realm of time, place and mortality - in recognition of the 'epic problem' that transformation addresses (Lopes 2006, p. 23). Sustainability is not a static goal, since life on the planet will always be dynamic and evolutionary (Walker 2006). I consider it to be an ongoing enactment occurring between human and non-human material and non-material forces across heterogeneous worlds. These forces are conditioned at the level of action and at the level of ontology, both locally and transnationally. Sustainability is itself a 'world' building exercise and it is out of this notion of 'world' building that the themes of this thesis have emerged.

This thesis argues that there is a strong case for the aspirations and values of sustainability to become embedded in the 'fabric' of decision-making in society and by extension, in the fabric of cultural organisations. However, I decided early in this process that I would avoid imposing (or testing) a pre-existing framework of sustainability. Instead, I am interested in how people and their affiliated institutions are responding to questions of the environment and sustainability, and how their own decision-making, and personal and professional agency, impacts upon their local communities. My desire to examine how inanimate artefacts come to be socially alive (Knappett 2002) or put differently, how they have agency, has also informed the overall research design. I was influenced by the assertion within material culture studies that both art and design as 'things' in the world are efficacious and manifest their efficacy in different ways. The recent material turn has placed emphasis squarely on the material world as a significant constitutive frame for analysis of the social world and the development of new understandings of the human condition. Social researchers need to engage with the issue of materiality in rich and meaningful ways 'beyond a mere footnote or esoteric extra', because the 'stance to materiality also remains the driving force behind humanity's attempts to transform the world in order to make it accord with beliefs as to how the world should be' (Miller 2005, p. 2).

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23 Two words, *enact* and *perform*, are used to describe sustainability as an ongoing, dynamic process. John Law usefully points out 'the English language makes it easy to write sentences that are active or sentences that are passive. But writing somewhere between *doing* and *being done* is much more difficult' (Law 2008, p. 64).
From this position, my research design seeks to explore pre-existing practices and material culture within specific museum environments. I developed a method that allows new perspectives on current practices to emerge from the research process. This research became an effort to examine, through an ethnographic inquiry, the diversity of practice in formalised spaces of art and design, and to consider how they relate to broad concerns for sustainability. In the context of cultural organisations, decisions and actions may occur at the level of operations (out of sight of visitors). Such changes to operations occur at an organisational level, where staff address everyday practices, act on sustainability principles and locate themselves as responsible corporate citizens by implementing management decisions. Alternatively, the development of exhibitions, events and education (within sight of visitors), becomes focused on modes of communication, meanings and significations and the visitation experience. Across both of these dimensions, the issue of agency is immanent. *Who and what is acting, for what intent and purpose, and with what effects?*

This research does not question whether art and design are suitable candidates for material culture analysis. Instead, it assumes that they are, and asks what the application of material culture theories and methods to contemporary art and design museum environments reveals about their agency. This research therefore aims to explore the implications of applying material culture theories and methods to art and design museum collections and exhibition practices through an empirical investigation in an Australian context. It is about collections, exhibition practices and professional decision-making. It is also, however, about the broader implications of recognising that exhibition spaces and contemporary collections, and the routines and programs that surround them, have agency. The aim is to extend what this tells us about how contemporary art and design, and the cultures of museum environments, intersect with the aims of sustainability as a cultural change process.

While recognising the global, transnational dimension of the Anthropocene and the universalising tendencies of sustainability (Tsing 2010), it is at the local level that this research is focused. Sustainability is framed as a dynamic, human-centred
engagement with choice, one that needs the contribution of the social sciences and humanities, and one that is locally enacted. Examining creative practice and the conditions of social and material agency in response to sustainability concerns underscores my justification for ethnography within these professional communities. The central aims throughout the investigation have been:

- To explore the conditions of agency that effect processes of change within the structural parameters of art and design museums
- To reveal the ways in which intentional design and programming decisions engage imaginatively with sustainability as a future-oriented change process
- To identify what a material culture approach may offer to sustainability research, debates and understandings.

In order to address these different strands, it has been necessary to limit the scope of this study both spatially - to Australia - and temporally - to the present and very recent past.

Positioning the inquiry: Preliminary groundwork and selective sampling

Because I was interested in undertaking ethnographic research in organisations where sustainability concerns were already a feature within programming and operations, I conducted preliminary research to generate a picture of the contemporary Australian situation, aware of the tremendous scope in institutional culture.24 The empirical research design was informed by an initial review of museum literature addressing the question of sustainability within the sector. Much of this literature emphasises how sustainability can be operationalised through changes at the 'back of house' and through the use of formal sustainability indicators, with less emphasis on how museums might address sustainability

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24 Public collections of art and design are the focus here. At times throughout this thesis I make reference to the museum from a historical perspective, however my predominant focus is contemporary. The terms museum, cultural organisation and cultural institution are used interchangeably. When I use these terms, I am referring to museums that are publicly owned and are involved in activities that are normatively sanctioned. They are defined as organisations with legislated acts or constitutions, boards of trustees and sources of finance other than shareholders. They are not properties that can be bought and sold (Handy 1994).
through other means, such as exhibitions, education or events (Mellor 2008; Adams 2010; Museums Association 2008).

Reports by museum bodies internationally have predominantly focused on the development of sustainability indicators and operational changes as a catchall for 'going green'. Certainly the design of better internal systems to take account of exhibition processes, climate control, transportation, recycling, lighting and energy conservation, procurement and water management, make a significant contribution to the sustainability agenda. The managerial advancement of indicators within museums is 'an effective means of gaining a succinct understanding of a system and when applied properly, can help steer a system towards its goal' (Adams 2010, p. 40). However, some authors caution that a system of indicators may tempt users to 'work toward good indicator results to the exclusion of pursuing those less tangible goals that are not so easily susceptible to measurement or quantification' (Weil 1994, p. 347). Some authors also caution that the holistic nature of sustainability is contradicted when a reductionist method of measurement, such as indicators, is applied to it (Fahy & Cinneide 2008).

Recognising the special role of the museum as a discursive site, a place that can explore the meaning and message of sustainability, is rare in museum literature. However, there is increasing evidence to show that visitors to museums are hungry for experiences that can assist in making sense of contemporary challenges within the Anthropocene:

As global warming and climate change begin to affect different local communities in very different ways, museums become places for personal reflection on the future of the planet.

The public is thirsty for clear information and nuanced discussions on environmental change at both local and global scales, but there are few opportunities for serious

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25 Some exceptions include the Museums Association (UK) 'Sustainability and Museums' report (2008), which offers provisional guidelines for how a 'museum message' may be developed, including: 'A focus on sustainability can provide a topical way of interpreting collections and sites. Possibilities include, for example: in a design or industrial history context, the life cycle of products; in natural history displays, the historic effects of a warmer climate; in social history or world cultures galleries, alternative more sustainable lifestyles, such as indigenous peoples or 'make do and mend' in the Second World War and other forms of reuse and recycling; or in science displays, renewable energy or the contribution of impervious paving to flash flooding during heavy rainfall' (Museums Association 2008, p. 13).
conversations about these issues that are inclusive of diverse audiences, and people of all ages (Robin et al. 2014, p. 1).

During the preliminary stage of research I explored sustainability as an issue relevant to museum professionals through an online survey and phone interviews, combined with a review of museum literature addressing sustainability. The design and dissemination of the online survey, analysis and summary report provided a useful overview of individual professional practice, attitudes and perceptions, and of institutional initiatives. The aim of the online survey was firstly to gauge awareness levels and commitment to sustainability, secondly to gather information on the resources and expertise available to professionals, and thirdly to find out how audiences become engaged with sustainability through programming within these organisations (programming refers to exhibitions, education and public events). The survey was designed to collect quantitative and qualitative data about sustainability in both the 'back' and 'front' of house, issues relevant to professionals in diverse communities, and to identify sites taking initiative on sustainability.

The phone interviews were conducted with museum professionals across the country (exhibition curators, educators and managers), in regional, inner and outer metropolitan areas. These conversations contributed to my developing appreciation of how individuals within the sector give meaning to sustainability. The conversations covered professional practice and personal values, and moved between how professionals innovate and experiment in their working lives and how they perceive sustainability in relation to culture more broadly. Interviews were set up to explore definitions and responses to sustainability, while acknowledging that meanings flow, drift and change from person to person within the social field (Douglas & Isherwood 1979). My stated intention was to

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26 Please see appendices for details of the preliminary design phase, including the survey design process, interview schedule and research report, which are discussed here in brief.
27 Pilot testing for the online survey was carried out in June 2012 and the final survey went online in July 2012. The online survey was open for six weeks and had a response rate of 32%.
28 These conversations were informed by the notion that meanings may be secured through establishing ‘borders’ which can hold and anchor meaning. According to Douglas and Isherwood (1979), ‘borders’ may be both verbal and material. Since meanings do flow and drift, social meanings may lose their solidity, so permanence of meaning depends on the enactment of particular kinds of rituals within a spatial and temporal frame. I offered a verbal ‘border’ in these interviews by developing a list of concerns relating to sustainability.
encourage open dialogue, using the semi-structured method of interview. An email introduction outlined my intentions for the interview. It also provided a broad definition of sustainability and a list of related concerns that I developed to guide participants in our communications (included here).

Definitions of sustainability are evolving and diverse, and interpretations vary for individuals and organisations. The list below is suggestive of areas of sustainability research and practice, provided here only as a guide:

- Concern for current resource use and the equitable distribution and management of resources between locations and across generations
- Concern for human impacts on biodiversity
- Concern for relationships between the human and non-human world
- Consideration of intergenerational equity, social justice and cultural sustainability
- Consideration of environmental health and ecological awareness
- Consideration of waste avoidance, waste management, material flows and product life cycles
- Consideration of the psychology of consumption and ways of modifying consumption patterns.

These initial interactions provided a small but rich discursive data set, with the aim of developing descriptive and comparative explanations of phenomena into a brief written report on the findings (Mason 2002). In short, the data suggested that the 'environment' was the most common association that participants made with sustainability, although a small number acknowledged the interdependence of social, cultural and economic factors. There was a general tendency amongst participants to see 'back-end' operational changes as the most immediate and significant contribution that museums can make to sustainability. A number of perspectives coalesced around the need for sustainability to become more

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29 The constant comparative method was employed in the analysis of formal interviews, a process of analysis informed by grounded theory, in which coding occurs sequentially and data is collected continually, and is integrated into the coding process until a saturation point is reached (Glaser & Strauss 1967; Hewitt-Taylor 2001; Boeije 2002; Hammersley & Atkinson 2007).
culturally meaningful and relevant, entailing a shift away from 'eco-science'.
Concerns for sustainability were 'in the mix' for curatorial projects and public programming, however caution and uncertainty about how sustainability could be successfully addressed was common. The agenda of ‘change creation’ is complicated and perceived unevenly by professionals. The data revealed that some professionals are either uncertain or have resistance to addressing the topic. This became a particular point of focus during this phase, which I investigated in parallel with the museum literature. Recurrent themes in my own data set that were mirrored in the literature are summarised here:

- Sustainability is a contested and imprecise term.
- Sustainability is sometimes conflated with privilege, and associated with the elite, who have a greater degree of choice. In this critique, not enough attention is given to the conditions of power and socio-economic realities.
- The rate of technological change and innovation is a challenge to the concept of sustainability.
- A policy-driven, top-down agenda for sustainability is anathema to ideas of the arts and creative culture as an emergent, localised phenomenon, with the result that sustainability isn't necessarily a popular concept in the arts and cultural sector.
- Universalising concepts such as sustainability may be at odds with 21st century values of pluralism, diversity and divergence.
- Contemporary debates about the intrinsic vs. instrumental value of the arts highlight the challenge of normativity in sustainability discourses.

During this early phase of research there were also clear indications that there were individuals within the sector who held strong, informed views about sustainability, and were striving to develop new mandates and cultural practice.

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30 I have given a great deal of thought to contemporary language, particularly the contested language of environment, nature, ecology and sustainability. During this preliminary stage of research I maintained a cautious position toward the term sustainability, aware of the challenges to meaning-making which occur when language struggles to grasp large and inherently unstable realities. My own caution is reflected in contemporary discourse critiquing the language, as well as the political and moral territory of sustainability (Davison 2001; Brinkema 2011). Sustainability has remained a constant (although a sometimes slippery analytical anchor) and I have used contemporary critiques of sustainability to navigate and position myself as an explorer within this evolving territory.
The pursuit of sophisticated and complex cultural responses to sustainability through exhibition, education and events for public engagement is still a relatively nascent concern and this gap in literature and practice became the ongoing focus and consideration that informed the selection of sites for ethnographic research. During the preliminary phase of research, a selective sample was made of three sites for in-depth study. The next phase of research was designed to explore new practices and to investigate the risks and experiments of professionals and organisations responding actively to sustainability. The three sites that were selected are deliberately different kinds of organisations, with different audiences, serving diverse communities. They were selected to examine inner and outer metropolitan areas and rural locales, and are distinguished by their different socio-economic and cultural characteristics. The following section briefly outlines how the research process unfolded.

The research process: A multi-site ethnography

Within museum environments are collections of heterogeneous things that are amassed over time. There is no single culture with recognisable moments of creation, no artisanal history. Things are continually taken, moved, re-interpreted and invested with different meanings and interpretations in such organisations. Ethnographic study is a valuable way to encounter this heterogeneity.

My ethnography focuses on the material world in terms of collections and the spatial thinking that is adopted within different settings. The study also engages with the non-material in terms of professional agency, pedagogies of art and design and new institutional discourses theorising the changes coursing through the museum world. Visitation experiences are the result of complex design decisions. These experiences vary considerably depending upon each institutions remit and the external forces that shape the direction of institutions. A word to encapsulate the totality of process within museums across material, spatial and social elements was needed in the writing. Design as a term is rich, layered and big enough to encompass specific tasks and large composite and collective activities. The word design, is used to conceptualise museum processes at a meta-level,
beyond the single professional identity, while acknowledging the processual details within professional practice.

Through repeated visits to each site over several months I engaged with professionals and allowed the 'foreshadowed problem' to clarify. The process of formulating my research aims spanned more or less detailed articulations of my foreshadowed problem in my communication with representatives from each organisation. The abbreviated version stating: *I am interested in the response of cultural organisations to issues of environmental sustainability, and of how their exhibitions and programming construct and present meanings related to these concerns.*

This approach was valuable because it provided time between visits. I was able to develop my analysis and use it to inform the thematic focus and the scope of the next visit. This strategy allowed time for synthesising information relating to each site before moving on to the next one. In pursuing a multi-site ethnography and writing individual accounts, I was able to bring together the strands of evidence into each of these accounts, while allowing them to inform a growing sense of the connections that seemed to emerge between them. In this way, the approach continually evolved and unfolded through the life of the project (for a detailed account of multi-site ethnography as method, see Chapter Three).

Museums operate on many levels, informed by strong regulations, protocols, systems, habits and imaginaries, all of which determine and influence their internal processes and capacities to respond to sustainability. It became obvious through the process of observation and research that any kind of change to operations has to be approached in transparent, safe and affordable ways, and has to demonstrate 'positive' outcomes. While this research is centred on the activities of professionals involved in processes relating to public visitation, I have pursued information on operational activities for a number of reasons. The main reason that I gathered operational data was informed by the notion of internal consistency across operations and programming within each organisation.
The research approach: On being interdisciplinary and transdisciplinary

Debates in the literature on interdisciplinarity have been preoccupied with terminology for many years, as well as questions of conceptual and procedural coherence in research design (Robinson 2008). The shift in focus in inter- and transdisciplinary work toward complex heterogeneous domains (Lawrence & Despres 2004) is challenging and involves significant risks. Useful to my purposes in positioning my work is Robinson's broad distinction between 'discipline-based interdisciplinarity' and 'issue-based interdisciplinarity'.

A discipline-based interdisciplinarity is predominantly focused on pushing the boundaries of existing disciplines, and is defined by existing disciplines. It seeks to explore the 'intellectual puzzles and questions that lurk at the margins of established knowledge, and that offer the intriguing possibility of creating new understandings, drawing from established bodies of disciplinary thought' (Robinson 2008, p. 71). While this work is creative, challenging and risky, occurring at the margins of a larger disciplinary enterprise, it is generally not critical of disciplinarity. Indeed, its practitioners are often the strongest proponents of disciplinarity.

An issue-based approach to interdisciplinarity on the other hand, is predominantly driven by situations that exist outside of the academic world. These are issues which may in part emerge from discourse, journals and disciplinary traditions, but which 'often have to do with fundamental dilemmas or crises in society that do not seem to lend themselves to easy solution by traditional approaches or methods of analysis' (Robinson 2008, p. 71).

Taking account of the general current in sustainability research, 'there is no consensus on the proper definitions, boundaries, or dimensions of sustainability

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31 Robinson uses the term interdisciplinary to stand in for the range of practices that contrast disciplinary research and teaching, including each of the multi, inter, trans, pluri, meta approaches. In this discussion I have done the same.
and no dominant approach to sustainability teaching or research' (Robinson 2008, p. 73). Nonetheless it is certainly safe to say that studies in sustainability predominantly take an 'issue-based' approach to research, one that is issue-driven and based upon a desire to contribute to real world societal problems. Achieving the emancipatory aspirations of sustainability research (which involves combining criticality with propositions for 'real world' alternatives) is a complex task. I have found this to be true, often because of tensions between the process of discovery within the research itself, which has at times seemed to conflict with the aims of sustainability research to provide 'issue-based' blueprints for change.

My own research is not 'issue-driven' in an obvious sense (see Chapter Three for details of the research design) and has no single disciplinary allegiance. However, it is by its nature interdisciplinary and experimental. The disciplinary foundations of this work lie within the humanities - material culture studies, museum studies and the environmental humanities - all of which are interdisciplinary in their reach. However, I assume that all of these fields take a predominantly 'discipline-based' approach to research and that they are not directly issue-solution focused. While my research has relied on a flexible and open approach, I have endeavoured to be disciplined and rigorous in my accounting for decisions regarding the direction I have taken. My response to these challenges has been ongoing, with the broad outcomes of the journey described in the following section.

The purpose of the study

This research does not provide measurable, normative solutions to 'real-world' problems in the way that a new technology or design intervention may (and as much issue-driven interdisciplinary research aspires to). However, it does attempt to explore how different museum communities 'aggregate concern and concerted action' (Kagan 2008) and provides rich accounts of these encounters. It also attempts to observe how social and material agency manifests within particular

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32 Within material culture studies, the long scholarly traditions informing the field often remain distinctive. There can be controversy across these disciplines in regard to how the 'material turn' is influencing scholarship and how studies into the material world should be done, since 'as a field of research transcending established disciplines, material culture studies are always changing and developing, redefining both themselves and their objects of study, cross-fertilising various other 'disciplined' ideas and influences: impure, contingent, dynamic' (Tilley et al. 2006, p. 1).
communicative assemblages (Slater 2013), active at particular times and within particular institutional forms. Museums are spaces in which established orthodoxies can be challenged. Observing how change happens in these environments is useful in order to understand where energy is being directed, and to recognise leverage points. Taking up questions of sustainability within the carapace of the museum site rests on the historical and contemporary relevance that such sites have for the communication of cultural norms, practices and potentialities. These sites are not without their own problematic stories and associations and these are addressed throughout this thesis, hence the value of exploring questions of agency within them. They are also sites which can provide rich visitation experiences for informing, engaging and inspiring communities, as is demonstrated in empirical Chapters Four, Five and Six and further discussed in Chapter Seven.

By examining the intersecting layers of people, places and objects within museum environments this journey has produced new insights into the contemporary museum as social institution, material infrastructure and distinct material landscape. Filtering the problématique of sustainability through the analytical framework of places, objects and events generates a rich, multi-dimensional picture of contemporary practice. The distinct institutional responses to sustainability drawn from observation and analysis of exhibitions, events and broader institutional initiatives, and the work of curators, artists and educators at the three sites, are identified as enactments of sustainability (see Chapter Seven). While the three instances explored in the fieldwork do not provide a complete representation of the museum field, as situated responses to sustainability, they allow for rich juxtaposition, and illustrate the opportunities and constraints of organisations operating with respect to local specificity.

New forms of research and writing become acts of participation that articulate how contemporary creative practice may create new levels of social and material engagement (Papastergiadis 2010). This ethnography was based on a geographical spread across different regions in Australia, within identified sites where new thinking is emerging about the role of cultural organisations in achieving the aims
of sustainability. It has been designed to explore differences between geographical environments, and the material thinking and material imaginations - of artists, curators, designers and educators - active within each site. To conduct research within and around these select local places was to be working with environments and ideas of 'the environment', 'nature' and 'culture'. This approach was taken in order to explore how complex networks are configured and to examine what supports, sustains and challenges them. Informed by discourse in material culture studies, environmental humanities and museum theory, this study contributes to how contemporary culture is imagined (beyond aesthetic values or political objectives), enriching how cultural organisations are considered and how professional practice evolves in response to the challenges of sustainability.

Chapter conclusion

This chapter has introduced the problématique of sustainability as significant to the research inquiry and to the perspectives within the environmental humanities and material culture studies which are foundational in the research design. A logic of 'relations' underscores this thesis. This has enabled me to use an approach that is flexible and open enough to respond to concerns about the conflation of differing, competing perspectives by incorporating them as part of an intermixing of elements within a dynamic research 'field'.

In recognising the interconnections between humans and non-humans through the empirical work of Actor-network studies, and by way of ontological arguments in moral philosophy, we can get closer to understanding humans as existing within material and social configurations which rely on each other to be (Law 2008). Furthermore, by directing attention toward different modes of human agency, and by observing how human agency is enabled or constrained within socio-cultural contexts, we may observe the degree to which humans are capable of generating conscious changes responsive to sustainability concerns.
CHAPTER TWO: Museums as sites of stasis and transformation

Introduction: The field of knowledge production

In Chapters One and Two a number of disciplinary perspectives are brought into dialogue in order to explore intersections across the research territory. The image of a research terrain, with the researcher cast as map-maker and navigator, reappears throughout this text as an imaginative device. In the preceding chapter, the process of aggregating, re-combining and re-presenting the literature gave the impression of the researcher as 'assembler', bringing diverse elements into dialogue. To assemble is to make and unmake something and may be a temporary 'fix', an arrangement that works for some time and is then left to re-form and 'plug in' elsewhere (Jackson & Mazzei 2012). This approach is continued in Chapter Two. It is a process that aligns with the aspirations toward the transcendent re-ordering of knowledge in inter- and transdisciplinary research in sustainability studies (discussed further in Chapter Three and in the conclusion of this thesis).

Cultural theorist, Emily Potter suggests that through a 'renewed empiricism', one that 'attends to the assemblage of entities and forces as a mode of knowledge garnering' cultural research will re-orientate toward less critical and more constructive contributions to sustainability. Potter suggests that the 'consideration of what a practice does in its situated entanglements, rather than what it fails to do, is a necessary and ultimately more generative tactic' (2008, p. 177) in cultural research. According to Bruno Latour, critique has 'dried up', in part because it has 'all the limits of utopia'. While he recognises the value of critique for breaking down walls, destroying idols and ridiculing prejudice, Latour argues that 'what performs a critique cannot also compose'. Our task is now to 'repair, take care, assemble, reassemble, stitch together' (2013, p. 475) through an active
redesign of the world. These ideas are embedded in the design and orientation of this project.

In Chapter One I have gone some way in establishing the territory and the aims of the research. The following two chapters integrate theory and method within the research inquiry and the research design more fully. The first part of this chapter takes up current theorisation within museum discourse, establishing the foundation for my empirical research, presented in Chapters Four, Five and Six. This section focuses particularly on museum literature, addressing processes of stasis and change. The second part of the chapter introduces the heuristic framework of *place, object* and *event*. This heuristic was developed during my research journey as a way to guide and direct my attention in the ethnographic research. Through a process of aggregating, re-combining and re-presenting insights from several disciplines, the framework developed into a coherent way to observe and respond to cultural organisations as relational entities, paying attention to them as situated sites of collection, display and visitation.

**PART ONE**

The museum as a dynamic cultural and political construct

This section examines the conditions of the museum institution in the contemporary moment, informed by the historical forces which continue to act upon these public environments. I discuss the limitations of cultural organisations as sites of social (re)production as well as ideas of transformation which are apparent in contemporary museum discourse, particularly the *New Museology*. Issues of individual and institutional agency emerge in this account,

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33 While this research takes art and design museums as its focus, this section considers museum institutions more broadly, reflective of a general tendency within museum literature. Taking this approach allows for consideration of breadth across the sector in response to sustainability concerns. This stance also reflects the tendency within innovative institutions to generate exhibitions and events that push beyond traditional disciplinary boundaries, working fluidly across the arts, sciences and natural and cultural history.

34 The *New Museology* has theorised the purpose of museums (Vergo 1989) as well as identified major changes running through the museum world influenced by more general societal developments, including global market conditions. *New Museology* literature examines how museums can attract more visitors, improve their
raising questions about institutional change and the potential for sustainability to be addressed through new methods, strategies and tactics. While this section introduces relevant aspects of the research inquiry, these issues are also explored within the empirical chapters and in Chapter Seven.

The museum as cultural site is both a bounded space and one open to change and evolution, a dynamic and exceptionally adaptable cultural construct, although vulnerable to external interference and internal dysfunction. Museums are 'surprisingly protean organisations', with distinct genealogies, spheres of influence and 'often multiple mandates and complex and contradictory goals' (Kratz & Karp 2006, p. 1). This image of adaptability runs contrary to clichés of the museum as an immovable behemoth, 'untouched by the storms of politics and history' (Schubert 2000, p. 16). Museums are never neutral spaces. They have been shaped and reformed by the political, intellectual and social climates, which are reflected in the changes in the museum concept from its early inception in revolutionary France to the present day. 35 Broad historical and cultural shifts have been mirrored on and between museum walls. The late nineteenth century museum was positioned as a benevolent and ennobling institution established to reinforce the power of those already knowledgeable and transfer canonical knowledge about the universe and aesthetics to those perceived to benefit from exposure to both objects and thoughts (Gurian 2010).36

In contrast, cultural organisations today are a contemporary social field in which jostling forces compete for hegemony and questions of 'authentic culture' are thoroughly unstable. It is across this tension-filled space of cultural production and cultural meaning that I have taken up questions of environment, sustainability and futurity. Contemporary theorisation within museum studies proposes that museums have become:

activities and transform themselves into socially relevant and potentially successful income-based enterprises; it has also examined the deeper question of why we need public museums.

35 See Hooper-Greenhill (1991) for an account of the Louvre museum, which opened in 1792. The historical trajectory of the museum that is touched on here is predominantly informed by European history, given that Australia’s museum model is largely influenced by European developments.

36 Cultural organisations (museums, art centres, art and design galleries etc.) have been classified through refined typologies over time. These sites share a common lineage and continue to need to address issues of power, value and social meaning relevant within their own context. For a substantial genealogy of the museum institution and governance structures see Radywyl (2008) and Barrett (2010).
Threshold institutions constructed between major intellectual, historical and social fault zones, at the intersections and between the interstices of conflicting, contradictory and paradoxical, pluricultural cross-currents in an increasingly globalised cultural and political economy, that still awaits serious theorisation and concerted empirical study (Shelton 2006, p. 492).

Shelton’s suggestion that cultural organisations lie across social fault zones where political and social conflicts are played out within a globalised cultural and political economy make them intriguing, although complex spaces for empirical study and cultural analysis.37 A review by Shelton of intersecting museum critiques over the last 25 years reveals:

Diverse critical tendencies are suggestive of a pervasive and global redirection of museum functions away from pure scholarship towards fostering social and political awareness and correspondingly, it might be added, increased disingenuous symbolic engineering (2006, p. 492).

The assertion that museums have the potential to foster social and political awareness through visitation, and correspondingly, the potential to engage in disingenuous symbolic engineering, mirrors broader cultural conditions of contradiction and paradox.38 The extent to which social distinction and privilege has been socially ascribed through cultural practices is an important aspect of institutional critique, and have revealed paradox to be an essential aspect of the history of the museum institution. Duncan (1995) argues that museums have conferred social power and reinforced class boundaries while they have simultaneously appeared ‘as unifying and even democratising forces in a culturally diverse society’ (p. 54). Both Bennett (1988) and Duncan (1995) interrogate the function of the museum and its relationship to forms of control and hegemony.

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37 For a contemporary example of ‘jostling forces’ within the ‘social fault zone’ of an iconic institution, see the case of environmental photographer Subhankar Banerjee. His exhibition of photographs, Arctic National Wildlife Refuge: Seasons of Life and Land, a Photographic Journey was altered after political pressure was applied to the Smithsonian Institution’s National Museum of Natural History in Washington DC. Dunaway (2009) describes how the exhibition and the images of the region became: ‘embroiled in the culture wars that often erupt on the National Mall, a debate over visual politics that intersected with a range of issues of interest to scholars in American studies, environmental studies, and visual culture’ (p. 255).

They argue that the logic of this tension is to assume that visitors will be both 'enlightened' by new forms of knowledge, and simultaneously, disciplined to accept their positions as citizens of the state, by interacting with objects that reflect narratives of modernity and progress. Bennett provides a dense theorisation of the power manifest in the management practices and processes of visitation and display within public institutions. Highlighting formal relationships between the public and the function of the state, he draws from Michel Foucault's notion of 'governmentality'. Arguing that the nineteenth century museum established a set of social relations designed to enforce state-controlled forms of order, Bennett parallels the development of museums with other instruments of state control, particularly the structured, interior space of Victorian prisons and the transformation of law enforcement in the nineteenth century:

The exhibitionary complex was also a response to the problem of order, but one which worked differently in seeking to transform that problem into one of culture. A question of winning hearts and minds as well as the disciplining and training of bodies. As such, its constituent institutions reversed the orientations of the disciplinary apparatuses in seeking to render the forces and principles of order visible to the populace - transformed, here, into a people, a citizenry - rather than vice versa (1988, p. 76).

Bennett contends that the 'technologies of vision embodied in the architectural forms of the exhibitionary complex' (p. 76) were employed to establish a voluntarily self-regulating citizenry and as such, they reveal a complex set of relations between knowledge and power. Informed by Foucault's assessment of power, Bennett's insights from within the 'exhibitionary complex' provide a historical perspective on the development of the museum as an institution reflecting conditions of control, order and authority in Western history. The outcome of this kind of post-modern critique of the museum as intellectual power-base has dismantled some of the assumed authority of previous centuries (Cameron & Kelly 2010). Recent theorisation in museum literature contends that

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39 Bennett (1988) demonstrates how the historical rise of museums in Europe was concurrent with the development of other new institutional forms: 'the emergence of the art museum was closely related to that of a wider range of institutions - history and natural science museums, dioramas and panoramas, national and, later, international exhibitions, arcades and department stores - which served as linked sites for the development and circulation of new disciplines (history, biology, art history, anthropology) and their discursive formations (the past, evolution, aesthetics, man) as well as for the development of new technologies of vision' (p. 73).
while expositions of the historical trajectory of the museum and 'governmental' accounts of the museum remain vital (see Bennett 1988, 1992, 1995, 1997, 1998), there is a need for newer frameworks that help to examine how museum institutions and their underlying logics operate in the twenty-first century, particularly with reference to the forces of globalisation (Karp et al. 2006).

Museum transformations: The contemporary museum as "problem solver"

Views expressed in contemporary museum literature range from calls for the positioning of museums as sites of transformational 'action', to the views of those who want to maintain a cautious approach to contested social and political issues within museums. There is considerable contemporary literature focusing on the creation of socially responsible and responsive museums, (re)designed for engaging with societal health and operating out of a (re)defined relationship to the public (Skramstad 1999; Weil 1999; Witcomb 2003; Janes 2010). The New Museology literature charts significant breaks and considers tensions and opportunities that have been influential in museum practice since the 1970s. This body of thought has focused on theorising the purpose of museums, over and above museum methods, and broadly contends that many museums worldwide are either undergoing major reconfigurations, or at least should be:

Over three decades, what the museum might be envisioned as offering to the public has grown from mere refreshment (the museum as carbonated beverage) to education (the museum as a site for informal learning) to nothing short of communal empowerment (the museum as an instrument for social change) (Weil 1999, p. 236).40

However, there have been warnings about the temptation to develop unchecked rhetoric about the moralising potential and social responsibility of the museum.

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40 Reflecting on the position of the museum in relation to the social body in the nineteenth century, Barrett (2010) suggests that: 'while late nineteenth century museums were thus intended for the people they were certainly not of the people in the sense of displaying any interest in the lives, habits, and customs of either the contemporary working classes or the labouring classes of pre-industrial societies' (p. 51). In contrast, New Museology discourse, reorients the museum institution towards reform, so that organisations become of the people and reflect ideals of participatory democracy.
Both Cameron and Bennett claim this rhetoric is revisionist, and that the museum has always had something of a reformist agenda:

Museums, galleries, and more intermittently, exhibitions played a pivotal role in the formation of the modern state and are fundamental to its conception as, among other things, a set of educative and civilising agencies. Since the late nineteenth century, they have been ranked highly in the funding priorities of all developed nation-states and have proved remarkably influential cultural technologies in the degree to which they have recruited the interest and participation of their citizenries (Bennett 1988, p. 79).

Finding the balance between contemporary aspirations for the museum in society, and the acknowledgement of real limits, is necessary for each institution, on its own terms, with sensitivity to local context (Message 2006; Cameron 2010). In the development of exhibitions that seek to engage with loaded subject matter, defining and promoting what a better, more open, responsible society might be depends on the topic, an institution's mission and the values and interests promoted (Cameron 2007b). Cameron encourages a pragmatic perspective in order to avoid overstating the reality of the museum’s value in society and warns of the museum's potential to overreach and exaggerate its own position.

In contrast, Janes (2010) encourages museums to become 'locally-embedded problem solvers' actively addressing the 'constellation of issues that threaten the very existence' of the planet and global civilisation. He advocates a radical rethinking of the role and organisation of museums as social institutions in order to transform them into 'mindful organisations that incorporate the best of enduring museum values and business methodology, with a sense of social responsibility heretofore unrecognised' (p. 325). Janes borrows the word 'mindful' from a 2007 article by Gopnik, 'The Mindful Museum' in which Gopnik develops a picture of the museum across time using five models of the museum: the mausoleum, the machine, the metaphor, the mall and the mindful. With humour, he reflects on the changing character of the museum and uses the 'word mindful in that beautiful Buddhist sense, of a museum that is aware of itself, conscious of its own functions, and living in this moment' (Gopnik 2007, n.p). From Gopnik's more general suggestions, Janes details how a museum might try to transform itself
through active critique, leading to transformed values, structural changes and a 'change-agent' orientation. To minimise the risk of being criticised for his idealism, Janes qualifies his position:

This is not a call for museums to become social welfare agencies or Greenpeace activists, but rather to heighten their awareness and deliberately coalesce their capabilities and resources to bring about change (2010, p. 336).

It is clear that the ways in which environmental discourse and sustainability are brought into the museum space and into curatorial practice are the subject of an increasing, albeit cautious conversation. The idea that museums have a useful role in growing cultural awareness and self-efficacy and in engaging with sustainability, is slowly changing from a proposition to a mandate within many organisations. Outlined in a paper by Weil, the logical argument for sustainable development and its connection to museums, involves three propositions:

First, sustainable development is a process for improving the quality of life in the present and the future, promoting a balance between environment, economic growth, equity and cultural diversity, and requires the participation and empowerment of all individuals; second, culture is the basis of sustainable development; and third (and, in effect, ergo), museums are essential in the protection and diffusion of our cultural and natural heritage (1999, p. 237).

Arguments within New Museology place museums in a position where they can and should respond to issues of the present as well as the past, and where they can play a role in debates about conjectured futures. These arguments highlight both the value of, and the need for, 'community voices' to be included along with those of experts when representing issues of broad social concern (Lane et al. 2007). However, Message (2006) also demonstrates that by positioning themselves within broader, global domains, some museums that adopt the ideals of New Museology may struggle to maintain their relevance at a local level:

41 The influence of the New Museology approach to the direction of a large Australian institution can be seen in the example of National Museum of Australia (NMA). For three decades the NMA has placed significant emphasis on the involvement of community in the development of large-scale projects, including the Murray Darling Outreach Project (MDOP). This project focused on environmental issues faced by contemporary rural and regional communities, and involved a range of creative strategies, including new partnership arrangements between regional communities and organisations and national institutions for the purpose of building community capacity for addressing environmental change (Lane et al. 2007).
While they may aspire to the multitude of claims that are made on their behalf - that they are contemporary, relevant, exciting and politically engaged - success tends to be evasive. They exist, instead, as deeply compromised, complicated and complex institutions that balance a series of seemingly historical factors and contemporary bureaucracies, boundaries and constituencies at the same time as they project an image of newness to their visitors (2006, p. 605).

Whether the broad institutional changes advocated by proponents of New Museology are possible on a macro scale is yet to be seen. The museum world is diverse, and like other institutions, there are innovative and conservative institutions, termed by Gurian respectively as 'Inclusionist' and 'Classicist' (2010a, p. xiii). Change and experimentation within smaller, pioneering institutions is more frequent than it is in the classical museum, which generally acts to preserve past methods and scholarship and to maintain its collections. Generally the 'Classicist' museum director makes moves incrementally, following trends rather than creating them, by selecting those changes that can be integrated over time into the stable image and practice of the institution. The 'Inclusionist' institution will mobilise more toward radical gestures, across both audience engagement and exhibition design, with greater freedom to examine and present contested topics, which may provoke and polarise an audience.

Museums as "values" brands: Cultural longevity and economic viability

Over the past 20 years there has been a significant increase in the number of museums across the western industrialised world. This increase is both 'quantitative in terms of the numbers of new museums established and qualitative in terms of the place that museums now occupy in society' (Burton & Scott 2003, p. 56). As previously suggested, with the increase in the number of museums new questions surrounding the role cultural institutions play within society need to be addressed. Janes (2010) argues that contemporary museums have no choice but to confront the ambiguities, complexities and paradoxes which they face in the
twenty-first century.\textsuperscript{42} Significant themes raised by Janes are summarised here, and I return to them throughout this discussion:

- The museums relationship with, and responsibility to, the public
- The economy of museums, including questions of oversupply and the cost to the public purse
- The relevance of museums to the digital age and as custodians of the past (and future).

There are clear tensions between the commercial realities of keeping museums in business in a time of diminishing public funding, and the aspiration to address how museum organisations might reform to meet 'higher purpose' goals (Vanclay et al. 2004).\textsuperscript{43} Research into the public perception of museums has revealed that they have a particular enduring status - in marketing language they are a “values brand” (Burton & Scott 2003). This is the notion that beyond the fickle and fleeting entertainment that characterises a lot of contemporary leisure activities, museums have an enduring core purpose and an alignment with certain life values; and that this can be capitalised on in order to maximise audience engagement (Burton & Scott 2003).

Nonetheless, museums face increased pressure to compete against each other in a limited market, and deal with competition from other leisure activities, home entertainment and the internet. Increasing numbers of consumers with 'more to do with less time to do it' (Burton & Scott 2003, p. 65) is a phenomenon of contemporary culture. Developing a well-informed understanding of the public's needs and expectations has become a central focus of the museum world. This is in sharp contrast to the older conceptions of a 'salvage and warehouse business', ironically framed by Barbara Franco (Weil 1999). Social and economic drivers

\textsuperscript{42} From the 1980s onward, issues of exclusivity within museums have received increased critical attention from curators, art practitioners, academics and those who identify as 'other' or 'outside' museums as a disaffected minority, reflected in the numerous conferences and publications in related sectors that have emerged since this time.

\textsuperscript{43} The Commonwealth Association of Museums is currently forged on an ethos of fostering distinct and empowered roles for museums in the Commonwealth: 'Museums are encouraged to use their resources and their knowledge of their countries to ensure that the critical link between culture and development is used effectively for the betterment of society. CAM's areas of concern are the safeguarding of both tangible and intangible heritage, biodiversity and environmental sustainability (Janes 2010, p. 330).
place pressure on the museum to remain relevant, and to actively know its audience in order to keep them interested (Kelly 2010). Today, museums have a distinct challenge in holding audiences which, unlike students at a school or university, are self-selecting, busy and diverse. This means that, 'museums, once the preserve of single narratives, are now being asked to provide – and to market – multiple narratives and multiple experiences for ever hungrier and more fickle leisure consumers’ (Burton & Scott 2003, p. 57).

The aim of developing exhibitions and events that aspire to generate cultural intelligence and awareness of global issues, raises questions about the agency of contemporary culture. Research conducted in Australia and Canada has shown that an audience majority support the use of museums for engaging with important, challenging and controversial topics, such as climate change and sustainability (Cameron 2010). Further findings, however, revealed that staff and stakeholders have a range of reservations. They express concerns about the loss of public funding, of upsetting lobby groups or alienating stakeholders, of the possible hijacking of the museum space for biased agendas, and the need for a certain level of political correctness (Cameron 2010). For some audiences, there was concern about the museum becoming a politicised arena, undermining its perceived impartiality. This caution was offset by audience and staff who both agreed that providing space for contemporary conversation and debate was of real value. What this research and other literature demonstrate are the inherent tensions, vulnerabilities and sometimes-contradictory decision-making processes that museums face.

Much of the New Museology literature focuses on the contemporary museum having arrived at a 'watershed' (Janes 2010). The defining qualities of this 'watershed' and the potential that exists for socially and environmentally engaged museum practice, is the subject of this thesis. My interest is focused on museums that are consciously oriented toward the future as well as the past, offering a logical extension of the museum’s traditional mandate and its educational aims.
PART TWO

An exploratory framework of *places, objects* and *events*

Through the process of multi-site, multi-faceted museum-based fieldwork, my intention has been to garner new perspectives through observation. Rather than emphasise the search for definitive blueprints or prototypes, this research has assumed a subtle and situated engagement with the relative and imperfect present. My aim has been to create thick accounts of each site, and to think through whether these living examples may inform and gesture beyond themselves, contributing to the momentum of sustainability.

It is the dimensions of time, place and materiality, converging through lived experience, that underpin and inform the ethnographic method. This statement suggests why my research came to be organised around a heuristic framework of *places, objects* and *events*. A theoretical account of each of these themes is detailed in the following section, drawing together influential ideas from key literatures and providing an explanation for their inclusion in the design of this study. This framework helped to focus my considerations of social and material forms of agency and material culture, and simultaneously allowed for the field studies to be organised and to have a narrative coherence that would support the argument within the thesis to emerge.

The three cultural organisations in my ethnography, the Powerhouse Museum, Casula Powerhouse Art Centre and Bundanon Trust, were studied in relation to this framework, which I have also come to think of as an exploratory network.\(^{44}\) Conceptualising museums as networks in which material and social agents combine to produce effects, can be accommodated because, as Latour (2005) explains, 'networks are not fixed constructions, not "things", but metaphors or

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\(^{44}\) This framework has also been informed by the ideas of philosopher Isabelle Stengers’ and her notion of taking ‘care of the possible’, as well as with Latour’s understanding of networks in which matters of fact (factual certainties) shift toward matters of concern (local place-based knowledge realities) or ‘lengthened local effects’. Elaborating on networks, Latour (1993) suggests, 'there is an Ariadne’s thread that would allow us to pass with continuity from the local to the global, from the human to the non-human. It is the thread of networks of practices and instruments, of documents and translations’ (p. 121).
frameworks to help describe flows or “translations” of one form or another’ (Byrne et al. 2011, p. 11). Within this study, I have observed the flows and translations existing across the social structures, material infrastructures and material landscapes of each of these sites.

Place: Theoretical perspectives to inform a methodology

Places are solid in the sense that they are responsive to material intervention and may be inhabited. They have been shaped by human practices and non-human physical forces and carry visible traces of time. A place is not confined by limitations of scale; a street corner or the earth seen from outer-space may be claimed as a place. At a basic level place accounts for where things happen. Places may be mapped and travelled through, guided by the location of landmarks whether valleys, trees, rivers, key-lines, buildings, roads or railways. In human geography this level of identification is known as location. Political geographer John Agnew (1987) suggests that in addition to location, there are two further dimensions that concern understandings of place. They are locale (the material structures and forms that constitute a place) and sense of place (the sets of meanings and associations identified with a place). Of these three layers, a sense of place is distinct because of its 'insistence on the centrality of consciousness and experience' (Cresswell 2009, p. 7). From this perspective, places are a combination of physical, material and metaphysical phenomena which also exist in the human imagination and remain in memory, made rich through associations and sensory, bodily lived experience.

My own accounting for place is mostly influenced by contemporary theories in which place is understood as 'an intersection of mapped location, urban mythology, power dynamics and social interaction' (Doherty 2007, p. 5). There is no single notion that constitutes place, but within this study a 'progressive sense of place' is recognised as a complex irregular aspiration and one that is defined by mobility and flow as well as fixity (Massey 1996). In developing ethnographic accounts of different places (urban, suburban and rural), my aim has been to observe and record the characteristics of unique physical places. It has also been
an effort to highlight how places are constructed individually and collectively, and to examine how contemporary social, cultural and environmental conditions are linked to broader global issues, prescient to sustainability.45

The following discussion is predominantly informed by human geography in order to generate a clear conceptualisation of place. It focuses on the convergence of abstract and concrete observations from scholars who foreground concerns about the conditions of real physical places, combined with the desire to critically engage with the attachments, meanings and political struggles that places engender. As the writing develops I weave in examples of where museum practice connects to these theoretical ideas and how it has informed my own methodology.

Theoretical notions of place were expanded within the field of human geography during the 1970s. The discipline saw a gradual turn from a practice dominated in the 1960s by 'spatial science, the quantitative revolution and logical positivism, all of which had looked at the world and the people in it as objects rather than subjects' and in which 'people were most often thought of as rational actors in a rational world' (Cresswell 2009, p. 3). Geographers began to look for other ways to research how human beings interact with environments and drew on other disciplinary perspectives to inform their inquiry (Relph 1976; Tuan 1977). The philosophy of Martin Heidegger was especially influential, informing ideas of place as a state of dwelling in the world.46 His notion of Dasein or being there defined being as located. Existence in the world was elaborated through his notion of dwelling which was to build a world and to be attached to it, both in terms of location and the materiality within that location. Dwelling is the singular and collective effort to develop a 'place-like' point of view.

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45 Informed by a broad range of disciplines, I have considered the social, cultural and environmental flows that make up a contemporary account of place, taking cues and clues from geography, anthropology and cultural theory while remaining cognisant of deeper philosophical traditions.

46 Space, as a philosophical concern preoccupied thinking for many centuries in the west. Aristotle marked a high point for thinking about place 'after which philosophers turned toward the seemingly more profound notion of space' (Cresswell 2009, p. 2). In Aristotle a powerful philosophy of place was articulated and for Aristotle place was a necessary starting point from which it was possible to understand space (the infinite and the void) and to consider movement and change.
Heidegger’s poetics of place and state of dwelling were marked by distinct physical and regional characteristics and have had a lasting influence on our understanding of place (Heidegger 1993). The close associations of place in relation to the forging of national identity and ideas of rootedness have been thoroughly challenged in recent decades as issues of power, exclusion, mobility and the effects of globalisation have been incorporated into newer theoretical perspectives (Harvey 1993; Sibley 1995). Contemporary creative practitioners, scholars and museum professionals are increasingly adopting a more critical perspective of place. They are informed by disciplines including human geography, and indicate that an understanding of site (the place upon which creative work is generated) has moved from a fixed, physical location to something constituted through social, economic, cultural and political processes (Doherty 2007). Art theorist Papastergiadis claims that any ‘critical engagement with the specificity of place involves more than using it as a stage for new ideas’ (2010, p. 116), so that today a central element in the production of creative projects within the museum environment involves the negotiation with the spaces (and places) in which art is experienced:

Many artists no longer approach the museum as a temple, but as a platform, a malleable stage upon which the work is not only presented, but also within which it is completed. For this reason, the dynamics of space becomes a critical feature in contemporary artistic production. This has radical implications for the constitution of an artwork. At one level, it means that the work does not exist, or at least, does not complete itself, independently of its context (2010, p. 80).

In my search for an adequate way to engage with the specificities of place, as well as to find connections to broader global concerns for sustainability, I have been influenced by the evolving debates within the field of human geography, and particularly by the ideas of Pred (1984) and Massey (1996). These strands have

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47 Heidegger’s now famous cabin in the Black Forest epitomised his core ideas of dwelling, in which ‘everything seemed to have its place and the cabin sat almost organically in the natural world, linking the cosmological to the everyday’ (Creswell 2009, p. 3). The isolation of this state of dwelling and the very distinct regionalism that it exhibited within the Germanic world makes little sense within a 21st century context and has been critiqued as a regressive sentiment and for exclusionary implications, which exist as a shadow side within his work, also linked with the rise of nationalism and fascist ideology in Germany. Regardless of such contemporary critique, Heidegger’s concept of dwelling has richly informed concepts of place and will likely continue to do so.
been woven into my own approach to analysing cultural organisations and the places they inhabit, both physically and imaginatively, within the social world. Cultural organisations exist as fixed physical sites (physical locations and material locales) which have a simultaneously evolving 'place-related identity', a sense of place that is continually practised, reproduced and transformed over time (Pred 1984). Additionally, if we are to look toward a ‘progressive’ sense of place resonant with Massey’s views, it needs to be constituted by the movement of people, commodities and ideas in ways that connect the local physical dimensions of places within a global framework.

The contemporary world of greater mobility and transience has encouraged theoretical developments that focus on the dynamism and flow of (and between) objects and people, and a greater consideration of power relations within theories of place. Traditional concepts of place and experience are now widely considered to be quite static, a form of ‘sedentarist metaphysics’ in which the focus on borders, rootedness and singular identities exists in opposition to notions of dynamism, change and process (Cresswell 2009, p. 8). Geographer Allen Pred (1984) has argued that place should be recognised as neither static nor neutral and is instead something that is iteratively produced through action and response. Influenced by sociologist Anthony Giddens and his structuration theory, in which the creation and reproduction of social systems and individual agency is based on an active constituting process (Giddens 1993), Pred argues that the activities of people and the institutions in which they participate are co-produced and exist in a context constantly affected by questions of power. Pred examines how social divisions separate ‘body-subjects’ and allow mobility for some and force impediment on others, through asymmetrical power structures. His perspective also highlights that the experience of 'place' is individuated and the quality of unique experience will influence personal perceptions of place. I have drawn from Pred’s co-constitution of place as the interplay between institution and individual agency, and have considered how 'institutional projects' have the power to direct and construct the paths of individuals. Some of these institutional projects have more of an impact (both good and bad) than others on 'the daily paths and life
paths of specific people, and therefore, upon the details of individual consciousness development and socialisation’ (Pred 1984, p. 282).

In addition, Doreen Massey argues that a progressive sense of what place is must be constituted by mobility, especially the movement of people, commodities and ideas, linking the local and the global. The notion of place as a process of mutually articulated social relations expands place far beyond any physically marked boundary. For Massey, places become mutually articulated through particular configurations of social relations that are connected to the rest of the world via routes and roots, which vary enormously:

If it is now recognised that people have multiple identities, then the same point can be made in relation to places. Moreover, such multiple identities can be either, or both, a source of richness or a source of conflict (1996, p. 65).

The uniqueness of any particular place is made up of a complex flow of ‘social relations, social processes, experiences and understandings’ (Massey 1996, p. 66). This perspective recognises place as a concept that is ‘extraverted’ whereby conscious links must be made to the wider world, integrating (she suggests in a positive way), the global and the local (Massey 1996). Massey does not deny the importance of the specificity of place, however ‘it is not a specificity which results from some long, internalised history’ (Massey 1996, p. 68), but rather focuses on the distinct mixture of wider as well as more local social relations. This is also an important dimension to engagements with local place within the contemporary Anthropocene, where we are all 'geological agents' (Chakrabarty 2009) impacting and being impacted on by changes to the bio-material and atmospheric conditions of the world.

Assuming a critical perspective on place within twenty-first century Australia (and other settler nations) is significant for other reasons which I will engage with here. In my considerations of a 'progressive sense of place', sustainability and the role of cultural institutions in Australia, I have endeavoured in my ethnography to consider the importance of place from multiple perspectives, including contemporary indigenous and multicultural discourse. My listening and writing of
place has been cognisant of contradictions and tensions, deeper histories and the intangible material heritage bound up in places. Notions of place can only ever be partial when we become cognisant of the great disruption to the social and ecological relations which existed for Aboriginal people living in pre-colonial Australia and over the period since European settlement. I see this as an incontrovertible aspect of contemporary theorisation of place in Australia.

While the dynamics of power and hegemony cannot be overstated here, rather than integrating an explicitly political perspective, I have focused instead on the ethical dimension of Australian indigenous relations with place. The notion of caring for country has been incorporated into this discussion. I have not done this as a symbolic or romantic gesture, or as an attempt to mimic cultural sacred practices. Instead I include it because a recognition of the value of care, which is central to Aboriginal ecological relations (Rose 2005), resonates with sustainability discourses and the adoption of an ecological or relational worldview. Indigenous Australians have distinct ideas about the importance of places (referred to as 'country'), tied to complex rituals that seek to sustain connections to ancestry and to mark the significance and sacredness of land. The value of caring, often referred to as caring for country, is embedded in Australian Aboriginal cosmology. The effort to keep things alive and dynamic through modes of caring has been included in this framework, since the embodiment of attention and concern is a way of thinking about sustainability as a situated enactment.

Ethnographer, Stephen Muecke describes a vitalist cosmology in which keeping things alive in their place is an active engagement of physical and symbolic processes. Aboriginal cultural practices embody a distinct form of place-making.

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48 Ross Gibson is a noted author in layered writings of place using what he calls a 'versioning method' (2002). Through this method, both Aboriginal and non-Aboriginal stories and the intersecting traces of experience and memory in the landscape are explored through the writing of creative non-fiction. These versions are always fragmentary or partial accounts drawing together a thicker reading of place. His work often reveals darker stories of neglect, abuse and crime approached with a forensic lens and a historical narrative that has contributed to understandings of the Australian consciousness and the events within particular places which continue to shape it.

49 Muecke explains his reasons for speaking of 'keeping things alive in their place because it encapsulates what I have learned from Aboriginal elders in Australia about the maintenance of cultures - authors like Paddy Roe, David Mowaljarlai and David Unaipon. For them, singing, dancing, writing, or other forms of performance, are not communicative items created for distribution. They are more like ecological events, existing more spatially than temporally. They have their roots in sacred country' (2012, p. 43).
that bind land, people and other sentient life forms to ancestral stories that are embedded within country:

*Keeping things alive in their place is an a-modern vision [...] if one is more interested in cultural forms that have local coordinates, one might see them with their tendrils embedded ecologically, like roots from a seed* (Muecke 2012, p. 43).

Donna Haraway's (2007) notion of the lively ecologies of meaning and value that are entangled within patterns of cultural and historical diversity similarly offers an image of the whole world as a "contact zone". How a place is cared for, and what is attended to, reveals the priorities and attachments of its people.

How place is negotiated by creative practitioners and cultural organisations, and the relationship that an organisation develops to the wider social, cultural and environmental context, is considered significant within this *place, object, event* framework. In the realm of museology, the etymology of a 'curator' as a *carer* of collections refers to custodianship. By engaging with the concept of place, creative practitioners and museum professionals can respond to local issues and dynamics, and invent pathways for creatively collaborating and working within the particularities and peculiarities of place. Place, rather than environment, may also be a more useful and 'user-friendly' concept for cultural organisations when engaging with communities than 'environment' since it is open to diverse interpretation and response by a broad mix of individuals (Lane et al. 2007).

Finally, if a cultural organisation can engage with Haraway's call to become more attentive to the living ecologies which they are a part of, then the question of how place is conceptualised and cared for becomes a significant matter of concern. Incorporating values of *caring*, influenced by the environmental humanities and an Australian indigenous perspective, brings the earlier theorisation of place from human geography into a new kind of dialogue. It offers a way to engage with theories of the social and cultural construction of place, while combining this with an active individual and institutional agency in the embodied practice of care, within local, situated sites, be they rural, urban or suburban.
Object: Theoretical perspectives to inform a methodology

Throughout this thesis it is argued that the conceptual divide between people and things is diminishing as a result of the interdisciplinary work of scholars with diverse historical roots, across anthropology, sociology, science and technology studies and museum studies. Their work is fundamentally changing our understandings of matter, agency and the relations between humans and non-humans. The following section describes how material objects have been approached within this research, informed by two theorists who have both contributed significantly to considerations of materiality and agency in different ways.\textsuperscript{50} They are anthropologist Alfred Gell and sociologist Bruno Latour. Bringing these theorists together provides an opportunity to contrast their unusual perspectives on objects, and to think through their distinct approaches to agency, which have both been widely debated and contested. Furthermore, their ideas have been valuable for developing a rich picture of what a material imagination might mean and the value it plays in meeting the ongoing aims of sustainability. This is an important strand in the thesis, and it is explored further in Chapter Seven.

Returning to the original etymology of the curator as 'carer' of collections, when an object is incorporated into a collection, an institution takes on responsibility for care, generally predicated on the assumption that objects are 'inanimate'. The assumption of inert and lifeless matter is a basic aspect of collections management and 'collections-care policies proceed from the assumption that objects should be preserved in the best manner possible, avoiding decay from elements, exposure and use' (Gurian 1999, p. 175). While neither Latour nor Gell argue that objects can act on their own, they both challenge the idea of the passivity of matter and the traditional disciplinary boundaries and knowledge systems that have developed around supposedly passive objects. These are significant concerns for museums in terms of how they relate to, collect and display objects. The first part of this section

\textsuperscript{50} The word object is used in a deliberately broad sense in this research, acknowledging that the term is multidimensional. Classifying material objects is complicated and debates around the semantics of what constitutes an object, an artefact or a thing are ongoing.
focuses on Gell, followed by a discussion of Latour and the Actor-network theory. The next section touches on how these ideas of agency are flowing into practices of collection and display within museums and the ways in which objects are understood within collections through the lens of Actor-networks. The final section returns to suggestions of why these ideas of material agency are useful in the museum and their links to sustainability, which is the main concern in this thesis.

Alfred Gell’s work has challenged understandings of what art is and its role in society from an anthropological perspective. Gell’s theory of the effects that art achieves breaks away from aesthetic traditions and semiotic theory. Believing that these traditions lacked a critical perspective, he insisted that an anthropology of art should reject claims about objects of art made by people living within the ‘spell’ of the art world. By cultivating a quality of detachment and disrupting his habit of looking to aesthetic theory for answers, Gell adopted a ‘methodological philistinism’. His approach meant taking an attitude of ‘resolute indifference towards the aesthetic value of works of art, either the value they have indigenously or from the standpoint of universal aestheticism’ (1992, p. 42). He did argue the need to borrow from the aesthetic understandings of form in his anthropology of art, without succumbing to semiotic interpretation.

In The Technology of Enchantment (1992) Gell considers art as the outcome of technical processes, in which creative practitioners are skilled, so that every art form is part of a vast technical system that is essential to the reproduction of societies. As a specific technical activity, art manifests a kind of virtuosity which is barely comprehensible to observers, exemplifying an ideal of magical efficacy, a kind of enchantment. According to Gell, it is within a ‘network of intentionalities’ that the artisan creator’s role is powerful, parallel in a certain sense to the deus ex machina, and capable of creating and shaping new conditions within a given social

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51 In his writing Gell drew on anthropological examples such as the carved canoe prow-boards of the Trobrian Islands and later applied these ideas to Western artworks. In the case of the Trobrian Islands, these objects dazzle visiting traders and influence negotiations in the exchange of Kula shells, an efficacious force within a system of trade. The prow-boards alone do not cast a spell, but are enmeshed within a field of social expectation, negotiation and understanding, created to fulfil particular aims and intentions.
situation. Because our material world is made up of things which are only partially understood, they acquire a 'magical' (an unknown or unknowable) dimension.\textsuperscript{52}

The argument that art objects may be considered as a kind of technology, recognised for their 'magical' ability to confound and impress viewers is useful, however I don't consider it enough to talk about art objects from the perspective of a technological process, with a predetermined and objective and endpoint. There is a risk that such a perspective may become conflated with the notion of creativity as an extension of engineering and fundamentally instrumentalist. Rather, I contend that creativity and the capacity of certain individuals to create artful material things should be considered as a particular ability - a material imagination - which is the ability to think and perceive the world distinctly, matched with the capacity and training to materialise and manifest a set of ideas.

In his expanded text \textit{Art and Agency} (1998), Gell describes a desire to develop a theory of art that can be applied across time and cultural contexts, a theory of the workings of art, rather than of the isolated characteristics of particular populations. Gell’s final theory of art highlights agency, the aspect of interaction that occurs between objects and their viewers which makes them similar to living beings. \textit{Art and Agency} considers objects of art in performative terms as systems of actions, intended to change the world rather than encode symbolic propositions about it (van Eck 2010). In this model, art works are the equivalents of persons, or more particularly, social agents:

The simplest way to imagine this is to suppose that there could be a species of anthropological theory in which \textit{persons} or 'social agents' are, in certain contexts, substituted for by \textit{art objects} (Gell 1998, p. 5).

Object agency in the 'Gellian' sense, is synonymous with intentionality. Originating in humans, agency becomes embedded within material things through acts of

\textsuperscript{52} Gell's ideas echo the vision of Arthur C. Clarke who suggested that sufficiently advanced technologies become indistinguishable from magic. Objects attain power stemming from the technical processes they objectively embody. Understood in this way, humans regularly create cultural environments that might as well be magic, given the high level of sophistication matched with the low level of understanding that most people possess about the inner workings of the technologies they engage with.
making. Material objects in Gell’s system are referred to as ‘indexes’, which mediate agency within a greater system of social relations. To think about art (and other forms of making) in this way involves looking through art objects and other material technologies, to the human intention embedded in the materials themselves. Gell’s work advances the notion of a material aesthetic that attributes to things the capacity to act as exponents of thought (Chua & Elliot 2013).

Furthermore, the ‘Gellian’ perspective contributes to the general understanding that personhood (an individual’s agency and worldview) does not reside in one substrate, but is scattered spatially and temporally (Knappett 2002). Gell’s is a theory of inferred intentionality via distributed personhood, so that ‘the creative products of a person or people become their "distributed mind" which turns their agency into their effects, as influences upon the minds of others’ (Miller 2005, p. 12). In essence, Gell’s is a ‘theory of natural anthropomorphism, where our primary reference point is to people and their intentionality behind the world of artifacts’ (Miller 2005, p. 12). In Chapter Six of this thesis, the notion of distributed personhood is explored through the example of Arthur Boyd and his paintings, which now have a potent role in influencing social relations within Bundanon Trust.

In Art and Agency, Gell has attempted to produce a robust means of analysing art-making and its effects, suggesting that a degree of commonality across the boundaries between ancient and modern, traditional and avant-garde, Western and non-Western is possible. His efforts to theorise fundamental questions of personhood and cognition from the vantage point of a theory of art have been applauded and critiqued. Critical concerns surrounding Gell’s theory include claims that he overstates the importance of decorative art and underplays the role of figurative representation, that his use of ethnographic evidence is simplistic, that he fails to provide a coherent account of aesthetic value, and that he unnecessarily excludes iconic and symbolic meaning (Rampley 2005). However, Rampley suggests that at a meta-level, Gell’s work can be defended against most criticism since it is not dependent on any single factor – artwork, enchantment, art
nexus – but instead should be seen in terms of the interplay between them within a system of relations.\textsuperscript{53}

While Alfred Gell focuses on the influence of art objects, Latour looks to other entities and forms of technology manifest in the social world beyond the categories of art. The technologies that fascinate Latour are products or artificial things made by humans (particularly engineers, scientists and designers) for human use, which he classes as non-human things. As a sociologist of technology and science studies, Latour is attuned to the condition of made things, so while he suggests that 'things have agency', he is referring mostly to those things which come to have agency after their human creation. This world of non-human 'made things' is also my primary focus. However, the non-human as a category can include animals and other living entities (see Chapter one for elaboration of non-human agency). If agency is, as Latour contends, about the capacity to act, it is not only a property of individual humans. This vision of agency is based upon the notion that while humans may be the only players acknowledged to actively and consciously think, there are in fact many ways that other non-human entities or actors can produce effects, and these should be closely considered. Consequently, the sum of any action may be possible to add up only if the mediating role of all the associated actants mobilised in the series are acknowledged (Latour 1999). This is a fundamental aspect of a network perspective and one that underpins the relational approach that I have taken in the study of museums.

Latour studies the objects of science, the rational tools and instruments of design, and the material world which has been fashioned by modern 'rational' humans. His work challenges the idea that agency operates as the outcome of the autonomous human being. He does this by emphasising 'the agency of this non-human world such as microbes or machines, which cannot be reduced to a mere epiphenomena of the social' (Miller 2005, p. 181). His description of the agentive force of things is

\textsuperscript{53} Within the art nexus, the agency of the index can be unexpected and powerful. An example from Gell describes the famous painting by Velazques, *Rokeby Venus*, which was slashed by an angry suffragete in the National Gallery in London, in 1914, out of protest over the death of a female activist at the hands of the government. 'Slasher Mary' was reported in *The Times* as saying: 'I have tried to destroy the picture of the most beautiful woman in mythological history as a protest against the Government for destroying Mrs Pankhurst, who is the most beautiful character in modern history'.
developed by uncovering how human actions, behaviour and morality are imposed upon by non-human things. Latour’s examples of material objects and their agency, come in many forms, including the ‘sleeping policeman’, ‘the Berliner Key’, a simple door or a seat belt. These are all designed objects which prescribe and direct social behaviours through their material form (Knappett 2002).

While it is possible to focus on a single object-agent, increasingly researchers are using the network metaphor ‘as a way of conceptualising the complex series of relationships between humans and objects which constitute the museum as an institution’ (Byrne et al. 2011, p. 10). Taking the network method and its associated metaphors into areas of museum collection and display allows for an inquiry into complex connections within these environments and highlights the way that certain relationships come to challenge traditional modes of knowledge creation. Collections are both material and social configurations that are active in:

Forming social relations between varied persons and groups, including creator communities, collectors, anthropologists, curators, auctioneers and museum administrators, all of whom have also been shaped through interactions with each other and with material objects (Byrne et al. 2011, p. 4).

Exploring the concept of agency within the ethnographic museum environment, Byrne et al. (2011) have revealed multiple forms of agency active in long-term processes of collecting and display. In many ethnographic collections it is now widely recognised that objects can remain very much ‘alive’ for the creator communities and cultures of origin, despite time, separation and distance. Evidently, a wide range of social and material agents are always involved in shaping and transforming the life of museum objects and collections, thus highlighting the mutability of objects, a point also argued in Chapter One.

In other collecting environments, including art and design organisations, an older, more static conception of collections and objects is undergoing a transformation.

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54 The theorisation of object agency within the museum context has predominantly occurred within ethnographic collections, where archaeologists and anthropologists have interrogated collections with dense material and social histories, revealing how collections have implicit political tensions that are often denied and subsumed within the documentation process.
Contemporary curatorial projects are bringing together objects that have traditionally been kept apart, and the traditional distinctions between categories of things are blurring. Material things are increasingly assumed to have a more active role to play in shaping and informing political agendas within museum environments. Material objects, once considered inert and safe within disciplinary boundaries, are now recognised by many professionals, to be more open, risky, indeterminate, far-reaching, heterogeneous, historical and networked than they appear to be when they are viewed within rigid disciplinary structures (Cameron 2008).

Applying the network metaphor to the museum domain, Cameron suggests that within a ‘networked’ environment, objects no longer have the same factual authority, and they are shifting from ‘matters of fact’ to ‘matters of concern or interest’ (Latour 2004). This shift from matters of fact to matters of concern is an important touchstone for Latour. It marks the impossibility of ‘incontrovertible, indisputable, mouth-shutting matter of fact’ (2013, p. 485) derived through processes of science as ‘purification’. By replacing the modernist conceit of nature as an entity distinct from humans, we arrive at something more contingent and uncertain:

The matter of concern - climate change, for example - is the focus of study, but unlike a matter of fact, the matter of concern refutes any claim we would make to speak its truth entirely. It is emergent from an assemblage of expertise, feelings, visions, interests, histories and materials, and we can never know a matter of concern in a single way. Its reality is continually manifested as these phenomena gather together (Potter 2009, p. 75).

Cameron (2008) argues that museum objects themselves are often more complex than the standard classificatory or heritage demarcations of museum authority will acknowledge.

In Chapter Four I explore an example in which the curator's interest in the communication of complexity through interdisciplinary practice challenges accepted museum methods. In this situation, her approach to curating climate change involved crossing disciplinary boundaries within the museum site by
seeking to include a prestige design object to communicate the object’s (hidden) generic function as a 'carbon sink'. This example supports the notion that objects are mutable within the networked museum. Objects formerly identified as decorative, ethnographic, natural, scientific, artistic, domestic, technological or fictional, may come together in an exhibition in new ways, forming new allegiances and challenging disciplinary dogmas. In this example, the exhibition becomes a site where people and ideas coalesce and collide with each other in dynamic and unpredictable ways.

In opposition to singular accounts of material things, the network metaphor provides a useful way to explore and contrast modes of communication and conceptions of reality. By utilising the network metaphor, objects are enabled as actants in events. This presents a challenge to the factual authority of the museum and established canons, which often presented static unchanging statements about things. The theories of both Gell and Latour provide alternative ways to think about objects. Their value in this study of museums and sustainability lies in the ways they highlight entanglements between the social and the material worlds, emphasising a lively interdependence.

Event: Theoretical perspectives to inform a methodology

The promise that experiences (both positive and negative) may have a transforming effect for visitors has been integral to my thinking and approach to events and their creation within this ethnographic research. Events, as space-time occurrences, are linked here with theories and understandings of experience and learning. It is the dimensions of space and time converging through lived experiences that define the meanings of events and of learning within this context. Education and media theorist Elizabeth Ellsworth describes it this way: 'the space and time of experience measures us' (2005, p. 86). She uses the physical performance of walking as a metaphor for the qualities of apprehension, grasping and learning that unfold in the psyche during the process of embarking on and completing a journey. Moreover, while learning in the museum mostly
presupposes the learner to be a visitor, examining events through this lens takes up observations of the internal learning experiences of staff. Therefore, events, which happen across the network of the museum, are considered as critical moments of potential for change, in keeping with sustainability as an ongoing, dynamic learning process.55

Contemporary cultural organisations develop unique and situated events for their publics, informed by a range of considerations. The stance taken by unique institutions toward pedagogy, both in terms of practice and how this is informed by theory (as praxis), has been a significant concern within my ethnographic inquiry.56 Engaging with explorations of pedagogy in a range of unconventional learning environments, Ellsworth elegantly inquires, ‘what places are capable of acting as this moment’s hinge?’ (2005, p. 8). In this section, theories of learning within the museum are discussed in relation to the writing of Ellsworth. Her conception of learning is contrasted with more traditional theories of formal and informal learning and museum pedagogy, in order to develop a rich picture of learning and to highlight the value of this position on learning.

Ellsworth argues for the value of identifying points of difference within contemporary practice. She proposes that a mode of inquiry that identifies ‘difference’ may be a valuable alternative to pursuing conventional pedagogical outcomes in research (which often converge around generalised ideas for best practice, strategies for effective teaching or prescriptions for learning interventions). Ellsworth’s reflections are based on cultural sites in America and her search for fresh insights are drawn from a cross-section of cultural practices in a range of institutions and other environments. The detailed accounts she offers

55 Within the sustainability education literature, authors have suggested the need for paradigmatic shifts in thinking, explored through pedagogy, via the notion of literacy and learning (Stibbe et al. 2009). These authors provide a framework for educators working with sustainability as a time-based learning process. Acknowledging that the term literacy has a normative dimension and is contested, literacy in this case is viewed as a metaphor rather than a set of rules toward the achievement of a fixed skill set. The metaphor serves to engender an understanding of sustainability as a collective and individual process of awareness, which evolves over time and which takes effort and a willingness to develop. While some literacies are perceptual in nature, others inform how practical decision-making in a real-world context may be guided by new modes of thinking. These ‘sustainability literacies’ include: Futures Thinking, Complexity, Systems Thinking, Ecological Awareness, Material Awareness, Being in the World (Stibbe et al. 2009).

56 The museum institution has historically produced pedagogies that seek to educate their patrons. Such pedagogic processes are not neutral. They are influenced by politics and governance structures, to greater or lesser degrees. These invisible forces mediate the experiences of visitors (see part one of this chapter).
seek to provoke questions and provide new perspectives that can be carried over into other contexts and designs for pedagogy. Carried over, that is, 'with the clear imperative not to imitate but to return a difference' (2005, p. 115). Ellsworth’s accounting for the value of difference has informed the development of my own thick accounts of theory and practice in each of the field studies presented in Chapters Four, Five and Six.

The Indo-European root of the word experience is *per*, meaning 'to attempt', 'to test' and 'to risk'. Connotations survive in the word 'peril' as well as in the oldest connotations of *per* from Latin through terms including: *experiror, experimentum* (Careri et al. 2002). In this thesis, exploring these etymological roots has nuanced the consideration of what is at work in the creation of events in cultural organisations. When seen in relation to a trial, a test or an experiment, the degree of creativity and curiosity that an organisation embraces, and the unknown and revelatory dimension of *designing* within these environments, becomes obvious. The notion of experimentation relates to how organisations create events for their publics, and also how employees experience change and participate in processes of change.

Ellsworth (2005) has studied a range of sites outside, or peripheral to, mainstay institutions of learning (traditional university and school environments), and she casts these unusual sites as *pedagogical anomalies*. She claims they are anomalous in their pedagogy when viewed from 'the centre of dominant educational discourses and practices - a position that takes knowledge to be a thing already made and learning to be an experience already known' (p. 5). Many of the *anomalous* places of learning that Ellsworth refers to involve multiple senses and implicate *bodies in pedagogy* in ways that the field of education has seldom explored. As they do this, they encourage and challenge us to move away from understanding the *learning self* through notions of cognition or psychology, or as being subjected to ideology. Ellsworth aligns this vision and expanded understanding of learning with contemporary creative practitioners whose work in the material and social fields experiment with 'non-cognitive, non-representational processes and events such as movement, sensation, intensity,
rhythm, passage and self-augmenting change’ (p. 6) in their work. Architects, artists, performers, media producers and designers of museum exhibitions and public spaces are exploring and inventing new paths, communicative instruments, provocative interactive encounters, architectural spaces and mediated urban- scapes, which have pedagogical intent. However, these 'designs are aimed at involving their users in ways that exceed physical mechanisms such as memory, recognition or cognition' (p. 6) and they are not easily theorised within more traditional conceptions of learning. Ellsworth explores the US Holocaust Memorial Museum as an example, and frames it as a 'scene of pedagogical address' which is loaded with the complexity of historical and contemporary narrative. As an example of exhibition design, it refuses 'narrative closure’, and refuses the 'last word' on the subject of the holocaust:

> Designers of the museum use this silence (at the end of the exhibit), to structure a pedagogical address that implicates visitors in a knowing that is never complete and that they can never master. It implicates us in a knowing that contains within it an inescapable and profound not knowing (2005, p. 114).

These anomalous combinations of buildings, objects, mediated environments and staged events, also impinge upon, relate to, and assemble within the bodies of their audience, in a web of interrelated flows in the material world (Massumi 2002). Their design is predicated on the understanding that an interaction between inner reality and outer reality allows neither to impose itself on the other, and should result instead in a meeting between the two worlds. Through the conceptualisation of events as experience,

> Thought is able to confront us from the only place where it can confront us: from outside the concepts we already have, outside the subjectivities we already are, outside the material reality we already know (Ellsworth 2005, p. 55).

Such an experience is framed as a smudge on the learning self. Ellsworth’s perspective is probably best defined as one that assumes a phenomenological position and approach to pedagogy, wherein the independent body of the learner is a central instrument. The English psychoanalyst Donald Winnicott and his work
in the field of object relations and developmental theories of children inform her work.

In order to contextualise Ellsworth's ideas and relay their significance within my own work, a brief discussion of the development of learning theories within the museum environment follows. Notions of education and educational frameworks have shifted over time. Looking back, beliefs about the nature of knowledge (theories of knowledge), and understandings of its acquisition (theories of learning), have fundamentally informed approaches to education within cultural organisations (Hein 1999, p. 73). These theories of knowledge and learning lie across a spectrum, indicating a separation between those who subscribe to the notion that the world exists, in a Platonic and absolute sense, outside of and independent of the knower, and those who believe that the world, and knowledge of it, are made up of ideas assembled in the mind of the knower. Across theories of learning, there also exists a spectrum framed by two extremes. One asserts that knowledge is the result of learning made up of the step-by-step assimilation of facts, information and experiences imprinted on a mind which is imagined as something of a blank slate (tabula rasa). The opposing view of learning 'postulates that the mind constructs schemata and that learning consists of selecting and organising from the wealth of sensations that surround us' (Hein 1999, p. 74), and holds learning to be complex, interactive and non-linear. A museum's broad notion of both knowledge and learning will inform how audiences are conceptualised and how processes of communication are understood (Hooper-Greenhill 1999). These theoretical differences have influenced the spatial thinking within museums and the modes of social and material interaction across time.

Museums adopt a display methodology, which includes the content and arrangement of spaces, objects and information. Over the past two centuries, the orderly domains of learning that have been the 'intellectual work of the Western world' (Hein 1999, p. 76) have informed how collections were organised and displayed. Separating disciplines, and approaching learning with textbook-like order, the systematic museum model (Hein 1999) saw the typical museum function as a 'repository of knowledge' (Kelly 2010, p. 195). Museums guided by
this model mostly emphasised the acquisition of facts, which are pre-existing and orderly. Reflecting a positivist epistemology, they approached the audience as an undifferentiated mass whose independent needs were rarely considered. The learner within this context was considered passive, and the museum, like the teacher, had authority over information and the learning experience.

It is now widely acknowledged that as a visitor crosses the threshold into the museum space, they are bringing with them a cast of associations, aspects of self-identity, skills, prior knowledge and basic assumptions. In response, many museums plan and design for the co-creation of learning experiences on site, enacted in different ways, depending on the type of institution. Science museums have generally been at the forefront of these developments. In the art and design museum, developing two-way communication opportunities has been a challenge, since most of the 'content has been vetted by the museum and determined by curators' (Fritsch 2007, p. 3). This has changed with experimental directives in curatorial practice, ideas in New Museology, the widespread incorporation of interactive online communities and the socially engaged practices of many contemporary creative practitioners. The moniker of an 'open university' casts the museum as a space of democratic participation, offering experiences of a society's cultural, historical and 'contemporary' heritage. Learning happens in a museum in a broad and uneven way, and in an idealised sense, it combines the structure of a learning institution – a university or school – with the freedom of an open forum (Falk 2005).

The reality of the museum as a dynamic and inclusive site for learning is dependent on multiple conditions, underpinned by philosophical and theoretical positions, directorial imagination, creative and fiscal resources, and community needs and interests. Within this particular framework, the learning experience focuses on the temporal and unfolding process of a learning self in motion (Ellsworth 2010). An embodied individual who has a learning experience in response to the specifics of space, time and materiality is a 'moving subject' on a continuous journey towards new forms of knowing that are inevitably incomplete and unfinished. The investigation in this thesis is based upon the ideas of the
learning self and the unfinished narrative, which are both always in a process of becoming and which are informed by the specificity of place and materiality. In the design of events, observing how creative experimentation and invention can exist within the structural parameters of the institution is significant. The notion of the unfinished narrative resonates with the question of how sustainability is taken up and developed into a theme for learning and pedagogy within situated museum environments.

Chapter conclusion

The design of this research has emerged out of an attempt to think relationally – an attempt to understand and describe things – in a way that acknowledges that to be alive and to inhabit a physical body is to be continuously and radically in relation with the world, with others, and with what we, as individuals, make of them. By adopting a logic of relation in my overall approach to museum research, I make it possible for the various elements explored in these establishing chapters to operate together as equal elements within a relational framework. These elements include the historical constraints and tensions within the trajectory of the museum institution itself, tensions in the binary oppositions of structure and agency, and other theoretical arguments. Lopes indicates that 'relationality offers a way to rework how we see things by wrapping the artificial and hermeneutic worlds into the "flesh" of the biophysical world' (2006, p. 58). By wrapping the hermeneutic and the biophysical into closer connection we forge new ways of ‘seeing’.

This research is predicated on an understanding that both design and art practices produce material meanings, a discursive materiality (Carter 2005), which fashion our ways of seeing (and by extension), being in the world. Developing the place, object, event framework was very much an interdisciplinary engagement, working across the intersections of several literatures in order to produce a satisfactory way of thinking about the museum site as a relational field where humans and non-humans intermingle in lively and dynamic ways. In the next chapter I explore how multi-site ethnography provides a useful way of moving across diverse sites in order to ground these theoretical ideas within an empirical process.
CHAPTER THREE: Walking in the field

Introduction: The research strategy

This research was designed to produce new insights into the way contemporary expressions of culture intersect with sustainability. A range of disciplinary perspectives and an ethnographic stance informed this heuristic. I decided early in the research process to move away from testing or implementing a 'meta-level' framework of sustainability. Instead, the research process has been an effort to examine contemporary professional museum methods and internal change processes within these cultural organisations. These decisions informed the research design and led to ethnographic research looking at modes of presentation and display, organisational strategies and creative tactics, and an inquiry into individual and institutional agency. The analytical framework of place, object and event (see Chapter Two) was developed to expand and enrich this investigation, and to provide a way of ordering complexity, in both analysing and describing it.

In this chapter, I discuss my reasons for adopting a multi-site ethnography. As a relatively new addition to ethnographic method, multi-site ethnography is developing in response to a transnational world of mobility, and in acknowledgement of 'the ways objects, context and knowledge are mutually constitutive, and from recognition of possibilities for producing new knowledge by shifting one's frame of reference' (Fortun 2009, p. 84). I then look at connections between sustainability research, transdisciplinary perspectives and ethnography. Here I suggest that ethnographic research allows for the kind of new thinking about data and interpretation that transdisciplinary scholars and Actor-network theorists also talk about - a kind of complex thinking - which is valuable for both producing new knowledge, and as a way of being in the world.
Multi-site ethnography

Adopting an ethnographic stance involves immersion in a particular social and material context and is at once a practice, an approach and a method. Ethnography has been described as a 'fusion of horizons' (Gadamer 1994) and a 'heuristic' (Strathern 1990) in which each side (the researcher and the researched) provides leverage for the other, an experience that inevitably leads to uncertainty on the part of the researcher, about their own story, challenged by the process of making sense of the lives of others. Slater (2013) suggests that ethnography is essentially symmetrical, insofar as ‘the fundamental structure of ethnography is a dialogical one in which the researcher’s classificatory structures come into vulnerable engagement with those at play in the field’ (p. 11). In doing ethnography, engagement is used to advantage and being part of the social world ‘is not a matter of methodological commitment, it is an existential fact’ (Hammersley & Atkinson 1983, p. 252).

Ethnography can be employed as a robust and flexible approach that may be adapted to diverse settings in order to observe lived reality within different social worlds. I cannot claim this work is strictly anthropological, however I have taken guidance from the rich tradition of anthropology and ethnographic texts in adopting this approach (Ingold 2000; Miller 1997, 2001; Fortun 2001; Tsing 2005; Slater 2013). I have also looked to its application in cultural studies and sociology, recognising that ethnography has come to play an important role in the dynamic tapestry of social research (Hammersley & Atkinson 2007). Ethnography is now understood in ways that extend it beyond pure forms of anthropology (and challenge some of its basic methodological assumptions). Shorter pieces of fieldwork and a geographical spread of studies are now common, and although they may be dismissed by some anthropologists as 'intellectual tourism', Slater, (self-described as 'deeply impurist'), argues that any ethnography has the potential to shed light in ways that are far richer than other forms of 'knowledges in development' (2013, p. 11). Miller suggests that ethnography is characterised by a 'series of commitments that together constitute a particular perspective' (1997, p. 16). These commitments include being in the presence of the people one is
studying, evaluating people as material agents in a material world, having a long-term commitment to the investigation, and engaging in an holistic analysis within the larger framework of people's lives and cosmologies. Miller claims the purpose of ethnography in material culture studies is to ground philosophical inquiry within lived reality, so that:

While it is possible to thereby transcend the vulgarity of our dualistic apprehension of the world through engaging with it only at the heightened and abstract levels given us in philosophy, I would argue that this can never fully constitute an anthropological approach to materiality. Anthropology always incorporates an engagement that starts from the opposite position to that of philosophy. A position taken from its empathetic encounter with the least abstracted and most fully engaged practices of the various peoples of the world [...] so our role is one of mediators (2005, p. 13).

The notion of the ethnographer as a mediator is especially apt for this thesis, which weaves observations and experiences of social and material relations from specificities toward generalised world-building accounts, and fuses together direct experience and philosophical insight. Often beginning with an interest in a particular area of social life, ethnographers will have in mind what the influential anthropologist Malinowski described as 'foreshadowed problems' (Hammersley & Atkinson 2007). While the task of ethnography involves investigating a 'foreshadowed' interest within people's lives, an ethnographer's orientation is exploratory. Ethnographic research is an iterative process that takes time and provides scope for the ethnographer's initial interests and questions to be refined, and perhaps transformed, as data is collected in natural settings.

A distinguishing feature of ethnography has been the immersive practice of fieldwork, understood as an extended stay in a single location and a physical immersion in place. Stokes-Rees (2003) suggests that while this is a familiar representation of fieldwork, in many respects it no longer suffices for contemporary ethnographers. In the face of the mobility and displacement of peoples worldwide, anthropologists are being forced to relinquish the conflation of place with collective cultural production. The development of multi-site ethnography in recent decades has been described by anthropologist George
Marcus (1995) in terms of a movement in research 'out from the single site and local situations of conventional ethnographic research designs to examine the circulation of cultural meanings, objects and identities in diffuse time-space' (p. 96). Multi-site, or multi-local, fieldwork is a timely approach to a transnational world of mobility and complexity, an ethnography of 'complex connections' (Marcus 1998).

The shift in thinking within contemporary anthropology reflects encounters with people's life-ways which are constituted to a significant extent by movement and flow (Gatt 2013), problematising bounded understandings of cultural difference and redefining twentieth century concepts of the world as a mosaic of geographically delineated cultural wholes (Marcus 1995). In choosing a multi-site ethnography for this research, interactions were observed across each of the social and material fields, with aims to address similar questions within diverse contexts.

The value of the multi-site ethnographic method lies in the possibility of producing rich contextual insights across diverse locations, with the aim of generating a certain amount of comparison, although a multi-site ethnography is not necessarily comparative (Hannerz 2003). Marcus (1995) suggests that multi-site ethnography is designed around 'chains, paths, threads, conjunctions or juxtapositions of locations' (p. 105) whereby the ethnographer establishes some form of literal, physical presence with an explicit, posited logic of association. Such an investigation becomes focused on the connections and the relations across and within different sites.

While ethnographic method continues to be defined by the development of theory drawn from a commitment not to contradict the experience of informants (Tsing 2002), multi-site ethnography has expanded the scope and the levels of engagement possible in research. It is driven by a range of imperatives, including what Fortun argues is an understanding that 'knowledge practices and objects are entangled, and that being differently positioned produces different perspectives' (2009, p. 84). In my own research, the configuration of place, object and event emerged iteratively as a response to the complexity of multi-site ethnography, and as a way of drawing out and connecting theoretical concerns within each site of
inquiry. Local museums are parts of larger transnational movements (of people, 'things', ideas and practices, and flows of capital) and this influences how they operate and compete, impacting on the visible (and invisible) forces at play within local sites. Fortun (2009) has developed a useful model for multi-site analysis, by way of scaling and visualising the local within larger trans-local dynamics, which has informed my own analysis.

The logistics of spreading my attention across three sites meant intensive periods of observation and immersion (see Appendix F & G for an inventory of fieldwork methods, materials and analysis). The methodological approach was based upon the practice of treating institutions and exhibitions, not as texts, but as material and social processes and it became necessary to focus selectively on certain features, 'scaling' up and down, where appropriate to the inquiry. Each organisation was considered in the formal sense proposed by Lofland and Lofland (1984), as 'consciously formed collectivities with formal goals that are pursued in a more or less planned fashion' (p. 87). As such, my analysis sought to address the circumstances of their formation, how they recruit and control members, the types and causes of goal-pursuit strategies they adopt, and the causes of their growth, change or demise' (Lofland & Lofland 1984, p. 87). However, each organisation was also considered to be more than a set of structures that could be accounted for within this research. For this reason, I treated the ethnographic process as being akin to researching a social body, an amalgam of parts forming a whole.

There has been nothing static or stationary about entering into this engagement, and it has involved recognising the quality of incremental change that defines each setting. They are places of activity, living sites of energy and uncertainty and ultimately vulnerable in their mortality, like the human body. I have drawn from anthropological readings that emphasise the importance of biography in ethnographic research, as revealed through the temporal, spatial and cultural specificity of biography studies (Waterson 2007; Palmer 2011). An anthropological approach strives to position research and theory within a biographical framework in which the fundamental periodicity of anthropology is understood in terms of the
human life-cycle (Gell 1988). Relationships are often viewed within this 'biographical context' and are entered into during particular phases of the life cycle. This is quite different to sociological relations (which are generally perennial - e.g. the relations between the classes in capitalism or status groups) or of social psychology (in which relations may be defined by momentary encounters - e.g. in experimental, lab-like settings removed from any context). Anthropological relationships are biographically consequential, and contribute to the biographical 'life project', the study of which allows anthropologists to perform their task of explaining why people behave the way they do. From this perspective, there is also a spatial correlate in terms of the spaces travelled by people over the course of their biographies, be they narrow or wide. There is also a correlate in terms of the practice of ethnography, in which the listening and re-presenting of what is heard, assumes certain significance.

Data collection and analysis: Listening to the voice of the organisation

At the centre of the idea of ethnography is the commitment, both to hearing people’s own construction of their worlds, and to building up our own accounts in terms of the logic by which they associate and assemble their worlds (Slater 2013). In the case of the museum, the adoption of ethnographic method has meant a process of seeing, listening and looking at how these organisations co-produce and work out of their own 'imaginary'. While I am aware of the charge of disingenuous and inauthentic cultural production in museums, (discussed in Chapter Two), during the ethnographic process I aimed to suspend critical judgement, and to listen instead to the voice (to the many voices) within each organisation. I endeavoured to remain open and receptive in order to hear what may be 'speaking', perhaps the voice of individual desire and imagination (Portelli 2003; Dannefer et al. 2008) or perhaps the voice of a social imaginary (Castoriadis 1987).

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57 Dannefer et al. explain that: 'Face-to-face interaction also offers a potential entry point for change, including efforts at deliberate progressive change, even under adverse macro-level conditions. It is, after all, a site at which imagination and intentionality are formulated and articulated by individual actors' (2008, p. 102).
Cultural organisations are sites where forms of material culture are activated through organised processes, and in order to understand this 'living history', I considered strolling, experiencing and listening as all part of the science, art and skill of observation:

To 'stroll' in this sense is to listen, observe and experience and to expose theories and biographies to new and unfamiliar social settings and relations with a view to enhancing an understanding of them (May 2011, p. 162).

This 'listening' process has been aural, visual, kinaesthetic and multi-sensory and is underpinned by recognition of the 'performative' process of reporting on any given reality (Law 2004). My approach has also been informed by Haraway (1991) and by claims in the environmental humanities that in order to 'see well' it is necessary to explore different situated 'knowledges'. Rose et al. (2012) have noted how the humanities have traditionally worked to articulate a 'thicker' notion of humanity, one that rejects reductionist accounts of self-contained, rational, decision-making subjects. Building on the contributions of authors such as Donna Haraway, humans are understood in this thesis as 'participants in lively ecologies of meaning and value, entangled within rich patterns of cultural and historical diversity', in which the whole world, at all scales, is recognised as a 'contact zone' (Rose et al. 2012, p. 2).

Assuming a grounded reflexive process of decision-making within each setting, informed decisions about whom to interview, and when and how to do so. These decisions were developed over time. Initial conversations took place in a relatively unstructured way, followed by more structured and strategic questioning towards the end of fieldwork. The process of data collection did not involve following a fixed and detailed research design specified at the start; instead, it was shaped by an 'emergent' process, and so the categories used for interpreting data were generated throughout the process of data collection and analysis. As well as participant observation, field notes and photography, data was generated from semi-structured interviews, and exhibition and document analysis. The data analysis involved the interpretation of 'meanings, functions and consequences of human actions and institutional practices' (Hammersley & Atkinson 2007, p. 3),
filtered through the theoretical lens of material culture, theorisations of agency and sustainability discourse. This produced an account of how these become implicated in local, and wider situations.

In the development of the individual accounts and in the final stage of tacking between them, there was a 'scaling' at work, a process of mapping the array of constitutive dynamics. The decision to move between the local and global reflects my intention to acknowledge the work of cultural organisations as networked across various scales and operating in a world defined by mobility and the forces of globalisation. In the final analysis, I looked to Kim Fortun’s modelling of contemporary ethnographic data (see appendix material). The notion of scaling was adopted in order to separate out and distinguish different operating scales, from the 'nano level where subjects are constituted, through levels where technology, organisation, economics and other forces are at play' (2009, p. 80). My own analysis was honed at the 'micro level' of professional practice within museums, addressing questions of how meaning is given to sustainability through intentional decisions made within this domain. Observations were focused at the level of exhibition creation, curatorial narratives, learning experiences and public programming.

Writing the accounts: Thick description

Described as an exploratory process, a 'funny looping' exercise (Fortun 2009, p. 73), ethnography is quite different from a linear process of tested hypotheses and final arguments. In addition to being a process of immersion and observation, ethnography is a process of writing, and it is a term that refers to both process and product (Hammersley & Atkinson 2007). It is a way of drawing out the 'banal', 'extraordinary' and 'exemplary' (at best all three at once) through subtlety and nuance, immersing the reader in a theorised discussion of a given situation.

In each empirical chapter, I position myself as researcher, while rewriting my personal observations of critical incidents into a more theorised, less personal account. Each of the empirical chapters aspires to thick description, weaving together the three orders of place, object and event, and each of these chapters has
been influenced by developments in the environmental humanities and cultural theory. To have performed ethnography is to have 'exceedingly extended acquaintances with extremely small matters' (Geertz 1973, p. 21) and in doing so, it involves confronting the same grand realities that other researchers may confront, including power, change, faith, oppression. The argument for thick description was written by Geertz as inspiration for anthropologists, whose skill he believed lay in speaking to extremely small matters, while elaborating on their broader implications and meanings (Shaw 2012). The writing of each of the accounts in Chapters Four, Five and Six aspires to 'thick description'. Here a close analytical reading has been attempted, 'to ferret out the unapparent import of things' in an effort to see relationships between the public and the obscure, the far-ranging and the minutiae, and not to 'generalise across cases, but to generalise within them' (Geertz 1973, p. 26).

Textual accounts in the environmental humanities produce a very different kind of writing to the techno-scientific / eco-science emphasis of much sustainability discourse. The natural sciences generally have a formalised reporting system, where the author has a minimised presence in the text. In contrast, the environmental humanities offer alternative vocabularies, forms of communication and methods to engage with concepts of sustainability. With roots in Spinoza, Bergson, Deleuze, Guattari, Whitehead and Bennett, new forms of experimental writing 'necessarily participate in worlds rather than a writing constituted as a report on realities seen from the other side of an illusory gap of representation' (Muecke 2012, p. 42). As an ethnographer, Stephen Muecke's commitment to the possibility of new kinds of writing emerges in a sympathetic way from the extended participation that an anthropologist engages in. However, his emphasis goes further through the additional aim of 'de-centring' the human. As well as social and cultural practices, Muecke takes account of other related sentient and material life forces involved in association with and by gathering around human life (terms borrowed from Latour and Heidegger). Muecke suggests that rather than seeking to avoid judgement altogether, an experimental attitude should reflect on the formation of 'critical subjectivities'. This demands a self-inquiry into any stated position of judgement, recognising it as contingent and negotiable, where it is
beholden upon the researcher to ask how anyone earns the right to participate in any event and furthermore, to judge it.

This writing process has been iterative and the development of this thesis is itself a form of writing as inquiry, in which my own journey into the field is understood as a form of investigation revealed partly through the experience of reflection and the process of writing as intellectual journey (Richardson 1994; Amatucci 2013). As all writing is deliberately fabricated and linear, and 'neither contemplative thought nor experience comes naturally in linear form [...] choices in its creation can be located and examined' (Game & Metcalf 1996, p. 128). Since there are different structures of knowledge domains and forms of argument across disciplines, all texts (including this one) may be deconstructed and interrogated. Each of the empirical accounts has been written with a commitment to reflexivity as a researcher in order to remain conscious and responsive to my own narrativised identity, and to relocate the personal, situating it within social and institutional practices and discourses (Kamler & Thomson 2006). This process is made explicit at various points throughout the thesis, particularly within this chapter.

Transdisciplinarity: Ethnography as complex thinking

Although this thesis does not sit neatly within the methodological framework of transdisciplinarity, there are elements of transdisciplinarity which have informed and challenged its development. In this section I acknowledge varying definitions and contrasting approaches to transdisciplinarity and the valuable role it plays in sustainability scholarship at large. I also highlight the importance of valuing different kinds of knowledge in sustainability research - alternative, community and 'lay' knowledges - which are a significant contribution made by ethnography. Several characteristics of transdisciplinarity are outlined here, followed by a discussion of how these relate to this project.

The rationale for transdisciplinary research developed out of the work of the philosopher, Edgar Morin, theoretical physicist, Basarab Nicolescu and astrophysicist Erich Jantsch, all key thinkers calling for reconciliation between
science and the humanities. Sacha Kagan points to the work of Edgar Morin who in 1972, made an explicit call for a 'generalised ecology' as a 'truly transdisciplinary science' (Kagan 2011, p. 200). Challenging the limitations of mono-disciplinary knowledge production within a world of complexity, Morin’s 'pensée complex' (complex thinking) engages multiple levels of reality across temporal and spatial dimensions as a:

Journey in search of a way of thinking which would respect the multi-dimensionality, the wealth, the mystery of reality, and would know that the intellectual, cultural, social, historic determinations that any thought bears, always co-determine the object of knowledge (Morin 1980, p. 10).

As a relatively new area of scholarship, transdisciplinarity has expanded with international conferences and the 'Transdisciplinary Charter' at the First World Congress of Transdisciplinarity (Convento de Arrabida, Portugal, November 1994). A broad aim of sustainability research is to resolve an 'interconnected set of complex and global problems including poverty, social conflict, climate change and ecosystem degradation' (Abeysuriya 2008, p. 69). Authors in sustainability studies acknowledge that divisions in the identification of problems across economic, psychological or sociological boundaries are socially constructed, insofar as each discipline does not determine a 'problem'. Rather, 'problems' are located and emergent within the 'real-world', and are most often defined and treated differently according to disciplinary specialisation. Myrdal (1978) describes a situation where 'in reality, there are no "economic", "sociological", or "psychological" problems, but just problems, and they are all complex' (cited in Söderbaum 2000). Confronting 'problems' in the 'real-world' is complicated by the fact that they are, by nature, messy, and many transcend disciplinary boundaries. As a research strategy, transdisciplinarity has been applied to problems across sectors and rests on an understanding of interdependence, characterised also by an 'interpenetration of epistemologies in the development of methodology' (Wickson, Carew & Russell 2006, p. 1050). It is a response whose aim is the design of research which can address and ameliorate observable, measurable problems and support planning and policy (Costanza et al. 1997):
Transdisciplinarity complements disciplinary approaches. It occasions the emergence of new data and new interactions from out of the encounter between disciplines. It offers us a new vision of nature and of reality. Transdisciplinarity does not strive for mastery of several disciplines but aims to open all disciplines to that which they share and to that which lies beyond them (CIRET 1994).

The transdisciplinary research process has developed alongside notions of humility, hybridity and horizontality that are now significant parts of the research landscape in the second decade of the twenty-first. With its roots embedded in the late twentieth century, transdisciplinary research recognises that addressing problems and solutions is complex and that new modes of knowing are needed:

The transdisciplinary vision is resolutely open insofar as it goes beyond the field of the exact sciences and demands their dialogue and their reconciliation with the humanities and the social sciences, as well as with art, literature, poetry and spiritual experience (CIRET 1994).

Differences between transdisciplinary, interdisciplinary and multidisciplinary contributions to knowledge are a subject of debate, and how quality is assessed remains an area of consideration and discussion (Wickson, Carew & Russell 2006; Willetts et al. 2012; Lawrence & Depres 2004). Transdisciplinary research has been characterised as research that:

- addresses complexity in problems
- accommodates the contextual nature of what is known, is problem oriented and seeks learning that contributes to problem resolution
- works with ideas from far-ranging fields in order to represent a coordination of knowledge from a spread of disciplines
- selects appropriate methodologies and is responsive to, and reflective of, the problem and context under investigation
- is designed to collaborate with stakeholders in the production of new knowledge, and that raises questions of whether academic research conducted by one researcher can be transdisciplinary.
Further, a transdisciplinary approach should acknowledge and be open about the influence of ideology and values in research. This is understood to be a characteristic of quality in transdisciplinary research (Ravetz 1999; Wickson, Carew & Russell 2006). A transdisciplinary approach places demands on the researcher for reflexivity and honesty, and for a heightened ethical engagement in the research process. It involves a move toward the reintegration of the observer and his/her values in relation to the object of study. Alfonso Montuori has described 'the knower' not as 'a bystander looking at knowledge in its pristine cognitive state, but an active participant, a being-in-the-world' (Nicolescu 2008, p. xi).

The ethnographic method allows for an engagement at the interface between humans and non-humans and it is suggested here that rather than aligning with a single discipline, ethnography reflects qualities of a 'transdiscipline', requiring an engagement with multiple senses, the collection of multiple forms of data, and multiple levels of interpretation. The complex methodologies of Actor-network theory and infra-languages, and some of the tenets of transdisciplinarity 'can be rendered in bog-standard ethnographese' (Slater 2013, p. 11). Fieldwork as a well-established method provides for a kind of pensée complex, 'complex thinking' and a dialogical process, where the reflexive attention paid to encounters, movements and contact zones in the field may all become useful forms of data.

The domain of what constitutes data has been shifting in ways that de-centre the human in knowledge production (Banerjee & Blaise 2013). The expanded realm of post-human research now includes anything from air, earth, animals and conversations within a complex matrix. Donna Haraway (2008) uses the notion of 'becoming-with' to explore human and non-human relationality and like Jane Bennett, Haraway dares to attribute agency to the non-human world and challenge 'traditional understandings of data by rethinking humanist assumptions about the

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58 Banerjee & Blaise (2013) suggest that researchers attending to the 'performative' act of knowledge production pay particular attention to the form it takes and to the way in which it is produced. Therefore they will: consider events and encounters as moments of instruction; consider an autobiographical approach and think about the tacit conventions and obligations that orient the individual's own movement; consider more-than-human encounters and pay attention to interactions between people and things; stay still and consider the modes of movement and passage of other people and things; take a contact zone perspective and consider the mutual co-shapings and entanglements that happen in particular locations.
role of the researcher and data’ (Banerjee & Blaise 2013, p. 2). Cultural theorist Emily Potter (2009) emphasises that complex arrangements of human and non-human matter must be made present in the research question (inquiry) itself:

Entities, things and subjects come into being at a particular time and place by a material gathering of objects, techniques, institutions and discourse, including calculation and other instrumental practices. For the researcher, this means embracing new methodologies, ones that register reality as continually enacted, and via the very methods by which we see, to make meaning (2009, p. 165).

It is the material gatherings and the social practices within each site that I have closely attended to, exploring sustainability as an emerging discourse and a material practice. Working at this level demands a kind of ‘complex thinking’, engaging with multiple levels of reality across these temporal and spatial dimensions. While I have placed less emphasis on directly solving complex and messy issues through this research, there is value in examining these multiple levels of reality and different kinds of knowledges through structured inquiry. Such an approach is emphasised in many conceptualisations of transdisciplinarity, and the ethnographic method makes its own ongoing contribution to these aims.

Chapter conclusion

This research is predicated on an understanding that while the conditions of the Anthropocene and the concerns of sustainability exist at a global level, it is at the local level that research and action can be most effective. My own view is affirmed by Robinson (2008) who argues that rather than the development of new meta-level frameworks which have a universalising tendency, an alternative approach in sustainability research should emphasise 'the inherently local and place-based nature of such concepts as sustainability and the need for meaning to emerge from within the interplay between theoretic knowledge and local circumstance' (Robinson 2008, p. 75). Furthermore, this position emphasises the potential for the integration of discoveries to be continually 'contextualised relative to the particular problems and conditions in which it is applied' (Robinson 2008, p. 75).
In the 'making' of this text, I have pursued a unique perspective on the museum environment, the agency of professionals and of material culture within these domains. In the first three chapters I have established the foundations of this research. I have sought to outline the contribution this approach makes toward critical understandings of both sustainability and cultural organisations within the Australian context. The three chapters that follow are empirical accounts from ethnographic work carried out across three locations.
CHAPTER FOUR: Design (Informing)

Field Study No. 1 Powerhouse Museum

EcoLogic: It's all about us!

'Do not create a doom and gloom scenario', they said, 'by all means give us the bad news ... but give us the good news right beside it. So please give us the solutions right beside the drama'.

It is as though we had to combine the engineering tradition with the precautionary principle; it is as though we had to imagine Prometheus stealing fire from heaven in a cautious way! (Latour 2008).

Introduction

The Powerhouse Museum has a long and impressive history and an accumulated mass of material culture. Established in the 1880s, the museum's history is tied to the identity of Australia as an expanding industrial, modern economy. Narratives of mastery, progress and self-improvement are well established within the material history of this collecting institution. Inheriting a civilising pedagogy informed by the Enlightenment project, ideals of progress have been embedded within the museum's materiality for over two centuries. The introduction of new ideas and the process by which they spread and replicate are complex within such a large and old organisation.

The museum has also developed a reputation for being at the forefront of innovation and experimentation in the museum sector, particularly in audience interactivity. EcoLogic is the first sustainability-themed exhibition to be curated within the museum and one of the first in Australia. It introduces a new curatorial agenda that challenged the institution's self-image as a site for the celebration of industrial history and technological innovation through material culture. As an
exhibition, *EcoLogic* projects into a future 'social imaginary' by utilising 'stuff' from the past and present in order to expose audiences to the contemporary 'dilemma' of sustainability. It introduces complexity and wicked problems, and it challenges existing ways of thinking and problem solving. Although the exhibition is ultimately an affirmation of human ingenuity, technology and innovation, it endeavours to map a web-like ecology of interdependence that positions human beings as reliant upon other complex and now vulnerable living systems.

As is the case in many other organisations, in the Powerhouse Museum the concept of sustainability has begun to spread across the social and material field in uneven ways. There is a gradual process of institutional change which is seen to be ongoing. The exhibition exists as a significant first step in a reflexive engagement with sustainability, signifying an effort to develop a nuanced representation of real-world contemporary problems within the 'think space' of the museum. This study illustrates, firstly, how the institution's founding impulse has been challenged and secondly, how the institution was constrained by a set of limitations, which appear to be as much political as scientific. These limitations were embedded in the institutional image, decision-making processes and structures and they bore the weight of the social imaginary reflected within and beyond the institution itself. Without being explicitly political, the exhibition called into question the museum's dominant imaginary and challenged orthodoxies within the museum itself.

**A map for the journey**

This chapter focuses on material things, collections, the process of exhibition creation and the concept of object agency. The first part of the chapter examines exhibition *objects* curated within the *EcoLogic* exhibition, and its 'informing' address to visitors. Following this, the exhibition itself is examined as a transformational event within the museum's history. This history is presented through a discussion of *place*, highlighting the larger setting and the evolution of the institution within the city of Sydney.
The preliminary survey research, which identified organisations taking initiative on sustainability (see Chapter One), identified *EcoLogic* as one of the first exhibitions of its kind in Australia to directly address sustainability. It appeared reasonable to concentrate my efforts of observation and analysis on this single exhibition. The following account draws out tensions, reflecting on the challenges of environmental sustainability for a large inner-city institution that has celebrated industry, science and technology for over 130 years. The story of *EcoLogic* emerged out of this weighty historical situation and the temporal dimension of curatorial work and collections was a significant concern. Objects themselves are subject to representational shifts over time. The reappraisal of material culture is an aspect of curatorial work, particularly within an organisation that has a large and valuable historic collection.

The institutional complex of the Museum of Applied Arts and Sciences includes the Powerhouse Museum located in Sydney city, the historic Sydney Observatory, the NSW Migration Heritage Centre and collection stores at Discovery Centre Castle Hill, where the public can access 50,000 items from a collection totalling over 500,000 objects. The Powerhouse Museum is the central institution within the Museum of Applied Arts and Sciences (MAAS). My research was undertaken within and around this site, and henceforth the writing refers to the Powerhouse Museum (see Appendices for an inventory of fieldwork methods, materials and analysis). During my fieldwork I explored library archives, permanent and touring exhibitions at the museum, spent extended time observing professionals and visitors within the museum, conducted interviews and observed workshops.59

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59 Please note: Interviewees remain mostly anonymous and where anonymous, direct quotes are followed by (PM Interviews) to indicate the quote is taken from transcripts with employees at the Powerhouse Museum.
Figure 1: Images collated from the Powerhouse Museum Field Study. (List of Illustrations: p. x).
OBJECT

_EcoLogic: An overview_

Sustainability is framed as a present and future-tense, human-centred priority, captured succinctly in the mantra: *'EcoLogic: It's All About Us!'* If our species is to survive we must recognise the key issues of accelerating population growth and the negative impacts of our outdated industrial systems and act:

The reason for our current dilemma is simple. Our industrial, economic and political systems were established at a time when nature was very large and the human population was relatively small. Before 1900, people felt that it did not matter if fledgling industries wasted resources or caused pollution. Although many cities were very polluted, resources were abundant and nature's ability to absorb waste seemed limitless. There was no concept of a cost to the environment as a result of using air, water and soil as a resource or waste dump. Today the human population is very large and the situation is very different. If we carry on with 'business as usual', our quality of life will deteriorate dramatically as natural systems fail. Throwing things away is no longer possible because, in a world full of people, there's no such place as 'away.' The time is ripe to rethink industrial strategies, harness our creativity and embrace ecological sustainability (McEwen 2004, p. 1).

In the exhibition, the problem of unsustainability is presented as a historic trajectory and described using a 'Dilemma Text' which is repeated throughout the exhibition in different ways. Issues explored in the exhibition include the logic of cheap non-renewable energy and cheap (off-shore) labour, mass production, economies of scale, disposability and inbuilt obsolescence, along with local environmental issues of water quality and supply, air pollution, transport systems and domestic design. Supported by empirical evidence, this narrative centres on the notion that humanity is in the midst of confronting and attempting to resolve a dilemma.

The initial idea for the _EcoLogic_ exhibition was formed in the 1990s. Employees in the Engineering and Design Department had spent six years looking at how problem solving and innovation occurred over the twentieth century. This
research inspired Sandra McEwen, the Principal Curator of Biosciences and the Built Environment, a scientist by training, with 27 years of curating and science communication experience at the Powerhouse Museum, to think about the century ahead and how innovations will respond to increasing human impacts on the biosphere. EcoLogic opened as a permanent exhibit in 2001 and was revamped nine years later (in order to more fully integrate climate change science). The design process involved the search for an authentic, viable and mainstream message that would both challenge and inform audiences. It demanded a dance with contradiction, in which the apparent contradictions of presenting ecological sustainability in relationship to the Powerhouse Museum needed to be reconciled and used to positive effect.

EcoLogic draws on the work of scientists working across biology, geology, ecology, meteorology, climatology, agricultural science and the social sciences, as well as the innovation of a cross-section of designers working in object and system design. Central to the aims of the exhibition is the communication of science to the non-science community, involving a process of translating, representing and explaining scientific data. EcoLogic also explores the edge between the objective measurement of human impacts and the potential for restorative, re-directive design guided by science. The exhibition claims that an embrace of ecological sustainability as a way of thinking must engender the total re-design and transformation of our current industrial systems.

The exhibition design and its narrative enrols the visitor in a learning process, empowering and giving agency to the individual in the face of global statistics, data and the 'materialising evidence of environmental change' (Potter 2009, p. 3). This is underwritten by an appeal to a 'collective self-interest' and ideas of active citizenship. In addressing its audience, the exhibition appeals to the individual as part of a mobilised citizenry, in which the environment is a 'public good to defend' (Saiz 2005, p. 164). The museum is an active site used to inform and influence, described by the curator:
I think somebody has to make a very clear statement that humans are part of the ecosystem and it’s not going to come from the government, federal or state and I think museums are in a really privileged position, because we are trusted, we are perceived to be impartial, which is great. It’s really very interesting that we enjoy so much trust from the public.

In this situation, the museum has become a civic agent, operating from the position that an informed citizenry is at the functioning heart of a democracy, and that the museum can perform an informing and influencing function with a public who recognise themselves as agents, enrolled in a life of informed choice. This model of the public institution suggests that an organisation must work with its own internal inconsistencies and engage in relevant and timely cultural work (Cameron & Deslandes 2011).

Complicated materiality: The unexpected efficacy of a crushed car

Within the EcoLogic exhibition display, certain features have resonated powerfully with audiences. These are instances of what I name complicated materiality, within the museum environment. I have used the phrase, complicated materiality in order to describe powerful, but also problematic emotional attachments to material objects, in light of sustainability concerns. In the following example some of the tensions in curating an exhibition on ecological sustainability, are examined. This examination highlights the close entanglements between humans and their material things.

A crushed car was placed in the 2001 EcoLogic exhibition as a prop used for illustrating industrial recycling. Compacted, bound and suspended by chains, the car hung in a transformed state without company logo, design features, windows or wheels. A single undifferentiated mass, dense and seemingly breathless. A descriptive account of the material process and the economic value of the metal (ready for the smelter) accompanied the hang. In this state, the object was displayed outside of its recognised framing contexts - of the showroom, street, roadside or media image - and was divorced from familiar associations of use.
What occurred over time surprised the curator, Sandra McEwen. The fate of the crushed car triggered a strong emotional response in many visitors. The metal was touched so often that much of the colour was rubbed away and the metal became glossy and soft from repeated human contact. The object itself had not been intended for interactivity and the curator did not anticipate that the car would provoke tactile responses. Her motivation was to inform visitors about industrial recycling, to promote material awareness and to encourage designers to integrate life-cycle analysis, particularly in the early phases of the design process, in order to minimise negative impacts on the environment:

I just put it in there to say that a car is incredibly valuable during its lifetime. It performs a function, but at the end of its lifetime it's still very valuable. It's 60% steel, it can be recycled and you go to MetalCorp recyclers and you can see this car being smashed to smithereens in four seconds and the steel goes into the steel industry. It's recycled, it’s re-used, you save 75% of the cost of making steel from scratch. I just put it in for that purpose.

McEwen became intrigued by visitors and spoke with several people about their reactions. Many seemed to be expressing sympathy for the car, 'poor car!' they said. The anthropomorphic gesture of touch indicated a felt association with the 'lived' experience of the inanimate object. Not only did the object assume a central physical presence with its material density and weight as compressed and compacted steel, it also assumed a certain 'thickening' as a point of interaction and agency on and with audiences. The reactions described by McEwen seem to express an inner, subjective response to the object, alongside the anticipated cognitive understanding elicited from the exhibition text. The bodily actions of touch, combined with the verbal responses to the crushed car, suggest that people's experiences of exhibits and exhibitions rely in certain ways on their bodily being and acting in the world. It also reveals that a visitors’ interactions with material objects are determined to an extent by personal needs, associations, biases and fantasies, reconstituted in the individual imagination (Lehn 2006).

The car plays a central role in modern lifestyles associated with mobility and independence, travel and opportunity and this contributes to the depth of the dilemma that exists at the centre of the EcoLogic narrative and of sustainability
efforts generally. The reactions of visitors demonstrate the deep attachments they feel to this object. The car is also an object implicated in the production of carbon emissions, the ongoing reliance on finite fossil fuels and climate change. Studies in car use and ownership reveal the powerful collective associations with automobility in contemporary culture, and how disruptions to these patterns of use for the sake of climate or environmental and human health are much more complicated than previously assumed within policy discussions and ‘rational choice’ modelling for transportation. Sheller (2004) argues that car cultures have social, material and above all affective dimensions that are overlooked but need to be acknowledged and understood in order for more benign forms of transport to be adopted:

Emotional investments in the car go beyond any economic calculation of costs and benefits, and outweigh any reasoned arguments about the public good or the future of the planet. To create a new ethics of auto-mobility, in sum, will require a deep shift in automotive emotions, including our embodied experiences of mobility, our non-cognitive responses to cars and the affective relations through which we inhabit cars and embed them into personal lives, familial networks and national cultures. The contest over cars and roads can be said to involve wider social practices and human relationships, material cultures and styles of life, landscapes of movement and dwelling, and emotional geographies of power and inequality (Sheller 2004, p. 236).

Sheller points to deep emotional bonds formed between people and cars and argues that the affective dimension of the automobile within social life has been mostly overlooked or simplified in the development of strategies to influence car-driving decisions. Sheller highlights the normative position taken by many authors (Jacobs 1961; Sennett 1990; Dunn 1998) in their critical commentary of car use in modern cities and the prescribed calls for the restitution of 'public goods' (Sheller 2004, p. 221). She suggests that this opposition to car culture and its rational justification has been presented and debated without recognition of the intense attachments and embodied relationships made through car use and ownership. Within the anthropological studies of material culture, the car has been re-situated as a social-technical hybrid in order to engage more fully with broader constituents of car cultures, revealing contradictory imperatives in contemporary culture (Michael 2001; Miller 2001a). Miller draws attention to a deep schism
between the realm of personal ethics and the expanded environmental and social sphere, where the aggregate effects of individuals’ personal actions on the world at large, and a morality that sees caring in terms of more immediate concerns such as one’s partner and children, create significant inner conflict and contradictory behaviour. Drawing insight from the Actor-network tradition, the example of the crushed car also highlights how social relations are always mediated by way of material things, and how our actions are simultaneously material and conceptual, physical and symbolic (Byrne et al. 2011).

Recent approaches to the phenomenology of car use have engaged further with the lived experience of dwelling in and with cars. How it feels to own, to use, to share and to project status and identity are revealed through the expressive dimensions of car use, where different feelings of ‘projection, pride, power, self-expression or independence’ vary according to class, age and gender, with a cast of psychological attachments which are influenced by race and nationality (Stradling et al. 2001, p. 230). The car in the EcoLogic exhibition has become a demoted object, stripped of the status that humans ascribe to the car in the social world. Despite the connection with a positive story of material retrieval and reuse, the effect of the crushed car in EcoLogic exposes the greater significance of the car in people’s own experiences, and the complexity of this social-technical hybrid in relation to contradictory ambitions of a low-carbon future. The curator had not anticipated such a connection for visitors with:

Their own lives, what their car means, because for so many people a car is central to their lives in terms of functionality but also in terms of self-esteem and identity and status, the whole thing. And I realised by accident, I had chosen an amazing thing to have at the start of the exhibition ... it really struck a chord with people.

McEwen perceived the powerful effects of the crushed car as a confirmation of her professional approach to science communication, whereby a successful exhibition generates deep and immediate links with visitors and their lived experiences. On one level, the visitor is informed about the reduction of waste and the design of better systems. On a deeper and more challenging level, the visitor engages with the difficult irony of private car ownership. Rational understandings of generating
carbon emissions become entangled when we are confronted with the emotional dimension of individual use.

The display of the crushed car and the particular phenomena that emerged from this assemblage of people and things, speaks to Miller's assertion that a greater exploration and understanding of our attachments (both healthy and unhealthy) and the exploration of ambivalence collectively felt about contemporary lifestyles is a fundamental step in addressing the need for behaviour change. Lipschutz's (2009) argument that sustainability requires deeper transformations at the level of meaning and signification resonates with this example of the car as a powerful social and cultural signifier. We need to normalise and internalise a different ethic of individual automobility in which the very meaning of being able to drive wherever and whenever we want needs to change. Achieving this will be possible if we become socialised to grant signification to mass transit and alternative forms of mobility rather than 'individual automobility and "freedom"' (p. 139), so that alternative, independent choice is manifest. As discussed in Chapter One, Lipschutz doubts that long-term changes in social behaviours are generated by narratives of 'necessity' or by 'instrumental' forces. His own argument suggests that deep change occurs through an internalised desire, and through the realms of the imagination; to this extent, it is uncertain whether seeing the crushed car had a transformational effect on visitors' transport choices. Rather, what is revealed through this example is the complicated web of social relations, desires and moral imaginations, and the powerful material agency of this object within the EcoLogic exhibition.

Object agency and authenticity: Engaging the collection

Museum collections are increasingly viewed as partial, historically contingent assemblages reflecting the tastes and interests of both the times and the individuals who made them (Merriman 2008). For the development of the EcoLogic exhibition the curator, McEwen, selected from the Powerhouse Museum’s massive collection, combining static objects, constructed props, sculptural
elements and interactive media. In addition, loans from external organisations supplemented the exhibition collection.

Valued at almost $400 million, the collection crosses science, technology, design, industry, decorative arts, music, transport and space exploration. In the case of the Museum of Applied Arts and Sciences (MAAS), Australia's largest museum complex, of which the Powerhouse Museum is a part, managing the collection of 500,000 separate items places significant physical, spatial and fiscal demands on the organisation.60

Curatorial staff are accountable for the conceptual architecture that holds together the objects, thoughts, experiments, arguments and conversations produced as a continuous thread running through any assemblage of 'stuff'. A curator's privilege and responsibility rests mostly with the exploration of the receding past, as McEwen notes, 'I love ratting through the whole collection and choosing an item that is going to surprise people'. Curating can be thought of as a process of managing, miniaturising and domesticating 'things', a process that entails a certain 'other-worldly' dimension:

An empire contracted to an island, a universe, modelled by a soap bubble, the plant kingdom brought inside and put into museum cases - all these acts of miniaturisation are also acts of domestication. Unwieldy things - too big, too small, too heterogeneous, too open-ended - are shepherded into the fold of 'moderate-sized specimens of dry goods' (Daston 2004, p. 24).

As well as exploring the past, curating can involve the presentation of possible futures, as was the case in EcoLogic. By interpreting sustainability as a predictive 'greenfield site' within a future imaginary, an anticipatory dimension had to be evoked through representation and interpretation of various forms of material culture. Within the Powerhouse Museum, finding an interpretive framework for sustainability involved utilising a large, established archive and developing a method to build a picture of a yet-to-be future tense. Material culture is always

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60 As a state institution, the Powerhouse Museum has a responsibility to be open, accessible and relevant to audiences (MAAS 2012) although only between 3-5% of their material culture is on display at any one time.
subject to degrees of interpretation and the invocation of meaning through language. It is not the object alone that 'speaks' to the museum visitor but the interpretive framework established by a curator to influence and contribute to a viewer's experience. As we have seen from the example of the crushed car, a curator can easily miss profound elements of material agency and meaning association.

A matrix of time and history is condensed within the power of 'the actual object' (Leonard 2013, p. 9) and giving voice to unseen cultural and historical relationships is an analytical and creative part of the professional process. Cameron argues that 'authenticity and hence authority of the "real" is often museologically determined and contingent on curatorial evaluation of not only ... [an object's] physical qualities, but also its life history' (2007, p. 56). Authenticity, far from being an attribute of an object, is rather a concept, linked to a set of associated values that is attached to objects in particular ways by different agents. The authenticity of a museum object is not 'self-apparent but is argued for, constructed and [...] also open to dispute' (Leonard 2013, p. 3).

The notion of authenticity can be elusive within the museum and is debated in relation to the authenticity of provenance and the authenticity of the 'voice' given to things. The development of layered human and object histories, (and hence authenticity) through the process of object biography, allows for deeper and more nuanced material culture interpretations, and conducting object biography can engage questions of object agency (Schamberger et al. 2008). Object biography is an emerging analytical process involving the accumulation of information about the manufacture, use, possession, exchange, movement and preservation of objects, building up a chronological story from a variety of sources. It is motivated by a desire to develop dynamic and relational understandings of objects in terms of how they have effected and been affected by human interactions. Object biography makes notions of self and agency more dynamic by emphasising the manner in which 'things' create people (Schamberger et al. 2008). Utilising rhetorical strategies to rebalance ingrained assumptions of the passive object and active subject, Gosden suggests that a greater awareness of the effects things have
on people will engender an 'object-centred approach to agency' that will 'rebalance the relationship between people and things, so that artefacts are not always seen as passive and people as active' (Schamberger et al. 2008, p. 227).

The motivations for, and the process of performing object biography emerging from new museum discourse, reflect the ideas of both political theorist Jane Bennett and sociologist Bruno Latour (introduced in Chapter One). Bennett’s ‘Vital Materialism’ and Latour’s ‘Actor Networks’ both provide counterpoints to prevailing understandings of passive object-hood and active subject-hood, and both provide valuable insights into the ways in which curators assemble material culture within exhibitions, particularly in relation to large-scale global concerns like climate change.

Bennett’s ‘dogged resistance to anthropocentrism’ emphasises the ‘agentic contributions of non-human forces’ (those operating in nature, in the human body and in human artefacts). Her position on non-human agents aims to ‘counter the narcissistic reflex of human language and thought’ (2010, p. xvi) and her arguments for an elemental, material agency distributed across bodies, human and non-human, sees subjects and objects, not as antagonists or mutually exclusive categories, but as fundamentally co-constituted. Humans and non-humans, including animals, vegetable and minerals, natures, cultures and technologies are all implicated in this kind of vision. Embedded in these accounts of reality is a challenge to the conceit of nature as an entity ‘out there’, as something entirely distinguishable from humans. By seeing the mutability of objects, crossing between aesthetics and science, new curatorial projects may allow for imaginative engagements in our material life-ways, where visitors come to recognise themselves as both material and social agents.

Within the following discussion of the *EcoLogic* exhibition, the curatorial process of combining material objects is recognised as both within and beyond the curator’s control. This is illuminated by the theoretical insights of Bennett and Latour, who both demand that greater notice be given to material objects and distributed agency across the social and material world. Seen in this way, the
eclectic collection of objects brought together through curating (a product of human intentionality), as well as the agency exerted by objects, which have their own complex biographies, may be explored together. The following section examines examples relating to climate change as a controversial subject within the *EcoLogic* exhibition.

**Assembling climate change through material culture**

The material objects within *EcoLogic* converge as synchronous markers, materialising the practice of climate science and alluding to the political debates surrounding it. The arrangement of objects within this exhibition is designed to produce a kind of material matrix of science drawn from a range of different scientific practices, illustrating how scientists arrive at partial and provisional knowledge. The climate change displays in the exhibition were developed to present a long view of human and non-human encounters with climate change across deep geological time. Material objects were brought together to demonstrate that life systems have been impacted by climate variations for thousands of years, and to illustrate that the non-human world will continue to evolve regardless of human existence.

McEwen combined lava from Mt Vesuvius (to illustrate long-term contributions of carbon to the atmosphere), tree rings (measuring time and carbon levels), ice cores from Antarctica (indicating CO2 levels rising and falling over thousands of years and a significant increase in CO2 post-1800), an image of a 20 000-year-old fossilised footprint from Lake Mungo in Australia (illustrating human survival during inter-glacial periods of warming and cooling), limestone deposits and corals. The display demonstrates the findings of geologists and the slow process of scientific consensus, drawn by McEwen from the very old collection:

> We use objects: this lava is from Mt Vesuvius and is fantastic. It was just wonderful to go back through the museum’s collection and pull out things like this. The collection is 130 years old and so we have these lovely things that haven’t been on display for 100 years.
These material arrangements give the visitor a close physical encounter with material artefacts that have a sustained geological presence across millennia, setting up a 'thickening' of time within the exhibition. The material objects provide the physical substance of climate science data. Within the geological data, material signals in the strata have been tracked over long periods to measure and chart chemical states (and record signs of change). Incorporating the work of stratigraphers, the exhibition utilises the material markers of scientists who strive to provide precise and stable indicators across earth history. Geological dating works across a period of 4.5 billion years of earth time. In the twentieth century, geologists mostly argued against the suggestion of anthropogenic biophysical changes, pointing to continental shelves, volcanoes and earthquakes as indications of greater forces that delimit the power and influence of human beings. However, the language of the Anthropocene (discussed in Chapter One) is now a sustained and ongoing area of debate within the earth sciences. These debates revolve around the synchronous markers of planetary change and what they tell us of the planetary shift out of the Holocene into the Anthropocene.

Both the natural climate science objects and the instruments of science assume a certain 'high-stakes' agency as 'ambassadors' (Knowles 2011) of science and of the technologies which perform practical and material action in the world. Placed above the earth science objects is a major structure in the exhibition, a large three-dimensional graph that charts fluctuations of carbon dioxide levels and temperature changes over thousands of years. The graph was designed for the exhibition to represent carbon data, showing changes in carbon dioxide levels, and marking a significant rise since the beginnings of industry, described by the curator:

The graph was intended to create a divide between the 'consequences of climate change' and the 'so what can we do about it?' sections of the exhibition. We made it large and sculptural because rising carbon dioxide levels are the aspect of the climate change conversation that nobody denies.

Within EcoLogic, there are several different configurations of the man-made instruments of science and climate change, such as argo floats (of which there are
more than 3500 drifting along the ocean currents and sending data to satellites), Stephenson screens (ubiquitous climate monitoring objects that house measuring implements and have recorded temperatures and rainfall for over 200 years), and a cylinder containing a sample of air with high levels of CO2 (on loan from the Commonwealth Scientific and Industrial Research Organisation). Each of these objects is accompanied by text, describing the work of experts and volunteers who record climate data, log, analyse and share it. These objects do the job of scaling human efforts within the world-building reality of climate change. These objects of climate science provide the physical and material presence of the practice of science, inviting the visitor into the activities of the scientist, without the media 'veil' which often intervenes. Combined with text, the artefacts operate across global and local territory and provide a particular view into the social construction and politics of climate change. Muecke highlights the dramatic relationship between the materiality of climate science (and science more broadly) and politics. He suggests that both the tools and champions of science and discovery are important weapons against those who dispute, resist or reject scientific findings:

Politics, unsurprisingly, lies in the relative strength or weakness of such alliances. If you want to prove that the earth moves around the sun, you’d better gather allies to your cause (telescopes, rational calculations, diagrams and influential friends and patrons) before the Inquisition, with the help of it’s allies, burns you at the stake (2012, p. 46).

The curator has built up a dense relational web of climate science as a social and material reality. These artefacts are compelling, while also appearing mute and pathetic, placed behind glass and human in scale. Through the Actor-network lens, various objects within the exhibition do the work of charting relationships between 'things' and 'concepts' (Latour 2005; Law 2008). This assemblage emphasises the material basis of knowledge construction, by which material objects form the foundation for the construction of various 'social facts', influencing how people relate within the social world and the political decision-making which ensues.
**Vital materiality and the 'Argyle' chair**

The development of the exhibition and the curator’s approach in addressing climate change suggests issues relating to the vitality and agency of objects. The organisation has a mandate to collect and present the applied arts and applied sciences, however disciplinary silos and opposing curatorial values have kept disciplinary areas mainly separate. McEwen's efforts to push disciplinary boundaries during the process met resistance, since her approach challenged the disciplinary distinctions within the museum at large. For example, she wanted to establish a link between the perceived value of a decorative art object, a Charles Rennie Mackintosh chair, the *Argyle* (1898) and the object’s role as a carbon sink within the larger bio-physical system. Ascribing this old and revered object by the influential Scottish architect and designer with a different meaning was perceived as an affront to the designer of the object; described here by the curator:

> In our last version of *EcoLogic* I had a showcase where I had a big cylinder of woodchips and an old chair that was 150 years old, and said, 'this chair represents a carbon sink, because the carbon in that chair, the carbon in the wood in that chair is not going to be broken down'. Now I wanted to use a Charles Rennie Mackintosh chair ... but the decorative arts curators wouldn’t let me, because she felt that I wasn’t paying due reverence to the chair ... and I just ... it was interesting.

McEwen’s efforts to curate in an interdisciplinary way confronted the established practices of the institution. She was given a chair of much 'lesser' importance, a timber and rush chair designed by Gustav Stickley (1904). In this instance, McEwen's request to use highly-valued decorative objects to represent scientific concepts was stymied, revealing the established boundaries within this curatorial context. The presumed 'vitality' of the Mackintosh chair lay in its 'value' as a revered object of the arts and crafts, one with unique character, which would be denigrated if it were to stand in for a more generic process or quality (being a carbon sink). Hence an object with lesser-perceived value, the Stickley chair, was offered instead. This example reveals the agency of objects to stand in for social value and esteem and the challenge of establishing a position for such objects across disciplinary boundaries. In this instance the potential for highly valued
objects to play a role in educating and informing visitors about climate change was not considered appropriate in the museum context.

Bennett’s notion of vital materiality illuminates the factors at play in this situation further. By utilising material culture to curate sustainability and climate change, objects and their material vitality are made vivid. This is because such efforts to communicate these complex realities inevitably highlight how material things and their materialities have multiple impacts in the world. The biophysical effects of objects are always ‘on display’ alongside their aesthetic or functionary qualities. Taking this approach to curating pushes beyond established boundaries of what is exclusively aesthetic or scientistic, and in the example of the Argyle chair, the mutability of this single object is also well illustrated. Bennett’s argument for the recognition of an elemental, material agency distributed across human and non-human bodies is echoed in this case:

The figure of an intrinsically inanimate matter may be one of the impediments to the emergence of more ecological and more materially sustainable modes of production and consumption (2010, p. ix).

A clear delineation between the applied arts and sciences within the organisation existed at the time when EcoLogic was developed. However, disciplinary boundaries across the museum have been shifting, mirroring broader changes in museum practice internationally. The first version of the EcoLogic exhibition opened in 2001, and since then changes to curatorial practice within the organisation and internationally, suggest that McEwen would now be granted permission to use a chair of high esteem and value within a ‘science’ exhibit. Taking this kind of interdisciplinary approach to curating demands acknowledgement of the history and cultural value of material artefacts, while simultaneously engaging (and increasing an audience’s engagement) with objects on more experimental levels.
EVENT

Developing the exhibition while meeting resistance

The process of challenging and changing a paradigm is described by Meadows as the 'high leverage of articulating, meaning, repeating, standing up for, insisting, for better or for worse, upon new (system) goals' (Meadows 1997, p. 17). Sandra McEwen, the curator of EcoLogic explored the articulation of sustainability science and aspects of climate change science through the museum’s material culture. She was driven to do this by mounting evidence in the science community, as well as her own personal convictions. However, the idea of an exhibition focused on sustainability and the exploration of human futures was not a popular one at the Powerhouse Museum in the late 1990s, as the curator highlights:

What I was daring to do was to say, 'I think we should look at this and really tease it out and see if this makes sense'. I guess it was a bit threatening, it was challenging the status quo.

The power of the status quo within the mainstream social imaginary of the organisation was an ongoing challenge for the curator. The initial idea met with resistance across most of management and it was only through intense lobbying and appeals to people in positions of influence that the exhibition was eventually realised. McEwen used her standing as a trained biologist, her credibility as a long-time employee and her personal interest in sustainability to leverage attention and support:

Not everybody will have your same level of passion, your same level of knowledge or understanding and you need, you know if you’re not way up there, you need to have champions who are sympathetic, even if not highly knowledgeable, they need to be sympathetic with the area and really understand the importance of it.

Sustainability was a ‘fringe concept’ in the late 1990s and McEwen believes that many employees failed to grasp the relevance or importance of the concept in relation to the Powerhouse Museum’s history and identity. A cast of stereotypes
and clichés surfaced during exhibition development, making it a 'bizarre' experience to curate the show: ‘when we first opened the exhibition and had a big party, our marketing manager wanted to have people in koala suits and John Williamson playing’. The exhibition triggered eccentric and surprising associations in museum staff and serious criticism and concern from senior management. The perceived problems included the ‘negativity’ of the subject matter, doubts about the accuracy of the information, the alleged bias and political advocacy within the narrative and the perceived threat to the museum’s neutrality. All of these were disruptive elements within the museum:

When I said that overgrazing by sheep caused erosion, she said it was an unfounded theory and felt that I was being negative about cities. I was just saying that they are centres that attract people, they’re necessary, but we need to manage the way that food comes in and out, and manage waste. I think she felt that I was being really negative. So what was happening was that I was putting a magnifying glass on what had been accepted as the norm for a long time.

Seven weeks before the opening of the exhibition senior management requested the advice of an eminent scientist from outside the museum to scrutinise and vet each of the exhibition labels in an open meeting with the curator. Although it tested the curator’s professional integrity and she considered it a humiliating experience at the time, the process was ultimately affirmative of McEwen’s work, ‘I really had to convince them that it was worth doing and ... I actually had all my labels vetted and questioned, which was humiliating to say the least’. The expert advice given to her and senior management was that she wasn’t going in hard enough. She was told, ‘You need to go in with your boots on!’ High-level support from influential champions empowered McEwen to defend the value of the exhibition. This situation speaks to the inherently controversial nature of certain subjects and how they may be controlled within certain limits through the curatorial editorial process (Cameron 2010). In addition, influential people, external to the museum, may become spokespeople and representatives for a contentious position taken up through exhibition narratives:
In the end, it wasn’t a matter of logic that was going to win out, it never is ... I think in the case of sustainability we are most often swayed by the people we respect, and this was an amazing case in point.

The high level of resistance from senior management is noteworthy given that *EcoLogic* was designed in response to a front-end evaluation developed prior to the exhibition by an external social research consultancy.

Since it opened, the *EcoLogic* exhibition has become popular with many staff as they attempt to integrate sustainability as a museum value and ongoing practice. With approximately 20 000 square metres of public space, the Powerhouse Museum’s infrastructure almost seems to materialise the Victorian idea of nature’s limitless abundance and ability to absorb waste. In terms of practical actions today, environmental sustainability is now a ‘central plank’ of the museum’s strategic planning, focused on ‘carbon foot-printing’ and ‘green credentials’ to secure the continual development and improvement of its business undertakings (MAAS Strategic Plan 2009-2012). *EcoLogic* has influenced many of these changes, bringing sustainability to the attention of senior management and increasing the number of venue bookings made by various organisations whose values align with the exhibition message.

**A counter-narrative within the 'social imaginary'**

Within a museum, the process for staff to engage with difficult histories or political debate through exhibition can be complicated. The tacit self-image of the museum, combined with the expectations of funding bodies and assumptions about the public often build up a generalised resistance to new ideas within this professional environment. Cameron (2003) argues that contested topics are problematic within the museum because much of their meaning is unpredictable, they can involve conflicting moral positions, and they are mobile and often inseparable from a range of broader social and political contexts and flows. Most significantly,

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61 Examples of the organisation’s efforts include reducing energy billing charges in 2012 to 2006 costs through a major energy management upgrade plan. In the past decade the museum has explored options for a Tri or co-Generation System to power the site and to interactively showcase energy efficiency around the school curriculum. Additionally, procurement includes recycled paper and naturally biodegradable cleaning chemicals and waste management now involves all of the museum’s waste being sent for sorting and recycling.
controversial topics challenge museums because they embody a divisive
dimension: they are non-consensual and must engage with messy, wicked
problems and explore alternative propositions, thus challenging individual and
collective values, beliefs and ideologies. Such was the case in the development of
the EcoLogic exhibition, which is explored here as an event contextualised within
the institution’s history.

Adopting a curatorial stance that could successfully challenge aspects of
industrialisation began with the EcoLogic exhibition:

The museum was established way back in 1879, to educate the average person. To help
them understand their place within an industrialised society. So, you know, it was quite
heroic at the time ‘this is how we make things, this is how we do things.’ You know, created
in the age of Enlightenment [...] And this is what we see in the media all the time, when
people suggest that maybe this isn’t the only way to go we get all the resistance.

Its epistemological foundation as an objective knowledge source and authority has
been inscribed within the Powerhouse Museum’s legacy and social imaginary as a
late nineteenth century colonial institution. Gaonkar (2002) defines a social
imaginary as an enabling but not fully explicable symbolic matrix within which
people imagine and act as ‘world-making’ collective agents. Seen in this way the
museum is a matrix within which the current perceptual and temporal frame may
hide or distort other possible imaginaries or future possibilities (Wright et al.
2013). The birth of industry is central to collective meaning making and has been
the dominant collective identity within the Powerhouse Museum for 130 years. It
has provided the significations that shape notions of what is permissible, desirable
and possible, and conditions the structural parameters of the organisation.

Designing the exhibition for a broad and general audience

Audience research formed the first phase of EcoLogic. This gave the curator a solid
foundation in ways to inform and influence a broad audience. A social research
consultancy, Environmetrics, produced findings on knowledge and perceptions,
exhibition expectations and responses to the concept of sustainability from a
diverse audience demographic. The consultation suggested that an exhibition on
sustainability should not adopt a 'neutral' position as this would be perceived as disingenuous: 'it is expected that the exhibition will aim to change the perceptions and behaviours of visitors. Attempting to mask this may not be productive' (Environmetrics 2000, p. 34). The methodology involved focus groups and in-depth interviews across corporate, education and advocacy groups. The findings built a picture of where there was patchy awareness, fuzzy thinking, emotional attachments, topics already in the public mind, issues that surprised and those that had particular resonance with people. Participant comprehension covered core concepts and knowledge about natural resources, as well as attitudes and beliefs about the systemic nature of sustainability, working across a range of definitions from the simplistic to the sophisticated. The survey report offered a précis from each part of the research: Implications for the exhibition. Decisions on the depth and detail of particular topics was guided by the data and the 'implications' offered by Environmetrics can be traced through the design, in both material and textual form, into the final exhibition.

The final survey recommendations for content and presentation from the front-end evaluation suggested adopting the theme of 'hope through solutions'; with the inclusion of unexpected and surprising material, the challenge to general assumptions and myths, engagement with questions of power and agency across individual and larger political and corporate governance. It also recommended the provision of general level information with some higher-level conceptual and theoretical material, with fun, tactile and personalised experiences for children and an uplifting overall tone (Environmetrics 2000). The challenge for the curator became one of balancing the seriousness of the topic with a 'fun and engaging' style of presentation, while avoiding a negative, depressing or dull 'take-home' message:

Because the topic may arouse a range of strong negative feelings, it is important that the exhibition provide a safe place for the expression of these feelings. A safe form of expression may be through simple actions that can be implemented in daily life fairly easily (Environmetrics 2000, p. 10).
Recognising that the size and global scale of issues would be challenging for many respondents, the curator, McEwen consciously produced interplay between optimism and pessimism, taking a 'not too heavy, not too light' design approach. This became the curator's modus operandi.

With the benefit of hindsight it is possible to unpack certain problematic elements within the exhibition narrative, and I have done this given the importance of thinking through how sustainability as a change-creation discourse has developed and has been critiqued since the exhibition was conceived in the late 1990s. Since then, the appeal to a collective self-interest has been problematised by cultural theorists and scholars of sustainability.62 This is because assuming a collective or universal position on sustainability in curating may allow for vexed assumptions to go unchallenged. This is particularly the case in appeals to a collective self-interest, an ideal that has been problematised over the past ten years (Nordhaus & Shellenberger 2007; Hulme 2010). While the first-person plurals 'we' and 'us' can have a universalising effect within an exhibition text, critical theorist, Yates McKee (2011) asks, 'who or what is the humanity that has recently begun to claim responsibility for the destabilisation of climate, weather and season (temps),'# Drawing from Derrida, McKee suggests that discourses of crisis do the job of implicitly setting up a non-crisis as the given state of humanity, ignoring the continuity of volatility and instability that has made the existence of a unified humanity impossible throughout history. Taking account of the radical instability of human and non-human history, Derrida asks, "Us"...who is talking about crisis? Who is talking the most about it right now? Where? To whom? In what form? In view of what effects and what interests? By playing on what "representations"?" (McKee 2011, p. 311).

The EcoLogic narrative and its representations does not delve deeply into the pithy, difficult questions of who 'us' includes or excludes, and how any future will be evenly or unevenly distributed across the planet. This generalising tendency

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62 As literary theorist Sabine Wilke has written, the humanities 'concern themselves with the study of intellectual creation and the critique of dominant narratives, myths and ideologies and the critical engagement with fundamental questions of meaning, value, responsibility and purpose in a period of escalating crisis' (2013, p. 67).
sits uncomfortably within contemporary cultural discourses of heterogeneity and pluralism (Clark 2011; Wilke 2013). Developing a critical approach to the 'we' that is presented in an exhibition is essential, although not easy for curators. It requires an engagement with the unequal dimensions within global overarching concepts, such as the Anthropocene and sustainability. Scholars in the critical humanities suggest these global narratives are problematic because, 'with its scientific basis, [it] lacks cultural diversity and might even reinforce regimes of power and capital that have brought us to this point' (Robin et al. 2014, p. 5). Finding a 'material representation' for unequal consumption patterns and the distribution of resources and wealth is a significant challenge for curators choosing to engage with global narratives.

Curating climate change: A risk management optic

*EcoLogic* is an example of how politicised issues in science may be brought into exhibitions through the support of external agents (both individual and institutional). The development of *EcoLogic* also illustrates one way of giving anthropogenic climate change a 'voice', through the curatorial narrative. The process of experimentation is framed here as an individual and institutional learning event, one that challenged and changed the institution.

The curator decided to tackle climate change in the upgrade of the exhibition in 2010 due to the greater consensus amongst the scientific community: 'since 2001 the science has really come in, it's very clear there is a real problem with carbon increasing in the atmosphere'. The curatorial process was hard-won, as described previously. McEwen was confronted by resistance from within the organisation and she faced many of the challenges that are cited by scholars who examine contested and controversial issues within museums (Cameron & Deslandes 2011; Salazar 2010).

Engaging the community with a contested issue can be dangerous for both scientists and for museums, with a real risk of public attack (Cameron 2010). Within the *EcoLogic* exhibition, the combined agency of scientists and scientific
evidence, including evidence from CSIRO, NASA and the Bureau of Meteorology, gives weight to the exhibition narrative. This example illustrates how institutions of science production provide credibility, factual data, and support for claims made in the museum. Partnerships provide a mutual advocacy of and for science, and science education. In several instances, the curator deferred in scientific matters to major science institutions and to the sponsor of the exhibition, Sydney Water. This linked the exhibition message to wider networks of expertise beyond the museum.

During the re-design of the exhibition in 2010, the director of the museum Dawn Casey, believed that as a public institution, exhibitions curated within the Powerhouse Museum needed to represent the views of all visitors.63 Under the directorial leadership of Casey, the Powerhouse Museum had a mandate to be an active social and political agent, without generating deliberate controversy. McEwen was instructed to avoid alienating audiences and to find a way to communicate climate change to a broad, diverse, urban public. The complexity of this command created a dilemma for the curator. McEwen initially feared that the integrity of the science would be compromised by a politics of representation driven by the museum’s own uncertain stance on anthropogenic climate change. Concerned that she would have to pander to climate deniers:

I went home and lay on the couch, downed half a bottle of wine and thought I can’t do this! This is really upsetting every fibre of my being. However, I came back the next day and said right, we will put a sculpture of the carbon graph through the middle of the exhibition and say this is undeniable, this is happening, nobody disputes this. Carbon dioxide is rising and in the past, carbon dioxide has risen before and this is what’s happened. We had the permanent extinction, we had all sorts of climate change events, at the same time as carbon dioxide went up and then carbon dioxide came back down again. So we’ve got the spine going through the exhibition, formed by a sculptural graph. On one side of that spine, we’ve got: ‘So what?’ Carbon dioxide is rising. ‘So what?’ So then I have the ocean conveyor and the model of Sydney underwater and the food chain, the ocean food chain, saying ‘So what?’ that’s what’s so what.

63 The first version of EcoLogic was opened under the leadership of Kevin Fewster, director of the museum between 2000 and 2007. The second version was opened under Dawn Casey, director between 2008 and 2013.
McEwen’s solution was to enrol visitors in a twofold engagement. Firstly, the projected impacts of anthropogenic climate change are represented through material displays and two-dimensional data visualisation to inform visitors of the science. Secondly, the text proposes a conjectural *What?* A constellation of implicit questions are set up through this design so that visitors are encouraged to further probe and explore the dilemma by examining extended questions including: *What’s the worst that could happen? What difference does it make to the future? Why should I care?* These questions aim to draw the visitor into a reflexive state of mind, in which consideration of both the science and their personal concern for the projected implications are engaged, conceived by the curator:

> There’s one little component that challenges people to think about the issue that it is a matter of risk management. Would we want this sort of a future and if not, is it worth adopting all of these abatement programs and adaptation policies to prevent this from happening? So I give people the choice basically.

In this case, the anthropogenic climate change narrative asserts that climate risks matter, however it gives the visitor a degree of ownership and agency, to consider to what extent they matter. Risk analysis has become one of the dominant decision-making tools of technological societies dealing with threats to health and the environment. Science risk is understood as the probability of a harm occurring as a result of a human activity, a technology or a natural process (with the attendant assumption we now carry that technology helps us control consequences) (Brunk 2008).

As stated, the *EcoLogic* exhibition was designed for a general audience and had to engage with the sceptic, the uninformed, the disinterested and the visitor with a low-level science education. The exhibition emphasises the practice of science and the communication of uncertainty and consensus. Engaging with scientific scepticism and the search for patterns that disprove as well as confirm climate science was integral to the communication of climate change science within the exhibition. In the exhibition space, the assessment of risk becomes part of the visitor’s overall learning experience. Gurian (2001) suggests that complex information and processes of choice become engaged in exhibitions, through a
process of silting. An exhibition visitor becomes increasingly capable of understanding a present problem via the layering effect of multiple communication systems (the material and textual layers of an exhibition). In the case of EcoLogic, the visitor is approached as an active citizen who is capable of caring about and responding to risk.

After the exhibition opened the museum was faced with criticism from the public and adopted a strategy (informed by an advisor within the Australian Bureau of Meteorology) to minimise interactivity and commentary online. The curator was advised on how to manage hostile publics in a uniform way, and the museum issued a public online statement to clarify the museum’s position on anthropogenic climate change, defending the integrity of the scientists and the institutions that collaborated with the museum. This strategy eliminated the need to provide a forum for public debate, which the museum could not afford. However, this stance prevented a potentially constructive and valuable forum and is reflective of the resource restrictions that organisations face, and the limitations of engaging with contested science and 'hot topics'.

Exhibition narratives of (re)design

As an exhibition with its origins in 2001, EcoLogic is considered here as an artefact in itself, a material trace of the concept of sustainability finding material and spatial form, a first generation expression of sustainability. It engages predominantly with hard science to generate an accessible message of declining natural systems caused by humans, in order to explain and justify new sustainability practices as the collective, common-sense response that 'must' prevail. McEwen’s curatorial quest for language and material culture to engage audiences with a concept of societal transformation led her to a middle position, neither blind optimism nor blind pessimism, a dual narrative of optimism and cautionary concern for the future. She developed a narrative that was considered workable within the museum’s identity, while also pushing beyond the structural parameters of the organisation, generating changes that have seen the organisation become a more active 'change agent' for sustainability.
The ‘dilemma’ text around which the exhibition is constructed sets up an ambitious goal for a collective humanity. It looks back in time while also presenting an optimistic scenario of sustained human existence, building on the role that design and science will play over the coming decades:

A sustainable ecosystem is a harmonious, dynamic interaction of people, plants, animals, microbes, the elements and the atmosphere. The structure of such an ecosystem remains relatively constant until it has to respond to major internal or external change. Nothing lasts forever of course. Life itself relies on continuous change as climates alter, species come and go, and the face of the Earth is re-formed. Palaeontologists tell us that, on average, a species lasts about 4 million years before being consigned to the fossil record (Leaky & Lewin 1996). So, barring an untimely meeting with an asteroid, modern humans should have well over 3.5 million years left. It sounds like a long time, and it may well be possible if we become wise enough to look after the natural systems that support us (McEwen 2004, p. 2).

The exhibition narrative of EcoLogic downplays anxiety and maintains a human-centred motivation for creating a sustainable future. Sustainability is framed as ‘all about us’, and does not engage explicitly with the survival of other species. In the EcoLogic story, human beings are actors in control of their destiny, able to choose and transform through acts of will, embodying aspects of Latour’s image of a ‘Precautious Prometheus’ (2008), capable of ecologically engineering the planet. They are controlling agents although they have come to recognise themselves as more vulnerable and aware of what is at stake for survival. The exhibition maintains the privileged status of the human species within the ecosystem, while evoking the need for greater care and responsibility. This message suggests that through processes of design and technological advancement, human actions can ensure a resilient earth support system, which regenerates and performs within its carrying capacity. The message summons a collective beyond-business-as-usual response that is developed to appeal to the self-interest of visitors, described by the curator in these terms:

Everybody wants the best for their children. Everybody. In the context of this exhibition, everybody wants the best for their own future and their children’s future. And so if you can speak to that, hopefully you will grab their attention.
The next generation of potential designers and scientists who visit the exhibition on school tours are told by McEwen that 'there has never been a better time to be a designer' because 'everything we use has to be re-designed. The way we use the world has to be redesigned'. It is a message in keeping with the museum's modus operandi, which is geared to stimulate the individual's 'think space' in a way that will leave a lasting impression and motivate a journey toward further creativity. McEwen's message of 're-designing the world' is not a small command, particularly in a museum that has the weight of industrial history behind it.

As an appeal to work towards a collective sustainable future, this vision is powerful. However, one of the noticeable tensions within the exhibition narrative exists between the ideal of a designed, technological response to issues of unsustainability (i.e. non-renewable resource depletion, industrial and domestic pollution, biodiversity and habitat loss due to urban development and climate change), and the perspective that many of these issues have emerged as a result of contemporary lifestyles which have become materially intensive through practices of science and design (Lopes 2006). A subtle engagement with the complexity of 're-design' in terms of the social and psychological dimensions of contemporary lifestyles is only a minor feature of the exhibition.

Sociologist, Elizabeth Shove (2000) engages with the ways that lifestyle choices are closely ingrained with designed technologies, uncovering the complex structures that exist in and around our shared technologies. Because we now live in a world of designed things that have become thoroughly integrated into our 'life-worlds', they can't be immediately changed or removed without notions of identity, social relationships and values being fundamentally challenged. This is a situation that was demonstrated in the complex agency exerted by the crushed car within the EcoLogic display. A further example may be drawn from the social and material structures that exist around the supply of fresh water. Modern lifestyles are constructed around a limitless supply of fresh water and are dependent on the infrastructure that supplies this resource. The affordances of a ready water supply have allowed for a premium on hygiene, fresh clothes and a particular body image
to develop within contemporary society. Attempting to alter everyday practices in order to address issues of water availability requires deep engagements with social and material structures, beliefs and values.

It may be true that the technological advancement and innovation proposed within the EcoLogic narrative will address issues of sustainability into the future and allow for the same level of materially intensive lifestyles to continue. However, several scholars interested in the dilemma of sustainability suggest that a deeper level of societal transformation is required (Willis 1999; Lopes 2006; Lipschutz 2009; Fry 2009). This position recognises an entangled world of embedded social and material practices which operate at the level of meaning and signification. Shove and Warde make this clear in addressing the differences between a world of relatively individualised consumer behaviours which involve the selection of discrete and visible commodities and 'a muddier world of embedded, interdependent practices and habits explicable in terms of background notions such as comfort, convenience, security and normality' (1998, p. 13).

EcoLogic emphasises the development of more efficient technologies and new innovation, without engaging with the collective aspiration for a high level of materially intensive lifestyles. Because of this, a level of complexity is absent from the narrative. On a finite and interconnected planetary system, social practices inscribed with meaning (for example, a collective notion of normality built around a clean, polished image of self) are all implicated in the sustainability dilemma. A critical engagement at a deeper level with design practice and the ontological dimension of designing (Willis 1999; Lopes 2006; Fry 2009) is mostly beyond the scope of this exhibition. Demonstrating how design can engage with the world at the socio-material level and operate in critical and speculative ways would bring a greater criticality into the exhibition.
PLACE

Charting the origins of the museum

The original idea for the Powerhouse Museum arose in the 1870s with a group of esteemed men of European origin who envisaged an institution that would educate the 'average' Australian about industry and scientific development. Like many Enlightenment projects, the museum sought to provide a secular purpose-designed environment during an age when the growth of museums was attributed to notions of educating and civilising. The museum originated alongside Sydney's International Exhibition of 1879. The Exhibition was a colossal event showcasing a cornucopia of ‘stuff’ from 36 countries in the custom built Garden Palace, within the Sydney Botanical Gardens. The exhibition's popularity prompted the colonial government to fund a new museum, with the aim of providing members of the 'working classes' with a reference collection for the purposes of studying the latest examples of technology and applied art.

At the time it was perceived that the establishment of a major public museum announced that a city had 'arrived' and such developments were an integral part of the colonial project during the nineteenth century in Australia (Barrett 2010). The museum was brought into being by the trustees of The Australian Museum, who considered that the time had come for a museum of science and industry in Sydney. The 'founding fathers' who comprised the Committee of Management were Sir Alfred Roberts, chairman Robert Hunt and Archibald Liversidge (McKern 1993) and the museum was originally named the Technological, Industrial and Sanitary Museum. The original site of the museum was destroyed after the Garden Palace fire of 1882 and the remnants of the collection were moved into Agricultural sheds in the Domain, near the centre of Sydney. The collection grew under cramped conditions before being relocated to a site on Harris Street, the
William Kemp building in 1893, a substantial brick and stone building in the
grounds of the Sydney Technical College in Ultimo.\footnote{Charting back before the European settlement of Ultimo, the area was known to local Indigenous inhabitants as ‘Pirrama’ (meaning ‘rocking stone’), it was valued by the Eora people for its high ground as a vantage from which to hunt, its sandstone shoreline to fish and its rocks to chip off oysters (SHFA, n.d.).}

The museum was renamed the Technological Museum and it became well recognised for its research contributions into the economic uses of natural resources in Australia. The museum collected, researched and displayed forest products, including resins, oils, drugs, dyes and other plant products, along with minerals that were collected by geological field collectors who moved about the country districts of New South Wales. Animal specimens, raw material and models from growth industries, such as the sheep industry were studied and exhibited along with early displays on the production of leather, glue, gelatine, silk, bee keeping and the fishing industry (Morrison 1962). During its nine decades in the William Kemp building the museum’s scientific inquiry earned an internationally recognised record of achievement (McKern 1993). The display of the growing collection was divided into three categories: animal, mineral and vegetable, and aligned with the scientific research program of the museum. This division was mirrored in the Harris Street displays across three public floors. Each floor was devoted to one of the three realms, housing the relevant specialist laboratories and facilities and curated by a zoologist, a chemist and a botanist respectively. Specimens and illustrations occupied every available space, as was the fashion of museum display in the late nineteenth and early twentieth century. Wall cases occupied space above the table cases on the floor, and above these were pictures, lithographs and photographs reaching the very high ceiling. In addition, the museum supported the growth of a decorative arts industry, displaying furniture, textiles, silver, glass, ceramics and metal ware. Copies of decorative objects from Europe were displayed in the early years, and in accordance with the museums objectives, no effort was spared to explore what could be done with local materials in order to support the growth of applied arts in Australia (Morrison 1962).

As this eclectic collection was amassed, the mandate, methods and vision of the organisation would shift to represent the view of its current director. Arthur
Penfold, director of the museum between 1927 and 1955, held the conviction that it was a museum’s duty to present the evolution of all branches of human endeavour and development to its audience. Penfold’s confidence in western notions of human endeavour also reflected a general belief in our progressive gain over the world of raw matter and the idea of technical revelation, central to the modernist credo (Gibson 2005). Within the museum carapace, human progress could be brought to light through exhibitions, illustrating the increasing understanding of the workings of the world, matched with the generation of material wealth produced through new scientific knowledge.

However, cultural theorist Ross Gibson (2005) proposes that there is a more complicated legacy within the Powerhouse Museum, observing that in the museum’s history there has always been a dual mode of representing the world through its collected material culture. Gibson argues that the Powerhouse Museum is a site that has been characterised by competing conceptions of human experience and the search for meaning through processes of collecting. While there has been an aspiration for ordering the universe in ways that reflect the modernist credo for meticulous collecting and classifying informed by Enlightenment science, there has also been an urge to preserve a ‘quality of wonder’, inherited from earlier types of collecting and display influenced by the European tradition of the ‘cabinet of curiosity’ or wunderkammer. This mode of collecting in Renaissance Europe preceded the categorical boundaries and distinct fields and sub-fields of knowledge that were to follow.

Wunderkammers were a plaything of Europe’s educated elite and they displayed a microcosm or theatre of the world, presenting a worldly diorama designed to inspire a sense of wonder in the manifold abundance of the world, as both raw and transformed matter. Gibson suggests that this quality of wonderment exists in our experience of the living world as well as in the applied efforts of artists, designers and scientists to transform material, both central aspects of the Powerhouse Museum’s mandate. This has been translated within the museum’s strategies of display where the tension between the ‘urge to espouse doctrines and the desire to
render visitors wonderstruck [...] has propelled the museum during every decade of its existence right up to the present day' (Gibson 2005, p. 56).

A late 20th century 'modern' museum

*Tracing a path through the museum [A vignette from the researcher’s experience]*

The EcoLogic exhibition is at the lower south end of the former Boiler Room. Getting there inevitably involves travelling through the museum, and a variety of paths can be taken. The central cavernous spaces are impressive in scale and natural light filters in from high windows, growing darker close to the ground. Aural cues ebb and flow. The low volume of a video on loop, isolated speakers, hollow echoes of footsteps on Victorian tiles, and muffled silence as my feet move across carpet. Sound intensifies in the places where interactive exhibits invite noisy play. There are corners designed for sitting, listening, making and talking. Some rooms are sparse, with cold, static objects of all sizes, hanging, encased and free-standing. In these spaces the time capsule effect of the museum is visceral and the noisy interactions and thrust of old machines fall silent.

The main entrance to the EcoLogic exhibition is on the lowest floor of the museum. An area with little direct sunlight, the space has subtle central lighting. Spotlights cast shadows off the displays and provide some warmth to the space and give volume and mass to the static displays. The painted colour scheme is high-key, white, yellow and grey-blue with varnished timber for plinths, support structures, floorboards and sculptural elements. The basic layout suggests a circular journey with detours off the path for the visitor to explore themed areas. The design uses strong verticals and diagonals to delineate space and the entrance is set up with a series of vertical posts that create a kind of fixed curtain. These are stained timber with yellow markings which act as a physical representation of a climate graph. Walking between
them to enter the exhibit the posts stand as something of a threshold separating the compact, intimate interior from the scale of the great industrial halls.

By the 1970s the museum had begun to recede in the public mind and the collection had completely outgrown the Harris Street premises. The re-development of the Powerhouse Museum in the late twentieth century was a chance to re-imagine the organisation. Described as a 'rare conjunction of politics, design, collection and community' (Sanders 2005, p. 234), the transformation of the Ultimo power station site between 1978 and 1988 has a certain mythical dimension. Leading up to the 200-year anniversary of European settlement in Australia there was state money to invest in large cultural projects, and three central figures brought their talents and passions to bear on the project: New South Wales premier Neville Wran, the newly appointed museum director Lindsay Sharp, and government architect Lionel Glendenning. Each had ambitions big enough to carry the project through legendary bureaucratic dysfunction and inertia (Hawley 1998).

The Ultimo power station was considered as a possible site for re-location along with other locations across the city. The site had lain derelict for years in the post-industrial area of Ultimo on the edge of the central business district. The old industrial foundations of the power station offered up a rich social and industrial history and an opportunity to engage with place-making through architectural re-invention. The first major power station in Sydney, it was originally built to supply power for the electric tram network and decommissioned in 1963 following the closure of the Sydney tram network in 1961. Architect Glendenning saw potential in the massive site and the possibility of bringing the collection into a dynamic relationship with the structure and scale of the old electricity power station. Glendenning was inspired by the collection, which he described as a 'great bowerbird morass of dust-covered stuff' (Sanders 2005, p. 222). He became fascinated by lost treasures, many of which were stored and uncatalogued,
including 'unsung' treasures of the Industrial Revolution, such as the celebrated Boulton and Watt beam engine from 1785.

Glendenning utilised the available spaces and material rather than demolishing the vast, gaunt industrial site, aligning his decision at the time with an interest in the re-use of materials and a stated interest in environmental concerns, stating that:

The existing Powerhouse buildings represented a valuable investment by our society both in time and collective memory and the thought that this resource should not be wasted was primarily a consequence of my interest in environmental issues and sustainability - issues that are now very much to the fore (Sanders 2005, p. 236).

The redesign was influenced by the currents of postmodernism internationally and emerged during a period of uncertainty within museums. Long-established practices of exhibiting 'truth', 'the facts' and 'natural history' were under question. The re-design of the power station played on the metaphor of a mysterious 'cascading' journey, the architect's intention to create a sense of things unseen and of obscured 'truth' in the architecture. Glendenning argued that his design would enhance the wonderment of confrontation with the object itself and have the effect of vivifying the objects on display (Farrelly 2005). From the entry level on Harris Street through the high arched glass facade (a homage to the original Garden Palace), a number of ordering strategies were established within the new space. The visitor was to move from one impressive space into the next, with the opportunity to create their journey, guided rather than led, by the architecture. Moving in a stepped progression downward toward the final great hall on the lowest floor, each space was more impressive than the last and each one was a celebration of progressive industrial development. The great Boiler Room is the last and most impressive space, celebrating all forms of industrial transportation. Adjacent to it is the EcoLogic exhibition, at the end of Glendenning's cascading journey.
The global-local: Reinventing the 'Dreaming House'

Thirty years ago Glendenning's postmodern architecture presented Sydney with an experience of the architectural avant-garde. It was considered a resounding success with high visitation for many years. In 2014, the museum entered a new phase of strategic planning and redevelopment under the leadership of Rose Hiscock, appointed in July 2013. Hiscock inherited an organisation in turmoil, facing fiscal pressure and public criticism. She has declared a new and ambitious vision for the museum: that the Powerhouse Museum would become recognised as the best science and design museum internationally and be loved locally. The vision was inspired by two iconic institutions in the United Kingdom, the Victoria and Albert Museum and the London Science Museum (Hiscock 2013).

Part of the planning process involves re-thinking the building's orientation in order to work with developments in the surrounding area. When the Powerhouse Museum was conceived in the late 1970s, much of the local area was underutilised, including Darling Harbour, which was a jumble of derelict railway yards and disused wharves. Glendenning's original design set the entry to the museum away from this area. Since then these old industrial sites have transformed and surrounding real estate value has increased significantly. The Ultimo area has suffered in the past from poor urban planning. It is a suburb described in the urban design blog 'Penultimo' as 'nowhere in the middle of everything'. An 'anti-postcard' part of the city, Ultimo is a fairly barren and under-loved precinct, away from the easy beauty of the coast or the iconic views of Sydney Harbour. Although many of Sydney's key cultural and educational institutions are located in Ultimo, the area has struggled with a lack of quality public transport, viable infrastructure or vibrant public, green spaces.

A new non-vehicular space will open in 2014 to improve pedestrian circulation and create an opportunity for the buildings along its edges to reorientate away from main arterial roads. Neighbouring institutions include the Australian Broadcasting Corporation (ABC), Technical and Further Education (TAFE), The City of Sydney Council, Infrastructure New South Wales and the University of
Technology Sydney (UTS). The Goods Line will transform a disused rail corridor, once a busy freight rail system, into a 'linear park', opening up a new social space between buildings. The new linkage space offers 'potential in terms of connectivity, human interaction and cultural engagement' (Watson n.d) for the museum. With a changing demographic, including many international and local students, start-up companies and small enterprises who are living and working in the area, Ultimo is now being touted in planning circles as the 'knowledge precinct' of Sydney. The revitalisation of the area has been promoted as an opportunity to draw a young and diverse audience to the Powerhouse Museum with the significant rise in residential population (predicted to increase from 3000 in 1992 to 20 000 in 2021).

The decision to relocate the entrance of the museum towards the Goods Line takes advantage of the potential communities of practice between institutions in the area that could be strengthened, and it will result in the closure of the EcoLogic exhibition. Glendenning’s original vision, designed as a cascading journey will be upended and a new orientation will change the physical experience of being in the museum. The proposed large-scale changes will challenge the architect’s original intellectual framework which placed the visitor on a meandering journey downward into increasingly impressive spaces, and progressively larger displays. The increasing scale was designed to give the viewer the impression of the trajectory of progress from early industry into the space-race and nuclear fusion. The transformations may open up new, and possibly less linear experiences of the collection. Farrelly (2005) notes that if the cascading metaphor is loosened up to become less linear and more iterative, the museum’s functionality would be improved. More significantly, she suggests that this architectural intervention within the museum is timely, given that the reigning knowledge paradigm is shifting. In the second decade of the twenty-first century there is a collective shift from a paradigm of the 'encyclopaedic to [the] universal web' (2005, p. 221).

As the new architectural vision unfolds at the Powerhouse Museum, the spatial thinking, strategies of display and the experience of visitors will also continue to change. The description of the collection as the chaotic wonder of the Renaissance
\textit{wunderkammer}, suggests a counterpoint - a kind of miraculous web without linear direction - in contrast to the vision conceived by Glendenning whose architecture has provided a more linear, cascading journey of human progress. The paradigm of a ‘universal web’ suggested by Farrelly has different connotations now to those of Renaissance Europe (no longer conditioned by European exploration and discovery), nonetheless, there are some parallels to the kind of wonderment described by Gibson. In the twenty-first century, as the reigning knowledge paradigm shifts from encyclopaedic to universal web, perhaps there will be opportunity for the Powerhouse Museum to work deliberately toward generating the experience of the interdependent networks of humans and non-humans, with humans as a part of an intricate and delicate web, rather than masters and controllers of it.

With the plan to dismantle the \textit{EcoLogic} exhibition, it is yet to be seen if and how the museum will integrate sustainability into the fabric of exhibitions and public engagement (a current proposal by curator McEwen is to establish a Human Ecology Department). The extent to which the organisation takes up an active role as a ‘think change’ space will be seen in time. The development of \textit{EcoLogic} has played a significant role in an ongoing process of integrating sustainability into the museum's self-image. The exhibition was designed to inform and to influence visitors and staff, asking them to consider questions of how resources are used, to what ends and for what purposes, and to think about how design and science both create and can confront and transform problems in the contemporary world.

\textbf{Chapter conclusion}

Central to the analytical work of this thesis is the exploration of how ‘active’ objects play a part in social and political processes. Examinations of agency across the material and social field of museums bring attention to changing understandings of materiality within the micro-culture of museums. This position is reinforced by the work of contemporary social and political theorists, who argue that:
To account for the role of material entities in the organisation of social and political life, we must consider them in their ‘active’ element: we must focus on how things come to matter or their inherent liveliness (Marres 2012, p. 21).

Museums and the work of museum professionals involve active entanglements with material things. Drawing on the insights of Latour and Bennett and foregrounding the study of objects, the dynamics between museum professionals and collections is evidently complex and contingent. Observations of EcoLogic and the curatorial process present the close relationship that a curator has with objects in their role of creating exhibitions. Contemporary curating is increasingly challenged to embrace symbolic ‘slippages’ in relation to the objects sheltered within collections and to recognise the multivalent nature of material things. Reflecting Marres’ suggestion that ‘the same or a similar object may facilitate very different modes of engagement, and it may take on varying normative charges: participatory things must be understood as multivalent’ (2012, p. 20).

In the case of curating climate change, the curator went beyond epistemological distinctions in order to develop new sorts of ‘material representations’ that support complex communications about our being in this world. In the example of the Argyle chair, the curator’s desire to inform audiences of the value of this esteemed design object as a carbon sink within the larger bio-physical system, threw up a challenge to the disciplinary distinctions within the museum. Her approach to curating pushed established boundaries of what might be considered exclusively aesthetic or scientific. While there were signs of institutional resistance in this instance, curators are increasingly developing methods that engage more openly and reflexively with the mutability of objects and their effects in the world. This shift mirrors broad changes in museum practice internationally, where the value of inter-disciplinary (and even post-disciplinary) approaches to museum work is increasing. While this kind of approach demands the acknowledgement of the history and value of material culture, it simultaneously works with objects on more exploratory levels.

The Powerhouse Museum has a long history of working with material culture and it carries responsibilities for a massive collection unique to Australia. How the
museum works with its material culture and how it informs public understanding changes over time. Taking a close look at one exhibition and contextualising it within the bigger history of the museum provides an illumination of changing exhibitionary techniques and the knowledge practices that underpin them. The informing project of the EcoLogic exhibition (and of the museum as a whole) uses objects to promote understanding of complex and inter-related socio-ecological realities and to mediate dialogue. As a mode of ‘material participation’, the exhibition environment and the material entities within them ‘make an important positive contribution to the organisation of social, political and moral life in industrial societies’ (Marres 2012, p. 6).

The curator’s design process in the particular case of the EcoLogic exhibition, developed from the recognition that the complex science that underpins environmental decision-making (and the political contestation that entails) is often beyond the scientific literacy of the general public. The exhibition was targeted at a broad general audience and the curator developed a clear pedagogical narrative to inform visitors about the science of sustainability. The displays make a logical appeal (or the simulation of it), through the representation of facts and figures to support the claims of the exhibition. It is a process that relies primarily on the representation of evidence, and the credibility of the science. Argument is provided through demonstration and a process of persuasion based upon the provision of credible information. The exhibition design and its accompanying narrative enrolls the visitor in a learning process, empowering and giving agency to the individual in the face of global statistics, data and material evidence of environmental decline. This informational mode engages with sustainability as a normative project that relies upon active citizenship based upon a high level of public informed-ness. The logic of the exhibition and its translation of ecological processes into data and material signs is that these will ultimately translate into action. The exhibition appeals to a ‘collective self-interest’ and rests upon the model of the museum as a civic agent. In this model, the museum can and should use its power to inform and its influencing function in a transmission between active institution and active individual citizens.
Sustainability is an emerging narrative within the history of the Powerhouse Museum. As I listened to the 'voice' of this organisation, several aspects of its efforts to meet the challenge of sustainability emerged. The challenge of presenting contested topics revealed institutional strictures and structures that become apparent through internal resistance to curatorial agendas, revealing professional subjectivities and conflicting institutional perspectives. It became clear that the dilemma highlighted in the opening text of the catalogue (as discussed in the opening parts of this chapter), frames the challenge for the museum institution itself. It is the challenge of how great collecting institutions, built on past Victorian traditions, can continue to turn themselves in new directions. This is the challenge of reconciling a proud and grave history – embedded in the material architecture, the repository of knowledge and in the history of collecting – with the present need to generate new possibilities and to participate in maturing the sustainability conversation.
CHAPTER FIVE: Design (Engaging)

Field Study No. 2 Casula Powerhouse

*Sustainability is about community (CPAC Interview)*

*Small gestures in specific places (Papastergiadis 2010)*

*I want to argue a paradox that the myth asserts: that the origins, liveliness, and durability of cultures require that there be space for figures whose function is to uncover and disrupt the very things that cultures are based on (Hyde 2008)*

Introduction

Casula Powerhouse Art Centre is a relatively young and adaptable organisation with a mission to be responsive to and reflective of the diversity of cultures within the Western Sydney region. By providing space for the development of contemporary arts and culture, Casula Powerhouse contributes to the resilience and strength of the multiple communities who live in the Liverpool area and beyond. Building inter-cultural relationships through innovative forms of engagement is central to the Arts Centre’s ethos. These efforts play a role in questioning conservative notions of a single 'Australian story'. With a commitment to fostering the value of cultures of diversity in contemporary Australia, Casula Powerhouse is a place that celebrates a heterogeneous Australia, and seeks to animate stories that enrich the nation’s cultural identity.

A large multi-purpose site located in a former power station, Casula Powerhouse currently uses a programming model that has been designed for creative collaboration and cooperative decision-making between staff, artists and community. Some of the distinct programming features at Casula Powerhouse are highlighted in this chapter through the lens of local artist, Diego Bonetto and his
project, *Wild Stories*. The study illustrates how an art institution, as an active setting for exchange, can draw out and harness new energy from within diverse communities, engaging in rich and sophisticated dialogue about contemporary life. The artist’s work is considered in the light of contemporary critic Esche’s redefinition of utopian thinking in the form of modest proposals (Esche 2001), which continue to shift art in a direction that sees the modernist utopian gesture replaced by a different set of concerns grounded in local-scale transformation.

The artist uses storytelling and dialogue as a creative tactic to connect people, places and plants. Working in the spirit of the fifteenth century court jester and the mythological trickster, Bonetto engages with paradox and propositions for alternative environmental attitudes. The artist’s practice stimulates open-ended dialogue about issues of land management, food production and consumption, cultural belonging, post-colonial Australia and the meaning of sustainability in diverse cultural contexts. While encouraging localism, Bonetto is cognisant of multicultural contemporary Australia and has a particular interest in the notion of *environmental belonging*. He is an artist who actively questions the global contemporary art market, particularly the production of art as a luxury consumable. Bonetto’s work provides an opportunity to examine notions of what art can and cannot do in response to sustainability issues, and the role of the artist working with an art organisation, to facilitate change.

*A map for the journey*

This ethnographic research focused on the cultural diversity and exchange facilitated by the creation of multi-platform *events* at the Art Centre. By highlighting cultural *events*, this study illustrates how sustained and transformative engagement is possible within a very diverse and changing community. The chapter begins with a detailed discussion of cultural policy, professional practice and the changing provisions of cultural organisations internationally. This discussion is contextualised within Casula Powerhouse, illustrating how organisations grow their capacity to actively engage with and improve the lives of people within a community.
Casula Powerhouse is a part of Sydney suburbia and it must operate in a responsive and reflective way to the dynamic regional context. The history and significance of suburbia as both a theorised concept with a rich history and a geographical locale contributes to an understanding of how change and development happens within the region. In this chapter, suburbia as place is explored through the work of human geographers, cultural theorists, urban planners and designers. Engaging with issues of sustainability, environmental discourse and cultural change responsive to suburban multicultural place, I have also drawn from contemporary art discourse to consider how the role of the artist and the art object is transformed in this setting.

The Liverpool local government area (LGA) of Western Sydney has one of the fastest growing and diverse populations in the state, with residents from 150 birthplaces. Opening in 1989 as a facility of Liverpool City Council (LCC), Casula Powerhouse Art Centre (herewith referred to as Casula Powerhouse or CPAC) is well equipped with a performance theatre, several climate controlled exhibition spaces, artist residency studios and workshop spaces. Liverpool Council provides economic resources as well as many of the links to cultural and community networks. My fieldwork at Casula Powerhouse included participation in, and observation of, events and festivals, analysis of exhibition materials, document and web analysis and semi-structured interviews (see Appendices for an inventory of fieldwork methods, materials and analysis). I spent time with the artist, Diego Bonetto and his collaborators and I participated in the online community established by the artist.65

65 Please note: Interviewees remain mostly anonymous throughout. In this account direct quotes are followed by (CPAC Interviews) to indicate the quote is taken from transcripts with employees at the Art Centre.
Figure 2: Images collated from the Casula Powerhouse Art Centre Field Study. (List of Illustrations: p. x).
EVENT

Building trust and inclusivity within the community

The emergence of alternative models for cultural organisations reflects an international concern about what the role of these organisations should be during times of accelerated change and destabilisation across economic, political and environmental fronts (Esche 2004; Connor & Barlow 2014). Esche claims that art centres should become active spaces (rather than sites for passive viewing), and he suggests that to make this happen these institutions ‘have to be part-community centre, part-laboratory and part-academy, with less need for the established showroom function’ (2004, p. 2). Casula Powerhouse fosters this kind of cultural development, described by an employee at the centre in these terms:

I always say to people when they come into the centre […] we are kind of part art gallery, performance space, and part community centre and Casula inhabits this space that I think is very different to most other contemporary spaces (CPAC Interview).

Esche’s suggestion emphasises the mutual support and engagement of audience and artist working alongside staff to produce new art within the institutional context. His words allude to a need for the creation of alternative frameworks in art centres in order to reflect the socially engaged practices of many contemporary artists, and to support creative experimentation and open-ended inquiry, in situ.

Esche’s words are echoed in the descriptions of employees of the Art Centre, who also emphasise the significance of community diversity within their own social and cultural context of Western Sydney. Engaging with notions of community ownership and relevance is part of the process of actively dismantling art world stereotypes that exist in the region. Developing programs that transform attitudes and create a collective sense of ownership is a key concern for employees of Casula Powerhouse. One employee commented: ‘I think ownership is a really key word, especially for our local community and our local audience’ (CPAC Interview).
Growing a sense of collective ownership takes time, as does gaining relevance within the region:

> Across a lot of organisations, museums, art galleries, they are starting to look at the longer term relationships [...] and as you develop a rapport with people and they really start to connect with the gallery ... I think a lot of people who come to Casula now, they see it as an extension of their community (CPAC Interview).

The audience-centred approach to programming and education at Casula Powerhouse mirrors the social and collaborative ‘turn’ that has occurred within museums and galleries internationally over the past twenty years (Esche 2004; O’Neill & Wilson 2010).

Casula Powerhouse now has a well-established reputation for producing high-quality arts programming which is simultaneously embedded in the community. It is one of the key institutions working in a region that has historically been labelled ‘disadvantaged’ in cultural terms, and Casula Powerhouse has continued to resist a deficit-based approach to programming and the stereotypes of ‘disadvantage’.66 The issues of access and quality in arts programming and cultural activities in Western Sydney have been closely examined in cultural discourse since the 1990s, influencing cultural policy for two decades (Chesterman & Shwager 1990; Barrett 1991; Grace et al. 1997). Rather than being seen as indicating a lack of culture in Western Sydney, such disadvantage has been re-presented in terms of the area having a poor relation to the cultural legitimacy or cultural capital often associated with the established metropolitan centre (Ang et al. 2011).

As an outer-metropolitan and community-focused organisation, audience development generally involves targeted programming and is designed to build inclusivity and trust between the organisation and individuals in the community. Many local people in the area have had minimal exposure to the art world, so changing the attitudes of the local population about elitist art institutions is part of

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66 The three regional public art galleries – Casula Powerhouse Arts Centre, Penrith Regional Gallery & The Lewers Bequest, and Campbelltown Arts Centre – have become icons of Western Sydney creative energy (Lally & Lee-shoy 2005).
audience development and public programming. Education programs are central to this process. There is no guaranteed audience for any of their programs, unlike in larger inner-city organisations where audiences are drawn from a larger ‘culturally active’ demographic. Without audience strategies for greater access to overcome barriers (including disability, language, geography and education), the arts become increasingly ‘elite’ by being accessible only to the technologically literate and economically privileged (Fishburn 2011).

Addressing disadvantage in an arts centre can produce tensions between meeting the goals of aesthetic quality and social value. Following the directorship of Kon Gouriotis, between 1998 and 2008, Casula Powerhouse has pursued a dual plan to deliver quality aesthetic and ameliorative experiences. This has meant combining the goals of Community Cultural Development (CCD) while working within the formal high art sector. The complexity of delivering notable social goals and high quality aesthetic experience is acknowledged in art policy debates as a complicated challenge. Allaying her own concerns, the art historian and critic Claire Bishop (2006) argues that the measurement of success for collaborative models which bring artist/art-centre/community together, must be twofold. A project should not be judged as successful if it works on the level of social transformation, but struggles on the level of art. According to Bishop, the 'level of art', which also determines success, is for the work itself to have a kind of revelatory dimension – to 'say' or to 'reveal’ – something new about the human experience.

Western Sydney has become recognised beyond the region itself as an incubator for leading edge cultural development, for reinventing community cultural development, and for contributing to innovative hybrid artistic and cultural practices. The diverse mix of cultural traditions and life experience in the community informs the art developed in the region and contributes to a distinctive art scene in Western Sydney, 'work produced in the region breaks new ground, sets new standards [...] it is often personally transformative for its audiences, and influences community attitudes to important issues’ (Lally 2004, p. i). Casula

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67 Community Cultural Development (CCD) was introduced by the Australia Council for the Arts in the 1970s and grew out of a practice of community art already active in the country. It remains a dynamic and lively field of practice, although it is in many ways still separate from the high art sector.
Powerhouse is a part of this wider flourishing network of artistic partnerships and creative activity that is set apart from the urban city centre. Within this setting, networking has become a fundamental tool for artists and art centres alike, building self-reliance and confidence within the cultural communities of Western Sydney (Lally & Lee-Shoy 2005). The structures, which support innovations in creative practice in Western Sydney, are discussed in the following section.

Creative producers and a community curatorium

Definitions of the term 'community' within the domains of the arts and culture are contested and politically charged in Australia. The over-use of the word, 'community', has been problematised in recent literature on social impact, arts policy and cultural analysis (Ang et al. 2011). The semantics of community reflect evolving ideas of modern Australia, as dynamic, rather than static and as heterogeneous, rather than homogenous. Increasingly, community in cultural debate is being phrased in the language of partnerships and cultural flows, rather than as a collective subject 'out there' which can be 'acted' upon. From both perspectives within arts policy – Community Cultural Development (CCD) and the formal high art sector – community is increasingly understood in terms of the connections produced through sustained cultural engagements and is co-constructed through partnerships and networks. These changing definitions of community reflect Actor-network ideas of heterogeneity, relationality and flow, as something fundamental to the construction of 'objects' and 'individuals'.68

Within a distributed network of co-operation and responsibility, the professional roles within organisations are extending to accommodate and fulfil different needs within a kind of 'community curatorium' (Ang et al. 2011). In the context of the Casula Powerhouse, one employee suggests that:

It is part of a greater initiative, in terms of how arts organisations, especially leading arts organisations dealing with communities and culturally diverse communities, are acting

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68 To reiterate, the Actor-network perspective emphasises co-construction, the pursuit of symmetry, the detailed study of how heterogenous entities are enrolled into networks, and the bundling of networks into stable 'actor-like' configurations.
now and they're starting to program in a more wholesome and inclusive manner (CPAC Interview).

The creative producer model was adopted at Casula Powerhouse during 2009, under the directorship of Steven Alderton. A creative producer is by definition involved in audience and community relations and the co-facilitation of creative outcomes with an artist:

The producer takes the lead in navigating between a bold vision of an idea, and how feasibly - and brilliantly - to deliver it. Working with the artist, the producer works out how to locate and bring it to life in the world of the audience. The artist and the producer are the two primary roles in the creation of great new work and its engagement with the public (Curry & Gunn 2005).

The creative producer model is an example of an innovative cultural practice that sets Casula Powerhouse apart from many other art organisations. The embedded process for shared decision-making ensures ideas are filtered through the organisation in a process that engages all staff to some extent. There is an element of horizontal management, as well as a way of programming that is 'on the ground' and connected to place, reflecting the principles of socially engaged 'community partnerships' (Badham 2010). The distinguishing features of the model require structural and embedded processes that are understood by staff and reflected in their working routines:

We work in a creative producer model, which means we develop ideas, we bring them together as creative producers, we meet once every fortnight. We speak about ideas, we speak about programs and we look at crossover, we look at similarities, we look at where people are interested, in what projects and then we have a way where we survey the projects and the programs. Where they're rated, and from that rating, there's various rating criteria and assessment criteria; but this gets fed back into a bigger conversation and it includes even the admin staff as well, and the media and marketing and communications staff, and of course the director and the assistant director, and the whole organisation (CPAC Interview).

Introducing the model at Casula Powerhouse involved a complete staff restructure in order to better focus on community engagement in the development of
programming. The idea of the creative producer model is built on specialisation of subject and content that is reflective, relevant and in many cases, responsive to community needs and wants. Each professional becomes intimately familiar with the diverse backgrounds of audiences, and prioritises time and attention to learning about the community, over in-house, object-focused, research, collection activities (Jung 2010). The criterion for creative producing is the integration and facilitation of several key elements. These include the arts, in all genres and mediums, community social and cultural wellbeing, creative industries, training and education, as well as skills development and mentoring initiatives and projects (Curry & Gunn 2005). Working in this way involves the active pursuit of inclusivity across age, gender, ethnicity and ability:

This is how we program, the idea that our program is informed and it's reflective and relevant to community as well. If you're looking at three circles, we have the local community your inner circle, the outer is your regional and the national's after that (CPAC Interview).

As a culturally and linguistically diverse (CALD) community, responding to the needs of the community is actually a case of responding to the needs of many communities. Casula Powerhouse has well-defined processes for involving community in the co-creation of content, and these are written into the position descriptions and Key Performance Indicators (KPIs) of employees. The staff are members of local community networks and attend regular meetings, including women's groups, disability services, local ethnic action priority groups (LEAP) and Aboriginal services. These network memberships, network meetings and activities, ensure that employees develop long-standing relationships with diverse members of the community and are able to translate the interests and needs of the community into the context of the arts centre. These network relationships are valuable in audience and program development, with many project ideas generated from direct consultation and collaboration with community. The framework weaves a web-like network of relationships into the organisational and staffing framework. This framework includes other staff as creative collaborators, a continuum of artists and the audience (both physical and virtual), who are each recognised as having agency in creating, sharing and distributing knowledge.
Within the organisation, two people continue to hold the title of curator and each have their own KPIs alongside other content producers and providers.

The creative producer model offers an alternative vision to hierarchical organisation, moving attention away from the traditional scholarly focus on the curator. According to one employee 'the curator model is being questioned. Not to say that the curator is irrelevant, but I think they have to rethink the way they go about putting together exhibitions now' (CPAC Interview). Historically the curator has been central in knowledge creation, control and decision-making within collecting institutions. They are the museum staff member most responsible for creating and vetting information. By job description, curators have been the acknowledged voice of museum authority (Gurian 2010). The curator’s role as a keeper of collections and the one in possession of scholarly, esoteric knowledge has been fundamental to the vision of the traditional museum, and remains mostly central to its legacy today. The relevance of the curator is not undermined in this context, but it is re-imagined: 'we have all the depth of curating a show within concept and theme and subject, but we actually go a bit further than that' (CPAC Interview).

The works produced at Casula Powerhouse through the aforementioned methods of cultural producing and community engagement are illustrative of a theoretical proposal put forward by cultural theorist Nikos Papastergiadis (2010). Papastergiadis defines difference (cultural, social, economic) as fundamental to contemporary culture and he seeks to re-conceptualise contemporary art through a prism of mediation. In the realm of acknowledged difference (which constitutes the contemporary world), discussing, listening, comparing and compromising all become significant acts, recognised for their generative potential in building bridges between cultures of difference. The idea that artists and other creative collaborators are involved in a process of mediation (within a global and local network of communication) can be usefully linked here to Lally, Ang and Anderson’s (2011) suggestion that engagement is a process of translation and negotiation. Each of these words, mediation, translation and negotiation, foreground relational concerns and emphasise the need for individuals and
organisations to develop particular social capacities. The discovery of new social possibilities exists within collaborative practice, where each contributor must go beyond their own certitudes in order to participate in processes of collaborative knowledge making.

Papastergiadis argues that transformational strategies for co-existence must be based upon new insights and understandings that emerge from the process of creative production. This emphasis on the process of creation suggests that a kind of momentum and agentive force exists within the collaborative act, which may orientate all involved toward the discovery of new social possibilities. By re-conceptualising contemporary art through a prism of mediation, translation and negotiation, the idealised position of the artist is also relocated from the forefront of the engine of social change (an avant-garde). The artist instead moves to a position inside the process of social production itself. From this perspective, artists are cast as mediators in the global and local networks of communication, no longer isolated or separated from processes of transformation. Papastergiadis claims that this shift in the positioning of art, 'corresponds with a switch in the ambition that many contemporary artists express: a desire to be in the contemporary, rather than producers of belated or elevated responses' (Papastergiadis n.d).

Empowering community through programming: Body Pacifica

The projects described in this chapter contrast with one-off exhibition processes and reflect the suggestion that art centres can successfully diversify. Through processes of negotiation, translation and mediation they may encourage a sense of collective ownership and the discovery of new social possibilities, illustrated in the foregoing discussion, and expanded in the following parts of this chapter.

_Pacifica_ and _C3West_ are recent exemplars. They are projects which have evolved out of strong collaborative networks and partnerships within the south-west region of Sydney. In both cases, the projects involved extensive networking and brought Casula Powerhouse into processes of translation and negotiation with other major organisations, including local galleries and inner-city museums,
community stakeholders, corporate business and sports facilities. These multi-platform festivals and events are seen as a way for Casula Powerhouse to build relationships with individuals in the region who would not otherwise come to the centre. They address negative perceptions and stereotypes about the arts as elitist and build ‘cultural capital’. Beginning with Body Pacifica in 2010, the annual Pacifica program is designed to engage with the communities of Pacific Islanders living in South-western Sydney and raise cultural awareness about the diaspora. The Pacifica festivals bring cultural traditions and contemporary practices together each year through dancing, singing, body adornment, food and feasting, exhibitions, workshops and education programs. Body Pacifica, developed by creative producer Leo Tanoi, was a collaboration between the Australian National Rugby League (NRL), the Australian Museum and Casula Powerhouse. The aim was to build collective pride in Pacific Island heritage and to educate and stimulate dialogue about issues facing Sydney-based Pacific Island communities. The partnership with the Australian Museum created a bridge between traditional and contemporary material culture in several ways. Leo Tanoi saw an opportunity to bring the popularity of sport into a conversation about cultural awareness at the event:

> The culture is very alive. And what we're trying to do is reinforce it and strengthen the culture. The plan here is, we have exhibitions, traditional, contemporary. But the festival structure is set around food, music and popular culture so that we can give them the norm, something that they're comfortable with, but at the same time hit them with the arts (Australia Network 2010).

A large percentage of the National Rugby League players in Australia today are men of Pacific Island descent. Many of the players have become leading public figures in mainstream Australian society and are actively involved in confronting racism in Australian sport (Cottle & Keys 2010). Partnering with the National Rugby League to produce new work for the Body Pacifica program, NRL players were photographed wearing traditional body adornments from the Australian Museum collection. The series of twelve portraits captures the identity of these men as proud Pacific Islanders living in Australia. Other art work produced in conjunction with the event involved five Australian artists of Pacific Islander
descent who were invited to explore the Australian Museum’s Pacific Collection and to select and respond to an artefact of their choosing.\textsuperscript{69} The museum lent traditional objects during the \textit{Body Pacifica} exhibition, displayed alongside archival photographs from the collection taken in the 1880s by Reverend George Brown, a missionary who captured images of life in Tonga, Samoa and Papua New Guinea.

Events, such as \textit{Pacifica} and \textit{C3West}, make diversity visible and culturally significant. They also generate a co-constructed identity between the art centre and community, which acts as a potent cultural symbol that has become recognised within the broader community, and beyond the region itself (Knight 1994; Lally & Lee-shoy 2005). Sophisticated visual representations of the region’s cultural diversity build a sense of pride and ownership in the organisation, a reciprocal exchange between Casula Powerhouse Art Centre and the community.

\section*{Bringing ecology into the social mix}

With the professional and community networks that exist to foster social cohesion and celebrate cultural diversity, many of the basic principles of social sustainability, for example community responsibility, community action, social justice and equity are being met through the organisational structure and programming of Casula Powerhouse (McKenzie 2004). As an employee in management suggested: 'having community participation is super crucial, because that's what the essence of sustainability is, on one hand, participation ... equal ownership ... responsibility ... that's what it's about’ (CPAC Interview). The emphasis placed on participation is linked to an ideal of shared responsibility, in which a community may share connections and common concerns, so 'it's also about having some sort of connection and that's what we're trying to create here, and this is about sustainability' (CPAC Interview).

In terms of addressing the environmental dimensions of sustainability, the Art Centre is beginning to explore its role and it is developing an appropriate stance on how to do this. In 2011 the federal government invited cultural organisations

\textsuperscript{69} The artists were Niwhai Tupaea, Sione Falemaka, Frank Puletua, Greg Semu and Latai Taumoepeau.
across Australia to contribute recommendations towards the development of a new National Cultural Policy. The current director, Kiersten Fishburn, made several suggestions on behalf of Casula Powerhouse. These recommendations predominantly addressed cultural diversity, community networks, the value of creative communities to the economy and current issues of funding. Towards the end of the list, Fishburn notes that research into how the arts contribute to meeting environmental aims and objectives should be included in the development of a new national cultural policy:

> The contribution of the arts and culture to environmental aims and objectives should be noted. It is the arts that often leads debate and community awareness on this, the most pressing issue at this time (Fishburn 2011, p. 4).

Fishburn’s recommendation regarding the environment (as the most pressing issue at this time) are placed at the end of a long list, and if read in order of importance, appear as a minor consideration. However, Fishburn’s words reflect an increasing interest in how cultural organisations respond to environmental pressures and sustainability more broadly, working with the opportunities and constraints that currently exist within each context (many of these were examined in Chapter Two).

Addressing social and environmental concerns, and considering how they converge within the social and material network of cultural organisations, is central to this inquiry. The following section focuses on particular programs at Casula Powerhouse which have made environmental aims and objectives explicit through creative engagements. These programs offer insights into how concerns for sustainability are localised within this region of South-western Sydney, while simultaneously engaging with broader global concerns.

**Exploring new programming: Environmental sustainability**

In the past three years, Casula Powerhouse has hosted two related events: *The Garden Day* (2010) and *Wild Stories* (2013). Each was developed using the strategies of engagement embedded in the organisational structure of Casula
Powerhouse. There were other similarities between the two events in that issues of land use, food systems and environmental sustainability were considered. Placing these particular issues on the cultural table, so to speak, was a new programming prospect at the Art Centre.

The challenge was to find authentic ways to respond to contemporary environmental concerns and to align this with their programming strategies. Two creative producers employed at Casula Powerhouse articulated a desire to avoid mainstream clichés connected with the green movement and to avoid adopting an ideological position. The shared perspective of these two professionals was a felt need to develop distinct strategies for public engagement, separate from the normative visualisation of sustainability that they associate with government and advocacy groups. Their position rejects art as a disciplinary tool for the promotion of environmental stability via technology and science and aligns with McKenzie (2004), who argues that the arts and social disciplines do no serve sustainability merely as an 'add in' to models that are ultimately predicated upon the physical sciences. He argues that the arts must take up a role in sustainability through the development of nuanced interdisciplinary processes. These should engage with how society is implicated in un-sustainability and develop creative, open-ended inquiries into how individuals within the social world may contribute to a culturally and ecologically diverse, equitable and just world.

The first of the projects, The Garden Day was a one day event. It was designed in response to an exploration of historical and contemporary land use in the region. The Garden Day involved working with Liverpool City Council’s Living Sustainability Department to feed into the council’s annual program and to explore sustainability from within the context of Casula Powerhouse. The Garden Day project was designed to appeal to a broad cross-section of people, in accordance with the organisation’s aim of generating substantial audiences and building bridges into diverse communities through programming. It presented the history of the region as a food belt and revealed the contributions made by migrant and ethnic communities to local farming practices. A creative producer described this:
Garden Day looked at local farmers because this area here has a history, in WW2, this area was the food belt of the soldiers serving, and the majority were ethnic farmers, you know from the former Yugoslavia, Croatia, Italy, Greeks, Lebanese ... these were the ones that grew the food to feed the troops. So there is still a lot of farming that’s happening in the outskirts, there’s sustainable farming, organic farms, and then there’s the sort of high yielding farms as well. You know, fertiliser, pesticides, that sort of thing as well (CPAC Interview).

The program presented oral histories, stories of barter gardening methods and ‘guerrilla gardening’ along the Georges River. Celebrity gardeners and other local identities held workshops, and foraging tours were organised with the artist, Diego Bonetto. The popularity of The Garden Day set in motion the following project, Wild Stories. Bonetto was invited to take up an 18 month residency and develop a solo exhibition (between 2011 and 2013). Having a residency allowed Bonetto to build on relationships from The Garden Day and to work out of the physical site of the Art Centre. It also enabled him to draw on the credibility of Casula Powerhouse and its reach within the region and the assistance of staff:

The idea came, it was so popular, we took him out to farms and that sort of thing, and then we worked towards putting him on to develop a community project that went over a whole year and he engaged with communities, he went out, he met with different groups, cultural groups, ethnic groups, ages, took tours around and was in residency here you know as well, so he had access to community, they had access to him (CPAC Interview).

Working closely with creative producers, Bonetto developed a large community network, taking time for relationships to grow and for unexpected opportunities to emerge. During the residency Bonetto produced a multi-platform body of work, including a range of foraging tours, a social-media network, short video works and an illustrated weed taxonomy, collaborating with chefs, herbalists and artisans. His ‘Weedy’ tours gave information about plants in the local area, including their medicinal, commercial and edible qualities.

Bonetto’s practice begins by recognising diverse traditions alive in Australia. From this position, his practice develops based upon collecting and sharing stories, harvesting knowledge from local residents within the community. These stories
speak for different traditions and ancestral knowledge woven into the cultural fabric of Australia. In Bonetto's case, his work challenges art's capacity for resistance (Bourriaud 1998) through the use of specific tactics. This is done through recognising and harnessing the power of social engagement to provoke and spread ideas, share stories and challenge ingrained assumptions within the community. In this way he acts as a mediator within the contemporary moment, mirroring the claim made by Papastergiadis (discussed earlier in this chapter), that artists should operate within the processes of social change, rather than protest developments after they have occurred, or adopt an elevated stance which places them above political and social realities. The historical precedent and the philosophical orientation which support and reinforce his creative approach, are discussed below.

Art and the everyday: Co-operative networks

Theories of the ‘everyday’ within sociology and anthropology are rich and varied across twentieth century discourse. The work of critical theorists Lefebvre and Michel de Certeau argues for the value of a research stance drawn from the intimacy of the everyday in order to reveal how complex social structures are internalised. The material turn in anthropology assumes a clear position on the value of research which is situated within everyday life, and which examines how diverse material cultures actively mediate contemporary social relations. In the following analysis of Bonetto's relationship with the everyday in his creative practice, I have been informed by another artist, Lucas Ihlein. There are two key strands to Ihlein's practice which have converged to inform my analysis here: firstly, the practice of grounding art in lived experience and locating the experience of art outside of traditional gallery environments, and secondly, the value in experiences of ‘slowing down’ and holding attention. In his PhD thesis, Framing Everyday Experience: Blogging as Art, Sydney-based artist Ihlein states:

If we are to take seriously the claim that art needs to become more participatory and co-extensive with our own lives, this process must, logically, begin in our own neighbourhood. Thus one goal of my research has been the attempt to find ways to reconnect with myself
and my neighbours by developing an art practice which facilitates flows of communication in the actuality of daily life (2009, p. 5).

Ihlein has a keen interest in how artists re-position their practice to engage with the social world, particularly at the local neighbourhood level. He is influenced by two key exponents of the twentieth century avant-garde, Alan Kaprow and Robert Morris. These artists devised alternatives to an increasingly specialised cultural sphere within the art world and what they believed was a growing 'gulf between art and life' (Ihlein 2009, p. 4). Both Kaprow and Morris looked to the ideas of philosopher John Dewey, who emphasised thinking, learning and knowledge as products of lived experience, over and above other forms of a priori logic. They purposely rejected making work solely for the aestheticised space of galleries and art institutions, and questioned the increasing commodification of rarefied luxury art objects. Instead, they were interested in artistic gestures that were easily accessible and drew attention to art as an event grounded in the everyday materiality of lived experience.

Ihlein’s writing provides a vivid account of related methodologies and rich historical context for his own form of social engagement, which he calls 'blogging as art'. Ihlein argues that contemporary life is increasingly defined by the dynamics of the 'attention economy'. Competing demands (particularly from within the media landscape) on people’s time, focus and attention has increased exponentially. In this competitive atmosphere there is a premium on holding one’s own and other people’s attention. Ihlein has responded to these conditions by opting for a slow, immersive art practice in which 'attention invested in any subject [...] can result in an abundance of increased value in that subject' (p. 12). His performative process pivots around engaging and writing with, for and about a community. Uncovering local stories, characters, events and happenings, he develops close relationships with people and places in order to sharpen his own gaze and reveal what is unique within everyday life. In this model of art practice, rather than producing an entirely new object, the artist instead draws attention to existing objects in the everyday world, and the artist’s task becomes one of activating other peoples interest, via a 'tactic of framing and focusing attention' (p.
Anthropologist Anna Tsing (2011) also brings into focus the value of attention within environmental studies as an approach to learning. She reflects on how attention operates at different scales (of noticing and of location) in her work on mushrooms and the passionate, eccentric characters whose lives are intertwined with the lives of fungi. The art practices of Bonetto and Ihlein have several shared objectives. Each brings attention to the everyday and to modes of negotiation between the artist and everyday life, pursuing art as a process of gathering attention.

Focused on ways that art can be woven back into the everyday experience of life, Bonetto sees value in long-term engagement with a place and its people. He is critical of the tendency of artists who ‘parachute’ into a particular community context without giving enough consideration to the impact on the community or the legacy of their work, arguing that an artist needs to develop legitimacy. In this way Bonetto closely identifies with art theorist Grant Kester’s (2005) notion of solidarity and dialogic process created through longer and deeper forms of engagement. Bonetto’s artistic practice is suited to a longitudinal programming approach, investing time to build community attachments, relationships and connections. These associations become the most significant aspect of his socially engaged practice, although there are no guarantees of interest or a positive response from the community, as noted by a creative producer:

It’s one thing just to put on an exhibition, bring in works and throw them on the wall, it’s another to be involved in a community, have some sort of attachment to it, and then present it for them (CPAC Interview).

This project became a platform for members of the community to reveal concealed traditions, private interests and hidden skills, and his residency led to a range of outcomes, many of which are in close alignment with social and environmental sustainability, as suggested by an employee at Casula Powerhouse:

You’ve got multicultural communities discussing stories about their use of the land, and their historical use of the land, and you know it intersects with all those different
In the case of Casula Powerhouse, Bonetto saw the potential of Western Sydney and the many cultural traditions that are active but are often not visible. The organisational structure of Casula Powerhouse and the skills of staff in processes of negotiation, translation and mediation across diverse community networks, provide fertile conditions within which the artist’s practice could thrive.

_Conversations with the artist [A vignette from the researcher’s experience]_

_Sitting under a big old camphor laurel tree outside the art centre, Diego comes to life in animated conversation. Asked who inspires him, Diego is not long on lists. He mentions the Italian conceptual artist Gianfranco Baruchello and Joseph Beuys. Mainly it is his friends and a few historical 'tricksters', most especially Subcomandante Marcos, the rebel leader of the Zapatista movement in Mexico. He says that an artist needs to be smart, clever, available, fast moving, and ready to jump and that his own skill as an artist is to play the game by the rules and then 'spin it off', as he wants. He's easy to crack a joke and laugh (in his mannered Italian way). There is a confidence in the way Diego makes his claims and he communicates with a strong sense of his own authority. He admits that his accent has an exotic charge that many people respond to in Australia, and he plays the role of an orator and storyteller._

_Diego makes a statement early in our conversation emphasising his view that a general attitude in society exists toward the environment as something 'out there', separate to human life. He claims to see no separation between human beings and the environment, believing that humans are the environment, as much as other non-human species. For him, sustainability is a question of how communities work effectively within their unique local ecosystems, describing sustainability as a broad set of options that can be engaged with across technological processes and cultural practices. For Diego, sustainability_
implies a move toward localism, which begins through a process of internal learning and change.

Diego’s own move towards localism came after a period of intense activism in the 1990s, followed by intense reflection. He was involved in collective international efforts to slow the forces of global capital and challenge the spread of neo-liberal policy. He became frustrated by a sense of being used as a ‘media puppet’ and with the movement’s lack of impact. Burnt out, Diego experienced a loss of faith in the value of these actions. He perceived an arrogance in his efforts to change world affairs and decided to choose a new direction. Diego took the idiom ‘think globally, act locally’ to heart and went through a period of shrinking from global issues. He stopped watching television, following the media and he radically re-orientated toward his own network of friends and his local community. This decision marked a strong philosophical departure from his earlier activism. He became committed to an internalised focus on change creation, reverberating change outward through individual and independent thought and action and the use of art as a tool and tactical strategy for engagement.

PLACE

Social, cultural and environmental flows

As a cultural organisation, Casula Powerhouse continually questions what it means to produce ‘Australian stories’ within the context of community diversity (Fishburn 2011). Their process of cultural dialogue seeks to acknowledge distinctive voices and the lived experience of ‘diversity, difference and identity’ in Australia. Programs are designed to draw out intimate stories of living in a
culturally complex nation and to engage with questions of culture and citizenship connected across the local and global context.\textsuperscript{70}

Casula Powerhouse is located on the Tharawal people’s country on the banks of the Georges River, now the Liverpool municipality. During the last two centuries, the Liverpool area has undergone massive changes, ecologically, socially, economically and culturally. Early maps of the area and stories of encounters between European settlers and the native Aboriginal population in the 1790s reveal a stark contrast between past and present. Maps drawn in the early years of white settlement show the rivers in the region were the geographical foci for local Aboriginal people, providing a significant source of nutrients. The rivers were also travel and communication routes connecting the forest and coast. Knowledge and experience of the river was needed to utilise these bodies of water now known as Georges River and, further north, the Parramatta River. If they had not benefitted from Aboriginal women’s fishing, the early colonists would not have survived (Goodall & Cadzow 2009). Today, both rivers are completely engulfed by the spread of metropolitan Sydney. The Aboriginal hunting grounds, religious sites and small settlements have been transformed into the business areas, industrial sites and the suburbs of contemporary Australia.

One of the oldest urban settlements in Australia, the region was established as an agricultural centre by Governor Lachlan Macquarie in the early 1800s. The rich flatlands were very productive and Liverpool became a major agricultural and transportation centre. By the mid-twentieth century the nature of work mostly shifted from agriculture to manufacturing, serviced by a strong working class presence and manufacturing facilities, changing the Liverpool region from a satellite town into an outer region of metropolitan Sydney. Part of the land area is still devoted to small-holder agriculture, although much of this has been enveloped by rapid urbanisation. In the 1960s Liverpool became home to many low-income families forced out of the inner city by the increasing cost of living. Large-scale housing commission estates were built to provide low-cost housing for the waves

\textsuperscript{70} Examples of exhibition projects at Casula Powerhouse that have built up a rich representation and material history in the community include Viet Nam Voices (1997) and Historical Liverpool (2009).
of immigrants who arrived in the middle of last century, and the population of the Liverpool region has grown at a significantly higher rate than the national average over the past fifteen years. The region has seen a radical change in demographics since the 1970s, particularly the massive influx of non-English speaking migrants, many of whom came to Australia as refugees. Many of these residents have settled in the area due to its proximity to migrant hostels, the railway line, cheap private rental and public housing (Gouriotis & Dabboussy 2007).

There are now people from over 150 different cultural backgrounds in the Liverpool region, and it has one of the largest communities of urban Aboriginal people in New South Wales (Fishburn 2011). Casula Powerhouse provides a place where Aboriginal culture is celebrated within the incredibly diverse cultural mix of the region. In 1994, Jenny Watson, an Aboriginal artist from the Waanyi people, was commissioned to produce a design for the central Turbine Hall of the building. Koori Floor is made up of an intricate pattern covering the entire central space within the reclaimed power plant:

The Koori Floor project not only brought conflicting sites, meanings, materials and visual languages into connection, it engaged the critical nexus between aesthetics and ethics such that the political implications of defining territory were refashioned productively (Betterton 2004, p. 70).

The commission was a direct acknowledgement of the history of Indigenous communities from the Georges River region and their ongoing cultural contribution to this place.

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71 Lying to the west of Sydney city, the Liverpool local government area now covers 306 square kilometres, with a population of 182,000 people expected to rise to about 325,000 by 2036 (Liverpool City Council 2012, p. 5).

72 At the 2011 census, the median weekly income for residents within the City of Liverpool was lower than the national average and the area was linguistically diverse, with a significantly higher than average proportion (55.9\%) of households where two or more languages are spoken (national average was 20.4\%), and a significantly lower proportion (44.4\%) where only English only was spoken at home (national average was 76.8\%). The proportion of residents who stated a religious affiliation with Islam was in excess of four times the national average.

73 At the 2011 census Aboriginal and Torres Strait Islander people made up 1.5\% of the population.
Multiculturalism and environmental belonging

The rapid growth in population and the change in demographics has placed pressure on the social and cultural fabric of the region, increasing demands on government infrastructure and services. There are now several marginalised constituencies in the Liverpool region. The development of a safe, harmonious, civic environment has become a priority and is of significance in countering the social and cultural anxieties that have increased in recent years (Gouriotis & Dabboussy 2007). In the following discussion I touch on strategies of Casula Powerhouse which aim to ameliorate anxieties within the community. They include strategies related to multiculturalism, cultural citizenship and notions of belonging. I pick up and extend these ideas by exploring the motivations of the artist, Diego Bonetto, whose work highlights the potential value of notions of environmental belonging, which I consider in relation to sustainability.

Despite being incontrovertibly diverse, Australia remains divided over the subject of multiculturalism within the political landscape. Since the 1990s, a binary vision of white Australia pitched against a multicultural Australia has continued to surface in political debate and media. Early criticism of multicultural policy was based upon the perceived threat that it posed to a vision of a unified Australian culture, threats to employment and to the security of the nation (Papastergiadis 2004). In pursuing its own response to issues of multiculturalism and the arts, Casula Powerhouse has included the concept of cultural citizenship in its visioning. Cultural citizenship focuses attention on notions of recognition and empowerment, and on processes of learning, for the creation of a tolerant and functioning democracy (Gouriotis & Dabboussy 2007). According to sociologist Gerard Delanty the formation of cultural citizenship has developmental and transformative impacts on the learning subject, which go beyond cognitive competence. He argues that the future of citizenship as a strategy to oppose racism and xenophobia will need to cultivate what ’might be called a new language, or cognitive structures for learning’ (Delanty 2003), and which, by extension, entail a more discursive citizenship (Febrve 2000).
An aspiration to support cultural citizenship, cultural belonging and the building of vibrant and robust communities underpins the critical work that Casula Powerhouse is engaged with, acknowledging that:

If cultural citizenship is not managed in a generous and respectful manner, poor cultural citizenship organisation has the potential to undermine future economies, environments, cultural and broader social structures (Gouriotis & Dabboussy 2007, p. 1).

Cultivating a vibrant multiculturalism and supporting the development of cultural citizenship in Australia’s diverse communities does not rest only on the efforts of communities. It also depends on the ability of Australian social and cultural institutions to represent communities inside a multicultural Australia from their own diverse perspectives (Gouriotis & Dabboussy 2007). The aims of Casula Powerhouse and its community partnerships, particularly with the Liverpool Migrant Resource Centre (MRC), are to reduce social and cultural anxieties and to increase cultural citizenship by engaging with different communities on their own terms and by being responsive to specific frustrations, aspirations and needs. The programming of Casula Powerhouse encourages people to look outwards rather than turn inwards ‘to explore aspects of other cultures while reflecting on their own’ (Gouriotis & Dabboussy 2007, p. 2). Critical to this kind of leadership is the provision of space where multiple voices are heard, understood and presented. Resourcing this work is an ever-present concern, and without adequate support, the building of cultural citizenship toward full social and democratic participation is compromised:

This type of long-term engagement with individual communities is dependent on the organisation itself being resourced adequately to be able to ascertain and service shifting needs. These types of community relationships take many years to develop and without the Liverpool Migrant Resource Centre and the Casula Powerhouse being funded to interact with these communities, the bridging process from migrant to citizen might become challenging (Gouriotis & Dabboussy 2007, p. 3).

Cultural citizenship is relevant within this field study because of the emphasis that its theorisation places on active, lawful citizenship seen through the discourse of multiculturalism. The migrant experience of mobility and displacement has been
closely theorised by multicultural scholars. The literature examines notions of place by raising questions of belonging, relevant to many Australians (Papastergiadis 2009, 2013; Hage 2003, 2012; Jakubowicz 2010). In the case of Bonetto’s artistic practice, he explores the importance of *environmental belonging* within twenty-first century multicultural Australia. Environmental belonging adds another dimension to questions of citizenship and individual identity, raising concerns about how diverse peoples connect to the places they live in, and care for the environments they inhabit.

An interest in environmental belonging can be found in the work of several authors whose concerns reflect Bonetto’s own. Authors in multicultural studies provide vivid accounts of the lived experiences of immigrants and the dislocation that can occur between a physical present and a remembered past. Ghassan Hage describes his memories of escaping civil war in Lebanon and coming to Australia as a young man. He remembers distinct feelings of living in a state of suspension ‘produced by an acute sense not only of displacement, but also of directionlessness’ (Hage 2012, p. 251). During his early years in Australia, Hage lived with an almost total detachment from reality, a ‘transitional space’, in which he did not consider Australia to be suitable for the purpose of settlement or long-term planning. Hage relates the experience to what French sociologist Bourdieu has called a space of ‘zero social gravity’:

> If one has no interest in the social reality in which one exists, then reality in turn fails to impose itself on one’s senses and fails to pull one in. Reality loses its importance and, because of this, it loses its consistency, and even the materiality of the physical environment diminishes (Hage 2012, p. 251).

Hage has remained in Australia and has contributed significantly to understandings of multiculturalism and cultural belonging. In his essay, *The fig, the olive and the pomegranate* (2012) he offers reflections on the way memory and materiality are connected. Returning to his émigré grandparent’s house in Bathurst with his own family many years after the house has been sold, Hage delights to discover that his grandfather planted three trees in the suburban backyard many years before. Hage recognises a fig, an olive and a pomegranate
tree that were planted by his grandfather as a symbolic representation of ‘the holy Mediterranean trinity’. This experience had the effect of grounding Hage in Australia:

I stood feeling rooted, feeling more Australian than ever. What was surprising about this feeling was not its paradoxical nature. Rather, it was how non-paradoxical - or, to use the equivalent of paradox in the emotional realm, it was how non-ambivalent - this feeling of rootedness in Australia was (Hage 2012, p. 253).

The emotional experience of existing between and within two different cultures challenges simplistic notions of belonging, and raises questions about how a person can live between two or more places and develop strong and meaningful attachments. Hage is cognisant of the complexities of Australian history, theories of place and the territorial and claustrophobic dimensions of roots and rootedness. His experience is defined as one of an 'open, non-exclusivist, rootedness'. Within this discussion the material forms that produced Hage's metaphorical rootedness in Australia (and simultaneously in Lebanon) were trees. On reflection, trees and their roots (and the seeds from which they grow) are mobile and highly adaptive across territorial and geographical boundaries, moving without concern for human geographies, borders or constructs of place.

In an ethnographic vein, Mandy Thomas recounts the transitional lives of Vietnamese people living in Australian cities. Their 'experience of other times and spaces have become enmeshed with the everyday experiences [...] and reveal that a home's place in the world may have resonances with spaces in the imagination' (1999, p. 62). The author’s extensive field studies within the Vietnamese community in Western Sydney provide revealing accounts of the ways plants become points of identification with cultural meaning:

The day Huy's extended family moved into the house, Manh noticed a banana tree in the back garden that no-one had pointed out before. The tree was laden with green bananas, and one of the hands of bananas was like an enormous double hand, with more than a dozen bananas suspended from it. Manh was so excited, he ran into the house shouting, 'Huy, this is the right house. This is a very lucky house. Look at the banana tree, we will have good fortune here. You were right, older brother. This is a special place'. Everyone
poured out of the house to see the banana tree. Huy and Manh’s parents went up to the tree and prayed to it, quietly muttering incantations for prosperity and good fortune (Thomas 1999, p. 42).

Social space is embedded in a consciousness that is both metaphoric and physical and moves back and forth in time, creating a kind of confluence of 'bodies and space against a temporal backdrop' (Thomas 1999, p. 42). This notion of social space moving backwards and forwards in time is richly material as well as existing in the imagination. It is suggestive of how individuals and collectives come to care for particular environments, activated by a complex matrix of living memory, lived experience and a sense of belonging. Both Hage and Thomas emphasise the importance of plants and their material agency, providing a tangible link between past and present, here and there.

Like these authors, the artist Bonetto examines the link between cultural identity and environmental belonging, particularly for first generation Australians. Born in Italy, Bonetto grew up on a farm in Piedmont in the north of the country. In moving to Australia as a young adult, Bonetto was aware of himself as an 'exotic' non-native within this country. Integrating his own migrant experience with his interest in plants, he developed a curiosity about the value that plants have for people, especially when they move between cultures. His childhood experience of foraging for seasonal wild foods such as chestnuts, mushrooms, nettles, dandelions and mulberries in Italy - a place where the practice of foraging has a long and valued tradition - was formative. The strong European tradition of harvesting wild plant species influenced Bonetto’s (amateur) passion for ethnobotany, the scientific study of complex relationships between cultures and (uses of) plants (Acharya & Anshu 2008). This study informed Bonetto’s deeper reflections on the personal connections that people develop toward environments, as was his own experience:

I grew up picking dandelions, you know, and the fact that there was that connection made an enormous difference for how, why, seeing the landscape, I engaged with it and cared for it. It forged a belonging, it forged a caring kinship (CPAC Interview).
Bonetto came to Australia and was able to identify with species from his home in Italy. He claims this forged a sense of care within the Australian context, easing the dislocation he experienced: ‘there's grasping, catching, you know, looking for things that makes sense, all of a sudden, okay - dandelion! It makes sense now’ (CPAC Interview). Bonetto has combined personal experience and studies in ethnobotany into an artistic practice that focuses particularly on 'spontaneous flora' in the Australian context. He addresses the link between cultural identity and environmental belonging by encouraging migrant communities to develop close bonds to places in Australia - a new country - while recognising and celebrating the traditions they bring from elsewhere. He is interested in the mobility of both plants and people and draws attention to contemporary concerns for changing ecologies in urban Australia. This combined interest in places and peoples situates Bonetto at the very intersection of social and environmental belonging and hence he is a valuable identity with whom larger questions of sustainability can be raised, distilled and addressed.

Rekindling old knowledge: Foraging in Western Sydney

Bonetto's work raises questions about how we care for place in a twenty-first century multicultural and suburban Australia. He draws attention to a multicultural landscape of plants and people, arguing against the romantic urge to return to an Australian landscape of pre-colonial times, claiming 'we must get over our post-colonial guilt' (CPAC Interview). By this, Bonetto is referring to what he perceives to be a guilt complex in Australian environmental management about the intrusion of non-native species into pristine ecologies. Although Bonetto acknowledges the damage that introduced species have done to native environments, he does not support the eradication of weeds through chemical controls, which is an established practice in Australian land management:

> The only way you can bring back natural environment is a very minimal impact area then you successfully keep them safe, and keep them actually original, keep them as a sanctuary for Australia as it actually was. Anywhere around here, anything that you do is just a fallacy. It's cosmetic for cultural politics. This is not me saying that, this is weed scientists (CPAC Interview).
Instead, Bonetto encourages a more benign attitude toward non-natives and a deeper understanding of the value of many of these species for eating, medicine and commercial use. He does this through engaging with traditional and contemporary practices of foraging, a traditional custom with the potential to support sustainability goals.

Foraging, 'the opportunistic gathering of foodstuffs as they grow wild - is a practice that predates modern agriculture for the collection of edible plants' (Disalvo 2012, p. 112) and has had a resurgence in recent times. Disalvo suggests this is because 'it is hyper-local, sustainable and often provides novel food varieties' (p. 112). Bonetto's cross-disciplinary projects coincide more generally with a contemporary kind of interest in food and agriculture. There is an increasing number of artists and designers working with practices and discourses of small-scale agriculture. An example of how both artists and designers are engaging cuisine and food consumption as mediums of expression and themes for investigation can be seen in the 2012 exhibition Edible: The Taste of Things to Come at the Science Gallery in Dublin. The exhibition featured more than a dozen projects, many of them interdisciplinary and speculative in nature. Evidence of this resurgence is also reflected in popular culture, with celebrity food advocates, an increase in local food markets, and the artisanal and slow food movements. Contemporary award-winning chefs such as Rene Redzepi of Noma in Copenhagen are relying on 'wild' ingredients, and furthermore the phenomenon of the 100-mile diet is evidence of foraging internationally (Smith & MacKinnon 2007).

In urban planning terms, foraging has been mostly conceptualised as out of place in urban landscapes and has been actively discouraged in regulations and planning practices and in the attitudes of conservation practitioners. It is often associated with rural life and seen to be ill-suited to peri-urban and urban contexts. American researchers, McLain et al. (2005) investigated foraging practices by utilising an integrated political ecology and human-plant geographies framework. They argue that the practice of foraging has the potential to support sustainability goals as well as challenge prevailing views about the roles of humans in urban spaces. Their
research across four major American cities reveals a vibrant, informal practice across a diverse spread of urban residents. They argue that:

Foraging deserves to be considered a legitimate and potentially positive practice in urban ecosystems, drawing on evidence from an extensive review of the literature on human–urban nature interactions and findings from exploratory urban foraging studies in four US cities (McLain et al. 2014, p. 222).

While urban foraging spaces and practices challenge current notions of how urban space is used, McLain et al. (2005) suggest that foraging can strengthen green space planning. There is a need for updated regulation and a reconceptualisation of urban green space as a valuable ecosystem service and potential food source. Historical representations of nature in the science and practice of urban green space planning show how 'its normative assumptions erase urban nature as a provider of natural resources for individual or household consumption' (McLain et al. 2014, p. 222). Such recognition, in fields like geography and the environmental humanities, of the historical social construction of urban green spaces may support the emergence of new attitudes and potentially new legislation. Further challenges to the social construction of nature through the examination of urban nature in terms of the underlying and interdependent networks, as well as the agency of human and non-human actors, may also influence the development of new practices. On this level, Bonetto's artistic practice presents challenges to the management of urban public spaces, giving voice to diverse plant species, and suggesting alternative modes of operating and interrelating.

Negotiating, mediating and translating the non-human world

In their efforts to promote environmental sustainability, Liverpool City Council (Casula Powerhouse is a cultural facility of Liverpool City Council), has an established mandate outlined in key policy documents. While council have sustainability goals, the reality of high levels of growth driven by a development imperative in the region make it a challenge inflected with paradox and contradiction. They have defined sustainability as 'a change in approach to civic leadership and decision-making whereby environmental, economic and social-
cultural considerations are equally embraced for the well being of present and future generations,' stating that 'council has a legal duty to reduce its environmental impact, to both manage operating costs and to act as an example for the community' (Liverpool City Council 2012, p. 5).

The council acknowledges that the predicted substantial increases in dwellings in the region to accommodate the rising population will 'create pressure on the existing urban and natural environments and is a major challenge in planning for a sustainable future' (Liverpool City Council 2012, p. 4). However, there is no mention in the council's Integrated Environmental Sustainability Action Plan (IESAP) of the importance of local food production, the history of food production in the region, or the possibility of urban spaces being used for growing or foraging. By localising food systems, reducing food miles, facilitating active spaces for collective gardening and creating social spaces for diverse publics, the council could address several of the social and environmental imperatives that come to the fore through Bonetto's practice.

Bonetto highlights the spatial and geographical dimensions of the places he engages with and the mostly overlooked land use practices that he observes with ambivalence. His attitude toward 'spontaneous flora', and in other parlance, weeds, is that they have become 'scapegoats' for more serious systemic environmental problems: 'I respond to looking at mismanagements and the deterioration of landscape and lands and deterioration and loss of culture and connections' (CPAC Interview). He inadvertently interrogates assumptions implicit within the Key Performance Indicators (KPIs) of Biodiversity in Liverpool Council's sustainability strategy, which are common across many Australian councils. He questions the notion that it is essential (or even possible) to fully restore native species of plants and animals within the contemporary Australian suburban context. Liverpool Council's concerns about the threats to biodiversity are reflected on here:

The intensification of development has placed considerable pressure on biodiversity in the Liverpool LGA through land clearing for developments, introduction of exotic species,

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74 The Integrated Environmental Sustainability Action Plan (IESAP), outlines the council's position that as a 'consumer of resources, producer of Greenhouse Gases, community leader and statutory body, Liverpool City Council recognises that it has a significant environmental sustainability planning role in Western Sydney' (IESAP 2011, p. 6).
storm water impacts and altered soil conditions. Further urban impacts have occurred through weed invasion, altered fire regimes and edge effects (Liverpool City Council 2012, p. 14).

While conscious of these threats, Bonetto argues that blaming weeds and introduced species is problematic in the Australian suburban context. As an artist whose work focuses on the cultural understandings of land and environment, he negotiates and translates an alternative perspective and cites the World Wildlife Fund for Nature to attest 'the biggest threat to biodiversity is not weeds or pests, it's loss of habitat due to industrial farming, mining, deforestation and sprawling suburbia. We are the biggest threat to biodiversity' (CPAC Interview).

Bonetto has spent years researching and developing his knowledge of weeds in urban environments, and as a champion for weeds is now known as 'The Weed One'. He considers his in-depth knowledge and scientific understanding to be essential within his practice. His evident scientific understanding, and his way of translating cultural practices into the discourse of the hard sciences strengthen his communication of contested ideas. He uses his understanding of science to legitimise the claims he makes, cognisant of the ambiguous authority of artists: 'I can give you some hard science to prove what I say and with that I build up some credibility and legitimacy' (CPAC Interview). Although Bonetto grounds his work in empirical research, he is really a cultural mediator working across disciplinary boundaries, blending hard science with humour and storytelling. Far from representing an alternative utopia, he creates experiences that have entertaining, engaging and educating qualities situated within local place and local practice. Through his advocacy for maligned plants species and traditional knowledge he opens up dialogue about natural systems and the human knowledge systems that impact upon them. Bonetto made clear in our conversations that he is challenging taxonomies within the natural sciences and questioning the impact of these knowledge systems in the world. He advocates a kind of 'biophilia' (Wilson 1984), a broad and inclusive attitude toward living systems that recognises and appreciates the resilience and adaptability of plants and changing ecosystems.
The artist’s celebration of weeds is also a celebration of the asymmetrical and the impermanent, offering a view of the natural world that tempers human dominion, control and mastery. He enters into debates about biodiversity from a very different perspective than the one that is widely accepted in the community or reflected in council practice. Bonetto is convinced that there is more value in recognising and utilising the edible and medicinal potential of various spontaneous flora that exist within the urban context. He encourages people to become familiar with these plants and through this process to connect with well-established traditions of foraging for wild plants, traditions that have existed within many cultures across the world for centuries.

Caring for place in 21st century suburban Australia

The acknowledgement of the suburbs as marked by difference and diversity is part of the work that Casula Powerhouse takes up through their engagement within the region. In 2014 approximately 70% of Australians lived in suburban environments, presenting a challenge for future planning and sustainability aspirations (O’Connor & Healy 2004; Salt 2001). Reviewing recent planning and sustainability discourse, Davison (2006) suggests a general reluctance to articulate an 'expressly suburban vision of sustainability' and a tendency to focus only on urban, inner-city planning. This vision favours 'consolidation' over 'sprawl,' revealing attachments to a future vision that can erase the past by rebuilding and redesigning for greater efficiency in the urban context (Davison 2006). This discourse shows very little interest in or awareness of the ambivalence toward technological progress and the self-sufficiency that was embedded in early suburban ideals of a 'retreat to Eden'. Davidson argues that this is an over-simplistic assessment that tends to deny or ignore the 'practical role of suburbs as places of emotional, moral and spiritual refuge from the excesses and risks of modernisation' throughout Australian settlement (p. 209).

Reflecting on Australian suburbia today means recognising difference and diversity, rather than the default image of sameness, since 'class and religious divisions, if not always race and ethnicity, have a long history within suburban
communities’ (Hamilton & Ashton 2013, p. 8). Dominant stereotypes also locate the suburbs on the margins, outside of cultural sophistication. But these views are changing as ‘suburban dwellers themselves have redefined being cosmopolitan as house prices in the inner suburbs skyrocket and push people further afield’ (Hamilton & Ashton 2013, p. 4). Historical and sociological analyses provide an understanding of the ‘ambiguous character and paradoxical consequences of suburban ideals in the making of Australian modernity’ (Davison 2006, p. 202). Davison contends that suburban desires and suburban impulses have continued to redefine the boundaries of the city as both a reaction against, and a product of, modernising imperatives. As suburban sprawl increased over the twentieth century, the dream of an autonomous and private Eden appeared to be disappearing very quickly for those living in the suburbs. The growth of the suburbs produced anxiety, particularly an inter-generational anxiety since one generation’s experiences of relative space and freedom were compromised for the next generation by the continued, closing-in of further development.

By the 1990s a common portrayal of the suburbanite within the urban sustainability planning literature was of a person who has become enmeshed in a routine of consumption heavily influenced by ‘physical determinism’. In this world the suburban, car-driving consumers are defined by their need to consume and they exist in a social world specifically designed to supply their needs and reaffirm the same patterns of (mostly) mindless consumption (Riddell 2004). Within this discourse:

The Australian suburban experiment appears as an evolutionary dead-end: A cul-de-sac that must be broken open to make way for sustainability, that is authentically urban paths of development (Davison 2004, p. 209).

However, Hogan and Davison contend that standard environmental accounts of the Australian suburbs as ecological wastelands are misguided. While it is evident that everyday collective suburban life is materially intensive, and exacerbates broad concerns for sustainability, social theorist, Trevor Hogan argues that this is a simplification. The rhetoric in planning literature of a consumerist suburban sprawl ‘commonly discount[s] possibilities for distinctly suburban responses to
the twenty-first century challenge of sustainability' (Davison 2006, p. 209) and further, the push to consolidate populations in the city bears the significant risk of creating suburban disadvantage (Randolf 2004). Hogan argues that the 'dominant ecological imaginary in Australia is suburban' and he describes many of the backyard practices that are performed within this domestic suburban ecology:

> Of far greater importance to the shaping of suburban consciousness in Australian cities is the experience of domestic natural ecosystems and the 'socialisation' of these ecosystems through gardening, garden economies, stakeholder democracy, back-shed poiesis, network utilities, leisure pursuits and so on (2003, p. 54).

Many contemporary responses to sustainability have recently emerged out of the suburbs or have found their greatest audience in the suburbs, for example via the permaculture gardening, Do-it-Yourself (DIY) and urban landcare movements. A small number of environmentalists note that minor physical changes could realise profound improvements in sustainability within the suburban context (Trainer 1995).

In an increasingly multicultural Australia, understanding the role of social values in the development of suburban life becomes an increasing priority, and reckoning with diverse social values will continue to be a major challenge in supporting the rise of more sustainable communities. While sustainability is a civic concern that cannot be resolved through technical and managerial thinking alone, lived experience is nevertheless at risk of being 'lost in the din of clashing data sets' (Davison 2006, p. 201). Beyond expert discourse about risk and efficiency, Davison suggests that a historical and sociological approach to researching how sustainability may be enacted in suburban Australia will provide:

> Strategies for softening rigid, dogmatic interpretation of sustainability, shifting the focus of discussion about sustainability and planning from technical attempts to design the future, to genuine dialogue about practical ways of negotiating and embodying shared aspirations (2006, p. 212).
The value of contemporary cultural organisations such as Casula Powerhouse lies in their provision of civic spaces where the collective project of suburban sustainability can be explored, alongside many other critical engagements, such as supporting cultural citizenship, discussed previously. With a clear focus on the South West Sydney region, and an engagement with changing global dynamics, this civic space has a distinct agency, providing a meeting ground for transformational processes.

OBJECT

The Trickster effect: Art beyond aesthetics

Art that is devised to utilise the social world as material must have a good idea of its own purpose and persuasive intent if it is to be ethically, politically and aesthetically well-realised. Clarity of motivation and stance - toward therapeutic value, transformational intent or provocation and disturbance to the status quo - is significant. In discussing creative intentions, Kester (2005) argues for a conversational art which allows the viewer to speak back to the artist in certain ways, and for this reply to become a part of the work itself. This call and response mode of working brings the viewer into a role as participant and co-author. According to Kester the value of this process lies in its ability to build solidarity between artist and participant, and he frames it more broadly as a kind of citizenship exercise, where art may stand for the political project of fostering solidarity. In Kester's view the artist is guided by the practice of dialogue, underwritten by a sense of urgency about the diminishing value of collaboration in a society governed by zones of expertise and isolation. Kester claims that the success of such work is dependent on the artists’ sensitivity and awareness of histories, cultures and political dynamics as well as their capacity to grow and maintain meaningful relationships with participants.

In an assessment of the most significant socially engaged, place-based projects of the past five years, Doherty argues for the merits of multifaceted, temporary and
durational work that is experiential and highly visual, involving not only other artforms, but other fields of knowledge and lastly, work that is 'spectacularly engaging' (2007, p. 9). Bishop and Kwon are both sceptical of whether the benevolent role of the artist as a facilitator of cooperative action actually makes the most interesting or 'useful' art (Kwon 1997; Bishop 2006). They argue that art may be better served by confronting darker and more ambivalent considerations through provocation, disturbance, disruption and doubt.

In this study the most successful forms of social engagement are considered to combine Kester’s and Kwon’s evaluations of social engagement. This is based on the assertion that if an artist assumes too great a distance through a stand-off approach, they will forsake the participatory value of working in a responsive way to the specifics of real places and real peoples. Equally, if the artist does not go beyond the provision of therapeutic outcomes, the chance to critically engage, provoke and challenge audiences is lost. In the following section I describe the combined identity of the 'trickster' and the 'cultural worker' within Bonetto’s practice and reflect more generally on the dematerialisation of the art object.

The artist Bonetto identifies himself with the fifteenth century court jester and the mythological 'trickster', and as previously described, Bonetto’s approach to environments relies on processes of engagement and subtle provocation by presenting counter narratives to mainstream land management, food systems, human health, contemporary consumption practices and environmental health. His work (as a form of material culture as well as art) holds space for contradiction and paradox. Drawing on the work of anthropologist Lewis Hyde, Lally suggests that the methods of artists who work in the register of the 'trickster,' although aspirational, are grounded in the status quo:

Hyde points out in relation to the trickster's disruption of the status quo, this can be somewhat deceptive: trickster stories are radically anti-idealistic, they are made in and for a world of imperfections. There are indeed many artists, Hyde argues, who choose to work in a way that hopes to combine disruption with repair. They disjoint what they have found themselves born to, but then go on to make new harmony in place of the old (2013, p. 256).
Bonetto also refers primarily to himself as being primarily a 'cultural worker', someone who in the broadest sense, uses language (words, visual art, music, film, and voice) to inform and inspire individuals and communities to transform themselves (Stauffer 2006). Cultural work has been described as the combined 'voice, knowledge, intelligence, and experience of a story [conscious] leader, [facilitator, scholar-artist] to unite a group of people' (Gilliam 2006, p. v) with a goal of embracing or creating a space that empowers. A cultural worker takes up the intellectual challenge of assessing and analysing a situation within the world with the intention of altering and improving it. Considered in this light, the art that emerges from cultural work is always involved in an assemblage of real worlds, both human and non-human – its milieu is at once material, political, socio-technical, poetic and aesthetic – and thus no single interest can determine its meanings and effects. Bonetto’s own ideas about sustainability reflect this position:

I interpret sustainability myself as an artist as a process of engaging with the cultural power that we have as cultural workers with the whole discourse, to broadcast, validate, highlight, all of that is the complexity of the new world that we need to live in, that we're living in, the new world is happening all the time (CPAC Interview).

These images of the cultural worker and the trickster both have implications for how we configure the environmental artist. Seen this way, the artist is no longer a 'visionary' or critic who holds a mirror to our follies (and thus stands outside, despite their rhetorical inclusion 'in' nature). Instead they stand within an open-ended network of participants, caught up in the contemporary imperfect present. Bonetto’s position is grounded in a pragmatic acceptance of the damage he perceives within local environments, but he also adopts a trickster’s role, and is able to question and provoke, and combine disruption with repair.

Making art in this situation becomes a way of interacting with, and bringing to the fore, some of the historical assumptions that underlie relations to nature and the decision-making that follows. Bonetto’s practice has dematerialised over time, to the point where he very rarely sells material objects as artworks. He generates his income through selling a process, and is reliant on his own cultural value to make a
living. The final exhibition of *Wild Stories* (after an 18-month residency), was primarily a documentation and presentation of process. The final exhibition included a large-scale representation of the *Wild Stories* online community in the form of a 'Facebook wall'. The wall used the visual branding of Facebook and incorporated text, video and photographs into the graphic treatment. The exhibition also drew together prints, drawings, video and sculptures made in collaboration with selected artists. As an employee suggested at the Art Centre, 'it’s actually not so much about the show as a product; the product is just a showcase of what was more important to him, which is the engagement process' (CPAC interview).

By working in this mode, artists fall across a spectrum between those who invite participation (while essentially remaining the signatories of their work), to those artists who embed themselves within the social fabric of a place through intervention and who work collaboratively, effecting a kind of social dialogue. Artists like Bonetto who are channelling their energies into a socially engaged practice emphasise inter-personal exchange, large-scale collaboration, social engagement and, in a certain sense, political mobilisation (Muller 2010). Participatory practice often eschews representational processes, aligned with a trajectory in Western art from minimalism onwards. There are historical reasons for the development of participatory processes, some obviously political, others more conceptual. Many are a rejection or resistance to the established art market. In the following section I briefly explore how this creative process has influenced the Art Centre, and consider how sustainability is being integrated into the material and social field of Casula Powerhouse.

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75 Doherty (2007) claims there has been an unravelling within the debate about key roles for the audience. The nature of engagement has been under scrutiny, complicated partly by a misreading of Bourriaud’s ‘Relational Aesthetics’ and confusion of ‘relational’ with ‘social engagement’. Theorists and critics are deliberating the merits of quality and the significance of these emergent forms (Doherty 2007). They offer cautionary warnings to artists and to curators on where, how and what to develop (Kwon 1997; Kester 2005; Bishop 2006; Doherty 2007).

76 The historical legacy of participatory practice reflects an interest in lived experience and the dynamics of the social world. There is a growing typology of methods and modes of working to distinguish the characteristics of socially engaged art projects. More recent developments include ‘dialogical art’, ‘relational aesthetics’, ‘social aesthetics’ and ‘new genre public art’ (Bourriaud 1998; Kester 2005).
Evolving challenges for sustainability at the Art Centre

The increasing number of artists who are exploring sustainability-related themes and turning toward collaboration and de-materialising their practice has produced feedback loops amongst staff, and there is now a growing awareness about sustainability within the Art Centre. In recent years the building itself and its operations have advanced, adopting Liverpool City Council’s sustainability guidelines. Across council changes to public building infrastructure have included improved lighting, climate systems and recycling programs. Nonetheless, there are several limitations, which place constraints on how individuals and the organisation at large are responding to sustainability.

My conversations with staff revealed the existence of tensions in response to the challenge of taking up sustainability broadly across the organisation, particularly in new modes of programming. These concerns demonstrate how sustainability and its meanings are currently conceived within this organisation. A desire for authenticity – in how relationships develop with communities and how these evolve within programming – is a priority at the Art Centre. There appears to be ambivalence towards instrumentality and to taking a preaching tone, especially toward people (whether staff or visitors) who have experienced physical hardship or who are socio-economically disadvantaged. Views shared by one employee showed how, as a professional within the organisation, her own lifestyle choices and values differed from others working at the organisation. She suggested that sustainability provoked a level of inner conflict for her because:

Politically it’s a huge minefield [...] I don’t think that I have the right to lecture people or tell people how they can live their lives when I’ve come from a position of privilege and they come from a completely different socio-economic environment. You know, because I don’t ... I think that if I ever said anything, people would say, what gives you the right? (CPAC Interview).

The question of how to approach conversations, which explore material consumption, lifestyle choices and social aspirations within the broader Western Sydney context, is not straightforward. They involve political and ethical
considerations. The first priority of the council and of the Art Centre is to support communities in the region:

The focus is really about very diverse communities and also a community that really struggles socio-economically. The focus is making sure that the community functions and I think that sustainability issues kind of come second (CPAC Interview).

This perspective suggests that while opportunities may exist to communicate with a large, general audience through the Art Centre, employees are uncertain about how to actualise this potential, and they also have some reluctance to doing so, due to a perceived lack of interest or relevance for the community itself. Another significant concern relating to sustainability at the Art Centre revolves around the long-term viability of the organisation. The issue of continuity was raised in association with concerns about economic sustainability: 'it’s not just about the stereotypical sort of green movement. It’s about practicability and it’s also about continuity for us here' (CPAC Interview). Like most cultural organisations, the long-term survival of the organisation is always at stake:

This does relate to sustainability as well, in that arts organisations are always so stretched or under the pump with a lack of resources both financial and human, they're just trying to get through to the next exhibition and that direct communication of environmental change, is probably not at the kind of forefront of their mind (CPAC Interview).

Other conversations at the Art Centre revealed that sustainability is considered by some to be dependent on top-down, mainstream decision-making, which has a managerial image that does not integrate very easily into cultural programming. Councils, governments and the media have driven this mainstream image of sustainability more generally (examples given to illustrate these common associations included ‘green’ festivals, government programs and Al Gore's An Inconvenient Truth). Reflections from professionals seemed to suggest that the current image of sustainability is off-putting for people: ‘when it becomes programmed into so much of our everyday lives, it’s almost got this tackiness to it’ (CPAC Interview). From these conversations, it seems that sustainability and the
associations it evokes, fail to speak directly to people’s lives or fail to represent them in culturally specific and culturally relevant ways.

This brief discussion shows that despite the potential for the Art Centre to engage with the interrelated dimensions of sustainability, the enactment of sustainability demands a deeper engagement with underlying political and ethical considerations. This is complicated territory for any cultural organisation, and one that requires strategic and creative direction driven by leadership, experimentation and critical evaluation.

Chapter conclusion

One of the central aims of this thesis is to explore distinctive design and programming decisions and to reveal how they engage imaginatively with sustainability concerns. In the previous field study, sustainability is defined as a clear concept and headline issue. The exhibition seeks to enroll the public in a learning experience through close and informative encounters with the work of scientists, engineers and designers. This is achieved through the treatment of an interior exhibition space, and it relies upon the material thinking of the curator who works closely with the mass of objects sheltered within the large, historic collection. The exhibition itself is mostly abstracted from ‘place’ and its mode of address is generalised.

In contrast, Casula Powerhouse Art Centre has developed its own richly embedded project of Design for engaging. In this case engagements with sustainability are much more contingent upon an interplay of events that are located very deliberately in relation to place. Objects (as dense and solid material ‘things’) within the museum collection fall into the background. In fact the Art Centre prides itself upon the development of participatory processes that implicitly critique an older (and often assumed) function of museums as showrooms for passive viewing. Events are foregrounded in this study in order to highlight the organisational focus on processes of exchange and learning, which call new communities into being and support cultural citizenship.
The rhetoric of engagement has been examined in recent art world discourse (Doherty 2006; Ang et al. 2011). This critique looks at the ‘actual’ experience of works of art that purport to engage, and it presents a nuanced interpretation of the various kinds of socially engaged practice that have developed in recent decades, from ‘impotent participation to dynamic experience’ (Doherty 2006, p. 8). There is concern that cultural organisations - in their rush to embrace the social world as artistic material and to facilitate participatory projects - may overlook how visitor behavior is already coded by the gallery’s associate exhibitions and programs (which generally demand a more passive series of encounters). Without tried methods and techniques for engagement, exhibitions and programs risk operating on a superficial level, as novelty participatory experience. These may fail to have any valuable impact, either in the community or as aesthetic experience (Doherty 2006).

This field study shows a clear process at the Arts Centre, which ameliorates some of the challenges of developing creative engagements. The horizontal model of decision-making and integrated community networks at Casula Powerhouse supports the social agency of diverse communities in the Western Sydney region. Within this context, the creative tactics of the artist facilitate a ‘give’ and ‘take’ exchange. People were drawn together through Bonetto’s extended collaboration and his own mode of material thinking. The suburban ecology of Casula is closely attended to, through his intimate knowledge of the entangled world of plants and people. This example of collaboration between an artist and organisation maps a cultural network and highlights exchange between the social structure, material infrastructure and material landscapes surrounding Casula Powerhouse. The tactics of the artist involve social exchange and storytelling, and they generate new relationships and new modes of environmental belonging within suburban regions of Sydney. The stories that are shared, speak of different traditions and ancestral knowledge woven into the cultural fabric of Australia. This is done through Bonetto’s recognition of the potential of social engagement to provoke ideas that challenge ingrained assumptions within the community and inspire new ‘everyday’ material practices.
The material thinking of the artist encompasses rich associations of plants and their migratory routes, along with the migration of diverse peoples to Australia and the distinct cultural traditions they bring with them. The artist negotiates place through his process of cultural exchange, creating ties between the wider social, cultural and environmental context. An expansive sense of place that reaches far beyond the physically marked boundary of Casula Powerhouse is activated. Cultural geographer Massey’s (1996) theorisation of a progressive sense of place develops the idea of place as a process of mutually articulated social relations. Her conception focuses on the distinct mixture of wider, as well as more local forms of social relations. In this field study a co-constitution of place occurs through interplay between artist, institution and the individual agency of publics. Aligned with the institutional project of Casula Powerhouse, Bonetto’s work strengthens cultural ties within Western Sydney, while acknowledging a greater flow and mobility between the global and local.

Through this lens, caring for place is a combined process of embracing ‘other’ cultural traditions, while developing a sense of environmental belonging within a local and dynamic suburban ecology. Sustainability is not presented to visitors in Bonetto’s work as a concept abstracted from place; instead, it is an embedded and evolving conversation with place. It is a dialogue about communities, modest environmental action and cultural belonging. The ‘wicked’ problems of global-scale planetary change inform the artist’s own practice and the dialogues that develop in his workshops, tours and the online community; however it is not a clearly articulated concept. Rather than a top-down pedagogical process akin to the Powerhouse Museum, there is a participatory engagement that implicitly questions mainstream practices, which degrade the environment and the artist challenges assumptions of the division between nature and culture.

The artist’s mode of address does not have the same degree of clarity in its communications about the global science of sustainability. However it does promote sympathetic and situated encounters that are useful for gathering attention to local concerns, and for generating modes of caring for place that
‘reverberate outward’ (CPAC Interview). As an individual artist-agent, Bonetto has also generated change within the dynamics of the larger organisational structure, having an impact on the ‘structural make-up of the institution’ over time (Doherty 2006, p. 8). Through his creative exchange, the organisation has had an opportunity to reflect on their unique approach to the theme of sustainability within their programing. This has informed their own process of making sustainability meaningful within this context; where a strong desire for authenticity – in how relationships develop with communities and how these evolve within programming – is a priority for the Arts Centre.
CHAPTER SIX: Design (Inspiring)

Field Study No. 3 Bundanon Trust

*A place is a form of knowledge (Muschamp 1993)*

*I think you come back to the mission, the fundamental, overarching mission of the trust. It’s not in the fine writing there, it’s just in the broad canvas that’s the mission (BT Interview)*

*Bundanon Trust/Riversdale is an enchanted place where heat melts paint into the sand and coral trees burst into crucifixes. Mixed metaphors abound here because there is such a tantalising relation between things - the fluidity of paint and floods, the drift of clouds and the artist’s imagination and so on it goes (Bundanon Trust Heritage Management Plan 2007)*

**Introduction**

Bundanon Trust is an example of an inspired and inspiring vision. Within its genesis and continuing legacy, the organisation holds a vision big enough to create a new type of place, beyond what has previously existed in Australia. Bundanon Trust engages in a particular kind of politics, inverting various mainstream values and practices. This literally amounts to a kind of vanguardism that calls into being a different reality. Such vanguardism is framed here as a form of soft activism, which has a role to play in inspiring an ethos of care. The gifting of Bundanon Trust is a story of “re-imagining” wealth distribution and challenges contemporary notions of property and ownership. Arthur Boyd’s mantra: ‘you can’t own a landscape’ has become a testament of shared wealth and the landscape has become a kind of palimpsest, re-drawn by all who engage with the site. The property has transitioned from an ambitious idea into a living reality. Twenty years after being established, it exists with a mission to design for and create relationships to place, while acknowledging and representing the complexity of Australian concepts of place in the twenty-first century. Paul Carter’s affirmation of the role of material thinking in reclaiming and re-imagining lost or damaged aspects of ourselves and our mythopoetic physical places is redolent here.
Bundanon Trust contributes to a brokering of ‘relationships with degraded environments, displaced others and (their spiritual corollary) an impoverished imaginary’ (Carter 2004, p. xiii).

Arthur Boyd’s own art wrestled with metaphysical dimensions of the Australian experience and his work scrutinised the ‘artificial myths’, both past and present, which have informed the [non-Indigenous] Australian mythos. Since Boyd’s departure, the property has been host to many artists who have also ‘re-materialised these metaphysical myths in the creative process’ (Carter 2004, p. xiii), seeking out new myths, memories and relationships to place, both in the microcosm of Bundanon Trust and the macrocosm beyond. Boyd imagined the organisation as a ‘microcosm’ of connections possible in the world through the lens of a single site (Stanhope 2013). He believed that the arts and sciences share an imaginative faculty, and so he encouraged interaction between the two domains. This perspective has continued to influence knowledge creation and creative entanglements at Bundanon Trust. It involves moving away from the atomisation of knowledge born of disciplinary exclusivity, and shifting focus towards inter- and transdisciplinary modes of knowledge (knowing/thinking), which are particularly visible within the SiteWorks annual project at Bundanon Trust, discussed in this chapter.

Bundanon Trust is made up of a large area of land with two separate sites of public visitation. Each is a former residence of the Boyd family. The image of a cultural organisation as an interior and urbane space is overturned in this setting, situated on 1100 hectares of remote bushland. Getting to the site takes time and effort and takes visitors away from the mediating technologies of contemporary life. Bundanon Trust provides a ‘passing-through place’ (Gibbs 2014, p. 207), a site that is not permanently dwelt in, but nonetheless provides vital conditions for learning and engaging with ethical forms of co-existence. An appreciation of ‘complex interdependencies’ is considered foundational to environmental sustainability, developed through an ‘aesthetic sensibility to complexity’ (Kagan 2012, p. 11). Such concepts have traction within this organisation and can be observed across
the natural systems that combine with the living cultural, architectural and social ecologies on site.

A map for the journey

Themes of place are central for Bundanon Trust – the wonder that 'we' feel in 'natural' places, as well as a sense of the longer, deeper temporal dimensions of time and space. A genuine appreciation of other living systems and recognition of the value of biodiversity are at the core of what Bundanon Trust offers as a site of visitation. The efforts of the organisation to design events and modes of learning that are responsive to the site were observed through participation in programs, particularly the SiteWorks and Touched by the Earth projects. Bundanon Trust is also a place of collection and it houses culturally significant objects that play a key role in the organisation’s identity and legacy. Within the field study, that collection is a contextual backdrop, observed on site and selectively analysed via library archives and web resources.

Conducting research at the organisation has involved several journeys from the city and the experience of travelling to and from the property, and between the two sites that make up the property (Riversdale and Bundanon) has been significant in this fieldwork experience (see Appendices for an inventory of fieldwork methods, materials and analysis). In this field study I focus on changes occurring on the site, using information gathered through interview data, conversations and public documents, reflective of the views of professionals invested in decision-making processes. They illustrate some of the difficulties of addressing change on a large scale within an arts organisation. Decision-making is challenging at Bundanon Trust because of the many dimensions of care that must be considered across environmental, social, cultural and economic domains. Other arts organisations are 'single celled organisms' in comparison to the complexity found across Bundanon Trust. A complex set of agendas jostle and compete for attention, and integrating these diverse agendas demands a constant process of negotiation within this complex assemblage.

77 Please note: Interviewees remain mostly anonymous throughout. In this account direct quotes are followed by (BT Interviews) to indicate the quote is taken from transcripts with employees at Bundanon Trust.
Figure 3: Images collated from the Bundanon Trust Field Study. (List of Illustrations: p. x).
Bundanon Trust: A regional creative retreat

Travelling [A vignette from the researcher's experience]

Bundanon Trust lies west of Nowra, the nearest coastal town, three hours south of Sydney. Leaving Nowra and travelling some of the way along the Shoalhaven River, the single-lane road feels immediately different to the oversized and orderly highway that runs north and south along the east coast. Suburban houses thin out and the verges get wider and messier passing signs for Tapitallee and Camberwell Mountain, small country communities with clusters of grey gums and makeshift country mailboxes dot the roadside. The views open out and suggest a greater remoteness, less people, more space, fewer houses and more bushland. At the first entry point to the property of Bundanon Trust, the road changes from bitumen to dirt, increasing the contrast to the urban infrastructure left behind.

Bundanon Trust opened its gates to the public in November 1993. After a process of negotiation between the Boyd family and the Australian Government, this major property, over 1100 hectares in size, was bequeathed to the Australian people as a gift. Arthur Boyd (one of Australia’s most acclaimed artists), his wife Yvonne and their three children, Jamie, Polly, and Lucy, began their life at Bundanon in the early 1970s. They transitioned from the comforts of life in England and Arthur Boyd’s successful art career in Europe, and chose to return to the rugged experience of the Australian bush. Arthur Boyd felt a strong pull towards the region and to the creative possibilities it held for his painting. He had visited Bundanon briefly in 1971 as a Creative Fellow of the Australian National University and had become enchanted by the Shoalhaven. The Boyds purchased the Riversdale property in 1974 and Bundanon in 1979. Earie Park, a property that
lies between the two, was jointly purchased with Sidney Nolan (a fellow artist and friend of the Boyds) in the 1980s, and it was merged with the other properties in 1993.

As a result of the years of living on the property, combined with his strong attachments to the region, Boyd became frustrated by what he perceived as the indifference of the authorities toward mismanagement of local lands and increasing subdivision during the 1970s and 1980s (Stanhope 2013). In response, the Boyds explored ways in which the 'integrity' of the land and environment could be maintained. This process took many years. Eventually Boyd wrote a six-page handwritten letter to the Prime Minister, Paul Keating, petitioning the government to accept the land as a gift for posterity. Referring to the property, he expressed his hopes that the place could become a site for practitioners in the arts and sciences to work in creative solitude, as well as a centre for education, promotion of the arts and culture and environmental values. In 1993, under the leadership of Keating, the Commonwealth Government accepted the gift and Bundanon Trust was established to manage the properties:

Arthur and Yvonne wanted the land to be protected, but to have its gates open to the world. They envisaged ‘... a living thriving entity. Artists, musicians, writers, film makers, craftspeople, students, can come and stay here and work’. Arthur listed marvellous bushwalks, rare wildflowers, kangaroos, owls, lorikeets, wombats, caves with Aboriginal history. ‘... People could camp along the river bank and enjoy the whole environment’. Arthur himself would keep nothing, except a lifetime status as artists in residence for himself and Yvonne and visiting rights for his family (Bundanon Trust Properties 2007, p. ii).

The gifting of the land, houses, and millions of dollars’ worth of cultural assets has become a remarkable example of philanthropy in Australia. It is recognised as probably the most significant in Australia’s cultural history. Cases of philanthropy exist within the arts in Australia, however such examples of generous wealth combining cultural and environmental heritage and foresight at this scale are very rare.
The evolving mission: New opportunities and challenges

Since opening, Bundanon Trust has operated as a cultural heritage site with responsibility for a range of diverse assets, including the Boyds' historic homes and valuable art collection. It now functions as a multi-stranded arts organisation, providing facilities for artists in residence, education programs for primary school, high school and tertiary students, multi-modal arts events, and increasingly a model for land restoration and environmental custodianship. Over the 2011–2012 financial year there were 29 246 participants who took part in educational, and public programs organised by Bundanon Trust. Over this period 8395 people stayed on the property for between one night and six weeks, and 307 artists and scholars were hosted through the residency program, 7% or them from overseas (Bundanon Trust 2012a).

There are significant heritage responsibilities in managing the historic art collection and the contemporary and colonial architectural heritage, as well as archives from on-site collaborations and evolving creative projects. Resource allocation is central to operations and funding decisions must be made taking into account short- and long-term demands, which compete for primacy. Funding comes from the federal government, private benefactors, educational and public programs, commercial use of the site, private bequests and the development of strategic partnerships to create opportunities for income generation across funding streams.78 The 'Objects and Powers' detailed in the constitution of Bundanon Trust give the non-executive board responsibility to ensure that Bundanon Trust continues as a site upon which a large number of ambitious opportunities and challenges are met.

Growing out of the mission laid down in the constitution, the successful management and building on the gift of Bundanon Trust is an ongoing task. The challenge begins with the representation of a significant Australian story. It is a

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78 The Australian Government has supported Bundanon Trust since 1993. The Trust is also supported by the Australia Council for the Arts, the Macquarie Group Foundation, the Pratt Foundation and a range of other public and private sources.
story that is rich and multi-layered, but also one that must evolve in order to stay relevant and meaningful to new generations. As an artist, Arthur Boyd is recognised as a twentieth century modernist whose artistic identity is tied up with a particular historical moment. The positioning of Boyd and his representation in the promotion of the site has changed over time. This has particularly been the case over the past six years when there has been a push to recalibrate the focus of the organisation. These recent efforts to free up the organisation have been made in order to experiment with different ideas and practices on the property. Many assumptions about who and what the site is for have been challenged as programming has developed, reflecting a more open-ended response to the Boyd legacy. Rethinking audiences and the relationship that the site has with the local community have been major considerations. The motivation to extend the reach of Bundanon Trust and evolve the idea beyond the celebration of Boyd’s memory and generosity (a mausoleum museum model (Witcomb 2003)), has meant dynamic re-invention of the story of Arthur Boyd and of Bundanon Trust as a place of significance:

I think it's Arthur Boyd's values that are now what surrounds the project and it's very strongly reflected in all the ideas we're exploring, and so it's still very much about him, but it's about the philosophical reach and the sort of thought leadership that he actually embraced and would have liked to see (BT Interviews).

Arthur Boyd was strong-minded, with a quiet temperament. He was known to hold firm views on contemporary issues within his own life context, while pursuing deeper philosophical inquiries into the currents running through Western history. He questioned the 'role of the artist and the paradoxes of ethical life' (Stanhope 2013 p. 8) and his painting was an expressive response to the world which engaged with human experience without offering prescriptive solutions or providing answers. His personal values included the importance of 'sharing', of 'doing' (creative practice), the equal importance of the arts and sciences, and the value of the 'environment'.

The kind of moral position and the 'thought leadership' that Boyd modelled in his own life now demands re-interpretation. Values are not static and the present
management at Bundanon Trust appears open to experimenting with the legacy of Boyd in a respectful way, redefining how the core mission manifests in the day-to-day programming and long-term decision-making. Central to the mission is the family's ethos of sharing, which is well documented in histories of the Boyd family and their life in Victoria (Australia), in Europe and at Bundanon. Many people were welcomed into the 'fold' and the Boyds celebrated the act of sharing meals, ideas, time and space. Values of generosity and sharing are embedded in the physical and material histories of Bundanon and continue to be explored as a reflection of the constitution of the Trust in new ways.

The site of Bundanon Trust was originally the land of the Wodi Wodi people of the Yuin nation who speak the Dharawal language. Accounting for the Indigenous and environmental heritage, and exploring the aims of the constitution has led to changes in programming and operations over the past decade. A change in leadership in 2006 began a process that has aimed to shift the primary focus away from the narrative of Boyd’s philanthropy, the colonial history of the site and the Boyds’ life at Bundanon. This change grew out of a recognition by management that the dominant narrative of philanthropy and colonial heritage denied full recognition of primary Indigenous custodianship and stood in the way of working with the contemporary local Indigenous community in meaningful ways:

Because that land had prior custodianship and we really needed to acknowledge that previous custodianship, as Arthur did, really, but I guess the protocols of that acknowledgement were not in place when he was gifting it. So we moved very quickly into a reconciliation action plan, which is ... just a set of protocols, but basically we just decided that that was going to be quite a strong objective, that we would engage with the Indigenous community (BT Interviews).

Previously, the public offerings at Bundanon Trust (for example open days, homestead tours and musical concerts) drew mostly non-local audiences with the 'cultural capital' and art connoisseurship required to engage with the specifics of Australian art history. The decision to create stronger ties to the local Indigenous community was not embraced or understood by everyone associated with the organisation at the time, described by an employee:
A lot of people who come here on Sundays to engage with the homestead thought ‘why would Indigenous people come? They’d be very put off by Bundanon Trust and they won’t come’ ... and you know that was absolute nonsense (BT Interviews).

When he was alive, Boyd was interested in and supportive of Indigenous issues and the Indigenous community in the area and he expressed the hope that there would be opportunities for Bundanon Trust to provide a place for Indigenous and non-Indigenous Australians to meet and work. However in the 1980s and 1990s there was little precedent for this kind of thing in Australia and these aspirations are being realised slowly through the efforts of employees to trial new ways to do this:

I don’t think Arthur ever imagined any structured programming strategies or audience development strategies or anything. The language wouldn’t have been there, and still for a lot of people it isn’t, it’s sort of a professional language, so I don’t think he would have imagined what those opportunities would be (BT Interviews).

The Trust now hosts private events for local Indigenous communities, as well as weaving together these local connections with projects at a national level, with artists coming to the site to collaborate on new projects from across the country. The organisation has also developed a series of planning and reporting documents that take account of the Indigenous heritage of the site, defining best practice in arts and cultural management (Feary & Moorcroft 2011).

Despite Arthur Boyd’s vision of inclusivity, art world stereotypes are powerful in shaping perceptions. In recent years there has also been a more structured engagement with a range of other local communities. Efforts to address the disconnection with the local community, both Indigenous and non-Indigenous has involved strategic leadership. These efforts have increased visitor numbers and affected the identity of Bundanon Trust and its overall promotion. The perception of Bundanon Trust as an ’elite’ organisation is being slowly dismantled and has involved changing the perceptions of local communities:
The motivation was to get them to know about what we did and to sort of de-mystify it and provide a really rich quality arts experience for this region, which I don’t believe the region was getting. Creating a place that local people would feel welcome to visit, that would provide rich and high quality arts experience, without being alienating. To find ways, innovative ways to bring high quality arts experience to the region, that could talk to them (BT Interviews).

The move to develop stronger connections within the local region is reflective of the broad national and international trends in cultural policy, and is echoed in the *New Museology* literature. Harold Skramstad articulated the transformation of the core purpose of museums during the Smithsonian Institute's 150th anniversary. Skramstad (1997) suggests that into the future museums shall be judged on their ability to provide value for a society in a way that builds on unique institutional strengths and senses unique community needs. Incorporating Skramstad’s twofold observation is a complicated challenge at Bundanon Trust, with its multi-layered mandate and high-profile dynastic legacy, but one that is unfolding.

**Bringing the environment and sustainability into the frame**

*The rural imaginary [A vignette from the researcher’s experience]*

*Although only thirteen kilometres from the fork in the road, the density of bush and the descent itself, give the property a sense of isolation. As the road flattens out above the floodplains, buildings come into view. Cattle stables and machinery sheds to the right of the road and to the left, the converted artist residency complex. The long straight road gently slopes toward the nineteenth century Bundanon homestead and on both sides are paddocks of green grass. To the right, stretching to the river black cows graze and big old trees grow in the pastures and clump along the river line. To the left of the road the land dips sloping gently down towards a dam and then up to where the grass stops with the fence line and the tall forest trees begin, rising up to the ridge-line at the top of the property. The homestead is surrounded by clearing on all sides. It is a pastoral landscape typifying early Australian settlement, the encroaching forest held back to allow for grazing cattle.*
For many employees and visitors, the landscape has mostly featured as the dramatic backdrop for a beautiful place to visit, closely associated with the aesthetics of the artist, the family and their bohemian life. As such, the environment (distinct from notions of 'landscape') had not been central to the priorities or promotion of Bundanon Trust: 

We had areas here of lantana that were larger than our farming areas, but they were not evident to the people that come here and see only the built infrastructure in an area of probably 100 hectares, but we've got 1100, so people just didn’t see ... they just didn’t relate to it, whether they weren't interested or they were too busy doing their job. By people I mean staff, visitors, students, artists occasionally go for a wander in the bush ... I don’t feel like there was a lot of interaction with the natural environment (BT Interviews).

In the past six years questions of best practice for environmental management and environmental sustainability have become more central to the organisation. The properties of Bundanon Trust are far from pristine wilderness. Like much of Australia, it is understood and accepted that aspects of the European farming methods used on the properties have degraded the land significantly. The small settlements established in the 1850s in and around Bundanon Trust introduced such practices as domestic animals grazing right to the river’s edge and the introduction of exotic species of flora and fauna, which resulted in large areas being degraded by weeds, with a significant loss of biodiversity (Stanhope 2013). Although these problems are not new, they are only being fully recognised and addressed on the property now.

As a place of high visitation, there has been an ongoing commitment to maintaining a beautiful site for the public. However, beyond the obvious beauty of the property, caring for the greater natural environment and dealing with inherited problems and challenges has only become possible with funding. Ambitious long-term projects reveal a more considered effort to take account of environmental concerns and the Living Landscape project is a significant outcome, with the aim being to increase biodiversity and reconnect native habitat in the Shoalhaven
The Living Landscape partnership catalysed a project valued at $1.085 million across 2012–2015. It has brought together expertise and the resources to confront some of the major challenges facing the property, reversing many years of neglect. It is a restoration program combining best practice in environmental management to support natural ecological processes, with 60 000 trees planted over four years, to encourage biodiverse vegetation, native animals and better soils, and to rehabilitate badly degraded former grazing lands and riparian zones. Seeds have been collected from indigenous trees on site and used to propagate seedlings. The project aims to demonstrate how revegetation of degraded grazing areas can be practically integrated with the Trust’s commercial cattle enterprise.

Best environmental practice at Bundanon Trust is still evolving, and is quite a new concept for cultural organisations more broadly, who must find ways to do this that are appropriate to the cultural identity of an organisation. The intention is for the benefits of this project to extend beyond the property through community engagement and education. The long-term strategy is informed by an inspiring vision of a dynamic and healthy ecology, and in the language of environmental management, it is designed to achieve a net gain across social, economic and environmental indicators. The ambition is for Bundanon Trust to become an ‘exemplar to the farming industry and through good environmental management biodiversity will be increased, native habitat restored and carbon capture enabled’ (Bundanon Trust Properties 2012a, p. 7). The vision is high-risk because it requires ongoing funding to build on and ensure that the impacts are maintained over the long term. This is not guaranteed:

Four years is a long time in, as far as business cycles go, or of how a funding cycle, or a political cycle goes, but it’s not even a pinprick when you’re dealing with the environment. You know, the environment and the farming operation and the natural bush around here doesn’t work on funding cycle or week calendar, month, financial year cycle. It works on

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79 The Living Landscape is a major project with partners including Landcare Australia, Greening Australia, Southern Rivers Catchment Management Authority and Sinclair Knight Merz. The project is funded through Clean Energy Australia Biodiversity Fund and the Borland Bequest (established by Australian businessman, Raymond Borland, to restore non-urban degraded lands in New South Wales).
daylight hours, seasons, availability of moisture, so it’s always a really interesting challenge trying to meld those two (BT Interviews).

From a management perspective, looking after the environmental assets makes good business sense, however the challenge for cultural organisations, beholden to external funding, is that long-term commitments may suffer when funding streams run dry. The issue is one that Bundanon Trust appears to have taken in good faith, recognising the trend in remarkable restoration projects across Australia. The Living Landscape project includes 'carbon capture' and 'bio-banking' initiatives. These are market-based forms of environmental policy and sustainability. ‘Bio-banking’ is a funding concept that provides a streamlined biodiversity assessment for properties to be audited for their biodiversity values. It provides incentives for private land-owners to maintain biodiversity on their land and trade it for credit with a state government agency. It operates as an offsetting scheme for other large and disruptive developments to biodiversity elsewhere in Australia, and provides an opportunity for rural landowners to generate income by managing land for conservation. Similarly, 'Carbon Capture' is a funding concept that requires a 100-year commitment for the preservation of areas of natural environment combined with rehabilitation through tree planting. These are considered 'life of the company changes' in the context of Bundanon Trust and have only been possible through the high-level consultation and support of external partners.

Because there isn’t a solid, ongoing income stream for environmental management, Bundanon Trust faces significant challenges into the future. These concerns are reduced through sharing the risk with other high-profile stakeholders. However, the organisation needs to maintain humility in promoting these environmental programs across other sectors and within the local community. Employees expressed caution about the organisation making premature claims of exemplary status since real success in these areas can only be measured with time:

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80 Similar large-scale projects of land rehabilitation include Keith Bradby’s ambitious Gondwana Link that aims to establish a bush corridor across south-west Australia. In north-east Tasmania, Todd Dudley and the North-East Bioregional Network are restoring native ironbark forest after decades of logging. In south-east Queensland, the author and critic Germaine Greer has bought 60 hectares of degraded farm land and has been restoring its original rainforest, especially the White Beech, an endangered rainforest species in the region.
I think that it’s actually a little microcosm of environmental management on a world scale, really. When everybody is used to dollar signs, financial cycle, financial year calendar, meeting next week ... whereas the natural world doesn’t see any of that. It just sees seasonal, biology, ecological timeframe you know, which is slow, really slow, unfashionable, not very politically motivating (BT Interviews).

Aware of these temporal considerations and the risks involved, the organisation is nonetheless attempting changes that will raise its profile as a site engaged with issues of environmental custodianship and environmental sustainability. The significant commitments toward the rehabilitation and long-term concern for the land reflect an ethic of care. The emerging custodial ethic is part of the evolving idea of what Bundanon Trust is and what it might stand (in) for; along with the set of material processes that develop out of these management decisions. As such, they provide a significant focus for my analysis.

As a site whose mission it is to preserve the cultural and environmental heritage of place, the direction taken by the management of Bundanon Trust raises questions of a metaphysical kind, involving notions of both stewardship and custodianship. These concepts have different metaphysical traditions that are worth touching on here. Stewardship and environmental husbandry reflect a conception of the human–nature relationship considered typical in Christian perspectives where it is the religious duty of people to preserve and protect nature as part of an ordering of value of humans above plants and animals (Birch 1993). Human beings within this hierarchy are conditioned to act in pro-environmental ways, in accordance with their own superior status, and within this worldview, nature is object to the human subject. By replacing the stewardship model with a custodial one, the human species is recognised as operating within, rather than above non-human others, and to be entangled with, and dependent upon them. Thus, human beings are conditioned to act in pro-environmental ways, in accordance (not with their status) but in recognition of an intrinsic interdependence within a matrix of material forces and effects. The underlying assumption of mastery and the superior status given to human beings within the hierarchical model of stewardship stands as a valuable counterpoint to the perspective of several
authors whose writing has informed this research (Haraway 2007; Latour 2008; Muecke 2009).

An ethic of custodianship, as an alternative conception to stewardship, is also reflected in Australian Aboriginal cosmology. The custodial ethic ties people and land closely together through creation stories and a belief in mutual interdependence:

Wherever the Creator Beings travelled, they left tracks or some kind of evidence of themselves. These traces determined the identity of the people. In other words, every Aboriginal person has a part of the essence of one of the original creative spirits who formed the Australian landscape. Therefore each person has a charter of custodianship empowering them and making them responsible for renewing that part of the flora and its fauna (Graham 2008).

Although an Indigenous cosmology does not directly underpin the values of Bundanon Trust, there are certain recurrent themes in the imagining of Bundanon Trust, and in the performance of a custodial ethic, that resonate with Indigenous beliefs. The performance of nature at Bundanon Trust reflects 'best practice' contemporary environmental management, however this operates within a broader conception of custodianship. These can be seen in the management and programming decisions that are designed with care and concern for how human practices integrate holistically with the natural systems of the property. Those responsible for management and programming perform a custodial function and engage with new social and cultural practices that aim to restore health to degraded environments and these actions mirror a broad interest across Australia to build and restore relations between the Indigenous and non-Indigenous community:

Many white Australians are concerned to be involved in the maturation process of Australian society, through support for Aboriginal people/reconciliation; they are searching for a new identity-politically or sociologically. The best way of achieving these ends is to start establishing very close ties with land, not necessarily via ownership of property but via locally based, inclusive, non-political, strategy-based frameworks, with a very long term aim of simply looking after land (Graham 2008).
It is not my intention to argue that Bundanon Trust is governed by an Aboriginal custodial ethic; however, there are similar deep metaphysical layers that exist tacitly within the mission which were defined by Arthur Boyd and which are visible in the contemporary decision-making at the organisation. They speak to a larger conversation about cultural and environmental heritage and the exploration of contemporary desires to forge different bonds with place which are ongoing in Australia. These conversations recognise the challenge and complexity of white Australians sharing land and co-existing with Indigenous Australians.

EVENT

Between the microscopic and telescopic: SiteWorks

Arthur Boyd often expressed a desire for people from different 'communities of knowledge' to meet at Bundanon Trust. As he simply put it, 'I like the idea of people talking to one another' (Bungey 2007). Boyd had a keen interest in science and music: 'Arthur was much more interested in science than he was in art, much more interested in music, than he was in the visual arts, so bringing those things into the mix is very consistent [with the mission]' (BT Interviews). Boyd’s wish for Bundanon Trust to become a space for investigation and conversation across disciplinary boundaries has been realised within the evolving framework of a program that began in 2009. SiteWorks supports research into the history, geography and ecology of the site. It is an interdisciplinary program, and it involves a mode of collaboration that is designed to invite practitioners to 'plunge' into the river together rather than build bridges over the (metaphorical) divide between disciplines (Head 2011).

A partnership between the University of Wollongong and Bundanon Trust was established in 2008 to explore collaborative possibilities across the University’s School of Earth and Environmental Sciences and School of Creative Arts, with the financial assistance of Arts New South Wales and the Australia Council. This is a
key strategy that aims to engage the broader community in artistic and environmental issues that are specific to the Bundanon Trust site:

Bundanon Trust is redolent with meaning, from the stories of Indigenous, Colonial and Boyd occupation, to the rhythmic traces of the flooding of the Shoalhaven River over thousands of years. The participants will explore the potential of the Bundanon Trust site to inspire, inform and support independent research (Bundanon Trust 2012c).

Described as a knowledge-gathering process (Miller 2012), SiteWorks began with a prototype through a creative development residency called Ten Trenches. Led by two brothers, artist, Michael Cohen and geologist, Tim Cohen, the project culminated in a night-time performance, Site by Night. The final work was a dense material inquiry that made deep geological time visible through an excavation on the property. The project saw auger holes drilled, and ten slot trenches dug, in order to examine the flood behaviour of the river from up to 8000 years ago. The purpose of this project was to physically reach the Pleistocene period within the earth’s strata. The Pleistocene was a period when the sea was about a metre higher than it is at present (and it is a level that is predicted to reoccur within the next 100 years with sea level rise). The Site by Night performance illuminated the trenches, and lit the flood plain, generating ‘a sense of the regenerative potential of the planet’ (Miller 2012, p. 14). As an example of a mode of collaborative practice, this project makes a subtle reference to current climate change science, however it ‘is not a simple search for solutions of instrumental application of practice, but rather a way to “slow down” thinking [...] in order to generate new framings of the issues’ (Gabrys & Yusoff 2012, p. 15). The Ten Trenches project set the precedent for the next iteration of SiteWorks, designed as an immersive week-long lab. Participants in the program were invited to stay on the property and exchange ideas through a format of detailed presentations and open dialogue.

Since SiteWorks began, numerous residencies have led to commissioned artworks and performances, creative laboratories and collaborations between local residents, scientists, artists and thinkers, who later become SiteWorks associates. Each participant is invited to develop a response to the site through the lens of his or her specific discipline and through collaborative process. The agenda of the
project to generate new forms of cross-disciplinary exchange was described by an employee as allowing: 'whatever research is emerging out of the property to run its course' (BT Interviews), and this approach gives the project a quality of open weaving, where ideas, concepts, concerns and data, flow together. *SiteWorks* has allowed for the organisation to expand its scope. Given that in the past the organisation had attracted a fairly narrow demographic and was recognised as an exclusive domain of the arts, this is quite a significant transformation:

I think that platform is very interesting, trying to allow ideas to happen here in more or less any shape, but having this very conventional, you know, Modernist art collection, set against a heritage/colonial backdrop and a sort of traditional landscape backdrop, having all of those things as the platform from which all this other stuff can come is great. I find it really appeals to me (BT Interviews).

Over five years the program has led to a growing understanding of the land from multiple perspectives and has brought to the fore considerations of land use and wider discussions about the future of food and water in the region and internationally, drawing links between the local and global. New project contributions are shared with the public over a weekend in spring, curated in the spirit of an open and ongoing conversation. Curator, Sarah Miller, describes her diverse experiences over a number of years at *SiteWorks*, capturing the wide-ranging, multi-modal qualities of the program:

I’ve planted trees and whacked weeds, wandered the river at dusk and heard the echoes of voices past and present ricocheting across the water and off the hillside. I’ve eaten weed pie, local black fish, freshly slaughtered beef and seaweed salad. I’ve watched the construction of an iron bark canoe and a Geodesic dome, and listened to birdcalls both live and recorded. I’ve seen more kangaroos, wallabies and wombats in one place than just about anywhere else in Australia, and I’ve stood in deep trenches and marvelled at the layers of earth, rock and clay dating back ten thousand years (Miller 2012, p. 14).

Analysing the programs allows for theoretical exploration around why these developments are occurring now, and why they are taking particular forms and gaining increasing attention in scholarship. Gibbs (2013) contends that two key ideas emerging from the work of arts–science collaborations is the ability of these
collaborations to engage diverse publics and the potential of these projects to 'do' social, cultural and political work. The broader movement toward this kind of porous exchange across disciplines and across publics is recognised as part of a process of grappling with the changing face of the planet, especially the uneven impacts and uncertainties of climate change. Contemporary international examples of climate change-focused art are wide ranging. Some are one-off curated exhibitions, while others are ongoing. Examples include, *Rethink: Contemporary Art and Climate Change*, an exhibition curated to coincide with the United Nations climate change negotiations (2009); the heritage-site-in-the-sky proposal, *Public Smog* (Balkin 2007); and *Weather Report*, an exhibition curated by Lucy Lippard (2007) which paired artists with scientists to investigate and make evident the effects of climate change.

Creative projects that address climate change often critique political conditions and the practice of science, which makes climate change evident (Gabrys & Yusoff 2012). Many of these contemporary projects examine the social and political dimension of environmental issues and implicate science as a social practice, challenging its neutrality. In several art-science collaborations, and in examples from *SiteWorks*, the political conditions that determine negotiations about climate change are transformed into new political visions. Rather than directly addressing human political actors within a fixed and situated political system, many of these contemporary projects present a re-conceptualisation of nature–culture relations:

> Arts–sciences discourses and practices are grappling with how to find forms of political engagement that climate change calls for, but in the process are returning not to a two-cultures debate, but instead to recognition of the multiple nature–cultures involved in these practices (Gabrys & Yusoff 2012, p. 15).

The kind of political visioning described here, is echoed by Latour and Weibel (2005), who also propose a natural–cultural democratic assembly and a new 'parliament' of people and things.

Although the annual themes of *SiteWorks* have not explicitly addressed climate change, the conversational approach and the inter-weaving of the global and the
local, brings climate change into the situated dialogue and exchange on site. This strategy is suited to a community (such as the Shoalhaven region in which Bundanon Trust is located) that remains divided on the reality of anthropogenic climate change. It also reflects the internal logic of a cultural organisation that is exploring how to creatively engage with larger global concerns, as described by an employee:

You've got to be engaged with what's around you, and we know that the very local has all the features of the global. So there is no harm at all in engaging with the extremely local and I mean celebrating it and so much really significant contemporary art does that [...] It’s why with SiteWorks, we said that it's got to come out of this property, but people talk about the enormous issues, through the platform of the property (BT Interviews).

The diverse SiteWorks program has included participants with expertise from wide ranging fields of 'dance and performance art, music and sound art, photography, visual arts, human geography, geomorphology, ecology, environmental and community activism' (Gibbs 2014, p. 211). This diversity immediately opens a greater space for multiple publics who come with their own interests and modes of learning. The first three events, Site by Nite (2009), SiteWorks Lab (2010) and Conversation: SiteWorks (2011), were relatively small scale in terms of audience numbers and not heavily promoted. The following two events in 2012 and 2013 became more audience-centric and involved a degree of strategic planning to make the event accessible and appealing, utilising the beauty and natural appeal of the site, while also challenging and extending audience experience:

Now local people are willing to be extended because the programs are presented in such a way that people want to make the effort, there is a lot of strategic thought put into how to present complex art experiences to non-arts audiences and this has been tremendously rewarding and challenging (BT Interviews).

In 2012 the program presented a more structured form of engagement than in previous years, with the global and the local intersecting in clearly evident ways. The Future Food Feast event was designed in response to a request from a local organisation to provide a platform to explore food security, environmental health and consumption practices in the region. Unlike other programs in which audience
numbers were small (70–100 people), this event and the following event in 2013 attracted a much larger local audience. The organisers were cognisant of the challenge of developing a format that would draw people to the site and engage with quite complex topics. The weekend program included performances, installations, landcare activities, diverse panel discussions and a large group meal for over 600 people at the homestead on the Bundanon site. In programming terms, the organisers decided to make it about eating: ‘without using the food security word [sic], so we made it about eating, about eating local […] to make it unthreatening’ (BT Interviews). While this program had more of a ‘populist edge’ than in previous years, it also wove in ‘radical’ conversations about global and local sustainability:

Because we’ve got the ability to put together things, a whole range of things, with all of these amazing partners working in the environmental field, it becomes, so much more. And you have the lovely music to listen to and the food as well, so that’s how you actually get to people, feed your audience as well (BT Interviews).

Lunch was provided with food produced and foraged locally, led by a champion of ethical and sustainable eating, Jared Ingersoll. The meal followed principles of local food production and consumption and the ethics of 'paddock to plate'. This process was developed into a film and installation within the homestead. The film, _RT106_ followed the journey of a steer selected from the small Angus Simmental herd raised at Bundanon, tracing the journey from the paddock to the slaughterhouse and butchery. The installation explored the history of farming and methods of husbandry in the Shoalhaven region and included the hide of RT106.

Through the _SiteWorks_ program, the traditional platform of Bundanon Trust is transformed into a place for dialogue between different 'publics'. The program provides multi-sensory experiences that weave together cultural, scientific and environmental perspectives. The program has been successful in maintaining good relations with the local community, taking advantage of the pride that many local people feel towards the organisation. Striking a comfortable balance between challenging, provoking and entertaining visitors is an ongoing challenge for the
management of Bundanon Trust as they explore innovative ways to address environmental concerns and aspirations for sustainability.

An artist's response to place

Each year, the SiteWorks 'conversations' are distilled into a range of material and immaterial forms, with collaborative and solo projects developed without prescriptive intent by the managers and programmers of SiteWorks. Collaborations have emerged from a mutual interest and dynamism between 'associates' from different disciplinary backgrounds, where the possibility of creating original work sparks the imagination. Often the quality of open dialogue develops into 'knowledge flows' that filter back into individual practice in unexpected ways. Gary Warner, a new media artist, poet and Siteworks associate, describes the conversational quality of SiteWorks as an opportunity for tensions, problems and discussions to emerge through the act of being together and sharing time. Complex issues surrounding custodianship and land care are ongoing topics within the SiteWorks dialogue and Warner's art is responsive to these tensions and opportunities. Although much of his own practice is not collaborative, it is informed by the broader dialogue at Bundanon Trust, enriching his responsiveness to the place and building on his intimate knowledge of local fauna, flora and natural ecosystems. Warner's practice, particularly his poetry, is developed through slow, contemplative solitary time spent in the bush:

black forms of sleeping bulls
in the paddocks
wombats trundle
under winter's full moon

midnight oculus
cold dark light
falling
bathing
the spotted gum forest
through the forest night
boobook owl
calling
crickets, calling
frogs

**Gary Warner**

*Three Poems Night*

Bundanon Trust

Warner's creative practice reflects his intimate experience of place, and his interests in direct-action political protest. He has developed three projects for *SiteWorks*, along with a collection of tanka and haiku poems. In 2009, he spent three weeks on *The Lantana Project*. Warner described the process as 'carving out a negative space to allow for new growth to be imagined, a kind of tabula rasa, where the lantana had been'. He focused his efforts on sites of history on the property, particularly places where Arthur Boyd had painted in the landscape and ritualised his concern for the damage caused to rural habitats through an intense period of lantana removal.

Invasive weeds in rural Australia present an ongoing challenge and take on a different environmental dimension from their suburban and urban counterparts. Warner's approach contrasts to artist Diego Bonetto (see Chapter Four). In the context of Bundanon Trust, the scale of weed infestation on the property is serious in the sense that it threatens biodiversity on a large scale, presenting complicated decisions for management. Because weeds (especially lantana) have become part of the ecosystem they serve a function, including erosion prevention along the riverbanks and the provision of habitat for fauna. The removal of lantana has impacts that must be considered:

The weed legacy at Bundanon is a response to dynamic changes including vegetation clearing, agricultural and pastoral land use and contemporary visitation patterns. In many
ways we can think of the weeds as providing a historical record every bit as interesting as the documentary archives at Bundanon [...] Simply removing them will not restore a previous set of conditions, there is no going back. To understand the practical dilemmas involved, consider lantana, the major weed at Bundanon. In some places it is minimising erosion by holding the river bank sediments together. In others it provides protective habitat for small birds. In both cases its removal, if desirable, must be undertaken with utmost care (Head 2013, p. 178).

Warner sensitises himself (and his audience) to the damage that has been done to biodiversity in this rural setting. He communicates the challenge of maintaining a rich and biodiverse ecosystem threatened by dominating species, through poetry and direct action. Geographer Lesley Head suggests that in management terms, Warner's approach is valuable as, 'carefully targeted, long-term labour can make a difference' (2013, p. 179). She argues that the job of weed management will never be finished in Australia, further highlighting the difficulties of contemporary environmental decision-making.

The learning self at Bundanon Trust

The status and reach of education has increased in recent years at Bundanon Trust. Experiments and innovations in teaching and learning methods contribute to the image of an organisation building on the platform left by the Boyds. The motivation to go beyond mainstay offerings has been driven by a core group of educators with an interest in providing a combination of experiences influenced by cross-curriculum, interdisciplinary education models. These new programs are implicitly connected to theories of environmental and ecological learning and sustainability 'learning outcomes'. To provide some context for this discussion, standard education programming at Bundanon Trust is outlined below, followed by details of educational practices and the project, Touched by the Earth.

Primary and secondary school education are mainstays for the organisation, with day visits and residences from NSW and interstate schools and senior high school making up about 80% of the education visits. Bundanon Trust offers 25 basic visual arts/design workshops and tailors these to suit the needs of each visiting
group. The education opportunities, particularly those related to Australian landscape traditions and Arthur Boyd, align with state visual art syllabuses. As an independent arts organisation, Bundanon Trust can also be flexible in what it offers, and while its programs relate to the syllabus, they are not bound to a prescriptive curriculum. Tertiary offerings are generally self-directed by the visiting group and these focus more on the built environment, architecture and environmental science. Private high schools have made up the bulk of visitation from New South Wales and interstate, although newer funding streams make it possible for Bundanon Trust to subsidise programs and subsume other costs, like transport, which are prohibitive for some schools. New engagement programs for local primary and high schools have increased visitation from the local area, and they have also fully or partially supported residential opportunities for socially and economically disadvantaged schools across New South Wales.

The aim of education programs at Bundanon Trust is to design experiences that weave together threads of cultural, environmental, social and architectural significance. The organisation employs a group of educators who deliver diverse programs between the two sites on the property. There is a shared belief that theories of education are necessary, but are of limited use. Educators work instead with a process of planned experimentation and reflection, believing that their innovations in learning happen most successfully by taking this approach. While this perspective privileges hands-on experimentation in the field, educators are guided by a number of working principles, underpinned by certain philosophies of education. These include the modelling of practices and behaviours rather than didactic language or methodologies; placing high value on mutual exchange between students and educators; emphasising tactile experiences; designing multi-modal programs to diversify learning opportunities and place-based and immersive learning.

Communication with students about the site and how it operates begins with the first point of entry, through an induction process, which elaborates on the everyday practices, including cooking, showering and disposing/recycling waste on site. One interviewee commented that this approach immediately brings
students into a relationship with the place, so that: 'hopefully they just see this is how we live and that there's a whole lot of rationale for why we do things' (BT Interviews). Instilling values by modelling behaviours and practices applies to all of the teaching engagements onsite, from making art to taking care of the property through 'green' initiatives. Educators avoid didactic forms of communication and are guided by a mode they describe as *Talking-Doing*. Talking is connected with demonstrations, which immediately involve students in tactile experience: 'you don't lecture them. I don't think anyone enjoys being lectured' (BT Interviews). These principles are carried into the way that sustainability as a concept and practice is presented for visitors on site and are traced back to Arthur Boyd and his love of the property.

The *Talking-Doing* approach to learning has its roots in the experiential learning philosophies of John Dewey. These principles address the problem of 'social control' in behavioural models of schooling and align instead with a philosophy of experience. Dewey argues that:

> Educational plans and projects, seeing education in terms of life-experience, are thereby committed to framing and adopting an intelligent theory or, if you please, philosophy of experience. Otherwise they are at the mercy of every intellectual breeze that happens to blow (1938, p. 31).

Education is considered in terms of a mutual exchange, rather than passive transmission, giving value to the learner's own identity and prior experience. Working from this approach, the educator also acknowledges their own development and is involved in a continual evaluation of professional practice:

> I never think about education as just a transfer, you know like you absorb something that I just transfer. You learn together, and what they've shown me about being in the landscape, being in the environment has taught me just as much as any of the research I've done, the formal research (BT Interviews).

As a site for learning, Bundanon Trust offers: 'many threads, historical, social, cultural, architectural, it's so rich and deep' (BT interviews). While the depth of learning is relative to the length of stay, all of the learning programs endeavour to
integrate these different threads to some extent. Up until recently, core programming (matched with the expectations of visitors) has been visual arts-focused. The organisation is now beginning to fully explore the integration of interdisciplinary modes of teaching and learning through a trial program, *Touched by the Earth*.

**Trialling a new program: *Touched by the Earth***

Over the last three years Bundanon Trust has piloted a new education program with three high schools in the local region, with the aim of developing an innovative cross-curricular program for young high school children (age 12-14). This approach to education was described by an interviewee as having emerged 'from the nature of the property [...] the history, culture, environmental heritage and the Mission of the Trust'. The program was: ‘developed to engage local students in their local heritage, environment, history and geography, to strengthen their connection to place’ (BT interviews). *Touched by the Earth* provides a year-long engagement and the traditional visual arts provision is extended into visual design, environmental science, geography, history and outdoor education. The program gives students the opportunity to become familiar with the whole property and for their creative work to develop to a high level. Students also have the opportunity to learn from other visitors to Bundanon Trust including artists-in-residence, which means they benefit from unusual forms of cultural exchange.

The students who visit Bundanon Trust engage with multiple disciplines and ways of relating to the property, they absorb information from people from many backgrounds and areas of knowledge. These experiences contribute to holistic modes of learning, knowing and being in the world, and is an approach to learning that is reflected in the pedagogies of sustainability education and ecological literacy (Orr 1992; Capra 2004; Sterling 2003; Stibbe et al. 2009). The program is further examined in the following section, looking especially at the contribution that *Touched by the Earth* makes to place-based and embodied learning.
Place-based, immersive and embodied experience

Touched by the Earth: The River Journey - 28th/29th October 2013
[A vignette from the researcher’s experience]

The two-day program began on a Monday morning. Students drive in from Bomaderry, a small local town. A group of fourteen young teenagers arrive at Riversdale and are re-introduced to the place sitting on the edge of the Riversdale building. Over the next two days they will take a river journey, participate in creative workshops, share conversation with local ecologists, zoologists and artists, and camp out.

The students stroll down the grassy slope to the riverbank where kayaks and instructors wait. The journey takes us down the Shoalhaven River along the extent of the Riversdale and Bundanon Trust properties. The morning is overcast, without wind. The pace is easy-going, with time to explore the river taking in the sounds and smells, stopping to sight water dragons, cormorants, eagles and plant life along the banks. After about one hour we drag the kayaks onto a small section of sand beside the river to talk to Ralph Dixon (a flora and fauna expert from the area). Back in the kayaks, students are encouraged to move quietly on the river. The group stretches out and the easy beauty of the place and the solitude is relaxing. Rounding the final bend in the river, views of Pulpit Rock and the white sand below the Bundanon Trust property come into view. Many of the students make a sentimental journey to touch ‘Arthur’s Rocks’ before crossing the wide river to the beach. There are materials for a drawing workshop set out on the sand. We work on paper in layers of wax, ink and collage, exploring the undulating line of the river. There is stillness and quiet concentration in the group, working under the warm, midday sun.

Trekking up to the homestead, we set up camp. After a communal dinner, Gary Daly, a local zoologist, leads a nocturnal walk. We walk to the ridge-line, stopping to spot the eyes of animals reflected in torchlight. Hung in a corridor
of bush, a benign trap is set to catch tiny bats. In the holding purse are a dozen Little Forest Bats, the size of small mice. Gary lifts them out to show mesmerised students. We reach the ‘Amphitheatre’ and we’re asked to be as quiet as possible, perhaps we’ll see a sugar glider and hear the boo book owl. Our senses are alert in the darkness and the mood back to the homestead is quiet, subdued.

The potential to work on site and to offer immersive, sustained out-door experiences provides these educators with a chance to explore and observe the outcomes of new cross-disciplinary education models. These programs contextualise place and thoroughly integrate the notion of an embodied learning self in motion (Ellsworth 2005). Awareness of bodily sensation and the physical connections that may develop between an individual and the non-human world have become significant within the teaching and learning offerings at Bundanoon Trust. Part of the underlying motivation for this program is to take young people outside, away from the traditional classroom and digital technology. Being in the physical outdoors, students are open to a variety of direct sensory experiences: ‘I think education in this context is a response to place and it’s immersion in place, and everything comes from that’ (BT Interview).

A phenomenological approach to studies in place and 'placelessness' attempt to centre the body in learning, combined with the unique demands of specific places. According to Dickson, Gray and Hayllar (2005), outdoor educators should 'be attentive to the complex amalgam of nature, culture, identity and body, which constitutes the experience of a relationship in place' (p. 10). Gibbs (2014) also reinforces a vision of place, not as an objective thing, or something that pre-exists us, but as something that is made, through our actions and experiences. She goes further, highlighting that places 'act on us. On our bodies. To shape our stories and our lives' (p. 255), emphasising how a place itself is a form of learning.

The Touched by the Earth program goes beyond a style of outdoor education in which educators see and present nature as either predominantly biological or only as a venue for physical and emotional endurance. Instead they offer an experience
that is enriched with both physical, embodied activity and intellectual work, with the aim of contributing to nature-based environmental and Indigenous cultural awareness:

The landscape actually teaches you things, the environment around here, it makes you really see, wow! You know, you might understand the term biodiversity but when you walk between the amphitheatre and the lilly pilly gully and the river, you just get it (BT Interview).

Influences from the Romantic Arcadian tradition are evident in the *Touched by the Earth* program. Romantic traditions foster an idea of the earth as a redemptive force, an escape from the 'satanic mills' of industry, with the land as both healer and teacher. To be 'touched by the earth' is to be emotionally engaged, to be moved by sensations of 'touch' which connect with the tradition's aesthetic sensibilities of a pure wonder felt in nature. The title of the program implies a phenomenological emphasis, where the body has its own somatic intelligence, a conduit between the living world and cognition. The emphasis here is on the physical and the material processes of learning, mirrored in Ellsworth's theorising of the embodied *learning self in motion* (see Chapter Two). Ellsworth (2005) considers the body of the learner to be a central instrument in any learning process, particularly in 'non-cognitive, non-representational processes and events such as movement, sensation, intensity' (p. 6). These ideas are reflected in the motivation for the program, as described by one interviewee:

I thought that they actually needed to feel and sense, and we did sensory things, we did a blindfold walk up to the amphitheatre, and they had to get a friend to write about what they were hearing and feeling ... We've tried to use multi-educational literacies, like poetry and writing, visual, kinetic (BT Interview).

The example of the blindfolded sensory walk is discussed here as it is an experiment with kinaesthetic learning and is part of the organisation's approach to multiple learning styles. Individual students are blindfolded and led by a partner through the bush, asked to pay attention to, and later record, sounds and sensations. This experience encourages an attentive, 'felt' response to place, and the distilling of 'facts' about the site through a physical, sensory activity. An
interviewee commented: 'Coming back to the physical, if you planted a tree and pulled some fire-weed at Bundanon, you'll remember that ... because it was an action ... and that's what I'm on about as an educator' (BT Interview). Wattchow (2005) emphasises the value of working with students in this kind of way, and he argues the importance that such 'place-based' approaches can make in developing pro-environmental behaviour in students.

However, Wattchow also contends that educators interested in the development of holistic methods of teaching and learning must grapple with a general antipathy in the education sector towards this approach. Deficiencies in the current education system have been described by a number of unorthodox education theorists (Orr 1992; Capra 2004; Sterling 2003). I include a brief discussion of these in order to connect them to the broader aims of sustainability. Sterling (2003) describes how current ways of thinking and educating tend to focus on detail, categorisation and labelling, at the expense of a systemic, holistic approach to pedagogy. Sterling argues that the industrialised modern individual has been well trained in analysis and in seeing detail and dealing with essential parts. He suggests that this way of learning about the world lessens the importance of being able to identify patterns and larger overlays and connections, and to synthesise information. The challenge to linear models and reductive forms of learning is a significant feature of sustainability education literature. These authors argue the need for educators to teach in ways that encourages greater integration and synthesis in order to support ways of thinking that can extend a 'circle of concern' (Kagan 2010) beyond the immediate effects of action outward in multiple directions.

Through the Touched by the Earth program each participant becomes active in a process of re-imagining place and learning through multiple forms of engagement. Participants learn about 'place' in ways that challenge old and out-dated conceptions of untouched wilderness, and replace them with a more contingent and realistic understanding of human interaction and impact on the land. This is combined with the sensorial experiences that are generated from spending time interacting with and being in a beautiful place.
OBJECT

The built environment as living material

In this section, I turn my attention to the social structures and material infrastructures of Bundanon Trust, examining how sustainability is currently addressed. This is in addition to the focus I have given to environmental management and restoration discussed in the first section of this chapter. I also look to the material agency of art objects and discuss the ongoing significance of the artist, Arthur Boyd and his distributed personhood, which became evident in the fieldwork. By incorporating a broader conception of the material object as material infrastructure and social structure in this section, I use the network metaphor as a ‘way of conceptualising the complex series of relationships between humans and objects which constitute the museum as an institution’ (Byrne et al. 2011, p. 10).

The Bundanon Trust property is made up of a large area of land with two separate sites, Riversdale and Bundanon, and was at one time a residence of the Boyd family. The two original homesteads are representative of the artistic world of the Boyds. They are also historic material records of farming families, in a region where farming practices are giving way to increasing subdivision and urbanisation. Riversdale was purchased by the Boyds in 1972 and was their residence until 1979. It is an old farmhouse on the side of a high grass hill with views across the river toward pastured land on the other side. Staff employed for education, public programming and central operations now predominantly use the Riversdale farmhouse. The Bundanon Trust homestead, which became the Boyd residence after 1979, is now a curated museum space open for visitation, with areas dedicated to conservation and scholarship.

The newer building at Riversdale and the most public interface of the property is The Boyd Education Centre. Construction of the Centre commenced in 1997 and was finished in 1999. Arthur Boyd died on 24 April, just before the opening of this
building. The space functions in a very different way to the older dwellings, providing a hub for multiple activities. The building was designed in response to the Boyds’ vision of a place for new publics to be formed, of artists, architects, school students, visitors or scientists. In this building the Boyds’ vision is manifest in the landscape in built, material form.

The Riversdale building is the realisation of the bequest as built infrastructure, particularly when activated by the diverse mix of people who use it. Designed by the award winning Australian architects Glenn Murcutt, Wendy Lewin and Reg Lark, it was made with a commitment to minimising environmental impacts on the site, and is an example of environmentally sensitive, place-based Australian architecture. The building sits slightly higher than the original homestead and faces north-east. The interior of the building is a long rectangular space constructed in timber and glass with polished concrete floors. The front of the building has a repeating set of heavy glass and timber sliding doors that open the room to the elements. The space is versatile and on the other side of the main building is guest accommodation designed as a counterpoint to the large open spaces of the foyer and central interior. The combined beauty of the built and natural environments provides space for the development of new creative work, and many visitors who stay in residence describe an enhanced creative focus which comes with the isolation and the break from routine.

The socio-material at Bundanon Trust

A working concept of sustainability has been integrated into the operations and programming, and is an overarching consideration which influences decision-making: 'sustainability provides a coherent scaffold to develop programs and continually renew core principles of the organisation' (BT Interview). A ‘Greening Bundanon Trust’ policy was developed in 2009 and Bundanon Trust’s commitment to becoming ‘more green’ is considered by staff to be reflective of a broad response to sustainability in the community, as well as a response to external government targets and Key Performance Indicators:
It's still building. I'm not going to say we're like the Sydney Theatre Company and we're like stand-out, we're amazing, because we don't have those sort of resources, but you know we're looking at small ways and big ways that we can become more sustainable (BT Interview).

Putting principles into practice is dependent on evolving factors, especially financial resources. The 'Greening Bundanon Trust' document is not referred to regularly by staff, however it does provide a framework that staff have built on through the everyday practices on site, as well as through the long-term management decisions addressing sustainability concerns (which have been discussed previously in relation to environmental and restoration priorities, public programming and education). Change happens incrementally within this context: 'it's not like you have this policy and everyone's just going to change immediately, I think it's just a gradual rolling out of stuff' (BT Interview). Proposals from staff members for improvements on site, for example in waste reduction, composting or buying local (and generally more expensive products) emerges through discussion, and these lead to continual improvement and awareness raising, drawing on the diverse skill sets and passions of staff:

We do have a lot of collective discussions ... the latest one has been about milk for example. We made a decision to buy local milk only, even though it’s more expensive, and the people in charge of budgets, purchasing and procurement, were sort of like ‘well...’ but we made a decision and if someone finds that there's some Coles milk in the fridge it goes straight around the Intranet, 'who bought the Coles milk?!' You know, confess (BT Interview).

With the significant contemporary and colonial heritage responsibilities of the built environment at Bundanon Trust, the process of installing new infrastructure, for example solar water systems or rain 'harvesting', is conditioned by a level of administrative detail which may not exist for other organisations. There are heritage guidelines, which employees have to comply with, and this can make decisions on the material running of the organisation complicated. Many different voices need to be heard and this can slow the process of integrating new technologies and introducing more sustainable infrastructure. It also serves to make the job for staff more 'objective', since they must consider the long-term implications for heritage: 'that can take a bit of the guesswork out of it, which I
suppose is probably a good thing, but it can also be sort of stifling' (BT Interview). Regardless of these constraints, employees make regular suggestions for improvements to operations, many of which are implemented.

In terms of the feedback loops that exist between creative projects, programming and operations at Bundanon Trust, there is an open dialogue and flow of ideas which emerge out of the events hosted on the property. For example, *SiteWorks* provided the direction for Bundanon Trust to become 'greener' and coincided with the 'Greening Bundanon Trust' policy and the efforts made by employees to engage with issues of sustainability. In 2011, the *SiteWorks* program focused on the Shoalhaven River and involved dialogue with geo-fluvial morphologists, environmental scientists, local oyster growers and the RiverWatch organisation. This process resulted in a large community campaign called 'Love the River', and a partnership between Southern Rivers Catchment Management Authority, Shoalhaven City Council and Bundanon Trust, 'to encourage respect for the magnificent river loved so much by Arthur Boyd' (Bundanon Trust 2012c). The river became the subject of a major bumper sticker campaign in the region. This campaign was a practical form of activism that came out of an abstract discussion between artists and scientists involved in the *SiteWorks* program:

> The concept of a community of artists responding to and living in the landscape leads the organisation to continually engage and reflect on the links between art and sustainability and the need to communicate this to wider audiences and school children (BT Interview).

This example highlights the opportunity for cultural organisation to explore appropriate forms of activism in their work. It also demonstrates that it is possible for an organisation to respect the integrity of aesthetic experiences, while arguing a case for aesthetics to be situated in the world, rather than in a separate and elevated field that would be diminished if brought into contact with the stuff of real-life.
Arthur Boyd: The artist as active witness

The legacy of Arthur Boyd and his artistic contribution to the world are at the centre of Bundanon Trust. Although Boyd is no longer the sole focus, his artwork and the value of art more generally, remain a constant. The dilemma for the organisation is how to maintain a reverence for 'good art', while bringing in other disciplinary perspectives and agendas that change the role of the organisation and how the property is understood by the community. The aesthetic value of works of art and the role they play in shaping perceptions are still central to Bundanon's vision. An interviewee affirmed this:

I have a profound reverence for good art and I think it's very important and should not be superseded, you know, as seen as having any lesser affect than any of these other kinds of things (BT Interview).

Boyd's art arose out of an active observation, a witnessing of life. He was interested in the world, empathetic to others and had a concern for the world in the face of history. Curator Zara Stanhope describes how 'Boyd's art reflects a political application of empathy in being open to the possibility of learning from others and the world of experience and knowledge' (2013, p. 26). Boyd's artistic legacy is an example of the struggle that many artists face in reconciling the creative impulse with the wider social world. His struggle appears in his art, symbolically engaged with the paradox of creative life, particularly the concern he felt for others, without the means to directly impact or alter political decision-making.

Boyd gained exposure and acclaim in the United Kingdom with his first solo exhibition of the Half-Caste Bride paintings, a series of 31 pictures influenced by his contact with Aboriginal Australians in the Simpson Desert in the late 1950s. Like many urban white Australians in the 1940s and 1950s, Boyd had not directly witnessed the profound damage to Aboriginal ways of life brought about by the dispossession of land and culture. However, Boyd was one of the first Australian artists in the mid-twentieth century to approach this reality in his artwork. He made his first attempt through a series of narrative pictures exploring the story of
a white bride and a 'half-caste' groom. The paintings are dark and stylised, and the symbolism in the compositions conveys 'metaphysical messages regarding love and desire that the artist contemplated would have universal or broader meaning' (Stanhope 2013, p. 28). His approach to subject matter, which involved working out of a specific theme towards something more general, is typical of Boyd's artworks. Many of his images are resonant with archetypal experience, opening the images to multiple readings, beyond a fixed time, place or issue. Boyd struggled with the identity of the artist and more generally with the responsibility of how to live an ethical life, and what effect art has in the world, stating that:

The only way to deal with [guilt] as an artist was to paint it out of my system. To expunge my own guilt by painting it and in a way face up to it. I mean guilt in a general sense, because although I do the painting, everyone else who then looks at it is in the same position as myself. I hopefully have helped them to face their guilt also (Gunn 1985, p. 31).

As much as Boyd was interested in the lives of others and political decision-making, he was reluctant to become affiliated with organised politics and mostly withdrew from public debate. However, he did offer private support to particular campaigns, based on the importance he placed on specific issues. Stanhope suggests that 'Boyd's selective support of political causes was distinct from his artistic emphasis and the role he understood art could play in conveying collective meaning' (2013, p. 41). Nor did he align with a single art movement and he was not propelled by the radical idealism of twentieth century art movements. Instead, Boyd appears as more of a realist, an artist whose works draws from familiar themes from art history and mythology, incorporating these into new paintings relevant to contemporary times. The image of humans as both active creators and destroyers is a recurrent theme in his work. Stanhope suggests that 'humans and gods both appear detached from the environment, guarding the resources and beauty of nature as well as actively despoiling the world' (2013, p. 72).

When he moved to Bundanon, Boyd's attachment to the region grew, along with a conservationist ethic. His surroundings recur again and again in his paintings from this period. His observations of the physicality of the landscape, the changing patterns and colours of the seasons, the Australian heat and the ancient rock
formations can be seen merging with allegorical and mythological imagery. Boyd’s own deeply held views on the environment and particularly the Shoalhaven region prompted him to become involved in a number of efforts to protect and conserve the area. The proposal to sand dredge the river in the early 1980s saw Boyd involved in a public case that was ultimately successful. One interviewee described how:

He did go to the Land and Environment Court, and he did take on the battles to try and save the river, he did create a wildlife sanctuary here, it got that status. The archives have just come to us in the last week actually, of all the correspondence he set up with the wildlife sanctuary. All of those things were indicative of a position he had about the environment (BT Interview).

The importance of the river for Boyd is evident, both in the paintings he produced and his environmental activities. Privately he opposed the use of the river as a 'pleasure dome', resenting the jet-skis, speed boats and water skiers that impacted on the serenity of the place and caused erosion of the riparian zone (McGrath 1982). Although most of his art works avoid any direct form of activism, some contain motifs of Boyd as an 'active witness' of the political and social machinations in the area. An employee at Bundanon Trust discusses these in terms of how successfully they translate into his paintings:

Arthur was not a political artist, but he acted politically, and he made paintings that relate to politics. There's a very sort of fine line. I think the paintings that he made that were extremely luscious and celebratory about the Shoalhaven, are actually a form of agency ... he made others which are almost quite explicit about sand dredging and water skiers and things like that, and they're actually misanthropic and not as enduring as these others, which actually celebrate this extraordinary landscape as he saw it, they are the things that tell that story. That this is a thing worth protecting that you want to always have (BT Interview).

While in certain paintings his concerns for the environment were made quite explicit, his art is never reduced to an aestheticised functionary of political and ecological expediency. The paintings exist in their own right, and some are judged to be more successful than others in terms of how they embody ethical ideas. The
previous quote argues that the paintings by Boyd, which most joyfully celebrate the power and beauty of the natural environment, are more enduring, as powerful, affecting works of art. These works evoke a kind of revelatory experience through the energy and intensity of the material process of painting.

While Boyd's paintings have an aesthetic value that is anchored in art history discourse, his artworks within the context of the organisation also operate in other ways. Cultural professionals employed at Bundanon Trust are involved in the delivery of programs for visitors, which are a reflection of the overall mandate of the organisation, informed by the Boyd family ethos. Within this contemporary context, Boyd's imagery, particularly his works from Bundanon, now form part of the dialogue that the organisation generates about the importance of caring for place and in this setting Boyd's paintings become powerful talking pieces.

Alfred Gell's theory of the agency of art as a kind of 'distributed personhood' is useful here. For example, in the main hall of The Boyd Education Centre is a large oil painting by Boyd, *The Hanging Rocks and Bathers*, 1985. This painting has become an active object-agent, enrolled in the induction process for visitors. Educators use it to speak directly about Boyd and his personal and political response to the landscape. The painting assumes an efficacious role in this position, standing in for Boyd as an artist and as an individual concerned with issues in his immediate environs:

I mention that every induction, every group that comes through. It's got the big hook thing, Arthur's symbol for foreboding or menacing, or evil, in there and it's about the environment. There's a nuclear power plant, that was actually from England in the back, like a threat because there's a beautiful place down on Jervis Bay called Murray's Beach, and they were going to put a nuclear reactor down there in the '70s and then everyone kicked up a fuss. Anyway, the river snaking back and the lizard-like creatures, Boyd's talking about the hedonistic people who just don't think, they just use the river up... that's kind of the signature image that really does that. There are so many messages in that (BT Interview).

The painting is a manifestation of Boyd's 'distributed personhood'. This material object has agency if we consider it within the broader context of Bundanon Trust
and reflect on the artist’s imaginative capacity and his ethical stance. The painting projects the mind of the artist, who was deeply engaged with the fate of the local environment, into the world. Combined with the social agency of the employees at Bundanon Trust and the ethos of the organisation, this material object has an effect on social relations. It makes demands on visitors to pay attention to where they are, asking that they respond with sensitivity and awareness.

Chapter conclusion

The long-term strategies and the distinctive programming at Bundanon Trust are considered as Designs for inspiring in this field study. This mode of address includes aspects of engaging and informing, however they take on a different dimension in this context and contrast with the modes of informing and engaging that were evident at Casula Powerhouse Art Centre and within the Powerhouse Museum. In this instance there is an effort to locate environmental concerns and sustainability within the cultural work of the organisation itself, rather than focusing on the development of singular events and exhibitions. While Bundanon Trust is a distinct case and is unique in many ways, what is observable is an increasing integration and alignment across the organisation. This is suggestive of an embodiment of sustainability and has significance for other cultural organisations and their programming initiatives.

The many ways that designs (for inspiring) become physically embedded on site are foregrounded in this field study through an emphasis on place. This emphasis also highlights the effects that a physical site has on the identity of an organisation. The property is used as a platform that encourages material thinking across many levels and in turn the property is transformed in the exchange. Ideas of social and material agency link the work of employees, artists and the visiting publics here, as they overlap and intersect through creative projects, programming and operations. In this networked environment our thinking about objects and events shifts somewhat. Ideas of curating are extended in ways that include a custodial ethic for the local environment. They also suggest new modes of caring for the diverse
audiences/publics who are invited to inhabit the material infrastructure and physical environment (and whose presence fulfills the objectives of the Bundanon Trust Constitution).

The current strategic vision to develop a dynamic and healthy ecology is informed by the mandate passed down by the Boyds. The emerging custodial ethic is part of the evolving idea of what Bundanon Trust is and what it might stand (in) for, along with the set of material processes that has developed out of these management decisions. The custodial ethic links to Indigenous ideas of place and caring for country and as an emergent cosmology, it combines older knowledge systems with decision-making that is responsive to the conditions of life in the twenty-first century. It also fulfills Arthur Boyd’s vision of the property as a ‘microcosm’ and his hope that the organisation could provide a place of dialogue and creative exchange across all areas of the arts and sciences. His belief that the arts and sciences share an imaginative capacity is reflected in the interactions that now exist between these two domains at Bundanon Trust. As well as encouraging dialogue and collaboration for its own sake, the exploratory processes of SiteWorks are an effort to look across the arts and the sciences and consider the shared potential to address physical and metaphysical realities. These projects mirror a broader re-conceptualisation of ‘nature-culture’ relations and the work of creative practitioners moving across disciplinary boundaries. They have the potential to support the transformation in how we as humans think about the world and how we inhabit it, and to close the bifurcation between culture and nature. In reflecting on the SiteWorks project, Miller highlights how this project offers a kind of inspirational address that brings together the intellect and the emotions with something more to address sustainability concerns:

The experience of SiteWorks suggests that it is essential that we bring not only our intellectual and emotional intelligence to the task, but also our sense of wonder, and deep appreciation for the world we share (2013, p. 265).

Bundanon Trust provides a rich example of how new forms of sociability and environmental interaction are possible.
A lot of effort has been expended in recent years to propel Bundanon Trust forward from its first iteration after the gifting of the property, and to redefine the site as a place that is much more than a static memorial. The identity of the organisation is slowly transforming through new modes of material thinking and material imagination on site. From my visits, it became increasingly clear that the organisation has a strong strategic vision, and creating links between the local and global is important in this: 'it’s possible to be national and international and still talk to the people around you. You could be here and not talk to anyone' (BT Interview). Bundanon Trust is an example of a regional cultural organisation that is actively taking up a position on environmental sustainability, an independent cultural organisation that has its own mission and ethos, with a diverse, integrated programming mission, connected closely to a particular place.

A conceptual and material engagement with environmental sustainability can 'speak' directly to a community, while being non-threatening. This is a demonstration of the opportunities for cultural organisations to explore appropriate forms of activism in their work. It shows that it is possible for an organisation to respect the integrity of aesthetic experiences, while arguing a case for aesthetics to be situated in the world, rather than in a separate and elevated field that would be diminished if brought into contact with the stuff of real-life. This dynamic tension between the generic material processes of everyday life and elevated aesthetic experiences is echoed in the first field study and the case of the Argyle chair. At Bundanon Trust it is part of the strategic vision of the organisation and it is a form of forward-looking 'soft activism': the creation of a space in which unconventional ideas may be explored in inclusive and imaginative ways.
CHAPTER SEVEN: Illuminations from the field (a constellation of effects)

Précis

In the early chapters of this thesis, I foreshadowed central concerns that were then examined within the empirical chapters. These concerns are now taken up and expanded in this discussion. With the benefits of empirical study, I aim to bring this research journey to its culmination in the following two chapters. The heuristic framework of place, object and event has facilitated this process, allowing for a rich analysis and interpretation of the connections between the decision-making of cultural professionals and the aims of sustainability.

As described throughout this thesis, material things have had to wrestle against their own apparent passivity, since Western assumptions underwriting the material world cast matter as inanimate and passive. The increased attention from scholars across diverse disciplines has set in motion new forms of knowledge production, which indicate that the conceptual divide between people and things is diminishing. Through the work of contemporary theorists, our understandings of matter, agency and the relations between humans and non-humans are rapidly changing. According to Latour, these recent examinations of matter are an important dimension of composing a 'common world':

As science studies and feminist theory have documented over and over again, the notion of matter is too political, too anthropomorphic, too narrowly historical, too ethnocentric, too gendered, to be able to define the stuff out of which the poor human race, expelled from Modernism, has to build its abode. We need to have a much more material, much more mundane, much more immanent, much more realistic, much more embodied definition of the material world if we wish to compose a common world (2013, p. 484).
By adopting a material culture perspective, and by drawing insight from the *natureculture* literatures, new ways to engage imaginatively with sustainability as a future-oriented change process have emerged out of this research. The value of bringing these diverse viewpoints together is that it enables us to explore interdependence as an active creative (and critical) engagement within cultural organisations, and to think through different localised enactments of sustainability and how they connect us to greater global concerns.

**Introduction**

In this chapter I explore the implications of this fieldwork, with a discussion of sustainability as an act of local invention and a perspective on *discursive materiality* and the *material imagination* within the museum environment. I argue that new (historically attuned) material imaginations at both the local and global level are valuable for museums in their work of informing, engaging and inspiring visitors.

The museum is conceived of here as an environment where a kind of *material thinking* – on the part of both professionals and of visitors – is active. I explore the insights of cultural theorist and historian Paul Carter and his particular framing of discursive materiality as material thinking, and I argue that Carter's ideas have value in defining sustainability as an act of local invention. Furthermore, I suggest that at the individual level, a material imagination concentrates attention and develops appreciation of matter and the material worlds that we design, inhabit and share with non-humans. Based on the work of Gaston Bachelard, I have re-interpreted the notion of the material imagination. In this research the material imagination links creative and curatorial practice with institutional structures, and it also links together the material, the representational and the discourse of museum theory. The material imagination is a form of agency because it indicates the ways in which humans embed their imagination in the physical world.

This chapter weaves together a discussion of the institutional responses to sustainability, which are informed by the observation and the analysis of
exhibitions, events, and the work of curators, artists and educators at the three sites, as well as from their broader institutional initiatives. These responses, which I discuss in terms of informing, engaging and inspiring, have been identified as enactments of sustainability adopted by each organisation. Designs for Informing, Engaging and Inspiring are relational processes emerging through material thinking, and are used for teasing out differences between the generative effects of the three organisations and their respective creative practice. The rhetorical strategy of informing, engaging and inspiring considers the position of the viewer, and the way audiences and publics are addressed within diverse cultural organisations. Each institution’s relationship with its public entails all three, in interrelated ways. The juxtaposition of the three cases uncovers diverse cultural change processes within distinct regional contexts, and highlights how material thinking is used to extend public imagination.

I use the three field studies to highlight how each proposes alternative material imaginations, including scientific and socio-ecological understandings that generate a larger picture of humanity within the bio-physical world. They also include inter-disciplinary projects that attempt to bring natures and cultures into closer dialogue through imaginative engagements; and institutional approaches that actively care for place through a custodial ethics. I have analysed differences between these approaches and I consider the kinds of publics that are invited to gather around each site and exhibition. I re-visit the differences between explicitly top down pedagogic techniques versus those that seek to call a community into being or invite experiential encounters. In concluding Chapter Seven I draw together these observations and return to the question of agency in light of the role that organisations could play in the future.

Material thinking and local invention in cultural organisations
Cultural organisations are not passive or static entities, and while they are vulnerable to external pressures and to the weight of their own history, there are powerful material imaginations at work within them. Because this study has explored museums as mini-cultures wherein sustainability is considered as a local
enactment, I have drawn on the writing of Paul Carter to examine some of the deeper implications of creative work and materiality. It is the creative practitioner, the curator, the educator, the management of the institution, and the institution itself, who contribute as active cultural agents.

Carter (1987, 2004) provides a philosophical perspective on the process and products of creative individuals and collaborative endeavours. In Carter’s writing, the philosophical is interwoven with aesthetic theory and is informed by anthropological and sociological understanding. His is a kind of meta-level discourse which attempts to describe the combination of raw materials, the creative process and the distinctive attributes of those who design, manipulate, wrestle with and transform matter. Material making combines forms of creative invention and discursive work, which Carter calls material thinking. It is informed by the vivid material imaginations of philosophers through the ages who have felt an unusual pull toward rendering a more earthy, atmospheric, muddy and porous account of the world.

Many of Carter’s arguments resonate with the theoretical contributions of Alfred Gell, Bruno Latour and Jane Bennett, who have each informed the development of this thesis. Like Gell, Latour and Bennett, Carter’s ideas suggest ways that materials become active in social relations, infused with social meaning and enrolled in the possibility of social transformation. In this instance, it is Carter’s concern with the distinct cognitive process of making which brings a final important dimension into my own consideration of contemporary museums as sites of potential social action and transformation. Carter’s discursive translations of the abstract into concrete, tactile, visceral sensations, draw together a heightened philosophical perspective on material relations, encountering the world in ways that liken it to a living, breathing organism, to something profoundly lively and vital.81 His writing suggests that raw materials used in any creative

81 Bennett repeatedly asserts that recognising the vitality and agency of matter is not to make a judgement about whether matter itself is good, bad or indifferent to humans. Rather, it is recognition of its capacity to make a difference to how human and non-human relations are configured (and hence understood). This point returns us to earlier arguments in which I clarify that while matter is agentive, it is humans who have particular capacities to make, think, act and imagine, in their human-like way. Humans have language and
process are not dead; rather, the creative act must engage with matter that is already agentive, thereby enhancing the particular cognitive skills and active material imagination of the individual involved in this transformative process.

Distinct from the work done by language and text, materials have an insistent presence in the world. *Material thinking* is framed by Carter as an act of local invention in which material forms are, by their quality of being, insistent as an act of the local. Carter describes creative work that is embedded and invented locally, but is still 'big' enough to engage with larger collective story lines that shape the imaginary, mythopoetic dimensions of a diverse and increasingly mobile population. He uses a weaving metaphor of warp and weft connecting the local with the global through the process of material invention. The warp (extending lengthwise) can be thought of as a culture’s myth lines, the grand narratives which feed into a more collective sense of place and identity, and the weft (casting its woof-thread back and forth), as the work of local invention:

> Only this way can cultures collectively gain agency over their story lines, learning to become themselves at this place. But to take control in this way, to represent a society locally reinventing itself, the shuttle has to advance, creeping progressively crosswise along the warp (2004, p. 11).

In Carter’s description of creative activity there is always an unfinished process of making and unmaking ourselves through symbolic material forms. This process cannot be reduced to measurements of successful 'closure'. For this reason, exploring the invention of social relations within specific places does not produce a 'discovery' that can be generalised and patented. Rather, the quality of authentic invention that Carter (2004) vividly describes produces imaginative breakthroughs, which announce locally different forms of sociability, environmental interactivity and collective storytelling.

The notion of active, local re-invention is significant in the consideration of futurity and sustainability. It is evident in each of the field studies that the kind of collective culture to define what can and should be done in the world. This positions us as ontologically separate from (but not ontologically superior to) the non-human world.
invention and re-invention that appears both desirable and possible within different organisations shifts depending upon the history and material infrastructures that make up the identity of a cultural organisation attuned to its own region and locality. In the case of Bundanon Trust, the land itself is a kind of palimpsest, which is inscribed through collaborations, independent creative practice and the many other forms of sociability, environmental interactivity and collective storytelling that occur. Their mode of creative invention is tied closely to the raw and living materiality of the land and provides a specific version of Carter's image of the grand 'warp' and the local 'weft'. It is a rural place where the cultural and bio-physical interweave, and where creative strategies that blend art, science, history and ecology together, provide *inspiring* experiences for visitors. Geographer Lesley Head acknowledges Bundanon Trust's value as providing 'a microcosm of our geological, biotic, indigenous and colonial history seared into one place' (Ely 2013, p. 179).

The *SiteWorks* annual event described in Chapter Six is an exemplar of Carter's call for new forms of interactivity and storytelling. *SiteWorks* is a localised response to larger, global concerns, brought together through acts of local invention. What we see in the case of *SiteWorks* is a contemporary response to environmental challenges, including climate change. This response is significant on two levels. Firstly, for the way in which an individual visitor becomes an active ecological citizen, 'brought into being by the work of narrative gathering with a range of other forces and material things' (Potter 2009a, p. 75). These forces and material things include what Latour describes in network terms as the 'interests, energies, technologies and materials' (Potter 2009a, p. 75) that assemble around matters of concern.82 Secondly, the event is significant in the way it highlights the mobilisation of new forms of creative practice, which go beyond gallery-based representations of climate futures, and instead examine and propose alternative modes of nature–culture democratic assemblies (Latour & Weibel 2005). The creative practice generated at Bundanon Trust is an example of local invention

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82 This example of local invention illuminates how geographical communities may be co-located as 'communities of concern' (collectives with shared concerns) and 'communities of fate' (people directly affected). For instance, you might be concerned by biodiversity loss or Indigenous land rights, but not directly affected by these issues, not part of the 'community of fate'. With climate change we are all affected (although on different temporal and spatial scales).
reaching beyond language and text, to embody subtle and ambiguous meaning, important in brokering new ways of being within a situated place. These examples also illustrate how artworks and other forms of creative collaboration may intervene in pressing social, environmental and political debates, 'not directly, at the expense of the material resistance the work embodies, but indirectly, through material thinking [...] brokered in the collaborative process itself' (Carter 2004, p. 13).

Carter's focus on creative collaboration provides a useful lens through which to elaborate on other aspects of the field studies. In the process of creative collaboration – whether between artists, designers or curators – there exists a form of discursive performance in which the material of thought, as much as the materiality of objects, generates invention. This discursive performance is another element of material thinking and imagination. Viewing collaborative conversation as material thinking means valuing the complex of interactions, which exists not as an end in itself but as a 'sign of the irreducible heterogeneity of social relations' (Carter 2004, p. 13). Carter's notion of irreducible social relations and the celebration of cultural heterogeneity, in opposition to a single, totalising notion of Australian culture, has been a central thread throughout this thesis. It underpins the logic of the place, object and event framework and the adoption of multi-site ethnography, which has revealed different forms of discursive performance manifesting in diverse cultural contexts.

In the suburbs of Western Sydney it is the combination of ethnic diversity and the history of ongoing urban expansion (with all of its complicated social values) that has informed the version of local invention in the Casula Powerhouse Art Centre, described in Chapter Five. Here, sustainability is part of an inter-cultural dialogue which foregrounds processes of engaging. In the case of Wild Stories, it was a process of combining the agency that Bonetto had as an artist, with the agency of the institution and those working within it. Being firmly situated in the urban and suburban context, Bonetto's work has the effect of subverting local orthodoxies and he persistently questions mainstream assumptions about land management and underlying knowledge systems, wherein he perceives the mismanagement and
the deterioration of landscapes and the deterioration and loss of culture. Bonetto channels his energy into interpersonal exchange, with a focus on large-scale collaboration and subtle forms of political mobilisation. It is through Bonetto’s creative practice, and the dialogue between plants and people, that new connections are made. Individuals contribute to an ongoing conversation about diversified and localised forms of agriculture and foraging, and the value of cultural traditions, which have implications for sustainability in the suburban environment.

Carter describes how forms of local invention help us to understand how identity and connections to place are made, connections which are integral to the generation of new collective imaginaries and to the task of sustainability:

To understand how identities form, how relationships with others are actively invented (and therefore susceptible to reinvention), is essential knowledge if societies are to sustain themselves. For societies – and most obviously colonising white settler societies – are mythopoetic inventions. Their myths of immaculate origins and unnegotiable destinies are historical inventions and one function of the artist is to show, by rematerialising these metaphysical myths in the creative process, how more sustainable artificial myths can come into circulation (2004, p. xii).

Drawing on the Bundanon Trust and Casula Powerhouse field studies, I have demonstrated that there are diverse forms of material thinking within museums. Furthermore these examples point to the significance of cultural organisations as settings where visitors experience the generation and circulation of new and possibly more sustainable artificial myths. In the case of Bundanon Trust, the significance of place in the generation of new cultural meanings and socio-ecological understandings is reinforced. The Casula Powerhouse study highlights the value of cultural events where social forms of learning and large-scale creative collaboration contribute to community wellbeing. In this particular example, the artist engages in modest proposals, providing a counterpoint to utopian visions of the future.
Each of these examples has emerged through a framing of *place, object, event*, which emphasises relationality within the museum context. In this research, the organisation and presentation of theory, combined with the empirical studies, has allowed for examples of discursive performance to manifest. These have been framed as creative enactments of sustainability, which can *inform, engage* and *inspire* visitors, and they illustrate the many ways that visitors to museums may connect to larger global issues of sustainability through acts of local invention.

The material imagination and the lively agency of things

Fundamentally, the research design evolved out of the understanding that the social and the material world is entangled and messy, and that agency is distributed across human and non-human things (Callon 1986; Latour 1992; Law 1999; Knappett 2002; Bennett 2005). To assert that different modes of agency may be at play simultaneously is to contend that social agents are always involved in (and cannot exist outside of) 'the multiplicity of social relations in which they are enmeshed' (Ortner 2006, p. 130). By understanding the human agent as enmeshed within a web of relations, one shifts the exploration of the dynamics of agency away from the notion of a free or unfettered individual. Seen through this lens, agency as an individualistic concept is replaced by a vision of different social forces operating beyond the autonomous, individualistic, Western actor (Ortner 2006). Emphasising that museum networks are composed of humans and non-human things, Byrne et al. argue that:

In the case of museum collections, these networks are composed of not only museum curators, collectors, creator communities and the museum going publics, but also of the collected objects themselves, their technologies of display, the laboratory spaces in which they are stored and the tools which are used for research, alongside the buildings in which they reside, the images that represent them and the texts which are written about them (2010, p. 10).

Throughout this thesis I have shown various ways in which materials have propensities, potentialities, resistance and capacities within the museum context. The attentive and imaginative creative practitioner can work with and against
these qualities by thinking with and not just about materials in their practice (Mindrup 2014). Carter's analysis of the creative process presents an image of a creative practitioner thinking through materials and giving significance to raw matter before giving it form and shape. Extending Carter's notion of material thinking, I have argued throughout this thesis that materials (both 'artificial' and 'natural') have the capacity to impact on human and biological life in significant ways; they have the 'differentially distributed capacity to make a difference in the world' (Bennett 2004, p. 355). As a society, our development of greater sensitivity to the 'difference' that materials make is important, not only in creative practice, but in the social and material world generally.

Both Bennett (2004, 2010) and Hawkins (2009) illuminate the propensities and power of material things. In a detailed examination of plastic, covering the history of this ubiquitous and quintessentially modern material, Hawkins demonstrates how significant representational shifts and changes in perception occur towards human-made materials over time. While plastic itself has not changed dramatically, social values have. The plastic bag, as a domestic consumable, was a new phenomenon in the 1950s and 1960s and was considered a prized object. It was saved, reused and highly valued. In the 1970s, plastic bags became common objects and began to lose some of their esteemed value, by the 1980s the plastic bag was mostly ignored or dismissed, holding little social value. In the 1990s and into the twenty-first century, the plastic bag has become a problematic artefact with negative associations as environmentally and socially toxic. Hawkins (2009a) contends that plastic bags have become contested matter, embroiled in controversy over their uses and impacts in the world.

What is relevant to this discussion are the demands that Hawkins makes for an engaged discourse about materiality which transcends any explicit moral condemnation of specific materials. Hawkins asserts the need for a greater material imagination that will allow us to sidestep assessments of materiality made from an elevated moralistic position. Instead, she emphasises the powerful 'thingness' of matter which is largely forgotten when we only understand subjects and objects in fixed opposition to each other. Through a series of penetrating
questions Hawkins demands that we address our social and material worlds in ways that acknowledge new forms of association:

If we know plastics as waste are bad – and there are many different registers of bad here – how might we shift political analysis from this statement of fact and its depressing effects to an engagement with new possibilities, new forms of association around plastics and the political? What forces and thinking are needed to create different political and environmental realities, and what role would we give to plastic bags in this process? How could we create a more than human politics around plastics: a political collectivity or public that recognised plastic bags' capacity to suggest more ecologically careful modes of living? (Hawkins 2009a, p. 1).

An important aspect of the argument made by Hawkins is the recognition of active objects and active subjects. This was reinforced in the empirical studies within this thesis. In Chapter Four I was able to demonstrate the close entanglements of humans and material things through the example of the crushed car within the EcoLogic exhibition. This example revealed the powerful, but also problematic, emotional attachments that people have with material things, which I recognised as a kind of complicated materiality. In this case, the curator of the exhibition observed how visitors to the exhibition had strong emotional responses to a demoted object. Illustrative of the important social function of materials, this example suggests how consumption patterns are deeply tied to the social world, giving meaning to life. This is a perspective reinforced by Slater (1997) who argues that 'objects of consumption are always culturally meaningful and have been used at all times to reproduce social identities culturally' (p. 5). In this field study, I demonstrate how rational understandings of the adverse environmental impacts of car use become conflated when we are confronted with the emotional dimension of individual mobility.

The Powerhouse Museum field study, described through the place, object, event framework, threw up seldom acknowledged issues in sustainability studies, revealing complex and entangled relationships between people, patterns of consumption and sustainability. It also echoes the call made by Hawkins for research that engages with our attachments to material things (both healthy and
unhealthy), and the ambivalence that is collectively shared about our materially intensive contemporary lifestyles.

This kind of thinking has been central to the way in which I have addressed sustainability as a cultural change process (Kagan 2010), interweaving the aspirations of sustainability with a material culture perspective. From this position active objects shape behaviour and as such should be given due attention, respect and interest. This perspective aligns with the Actor-network tradition and with the theoretical approach of Jane Bennett who has conceptualised agency through her notion of 'lively matter' and the 'thing power' of objects, which she defines as 'the curious ability of inanimate things to animate, to act, to produce effects dramatic and subtle' (2010, p. 6). Like Latour, Bennett argues that the reification of the social has generated human hubris and this has had a deadening effect on the material world.

Each of these thinkers contributes to the argument running through this thesis that a more sensitised relational mindset will emerge in conjunction with a more vivified material imagination. I consider the material imagination to be important for addressing sustainability within the cultural sphere, and for having value and relevance in how sustainability is addressed beyond the four walls of the museum environment. This notion of the material imagination is alert to the non-human world – non-human in every sense – whales, viruses, trees, artworks, oceans, sculptures and telephones.

We need to become much more curious about the many dimensions of human making that emerge from industry and productivism, and we have to be careful to remember that objects are themselves part of much larger entanglements. This requires a sensitisation to all modes of materiality in order to generate a closer connection between human beings and the worlds they design. In this way, the collected and organised material culture of exhibitions and museums may become spaces in which our collective impact can be imaginatively examined and explored. This does not necessarily mean a negative or didactic response. But it does demand new levels awareness and imagination in order to create new narratives
that can bring modes of agency into greater focus within the context of the Anthropocene.

**Creative enactments of sustainability**

The contested concept of sustainability and its future-focus clearly demand a diverse set of responses. In the contemporary context there is significant opportunity, corresponding with a distinct need for museums to reflect upon what they can do as richly resourced cultural sites. The rhetorical strategy of informing, engaging and inspiring is a relational ordering, rather than dialectic, and the three aspects interlock in meaningful ways. Each institution’s relationship with its public entails all three, in interrelated ways. However, in each ethnographic study one is more pronounced, and this is emphasised in the empirical chapters and in the comparisons this chapter. These juxtapositions reveal how sustainability may be conceived as a cultural change process within distinct regional contexts and how material thinking is used to extend public imagination. The different modes of address are all aimed toward the goal of ‘environmental action’; however this is achieved through the deployment of distinctive techniques, methods and concepts and on varying scales.

It is argued throughout this thesis that finding a suitable local response to sustainability is a substantive issue for museums. Understanding and responding to the conditions of specific places – rural, regional and urban – is an essential part of the ‘world’ building exercise of sustainability. These understandings and responses rest on a number of considerations, including the attitudes and expectations of visitors, the history of the organisation, the nature of the collection and the availability of resources. Each of the field study sites took a distinct approach to informing, engaging and inspiring visitors about sustainability as a contemporary concern. Here I examine key differences between enactments of sustainability, and explore the social and material factors that underpin them.

In the rural Australian context, the professional activities at Bundanon Trust are part of a larger institutional vision. The emphasis on long-term strategy will have
implications for the organisation and its sustainability efforts into the future. The future visioning of the organisation and the history of the Boyds gifting of the land is manifest in the ethos of Bundanon Trust. Visitors to the organisation are invited to share in this *inspiring* story and to become closely acquainted with the ongoing custodianship of the property. Visitors also participate in multi-level engagements across the biological and social world and experience different forms of verbal and non-verbal communication through the programming. The diversity of programs generates connections between the intellect and the emotions, collapse nature-culture binaries and promote a form of *caring for country*.

In the inner-metropolitan setting of the Powerhouse Museum, sustainability is presented as an emerging narrative within an industrial history. The design of *EcoLogic* was predicated firmly on a positivist mode of representation. The Powerhouse Museum is a cultural site in which the dynamics between human beings and their materially inscribed lives in and amongst material ‘things’ is central. Of the three cases, the *EcoLogic* exhibition most directly connects the publicness of science and environmental governance, and it also makes the most obvious and direct attempts at behavior change through broad appeals to a perceived active citizenry. The exhibition is predicated on an active effort to mobilise ‘public forms that already bear a scientific and technological imprint: accountability, critical debate, informational citizenship’ (Marres 2012, p. 17).

The science of sustainability and the notion of 'sustainable development' influenced the curator to explore and present information about population growth, fossil-fuel use, climate change, recycling, water use and air pollution. The *informing* mode of the *EcoLogic* exhibition was designed to address a general audience and it enrolls the public in the large-scale, global agenda of sustainability. The exhibition is a material assemblage made of objects from the collection, as well as models, texts, video and still images. The exhibition also provides a provocative 'think-change' space within the institution itself. It implicitly and explicitly challenges the professional disciplines of science and design to resolve the dilemmas of the present, which they are implicated in.
In contrast, the creative tactics of the artist Diego Bonetto and his collaborators within and around the Casula Powerhouse Art Centre developed a particular enactment of sustainability, responsive to the suburban situation and to the organisation’s own capacity for engaging with cultures of diversity within a heterogeneous contemporary Australia. This organisation sidestepped its concerns about art and instrumentalism by facilitating the work of an artist whose own practice avoids authorial accounts of the 'environment' or the science of sustainability, but rather assumes a tactical provocation reliant on the direct involvement of regional communities.

There are clear distinctions between the representational and informing mode of the EcoLogic exhibition, the engaging creative tactics used by the artist in Wild Stories, and the long-term inspiring strategies of Bundanon Trust. These are the result of particular institutional opportunities and constraints, very different scales of management and competing traditions within museum practice. At a basic level, the differences between inner- and outer-metropolitan and rural institutions are a reflection of the kind of mandate a large city-based institution seeks to fulfill, in contrast to those operating within regional and rural catchments, where the focus is on particular geographical communities.

At a more abstract level, it is the combined material and social infrastructures that also put into motion what is possible within each organisation. In the context of Bundanon Trust, the land itself has a kind of material agency, and although it is difficult to trace the direct effects of this agency, it gives momentum to the programs, events and activities that the organisation is pursuing. The multi-disciplinary, community-oriented engagements with contemporary environmental issues on the land encourage different ways of conceptualising cultural practices, weaving them much more closely within a complex interplay of socio-ecological systems. Many of the partnerships and local networks established by staff are oriented toward the land itself, driven by concerns for how it could be better managed and by a desire to actively support diverse ecosystems, at many different scales, through deliberate, strategic efforts. There is little obvious separation between the areas of material nature and material culture at Bundanon Trust, and
the descriptions of *place*, *object* and *event* in Chapter Six provide a textual account with nuanced descriptions of these close, complex overlays.

Within the dense, interior space of the Powerhouse Museum, there is no direct experience of 'being with' other living, 'organic' systems; rather both the *science* and the *sign* of ecology (Lopes 2006), as interdependence between humans and other living systems, is conveyed as information. The grounded materiality of the display and the logic of the exhibition narrative are combined to assist visitors in making sense of sustainability debates. Within the exhibition space, objects provide visitors with a vehicle for engagement with the past, while instigating interactions in the present. This case illustrates how, as a material infrastructure, a museum will often shape the possible meanings and relationships which people come to have with objects. It also demonstrates the mutable quality of material things, and provides examples of the efficacy of material objects in evoking a strong and unexpected response in visitors to the exhibition. The curator's interdisciplinary process and her wish to integrate objects from non-science disciplines into a 'science' exhibition provided a counterpoint to the disciplinary divisions within the organisation. The example of curatorial experimentation and transgression described in Chapter Four challenges the structural parameters of the organisation. Furthermore, it illustrates how curatorial experiments can reshape a museum's role in addressing contemporary issues in terms of how they make sense of materiality and how they inform and engage with their visitors.

What becomes clear in each of these examples are the ways in which the material and social infrastructures of a museum and the historical forces that come to shape them are significant determinants of the ways in which approaches to sustainability are configured and communicated. In the following section, I build on insights from the three cases and speculate on the potential for cultural organisations in the future.
Museums as forums for negotiating the future: Looking ahead

Cultural organisations are practiced in the creation and delivery of clear information, nuanced engagement and inspiring experiences for their audiences. In this discussion I draw together reflections from the sympathetic ethnographies of three museums and consider the potential status of museums to become more actively involved in the regeneration of knowledge for sustainability through their processes of cultural ‘give’ and ‘take’. By taking a close interest in forms of social and material exchange, and by adopting an expanded notion of agency, it has been possible to reveal various agentive forces within cultural organisations. These forces include different modes of social agency mediated within the structural parameters of institutions, the work of creative practitioners whose agency is mediated through material means, and the generative potential of the institution within local and broader trans-local networks. Insights from the ethnographic project are used to speculate about the opportunities that museums have to actively and imaginatively re-present sustainability within diverse geographical communities. This speculative discussion is broadly grouped into approaches to exhibition design and curating, public programming and learning, organisational agency and long-term strategic change.

**Exhibitions techniques and curatorial agendas**

The increasing complexity of the contemporary moment is pushing museum practices into new territory, where modes of inter-, cross- and trans-disciplinary research and curating have the potential to be effective as a way of engaging with complex socio-ecological understandings. Our understanding and engagement with objects within the museum context need to transcend disciplinary traditions in order to address sustainability. These need to be wrestled apart in order for new imaginings to occur. This requires critical reflection on the identity and function of the museum and the ordering strategies at work within them. The nineteenth century conception of the museum continues to influence knowledge domains and the separation of objects along disciplinary and epistemological lines. Despite challenges to these ways of knowing and understanding, there still exist
powerful beliefs that separate knowledge domains and inform museum practice and methods:

Disciplinary divisions structure our material culture physically and conceptually in ways that now seem logical, or even natural. Objects are separated into collections of art, science, technology, natural history, design and (perhaps most problematically) ethnology (UTS Art, n.p).

There is a real need for new and evolving 'material representations' to support complex communications about our being in this world. It is important that new engagements with sustainability take materiality to be complex. We need to think about materials in active terms, and to develop material imaginations that are open to examining the strong and defining attachments that humans have to material things. Addressing sustainability means embracing symbolic 'slippages' in relation to the objects sheltered by the museum and giving old objects new meaning. By recognising the ‘complicated materiality’ of single objects and of entire collections, there is an opportunity to explore complex relationships between people, their material life-ways and issues of sustainability. This should not diminish the cultural value or the aesthetic dimension of single objects, but it does require an increased engagement with the connections between objects, materiality and other living systems. Objects formerly identified as decorative, ethnographic, natural, scientific, artistic, domestic, technological or fictional, may come together in an exhibition in new ways, forming new allegiances and challenging disciplinary dogmas (UTS Art 2014).

Focusing on the global and amorphous dimension of climate change is a profound challenge. Our contemporary political and consumption cycles are much more immediate than the cumulative impacts of climate change. Because we seldom think in cycles of deeper, longer time frames, there is a collective challenge to become sensitised to cycles of time beyond our own present life cycle. New creative projects need to facilitate encounters that ‘slow down’ thinking in order to generate new framings of the issues at stake (Gabrys & Yusoff 2012). These should enable audiences to imagine forwards and backwards in time and provide the opportunity to reflect on material processes that operate within much larger time
scales. Through displays of material culture it is possible to provide a ‘thickening’ of contemporary climate data within historical time. Similarly, projects that bring together the material thinking of artists and scientists in ways that encourage us to consider deeper cycles of time and material effects have the potential to generate new dialogue and understanding about the cumulative human impacts of our designs on the world.

**Public programming and ways of learning**

Developing educational experiences that encourage greater forms of intellectual synthesis are important in ecological learning and sustainability ‘learning outcomes’. The design of multi-modal and tactile education programs that can bring together expertise from across the arts and sciences make a significant contribution to these aims. By designing learning experiences that weave together threads of cultural, environmental and social significance within the context of the museum will enhance and extend aesthetic encounters, situating them more firmly in the ‘real-world’.

The mobilisation of the museum’s material resources for diverse and ‘hands on’ embodied forms of learning provide a counterpoint to the momentum of countervailing cultural forces, particularly the mainstream pedagogical strategies which are inclined toward digital information rather than ‘learning by doing’. The sophisticated level of technology and design within consumer culture has a persistent effect of pacifying and reducing our need to engage with original forms of material thinking. Those parts of us that have evolutionarily been making things, inventing, solving survival issues and making unique forms of culture are no longer prevalent, however they are still a part of us, and they still may play a role in forging complex understandings of materiality. Engaging learners in the process of material thinking endows in them the value of making things and shows them that they can create as well as more uniformly consume. Learning opportunities that engage the material imagination in unique and inspiring ways is something that museum sites can offer in their position as ‘pedagogical anomalies’ in contrast to more mainstay institutions of learning.
There are diverse opportunities for cultural organisations to develop as sites of mediation for community discourses that bring material complexity and the science of sustainability into dialogue. This demands the creation and safeguarding of a space in which people, material things and ideas coalesce (and potentially collide) in dynamic, unpredictable and constructive ways. There are challenges in this process that include ensuring relevance to a geographical community, while taking up bigger conversations, experimenting and showcasing new and sustainable practices. There are many ways this can be done, and I draw examples from the three cases here: 1) facilitate the vision of creative practitioners with the skills to inspire, provoke and mobilise communities 2) create sophisticated on-line hubs for learning and engagement within one-off headline exhibitions 3) develop long-term embedded strategies that support community discourse.

**Organisational stance, agency and long-term strategic visions:**
Organisations that intend to address sustainability need to embrace experimentation and risk. The capacity of an organisation to take risks and to experiment is influenced by its overall mission and mandate, the extent to which change is considered to have value, and the agency of individual cultural professionals. Social frictions arise when new, contested topics come to challenge the established conceptual architecture of an organisation. In the case of the Powerhouse Museum, the curator’s willingness to take significant professional risks is evidence of an individual’s capacity to produce multiple, tangible effects, both on visitors and on the organisational structure. In this instance, external champions played an important role in supporting the integration of sustainability into museum programming. These external champions included individual experts and large affiliated organisations. The combination of the curator’s professional agency and the influence of important ‘others’ provided enough momentum and force to generate significant change. This is an example of the process of structural change described by Sewell:

> If enough people or even a few people who are powerful enough act in innovative ways, their action may have the consequence of transforming the very structures that gave them the capacity to act. Dual structures therefore are potentially mutable. It is no accident that
Giddens calls his theory the "theory of structuration", indicating by this neologism that "structure" must be regarded as a process, not as a steady state (1992, p. 3).

Risk taking can generate significant momentum within an organisation. It can influence operational changes, and increase awareness and capacity across staff.

There is potential for cultural organisations to commit to the cultivation of functioning, healthy socio-ecological systems, whether on a small or large scale, and across rural or metropolitan sites. New forms of public modelling extend the mandate of organisations outward by attending to the living systems that surround them. This should be an active engagement with ecological processes that support the site itself, and can involve the direct participation of visiting publics. As a form of direct action, these provide embodied and immersive learning experiences that contribute to the development of deeper attachments to place and promote an ethics of care for interdependent living systems.

Chapter conclusion

How questions of sustainability and material culture intersect has been at the heart of this research. My investigation has pivoted around an exploration of the opportunities and constraints that exist within the physical environments of museums, as well as examples of contemporary professional practice, which challenge orthodoxy and generate change. The situated enactments of sustainability discussed in this chapter provide new perspectives on contemporary practice. These examples address a further need within sustainability studies for detailed examples, which illustrate the efforts of individuals and organisations to transform practice. The detailed accounts provide opportunity for greater reflection on the agency of the museum in addressing sustainability concerns. They have also led to speculation about specific possibilities for future practice. In making this argument I have proposed that paying closer attention to forms of material thinking and to our material imagination brings us closer to our grounded, earthy existence and to the legacy that we leave behind. In the final chapter I consider how this thesis contributes to ways of thinking about the contemporary Anthropocene and conjectured futures.
CONCLUSION

Introduction

The concluding chapter draws together the central insights of this research. It summarises the arguments and key contributions that the thesis makes to the 'stocks and flows of knowledge' (Mitchell, Cordell & Fam 2014), and reflects on its limitations and further research that could follow. In this conclusion I return to the Anthropocene as a central thread that has run through this writing. I emphasise the importance of a material imagination that can comprehend the human being as 'world-agent' and the material world as agentive. I consider the adoption of new language and new research methodologies, and speculate on the role of cultural organisations into the future.

The material imagination in the Anthropocene

The connections and the frictions between local and global concerns have been an ongoing and important part of my analysis, and in the preceding chapter I argue that a material imagination at the local level may connect with global issues. In Chapter Seven I highlight how local creative inventions can gesture beyond themselves, engaging with larger collective story lines, and in Carter's terms they are the small 'wefts' within the cultural tapestry, driving the big 'warp' forward. In this final discussion I suggest that new kinds of visioning which can encompass the scale of the Anthropocene and respond, are part of the ongoing dynamic tension between what is local and what is planetary.

Throughout this thesis I have sought to examine questions of material culture in a time of gathering concerns for the resilience of life on the planet. Since contemporary human behaviour is increasingly visible, measurable and problematic across the earth's biosphere, this research has been informed by concerns for human impacts on the planet within the Anthropocene. In previous chapters I established that the term Anthropocene is not ideological or normative. It is a determination made by scientists with enough global data to make the claim
it implies, based upon established geological conventions (Steffen, Crutzen & McNeill 2007; Costanza, Graumlich & Steffen 2011; Robin et al. 2014). The language of the Anthropocene and the debates surrounding it within the earth sciences revolve around the synchronous markers of planetary change and what they tell us of the planetary shift out of the Holocene into the Anthropocene. In the twentieth century, geologists mostly argued against the suggestion of anthropogenic biophysical changes, pointing to continental shelves, volcanoes and earthquakes as indications of greater forces that delimit the power and influence of human beings. However, the nature of the era in which we now live is increasingly acknowledged from within the science community to be determined by human habitation on the planet. The effects are so widespread they have become a defining force for all other systems of life (Crutzen & Stoermer 2000).

Examining the Anthropocene evokes geological and earth history over deep time; it is also a profoundly contemporary reality. Ellsworth and Kruse (2013) argue that 'we inhabit the geologic', and contend that by turning our creative and critical attention more fully toward geological time scales, 'we create an opportunity to recalibrate infrastructures, communities, and imaginations to a new scale – the scale of deep time, force, and materiality' (p. 25). Within the Anthropocene we are confronted by the force of humanity acting on a global scale, and 'as a new epoch and a philosophical framework, it weaves connections between a very large number of phenomena, many previously unconnected' (Robin et al. 2014, p. 7). By considering and responding to the scientific evidence of the Anthropocene we face our interrelatedness through changing physical and material conditions in the world writ large:

Accepting that humans have fundamentally altered the way natural systems work and have shaped global climate change, closes the bifurcation between the natural and the cultural: in the Anthropocene natural and cultural systems are interdependent (Robin et al. 2014, p. 5).

Confronted by humanity as an agent acting on a global scale, our made materials and the constructed world is immense and confounding, challenging our collective comprehension of the 'world-object'. Philosopher Michel Serres (2006) argues that
the global, digital reality of the contemporary has transformed relations. We transform our living conditions through communications across the globe (hearing the world), we visualise a finite planet from space (seeing the world) and we act on the planet with our 'techniques and effluents' (acting on the world):

The relation to knowledge changes today because of the need for symbiosis with the new object. Exchange is prior to knowledge. A contract is required to make this exchange equitable. Knowledge starts with the law, whose laws precede any discovery of laws; similarly, technological action starts with the right of exchange. And thus begins the symbiosis of the global world-object and of the global human species-subject (Serres 2006, n.p).

By bringing these concerns into my conclusion, I now suggest that within the Anthropocene our material imaginations (and through this, the work of cultural institutions) need to fully engage with realities that are geological and planetary in scope. This involves a scaling process that has significance in the contemporary era where 'to call human beings geological agents is to scale up our imagination of the human' (Chakrabarty 2009, p. 206). This kind of material imagination includes the comprehension of anthropogenic climate change and the planetary-scale changes to ecosystems and the impacts that humans are having on a massive scale.

In order to create sustainable futures, we need to engender a new material and geological imagination. This is still a material imagination in every sense, but it involves imagining ourselves as world-agents, and as having impacts that are not only occurring at the local level. Rather, individuals (and cultural institutions) are one part of a complex assemblage in which all parts interconnect. Everything we do must be imagined to have flow-on effects, large or small, and it is this kind of imagination and this kind of engagement with the material world, as ways of thinking and responding, that are needed. In the following section I consider how this larger planetary perspective feeds back into my research methodology at the local level, and I reflect upon the generation of new knowledge within the Anthropocene.
Reflections on methodology

If human activity is now a defining force on our planet, then how we make new knowledge is important. We need to be able to theorise new knowledge that is adequate for confronting the 'world-object' (Serres 2006). In sustainability studies this often involves moving beyond the creation of new knowledge for its own sake, toward creating changes in the world. In Chapter Three I explored the research methodology of transdisciplinarity, which seeks to address complex problems by drawing on different disciplinary, professional and community knowledge(s). I examined connections between sustainability research, transdisciplinary perspectives and ethnography, suggesting that ethnographic research allows for a kind of 'complex thinking'. I argue that the ethnographic method involves a dialogical process in which reflexive attention is paid to all encounters.

Ethnography allows for an engagement at the interface between humans and non-humans that requires the use of multiple senses, the collection of multiple forms of data and multiple levels of interpretation. The value placed on different kinds of knowledge in ethnography, and ethnography’s approach to knowledge generation, are also emphasised in many conceptualisations of transdisciplinarity. I suggest that ethnography provides its own pathway to sustainability, embodying many of the qualities of a transdiscipline. The approach taken in this thesis is a particular form of transdisciplinarity, where theoretical frameworks from diverse disciplines, the insights of cultural professionals, and the knowledge gained through ethnographic methods, add to the 'stocks and flows' of knowledge and is itself a form of change in the world.

The multi-site ethnographic method provides rich contextual insights across diverse locations, focusing on the connections and the relations across and within different sites. As discussed in Chapter Three, there are many imperatives that drive changing conceptions of ethnography. Fortun suggests that an 'imperative can be thought of as epistemological, emerging from an awareness of the way scholarly disciplines sustain critical edges through attunement to the historical context in which they operate' (Fortun 2009, p. 83). As a researcher, I have argued that at this historical moment it is necessary to attune to the global and local
frictions between humans and their environments. The importance of scale in the analysis of multi-site ethnography resonates with the generation of new knowledge in the Anthropocene and the development of a material, geological imagination. Fortun's (2009) 'seven strata' model presents a way of organising data that assists in synthesising and writing multi-site ethnographies. Her approach to analysing complex and multi-layered data involves separating out different operating scales and has been influential in my own analysis. Fortun compares this process of scaling, to thinking 'geologically' in terms of multiple strata, from the nano level where subjects are constituted, through levels where technology, organisations, economics and other forces are in play. It is an ordering that helps to orientate an analysis without imposing a vertical hierarchy of importance.

This research inquiry has enabled me to begin to think in material and geological terms; terms that are reflected externally in the earth's strata and conceptually in the scaling at work in my analysis of museums. My own research became a study of forces, dynamics, actants and effects, as well as a study of representations, meanings and significations, providing me as a researcher with a new vocabulary and set of schemas with which to think about and to engage with the world. The language of forces, agents, effects, dynamics and materiality evoke the geological and this is the language of science as well as of culture. These words come to mean different things depending on disciplinary orientations. However, within natureculture literatures, and in the tradition of Actor-networks, these words and worlds are entangled.

Contributions of this thesis

In this section I draw together the central threads of this ethnographic research and suggest opportunities for future research as well as limitations within the research design. Then I reiterate the major contributions of the thesis.

In order to address the Australian context and to pursue the different strands of my research agenda it was necessary to limit the scope of this study spatially. Rather than considering this a limitation of the research, I consider it to be more of
a beginning, from which other studies elsewhere may follow. Each field study was delimited through my focus on different modes of professional practice and institutional reform within organisations in response to sustainability concerns. It would have been valuable to enrich this analysis by presenting data representative of visitors’ views alongside the views of cultural professionals. However, this was beyond the scope of my doctoral study. Further research could build a more complete picture of the influence of cultural organisations within and beyond their own communities. This research would be complementary with the new kinds of knowledge creation, which I have suggested are necessary within the Anthropocene.

Comparisons between the three organisations were not produced in an effort to arrive at, or formulate, a complete synthesis, but instead to hold these diverse communities, with their diverse settings and diverse cultural responses to concerns for sustainability, up to the light. The three examples explored in the fieldwork do not provide a complete representation of the museum field. Rather, as situated responses to sustainability, they have allowed for rich juxtaposition.

In summary the contributions of this research are:

• a new analytical framework for future cultural research. The place, object, event heuristic emphasises relationality and could be used in other research settings
• an ethnography of places, objects and events, which provides an example of writing transdisciplinarity and of material thinking within research
• rich descriptions of new cultural practices and an analysis of contemporary initiatives, projects and processes of institutional reform within the Australian context
• detailed accounts of enactments of sustainability, presented as informing, engaging and inspiring experiences designed for museum visitors. These differential accounts offer a new lens through which to understand the material cultures of museums and their connections with conjectured futures
contrasting accounts of cultural organisations that weave connections between local conditions and global concerns. These accounts build on Paul Carter’s vision of material thinking, in which local creative invention is recognised to move the larger trajectory of sustainability forward.

- a speculative analysis of future practice and specific opportunities that exist across diverse museum contexts to engage with sustainability.

- an exploration of material culture within the Anthropocene that points to a pathway from the material imagination at the local level towards a larger geological imaginary, both for individuals and for cultural organisations.

Reflections after analysis

This inquiry began with an explicit focus on sustainability in the cultural sphere and the principles informing museum practice. As the research process evolved, it increasingly became an exploration of a metaphysical kind. Beginning as an inquiry into the 'what' of institutions – my demand to know what was being done about concerns for sustainability – has developed into an inquiry that has asked the what, the how and the why of sustainability, and beyond that, the why of institutions themselves. The conceptual leap in the research design, combined with the theoretical exploration and the ethnographies themselves, allowed for a rich analysis of social and material agency within cultural organisations. This process enabled me to examine relational orders within institutions and to engage with processes of institutional change and change creation.

Museum practices are fluid and their social imaginaries change over time. At their best, cultural organisations provide for remembrance, reflect qualities of place and engage in the work of imagining futures. While the acquisition, preservation, interpretation and display of objects has been central to the museum's history, collections of objects are no longer the essence of what a museum is. Looking into the future, it is impossible to predict what role cultural organisations will adopt in response to sustainability concerns, and clearly there will be many, divergent approaches, as shown in this thesis.
Addressing the research aims and examining museums within the larger theoretical framework of material culture, theorisations of agency and sustainability discourse, this ethnographic project has revealed distinct ways that cultural organisations are addressing sustainability actively in their exhibitions and programs. These examples gesture beyond themselves toward future opportunities that exist for local and international organisations.

There are real opportunities for cultural organisations to develop new kinds of material representations and material practices that can support complex communications about sustainability. These include representations and practices that take up new forms of inter, cross and trans-disciplinary curating; the presentation of more complicated visions of materiality and material culture; the embrace of symbolic 'slippages' in relation to the objects sheltered by the museum; the creation of spaces that allow for a 'slowing down' process for publics to consider longer time cycles and reframe political issues; the mobilisation of museum resources for embodied and immersive learning and diverse and 'hands on' learning opportunities; the use of cultural institution as sites for the mediation for community discourse; and the development of museum sites as places for visitors to participate in the creation and maintenance of dynamic and healthy socio-ecological systems.

I have argued in the last part of this thesis that our material selves, our material imaginations and our material culture deserve greater attention in light of the challenges of sustainability. Through focusing on the capacity to imagine, I have aimed to highlight that humans have an extraordinary imaginative capacity. Our material imaginations have designs on the material world, and they manifest our thinking into made matter. It is a form of imagining which has agency in the world. It is our material imaginations that have the capacity to transform and pursue new ways of being, and it is our imaginative selves that take pleasure in the challenge of creating new possibilities. In this research I have suggested a mode of material thinking and material imagination that can attend to the global dimensions of the Anthropocene. These modes of thinking and imagining may assist in the generation of new possibilities. As Wright et al. contend:
Too often people forget that our current socio-economic system came into being because human beings have imagined it, and thus they often feel powerless to intervene. Bringing the dimension of imagination to the fore would mean that society could begin to explicitly question its own institutions and its established social imaginary significations [...] It is our belief that the particular social imaginary significations associated with a capitalist growth machine have facilitated an evacuation of the temporal frame of the near future [...] Future imaginings would have to be able to go beyond what is hidden from our current perceptive and temporal frame (2013, p. 653).

What we make of our material culture during a time of collective reflexive concern for the future of the planet has been considered critical throughout this research process. How do we reconcile our intensely material existence with deeper questions of environmental legacy, the realities of extensive resource depletion and the measurable climatic impacts of industrial development? 'What forces and thinking are needed to create different political and environmental realities?' (Hawkins 2009a, p. 1). It seems that our material selves and our material cultures are implicated in such questions, and yet our deep conscious and unconscious attachments to the means and the meanings that are facilitated through materiality, within the materially inscribed lives we lead, make the consideration of these questions and the serious consideration of alternative possibilities, difficult to envisage. In the present reality of the Anthropocene an enlivened material imagination creates conscious connections between our everyday activities and the effects they have on the planet, and enables us to keep open the possibility of what is yet to come.
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Appendix

APPENDIX LIST

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APPENDIX A

Preliminary Research Outline

Mapping sustainability across Australian cultural organisations
Research aim: To examine the rise of sustainability within the Australian museum sector.

The preliminary research process was divided into three phases:

Phase One: Establishing the scope of the project, key definitions and brief literature review

- Develop a workable definition of sustainability and a series of generic and disciplinary specific keywords, as well as derivatives. My working definition needs to be flexible and open enough to accommodate a range of perspectives and agendas. Acknowledge that agreement on exactly what constitutes sustainability continues to generate debate and contestation. The meanings attached to sustainability across sectors will differ significantly.
- Use this definition and keywords to use in the survey and interviews as a touchpoint for open exploration with participants.
- Develop a brief literature review of the museum sector and the contemporary response to sustainability. The aim of the review is to generate information about efforts within Australian and institutional institutions to integrate and embed sustainability into both back-end and front-end operations.
- This initial stage will not comprehensively capture all content or full range of resources, but it will help to identify interview participants and areas of obvious strength and weakness.
- Produce clear visualisations of this preliminary dataset.

Phase Two: Developing a more detailed picture through surveys and interviews with professionals

- Design and distribute a survey sent to Australian cultural organisations. Survey respondents will be asked to nominate activities that reflect related activities, perspectives and programming material in their work. Use the survey results to identify key organisations for interviews, (and seek advice on appropriate professional staff for interviews through dialogue with the organisations.)
Generate a list of key participants, their professional focus and profile and set up interviews. In order to ensure the greatest value comes from each interview some preparatory time will be put into researching disciplinary expertise, research area and the general background of each staff member. Decisions made at this stage will determine the amount of data analysis and the time needed to complete phase three.

Design an interview schedule and conduct a series of semi-structured interviews with staff with an emphasis on critical reflection about approaches to programming content, professional (and personal) perspectives on sustainability, opportunities and barriers to integrating new methods and models into the organisation.

Phase Three: Analysis of survey and interview data and report writing

Transcribe interviews, code and identify themes from interviews. Analyse interview data to generate a detailed and substantial account of current practices, perspectives and ideas across each organisation.

Through the audit, survey and in-depth interviews a picture of sustainability related content and approaches to operations and programming will emerge. These findings will be written into a report (approximately 10 pages). It will describe the current situation in the museum sector in brief and focus on the presentation of current practice, evaluation of strengths and weaknesses and provide limited suggestions for opportunities where relevant sustainability content could be integrated into professional practice in the future.

Use this information to generate a list of sites for ethnography
APPENDIX B

Preparation for survey and interview data collection

Establishing the methodology (March 2012)

Both the survey and the interview use the influential and ubiquitous technique of presenting questions to subjects in order to generate information that can be assessed, analysed, interpreted and/or critiqued. That said, the nature of the information and the process and style of approach vary markedly.

Conceptions of social reality influence the methodological decisions made in the design of surveys and interviews. Internal consistency across the ontological, epistemological and methodological dimensions within research design is always important, due to the influence of how understandings of social reality are ‘uncovered’. Ontological assumptions give rise to epistemological assumptions, which in turn, give rise to methodological considerations, which again, give rise to issues of implementation and data collection (Hitchcock and Hughes 1995). The central issue for any researcher is to ensure that whatever choice of method, there is logic to that choice based on ontological and epistemological principles, connected to a specific research inquiry and set of questions. By extension the researcher must also speak to themes and issues described in relevant literature.

The survey is a ‘system for collecting information’ (Sue & Ritter 2007), which is designed to minimize biases through the standardisation of questions, working from the underlying assumption that bias can be eliminated or controlled. There is an emphasis on factual and reliable data, which can be generated independent of the researcher. These underlying assumptions reflect an epistemological position that understands the social world as being ‘out there,’ separate to the researcher, and capable of being measured and tested using processes aligned with a positivist world-view. This worldview has been examined extensively, with theorists questioning the limits of positivism and its methodologies, and offering critiques of positivism ‘as a branch of mathematics rather than a humane study seeking to explore and elucidate the gritty circumstances of the human condition’ (Cohen, Manion & Morrison 2000). Giddens (1976) separates the social sciences from the natural sciences (the historical root of positivism) by stating that social science, ‘stands in a subject-subject relation to its field of study, not a subject-object relation, it deals with a world in which the meanings developed by active subjects enter the actual constitution or production of the world’ (cited in Cohen, Manion & Morrison 2000). An emphasis on the relativistic nature of the social world, the importance of context in social actions and the interpretive nature of meaning making are each defining characteristics of the ‘alternative paradigm’ (Maykut & Morehouse 1994) and of qualitative research broadly.
Despite the epistemological differences between quantitative and qualitative methodologies, there are no fixed rules for how a researcher should conduct research. Both paradigms provide frameworks for generating information about the world and both have inherent opportunities and limitations. The survey essentially works through setting up a detached, objective position for the researcher. Surveys can be a very efficient way of generating large amounts of data, for developing controlled studies that allow for statistical analysis, broad typologies and fast results. Surveys are often less resource and labour intensive, especially when conducted via the internet and they allow for a level of anonymity and control over the data which is practical and economical.

The interview on the other hand, is a more subject-to-subject method (Giddens 1976). In terms of the type of experience, there are real-time interactions: physical, verbal and gestural. The practice of interviewing is sometimes talked about in terms of meaning co-construction, placing value and importance on the role of interpretation and researcher reflexivity. In this type of direct interaction the interviewer has particular kinds of responsibilities, although both methods have ethical considerations and implications.

In my own research, both the survey and interviews take place in the context of Australian cultural organisations (art and design galleries). The participants are professionals (predominantly curators and educators) working within these organisations. Each of these sites has a unique history, institutional culture, and associated audiences that influence how they operate and evolve. As a researcher I need to be conscious of issues affecting organisational culture through engaging with relevant literature, and design my research accordingly. The central research questions I am addressing relate to the ways that professionals working within these contexts are responding to sustainability, both on operational levels (back of house) and in programming (front of house). I began my data generation with an online survey, followed by in-depth interviews with individuals selected from the list of respondents to the survey. The purpose of the survey was to generate information from a cross-section of organisations and to develop a typology that has offered basic evidence of how these organizations engage with sustainability. The survey results revealed relevant sites and individuals for in-depth interviews and for further research to be developed.

The Survey

Survey design, subject privacy and confidentiality, sampling and subject solicitation, distribution methods and response rates and survey piloting are critical methodological components that must be addressed in order to conduct sound online research (Andrews, Noonneck & Preece 2003)
Before starting a survey a researcher should carefully check the purpose of the design, check whether the information is available elsewhere or whether it would be quicker, cheaper and more appropriate to use an alternative method. Questions to consider when designing a survey include: What are the critical and analytical dimensions of the research and how are they going to be matched with appropriate research strategies? What questions will be able to be answered in response to the set up of questions from the survey? What does the on-line survey give beyond an interview/web analysis? How will the people being asked these questions gather the information? Will it be convenient or time-consuming for them? Thorough consideration of these questions will help in the process of refinement and generate sound results that support the outcomes needed.

The design process is important for a survey, and there is a degree of creative work involved in terms of creating a balanced visual layout. There is obvious value in increasing the flow of the survey as this decreases dropout rates and saves time for the respondent. The significant and time-consuming work is in developing a logic and structure for the content, and to direct the survey enough to generate meaningful, useful outcomes for analysis. Developing links between the theory, research questions and the survey questions. Using straightforward language and writing short, clear questions is important, avoiding double-barrelled questions that tend to confuse respondents. Leading questions may set up bias that will threaten the validity of results, so maintaining neutrality is an essential aspect of survey development, and needs to be rigorously checked.

Both coded and open-ended questions can be accommodated in web-surveys. In a study using a web-based survey where open-ended questions were located after a set of coded questions, over 70% of the respondents provided additional information and explanations through the open-ended question opportunity (Andrews et al 2003). Most people respond within 2 – 5 days of receiving an online survey, with a significant decline after that. Follow-up reminders can increase the uptake if well timed. Timing is quite an important consideration when sending invitations and studies suggests that mornings at the beginning of the working week generate the most successful results (Sue & Ritter 2007). Online surveys are becoming increasingly common due to their ease and accessibility. Watt asserts (1999) ‘advances in technology allow for online surveys to be conducted, whereby the costs per response decrease instead of increase significantly as sample size increases’ (cited in Andrews et al 2003).

In any research, the question of sampling is significant, ‘researchers need to be very clear and explicit about whether their research is based on a representative sample or an exploratory sample (Denscombe 2011). Non-probability samples involve discretion and choice on the part of the researcher, and do not employ
random selection procedures. This approach may not represent entire populations, however it can still ‘retain the aim of generating a representative sample’ (Denscombe 2011). An exploratory sample is not a matter of pure chance; instead it is based on sample selections that reflect criteria set up by the researcher to accomplish specific ends. Sue & Ritter (2007), in discussing sampling frames note that there will always be those who are unreachable as well as non-respondents (those who choose not to participate) and dropouts (those who don’t finish the survey). An average response rate to on-line surveys is between 10 – 35%.

In my own work, the sampling frame was defined as a specific target group of individuals employed as (partially) representative of relevant institutions. The survey was designed for the collection of both quantified selection option answers and narrative type answers. The pilot process was detailed and constructive and pointed to some major refinements.

The Interviews

At its heart is the proposition that an interview is a form of discourse. Its particular features reflect the distinctive structure and aims of interviewing, namely, that it is discourse shaped and organized by asking and answering questions. An interview is a joint product of what interviewers talk about together and how they talk to each other. The record of an interview that we researchers make and then use in our work of analysis and interpretation is representation of that talk (Mishler 1986).

Interviews are used in a variety of social contexts. They are a mainstay across many academic fields, journalism, education, politics, business and marketing. There are many forms of interviews to cover a wide range of activities, including “informal,” “open-ended” and “structured”. There is a lot of literature available on interview techniques, how to generate high quality information, how to establish trust and rapport, while other literature focuses on issues of bias and dynamics of power in terms of gender, race, political beliefs and other variables that may have an influence on the generation of valid data.

There is less information about the nature of the interview in terms of its quality as a ‘communicative event’ and the ‘meta-communicative norms it presupposes’ (Briggs 1986). Briggs suggests that interviews are unusual communicative events, which have inherent weaknesses and that much of the literature on interviewing has contributed to a mystification of the interview; for this reason he argues that our reliance on them and investment in their findings should be questioned. The interview moves the roles normally played by participants into the background and restructures these roles in unfamiliar ways, ‘since the context-sensitive features of such discourse are more clearly tied to the context of the interview than to that of the situation it described, the researcher is likely to misinterpret the
meaning of the responses’ (Briggs 1986). Briggs’ critique is something of an indictment on the convention of interviews, he articulates fundamental issues, from the relatively unquestioned faith in the interview to the unsophisticated means of analysis, ‘interview techniques smuggle outmoded preconceptions out of the realm of conscious theory and into that of methodology’ (Briggs 1986). Essentially he argues that social researchers must adopt a more critical examination of their own role in the research process, it is critical to pay attention to the complexities of the interaction, rather than pretend that these complexities can all be controlled for. Likewise Mason suggests, ‘it is worth asking to what extent it is ever possible to fully understand the complexities of the interview interaction’ (Mason 1996). Despite these imperfections and complexities, it is arguable that qualitative interviews have contributed significantly to understandings about the social world. Questions that a researcher needs to consider in planning for interviews are: What is the methodological point of entry for the interviews? At what level are the questions pitched, and what am I looking to uncover?

One of the key challenges in generating quality interview data is the quest for depth and detail. Hermanowicz distinguishes the average interview from the outstanding interview by these two salient features. The quality interview mines down into the social world of the subject in order to capture detailed information about their experience, perception, thoughts and/or feelings (Hermanowicz 2002). It is essential therefore that the interviewer cultivates active listening and persistence; the ability to probe in an interview, to elicit nuance and to return to unresolved responses. Without curiosity, attentiveness and persistence, the interviewer may shy away from exploring difficult or vague responses, and miss the opportunity for complexity and depth. An interviewer needs to be fully present in order to “hear” data (Hermanowicz 2002), and anticipate probing questions for responses that seem unresolved. Probing questions such as “you say ...?” or “I’m not sure I followed that/understand that,” are simply a response to the fact that most people when asked a question tend to be general rather than specific. Often the first response to a question is simplistic and therefore it is essential to be alert as the interview develops in order to inquire into the nature of the response. In other words, the interviewee can’t get lazy, nor take anything for granted. Hermanowicz suggests that another way of persisting with an unresolved response is through the re-stating, re-phrasing and re-casting of questions, which work well if combined with changes in the tone of voice.

The recommended way of ensuring the interview has appropriate substance and style is to develop an interview guide or schedule. This should not be considered a rigid script, although it should be approached and used in a reasonably systematic way (Wadsworth 1997). The interview schedule works to guide the interview interaction and keeps the interview moving forward. A well-sequenced set of
questions is strategically organised. All questions should relate to the overall research question that has generated the interview. In order to do this, Mason suggests listing the 'big' research questions that the study is designed to explore and then subdividing the big questions into mini research questions. Developing strategies to get at the relevant issues means converting the big, as well as the smaller examples of 'what you really want to know' (Mason 1996) into interview topics.

For example, an interview with 20 questions might have 5 topic areas sections, each with 4 sub-questions. This division helps to recognise and focus on the subject at hand; it is also useful for organising interviews for analysis and finally presenting subsequent findings and discussion. Most interviews run for approximately 1-2 hours and in general the respondent will be less forthcoming, detailed or candid, as they grow tired. Testing the interview through a pilot process will help in determining average length and is important for ironing out flaws in the language and logic of design. A good interview will have a balance between questions that are easy for a respondent and those that may be more sensitive or uncomfortable to answer. A general rule is that a given question (within a given topic) normally anticipates the next question. Starting with non-threatening questions, followed by difficult questions in the middle of the interview and finishing with easy questions and the opportunity for flattering stories and/or accounts, thus ending on a positive note.

The use of diplomacy and humour are important in building rapport and establishing a climate of trust during an interview. Maintaining a level of professionalism and respect for the interviewee and gratitude for their time. The interviewer needs to practice self-control and confidence in the interview situation, in order to 'eliminate the element of surprise' (Hermanowicz 2007). Hermanowicz discusses the need for “detached concern” during an interview, describing this quality as a type empathetic listening. An interviewer should avoid being swayed by excessive emotion or over-reaction to any thing said. Empathetic listening is not a neutral state, but it should demonstrate a degree of reserve, an important aspect of minimising influence on the respondent in unexpected ways.

For some theorists interviews must occur in a face-to-face situation (Briggs 1986). This is most often preferable, but in some cases the option to meet is not available. The opportunity for me to begin my interviews by phone has allowed me to speak with 3 people in regional areas who I couldn’t meet with otherwise. Although the interviews were constrained by the pressures of work and shorter than a face-to-face (30-40 mins), the information generated has offered valuable real-world dialogue and helping me to reflect on assumptions within my research questions and evolve the interview schedule.
Reference List


APPENDIX C

Interview Schedule

Interview schedule for face-to-face interviews (second iteration)

Date the interview, number pages, code the interview

Introduction to the research and to my own background: Who am I?
...and thanks for your time and involvement...

The process for the interview is simple; it is a loosely structured conversation for 40-60 minutes. With your permission, I would like to record it for the sake of clarity and accuracy; if at any point you would like me to turn it off, please let me know. The interview is confidential and if the information you provide is incorporated in my writing, you will remain anonymous. Are you ok with this arrangement?

There are some broad topics I’m interested in exploring and the conversation will evolve as these topics open up. The topics put loosely are, the perceptions of people working in the cultural sector toward sustainability and perceptions they have of this issue/s. I’m interested in whether there are noticeable trends emerging around curatorial work and public programming related to sustainability. I’d also like to talk about innovation and experimentation within your organisation generally and what the limitations and opportunities are; and discuss your thoughts about changing cultural values and how your organisation plays a role in facilitating change/Transformation.

Framing sustainability:
Definitions of sustainability are evolving and diverse, and interpretations vary for individuals and organisations. The list below is suggestive of areas of sustainability research and practice, provided here only as a guide:

• Concern for current resource use and the equitable distribution and management of resources between locations and across generations
• Concern for human impacts on biodiversity
• Concern for relationships between the human and non-human world
• Consideration of intergenerational equity, social justice and cultural sustainability
• Consideration of environmental health and ecological awareness
• Consideration of waste avoidance, waste management, material flows and product life-cycles
Consideration of the psychology of consumption and ways of modifying consumption patterns

Topic areas and focus questions for face-to-face interviews in Australian art and design centres

("Warm up") Interviewees role; events/programming process; community role

1. Can you tell me a little about your role at your organisation?
2. Can you briefly outline the process of how exhibitions (or) education projects are chosen and developed at your organisation?

("Going into detail") Curatorial projects and sustainability

1. Have you been aware of a recent trend in curatorial projects that pick up on aspects of sustainability?
   If yes - Can you talk about what you are noticing?
   If yes - Why do you think these projects are occurring now?
2. Do you think this level of interest toward issues of sustainability will continue as an imperative or is it a passing trend?
3. When did sustainability first emerge as an area of interest for curatorial and education projects at your organisation?
   Who initiated it?
   (Optional Related) Has a policy from council or any other external agenda influenced the development of programming at your organisation? Do other topical issues within council policy influence the kind of projects you develop?
   If yes - How do you feel about this? Is there a process for translating and integrating ‘stated objectives’ into creative practice within an art and design gallery context?

("Going into detail") Innovation and experimentation

1. Can you share your thoughts on the institutional structure itself? Do you think one of the roles of cultural organisations is to provide a space and credibility for the radical and unconventional ideas of certain artists?
2. How much influence does the curator have on the kind of innovation and experimentation that might occur within an organisation
3. Are there limitations imposed on the kinds of projects that happen at your organisation?
   What are they?
   Why do these limitations exist?
4. Can you talk about the process of curating in relation to a particular theme? How does an artist’s work influences the curatorial process, in terms of the logic of an exhibition comes together?

("Going into detail") Values
1. Do you think art can be a catalyst in society in any particular way? Can you explain your thinking on this? For example in terms of forecasting new value systems/ways of knowing and/or types of behaviour.

2. Certain theorists argue that artworks can have a dimension of efficacy and influence in society. There is an anthropologist, Alfred Gell who talks about artworks as having a kind of power to effect social practices and social relations. From your own perspective, what are your thoughts on artworks having agency, do you agree?

3. Can you give me an example of a specific artwork/art object (at your organisation) that you think is unusual or particularly engaging for audiences? Can you share more about your views of this?

(“Cooling down”) In practice

1. Can you tell me about any exhibitions or events that you have been involved in that reflect/illustrate the ideas that you’ve shared today? (If possible, I would like to hear about any highlights, in terms of critical audience engagement and how that came together in these examples).
APPENDIX D

Cultural Organisations and Sustainability Survey*

WELCOME!
Thank you for your participation. The survey should take about 5 - 10 minutes to complete. This research looks at changes occurring in Australian art and design organisations motivated by sustainability related issues. The survey is divided into three sections: Internal operations, public engagement and demographics. The survey results will generate a report providing useful benchmarking information and a picture of the diverse ways that professionals within the sector are currently engaging with sustainability. This survey is part of a doctoral research project designed by Tania Leimbach, at the Institute for Sustainable Futures, University of Technology Sydney. All of your responses in this survey are confidential and only non-identifiable comments will be included within the final project report. If you have any questions please email: tania.leimbach@uts.edu.au

The survey closes May 31st, 2012. The Human Research Ethics Committee at University of Technology Sydney has approved this study.

1. Part A. Internal Operations and Sustainability: 'Back of house' changes within your organisation motivated by sustainability.
Which of the following sustainability-led initiatives has your organisation undertaken over the last five years? Please check as many as are applicable and rank as either major or minor initiatives:

- Exhibition processes (eco-friendly, re-usable and re-cycled materials, exhibition transport, couriers etc)
- Climate control (energy conservation including additional insulation, door controls etc)
- Transportation initiatives (car-pooling, bicycle/pedestrian systems, public transport programs etc)
- Recycling initiatives (solid waste including paper, plastic, metal, e-waste and composting etc)
- Lighting (energy conservation through greater efficiency, increased daylight, green energy supply etc)
- Procurement (purchasing from environmentally and socially responsible suppliers)
- Water management (water saving including efficient toilets, harvested rainwater, minimal irrigation etc)
- Landscaping (emphasizing biodiversity, native plants, pest management practices etc)
- Food initiatives (including local, fair-trade, organic, seasonal etc)
- Other (please specify)
2. Is there a working group or other formalised process for managing sustainability initiatives at your organisation?
   - Yes
   - Don’t know
   - No

Please provide a brief account of the scale and nature of these activities

3. Are sustainability-related initiatives within your organisation promoted to the public and other external stakeholders ie. members, government, suppliers etc?
   - Yes
   - Don’t know
   - No

Please provide details of these promotion activities

4. Does your organisation provide staff development opportunities to increase practical skills and awareness about sustainability in the workplace?
   - Yes
   - Don’t know
   - No

Please provide a brief description of staff development opportunities

5. **Part B. Public Engagement and Sustainability: 'Front of house' changes within your organisation motivated by sustainability.**

Does your organisation have a stated objective as part of its strategic planning to develop new ways to engage the community with sustainability over the next five years?

   - Yes
   - Don’t know
   - No

6. Does your organisation actively engage with sustainability in its curatorial work, exhibition design, public programming and/or education?
   - Yes, we do this now
   - No, but we are working on this
   - No, but possibly in the future
   - No, I don’t see a place for this in our organisation
   - Don’t know

7. What area/s of your organisation do you think most successfully engage with the public about sustainability?
   - Exhibitions / Collections / Commissions
• Public Programs
• Education
• Community and industry partnerships and collaborations
• Promotion of initiatives occurring within the organisation
• Don't know
• None

Please provide an example of successful public engagement at your organisation

8. Has your organisation curated exhibitions, programs and/or events associated with climate change in the last five years?
   • Yes
   • Don't know (please go to Q 10)
   • No (please go to Q 10)

9. To your knowledge, what was the relative influence of the following factors on the generation of these projects? Please rank the following in terms of least to most influential:
   • Because climate change is topical and current
   • A curatorial interest in art relating to climate change
   • A curatorial interest in engaging with controversial subject matter
   • To generate public engagement and debate
   • To facilitate learning opportunities about climate change
   • Other considerations (please specify)

10. Part C: Demographic information.
    To what extent is sustainability an issue of personal concern and commitment for you?
    • Other (please specify)
    • Sustainability has been a significant and active concern of mine for several years
    • Sustainability has recently become a significant and active concern of mine
    • Sustainability is a moderate and active concern of mine
    • Sustainability is of no personal concern for me

11. Please nominate your role within your organisation:
    • Other (please specify)
    • Curation
    • Exhibition Design
    • Education
    • Public Programs
12. In which state is your organisation located?

- SA
- TAS
- NT
- VIC
- NSW
- ACT
- QLD
- WA

13. Where is your organisation and community located?

- Other (please specify)
- Regional
- Inner Metropolitan
- Outer Metropolitan

14. Approximately how many visitors does your organisation have annually?

- Other (please specify)
- Less than 1000
- 1000 - 10 000
- 10 000 - 100 000
- 100 000 - 300 000
- Above 300 000

15. Thank you! Your contribution in completing this survey is valued. As this is part of a larger doctoral project, would you be willing to be contacted for a short follow-up phone interview?

- Yes
- No

All appointments will be made via email prior to the interview.
Please provide your email and contact number at work.

The Human Research Ethics Committee has approved this study. If you have any complaints or reservations about any aspect of your participation in this research that you cannot resolve with the researcher, you may contact the Ethics Committee through the Research Ethics Officer and quote the UTS HREC reference number 2011-480A (ph: +61 2 9514 9772 Research.Ethics@uts.edu.au). Any complaint you make will be treated in confidence and investigated fully and you will be informed of the outcome.

*THE ORIGINAL SURVEY WAS DESIGNED AND DISTRIBUTED ONLINE USING SURVEY MONKEY*
APPENDIX E

Exploring sustainability in Australian cultural organisations: Results of an online survey within Australian art and design galleries

Subject and scope of this report
This online survey generated information on operational and programming initiatives for sustainability within art and design galleries in Australia in 2012. The aim of the survey was to 1) Gauge awareness levels and commitment to sustainability 2) Gather information on resources and expertise available to professionals 3) Find out how audiences (the public) are engaging with sustainability through programming within these organisations (programming refers to exhibitions, education and public events).

The summary report offers an overview of the findings and is written for professionals within the sector and survey participants. The survey was designed by Tania Leimbach and is part of her doctoral research, addressing concerns of ecological sustainability and questions relating to cultural projects and agency in the cultural sector. As the first phase of her research, this survey opened up the topic and aimed to gather information on current attitudes, perceptions and practices. It has informed the second phase of her research, detailed fieldwork in three distinct community contexts. Art and design galleries have particular modes of practice and cultural legacies. They are adaptive to evolving conditions, expectations and demands and reflective of cultural trends and narratives. As cultural values shift, in turn the mandate and role of organisations are affected. For this reason cultural organisations offer a unique context for the examination of contemporary contested issues such as climate change and ecological sustainability from a cultural perspective.

Design and analysis of the survey
Survey participants were professionals working in regional, inner and/or outer metropolitan Australia across curatorial, exhibition design, education and public programming areas. Invited to participate via email, the survey had a response rate of 32% with 65 participants in total. The views of individual professionals working in the sector can only provide a partial representation of the entire organisation. However as professionals employed by the organisation and cognisant of activities and practices, these responses are considered as informed professional opinion indicative of current attitudes and useful for the generation of an accurate account relative to the period when the survey was conducted (2012). The survey requested information about activities over the past five years and projected goals for the next five. It was designed to cover three main areas of
interest and was divided into three sections: 1) Back of house (operations) 2) Front of house (public engagement) and 3) Demographic questions. Of the 14 questions, eight were ‘open’ and invited written responses; these were analysed using a qualitative method of analysis (the ‘constant comparison’ method) and results from the qualitative and quantitative data set have been included in this summary report.

The survey did not offer an unequivocal definition of sustainability in order to avoid leading respondents. Open response questions gave the opportunity for individual perspectives on sustainability to be articulated. It became clear from the survey that the majority of respondents perceive sustainability to be an environmental concept (rather than a holistic combination of social, economic and environmental concerns) and there is scope for the exploration of this in further research. The majority (65%) of responses came from people for whom sustainability has been ‘a significant and active concern for several years’ and 45% came from NSW organisations, followed by Victoria (21%) and Queensland (12%).

**Part One: Initiatives to change ‘back of house’ operations**

The first part of the survey was designed to generate information on the operational changes (internal and structural) that have occurred in the last five years (2008 – 2012) within participating organisations. Operations were separated into nine areas and respondents distinguished between minor and major initiatives across these areas. They ranged from everyday practices (procurement, recycling, exhibition processes, transportation and food initiatives) to major structural change (climate control, water/sewage management, lighting, building projects). Most of these organisations have adopted minor initiatives across all nine areas in recent years. The most prevalent minor initiatives have been in exhibition processes, followed by procurement and recycling. Although occurring less frequently, major initiatives were predominantly in recycling, followed by lighting and climate control. Examples of stated initiatives include:

*The gallery upgraded energy systems in 2012. This involved upgraded environmental controls, solar panels, water harvesting. Savings from this project are being put toward upgrading energy systems of other council facilities (Management, Regional, VIC)*

*Our building is entirely solar power and returning power to the grid (Curatorial, Regional, NSW)*

*The Gallery has commenced its building redevelopment program and a key goal is to be the first green star rated art gallery in Australia. Major sustainability initiatives have been developed as part of the design, building*
and ongoing operations of the building once complete (Management, Regional, NSW)

Training and promotional initiatives for sustainability
The first section of the survey also generated information on approaches to planning and promoting sustainability internally. It asked for information on working groups as well as the formal communication strategies to promote initiatives to relevant stakeholders, ie members, staff, government and suppliers. Information on staff awareness and professional development opportunities to increase practical skills and awareness about sustainability in the workplace were also considered.

Most organisations do not provide development opportunities to increase skills and awareness for sustainability in the workplace, however several respondents work in galleries connected to local councils and universities who have participated in broad operational initiatives such as Sustainability Advantage, a NSW Office of Environment and Heritage program to assist businesses and government to audit and develop targets for sustainability. Other professional development programs include Greening the Arts and Business Treading Lightly, which some respondents participated in, detached from their own workplace.

Of the minority working in organisations with a formal process in place, respondents described embedded decision-making, for example, ‘cross-team planning’ (Regional, NSW) integrates sustainability initiatives and professional decision-making. In contrast, other respondents expressed doubt about the impact of a formalised process in their organisation, indicating that informal activities, motivated by individual staff rather than management were more successful and better suited to the culture of the organisation:

There is no sustainability plan, as we are a small not-for-profit organisation whose main area of concern is staying in operation. Although we do engage in sustainable practice amongst ourselves – such as recycling where we can, riding bikes and limiting energy consumption and saving paper. These are actions that we undertake individually and on an everyday basis and understood amongst our artists and the board, although it is not part of our constitution or forecast (Curatorial, Inner Metro, NSW)

Most respondents did not work in an organisation that has an official or formal process in place (46%), but of the 37% who do, many of these were linked with local council. Most regional galleries operate as ‘service units’ for local council and as such are governed by the overarching sustainability policy of the council. It is mainstream practice for councils to promote sustainability-related activities in
keeping with their communication style (making these organisations somewhat beholden to council priorities):

_The facility is operated by local government. One of the major objectives for this organisation is to review processes so more environmentally friendly and sustainable methods can be implemented. This is an ongoing objective_ (Curatorial, Outer Metro, VIC)

Council-run sustainability initiatives are increasingly a part of gallery promotions. Communicating these initiatives in keeping with the organisations own branding and identity appears to be important for a number of organisations. Different methods of communication include gallery websites, annual reports, council promotion, public procurement choices, council intranet, council initiatives and programs, flyers, rate notices and noticeboards and policy statements.

**Part Two: Sustainability and ‘front of house’ communications**

The second part of the survey gathered information relating to the ‘front of house’ activities within cultural organisations. Many organisations stated they actively engage with sustainability in curatorial, exhibition, public programming and/or education (44%) and 49% of respondents work in an organisation with a stated objective to develop new ways to engage the community with sustainability over the next five years.

In terms of public programming many regional galleries are developing long-term strategic goals for sustainability and public engagement. Some participants in regional Australia expressed uncertainty about politicised issues such as climate change, raising concerns about the legitimacy and validity of arts professionals handling contentious subject matter, particularly in regional contexts where adequate resources and expertise were lacking:

_The gallery is situated within a community with a strong and politicised agricultural industry. Debate is often polarised and passionate. The gallery’s resources, access to knowledge and ability to enter into the debate competently, are inadequate_ (Management, Regional, VIC)
Economic sustainability and financial viability was raised as a reason why some organisations feel limited in how they take on challenging subject matter or adopt a ‘radical’ stance or instrumental role with contemporary issues. Some organisations are risk-averse and believe they need to be for the sake of ongoing funding. While for others, coping with economic constraints in a competitive arts sector is an ongoing sustainability challenge in itself:

*We run literally on the smell of an oily rag – we live sustainably – because frankly we have no other options in any case (Curatorial, Regional, NSW)*

Only a small minority of respondents firmly excluded sustainability-related programming as an inappropriate activity (3%). Those who expressed concerns or doubts were from diverse contexts, influenced by different professional constraints and agendas. Of these, some respondents rejected public programming and engagement, arguing that sustainability is only about behavioural and practice-based changes within the organisation:

*Not really about engagement with the public – more about cost savings and general perceptions of not engaging in wasteful activities and general recycling (Exhibition Design, Inner Metro, ACT)*

The development of Exhibitions/Collections/Commissions was nominated as the most direct way to engage the public with sustainability (49%).

<table>
<thead>
<tr>
<th>What area/s of your organisation do you think most successfully engage with the public about sustainability?</th>
</tr>
</thead>
<tbody>
<tr>
<td>49.2%</td>
</tr>
</tbody>
</table>

The majority of exhibition examples provided by survey participants were hosted in medium sized, inner metropolitan NSW organisations. Some respondents articulated how programming addressed sustainability and provided examples of curatorial projects. These projects were diverse across group and solo exhibitions in traditional and contemporary media. Examples included a design exhibition with explicit sustainability-related pedagogical content; photographic exhibitions examining changing landscapes affected by human use and the impacts of climate change; new forms of design and art activism responsive to sustainability concerns; and artists who are exploring subject matter that conceptually links to sustainability concerns:
Exhibitions quite often engage with socio-cultural, political and environmentally conceptually driven issues (Education, Outer Metro, SA)

The breadth of exhibitions reflects diverse art and design practices, curatorial perspectives and (probably) broad interpretations of the abstract noun, sustainability. Respondents offered several examples of engagement with challenging subject matter in the form of public lectures with academics, scientists, public figures and artist in residency programs:

A program of artist talks related to the exhibition series where the artists chat to the public about the environmental issues they focused on in their installations (Curatorial, Regional, QLD)

Education programs were considered a successful form of engagement with sustainability for 21% of respondents. Suggestions for education included ways of ‘using’ artworks to catalyse dialogue, debate and stretch learning opportunities beyond visual experience and literacy. For example a ‘label trail’ for exhibitions, with extended labels providing ‘non-art’ interpretations of issues and concerns of an artist / designer ie heat, climate or river ecosystems in landscape paintings. Another example included a children’s education program using found objects and making art from recycled materials.

In terms of hands-on community engagement and industry partnerships, 25% of respondents saw value in this and two examples of community gardening projects developed on the gallery site were suggested (a direct action response to sustainability across many contexts):

We engaged Sustainable Gardening Australia to run a range of free workshops for residents in our community in summer of 2010. This series of workshops coincided with an exhibition of the photographs of Jon Lewis, focusing on the impact of climate change on the island of Kiribati (Public programs, Outer metro, VIC)

Lastly, 21% of people saw the promotion of organisational initiatives to gallery visitors as a viable way to engage with sustainability. Examples of this were given across a range of different contexts and reveal a diversity of ‘public modelling’ across energy use, retail and procurement and land management:

The gallery has a solar panel electricity generation indicator on permanent display (Management, Regional, VIC)

We all practice and promote sustainability in our everyday operations that engage directly and indirectly with the public, such as purchasing organic
and fairtrade coffee and tea for the workplace; minimal paper and printing use, recycling (Education, Inner metro, SA)

Property management and Landcare group (Educator, Regional, NSW)

In terms of programming relating to climate change, the percentage of respondents who work in an organisation where events associated with climate change have been produced in the past 5 years was 49.2%. The majority of these respondents were curators working in regional, medium sized galleries in NSW (63%) who have a significant and active concern for the topic (73%). The survey asked respondents to identify motivations and different factors influencing project development. The topical and current nature of climate change has been very influential on decisions to develop projects (43%), while a curatorial interest in art relating to climate change was a moderate influence on the majority (31%). Generating public engagement and debate was a highly influential factor (41%) and the majority of respondents (51%) ranked facilitating learning opportunities as moderately influential.

Concluding remarks
The survey generated a range of responses to sustainability concerns and information on issues, attitudes and opportunities relevant to diverse communities and professional organisations. It revealed general trends within organisations in Australia and showed that galleries are playing a role in the development of cultural narratives and may be influencing new understandings through forms of provocation, education and creative culture. However, the impact of these efforts in terms of their influence on the ‘public’ requires longitudinal research in the field and is beyond the scope here. This survey is focused on the opportunities and decisions of professionals and their willingness and/or resistance to the conceptual and practical dimensions of sustainability.

Further research
Online surveys are limited in depth. Here they provide an entry point for the next phase of research. This will involve semi-structured interviews with volunteer survey participants. These interviews will pay closer attention to the individual perspective of professionals. Following this, fieldwork in three selected sites across diverse communities to investigate the interaction between material culture, events and audiences and richer questions of sustainability, change and creativity.

Emergent questions for the second phase of data collection:

1. Sustainability is becoming a more common curatorial and public programming theme within public galleries; therefore, what processes exist
for translating and integrating stated sustainability objectives (for example from local council or from an organisation’s mandate) into creative practice within an art and design gallery context?

2. Are there methodologies that guide curators and educators in ways to engage (meaningfully) with sustainability?

3. Who adopts this role within a cultural organisation?

4. How do the fine arts contribute to social understandings/constructions of a complex issue, like sustainability?

5. What are the pedagogical, educational directions being taken in response to sustainability within these cultural organisations?
APPENDIX F

Inventory of fieldwork methods and material

The selection process of fieldwork sites
The three sites for fieldwork were selected based upon a preliminary search for sites that have an active, reflexive engagement with their community, and an identifiable response to sustainability in their exhibitions and public programming. The selection was also based upon a decision to look at three different areas across Inner-metropolitan, Outer-metropolitan and Rural contexts. This was possible within the radius of Sydney, NSW. The selection was influenced by the findings of the preliminary research, which indicated that the majority of innovative practice in relation to sustainability is occurring in Victoria and New South Wales. These results provided a diverse typology of cultural organisations across Australia and a picture of institutional practices, and it informed the selection of sites for ethnography. Each site has a unique history, institutional culture, and associated audiences that influence how they operate and evolve.

General information: The Powerhouse Museum
Size: Australia’s largest museum, with an average of 480,000 visitors annually.
Type: The Powerhouse Museum is part of the Museum of Applied Arts and Sciences. The museum collects and represents developments in Design, Science, Technology, Social History, and Decorative Arts, encompassing Australian and international, and historical and contemporary material culture.
Location: Ultimo, Sydney City (Inner-metropolitan)
Demographics: A diverse demographic mix, with visitors from Sydney city and regional areas of NSW (the Powerhouse have a stated responsibility to service regional centres). The museum doesn’t generally target specific audiences; instead they design for the inclusion of a broad and general audience.
Collections: More than 500,000 separate items in the collection, valued at almost $400 million. Only about 3% of the collection is on display at any one time. There is a collection store open now in Castle Hill where the public can access around 50,000 objects from the collection. Another 80,000 are available online through online catalogue (system OPAC 2.0) There is a changing program of temporary displays and permanent exhibitions with interactives and new technologies used in exhibitions.
Resources: The actual size of the Powerhouse is 20,000 sq metres of public space. 275 full time equivalent staff (June, 2010), with 297 volunteer (2010) contributed 32,000 hours of service. Admission fees were introduced in 1991. The institutional complex of the Museum of Applied Arts and Sciences includes the Powerhouse Museum located in Sydney city, the historic Sydney Observatory, the NSW
Migration Heritage Centre and collection stores at Discovery Centre Castle Hill, where the public can access 50 000 items from a collection totalling over 500 000 objects.

**Supplementary information:** Since the data collection for this thesis, the Powerhouse Museum has gone through significant re-organisation and change. There is now about 200 staff, all with new Position Descriptions. The museum has confirmed that it is moving to a new location in Parramatta, NSW.

<table>
<thead>
<tr>
<th>Interviews, participant observation and document analysis: Powerhouse Museum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Principal Curator of Biosciences and the Built Environment</strong> (two interviews, 3 months apart)</td>
</tr>
<tr>
<td><strong>Time of day:</strong> No.1: 10:30am, No.2: 10:30am</td>
</tr>
<tr>
<td><strong>Type of interview:</strong> Face-to-face, semi-structured</td>
</tr>
<tr>
<td><strong>Physical environment:</strong> No.1: <em>Ecologic: It’s all about us!</em> exhibition at Powerhouse. No. 2: The curator’s office</td>
</tr>
<tr>
<td><strong>Length of interview:</strong> No.1: 1 hour 15 mins. No.2: 2 hour 10 mins</td>
</tr>
<tr>
<td><strong>Style of interview / use of interview schedule:</strong> The first was a semi-structured interview, although the interview schedule was not referred to closely within the exhibition space. The second was semi-structured, building on the data collected from the first interview and referred closely to the interview schedule.</td>
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<thead>
<tr>
<th>Facilities Management Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time of day:</strong> N/A</td>
</tr>
<tr>
<td><strong>Type of interview:</strong> Email interview</td>
</tr>
<tr>
<td><strong>Physical environment:</strong> N/A</td>
</tr>
<tr>
<td><strong>Length of interview:</strong> Detailed response to interview questions</td>
</tr>
<tr>
<td><strong>Style of interview / use of interview schedule:</strong> Data collected from the interview schedule.</td>
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</tbody>
</table>

<table>
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<tr>
<th>Assistant Education Officer</th>
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<tbody>
<tr>
<td><strong>Time of day:</strong> 10-12:30pm</td>
</tr>
<tr>
<td><strong>Type of interview:</strong> High school workshop observation followed by interview</td>
</tr>
<tr>
<td><strong>Physical environment:</strong> Powerhouse Learning Centre</td>
</tr>
<tr>
<td><strong>Length of interview:</strong> 2 hours 30 mins</td>
</tr>
<tr>
<td><strong>Style of interview / use of interview schedule:</strong> Semi-structured with quite close reference to the interview schedule in terms of content and order, and discussion of the interview questions in relation to the workshop.</td>
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</table>

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<tr>
<th>Senior Graphic Designer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time of day:</strong> N/A</td>
</tr>
<tr>
<td><strong>Type of interview:</strong> Email interview</td>
</tr>
<tr>
<td><strong>Physical environment:</strong> N/A</td>
</tr>
<tr>
<td><strong>Length of interview:</strong> Detailed response to interview questions</td>
</tr>
</tbody>
</table>
Style of interview / use of interview schedule: Data collected from the interview schedule.

**Urban Sustainability Designer** (consultant to the museum)

Time of day: 1pm

Type of interview: Face-to-face, semi-structured

Physical environment: Courtyard of the museum

Length of interview: Detailed response to interview questions

Style of interview / use of interview schedule: Data collected from the interview schedule.


**Document analysis:** Strategic Plans; Annual Reports; Posters; Media Releases; Ecologic Group Research Reports; Exhibition catalogues; Photographs of the collection; Museum website; D*Hub website; Archives from the Powerhouse Museum library (I spent two weeks in the archives).

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**General information: Casula Powerhouse Art Centre**

Size: Medium

Type: An art centre and cultural facility. A part of Liverpool council, Casula Powerhouse Art Centre (CPAC) is council funded, accountable to council’s vision, values and protocols.

Location: Liverpool LGA (Outer-metropolitan)

Demographics: Low socio-economic area; CALD community = Culturally and Linguistically Diverse Community; arts audiences who travel to Casula. The CPAC audience development and engagement strategy includes ensuring that major community and cluster organisations, school groups, friends, business partners, cultural and other significant stakeholders are involved to some degree in the design and promotion of programs and events created or brought in by CPAC though audience development and strategies aligned to the above clusters.

Collections: CPAC is not primarily a collecting institution. There are limited dedicated climate controlled spaces where touring exhibitions are shown, the rest of the building is not climate controlled. CPAC does not have a strong, cohesive collecting focus, although they inherited the Liverpool museum’s collection. The Liverpool Collection, managed by CPAC and Liverpool Regional Museum, has an extensive collection of over 30,000 artworks and heritage objects, which reflect the diversity of cultures that make up the City of Liverpool.
Resources: Opening in 1989 as a facility of Liverpool City Council (LCC), CPAC is equipped with a performance theatre, several climate controlled exhibition spaces, artist residency studios and workshop spaces. LCC provides economic resources as well as links to cultural and community networks. Resource strength comes from the local staff that provide depth of local knowledge and links to community, essential to the style of programming they provide. There are financial barriers and constraints with available funding.

Interviews, participant observation and document analysis: Casula Powerhouse Art Centre (CPAC)

Education and Public Programs Manager
Time of day: 11am
Type of interview: Phone interview
Physical environment: My home and interviewee was on her mobile
Length of interview: 1 hour 5 mins
Style of interview / use of interview schedule: Semi-structured with quite close reference to the interview schedule in terms of content and order. The interview was done while her partner drove, so she was in close proximity with him. The phone call was occasionally muffled and a small amount of data is compromised.

Curator and the Creative Producer (together)
Time of day: 10:30am
Type of interview: Face-to-face semi-structured interview with two people
Physical environment: In the Director’s office at Casula
Length of interview: 1 hour
Style of interview / use of interview schedule: I had gone in with the plan to interview the artist and the curator separately. When I arrived, it was suggested that I meet the curator and creative producer together. This was an experience of thinking on my feet and explaining my position with these two professionals whose ideas about the research were both nuanced and complex.

Artist (two interviews, 5 weeks apart)
Time of day: 12pm and 3pm (different days)
Type of interview: Face to face, semi-structured interview. The first interview was set up with a detailed outline of my research interests and mostly conversational. The second interview stayed close to the interview schedule
Physical environment: We began in the café at Casula and then moved outside to sit under the Camphor Laurel tree. In the second we met outside centre and walked along the river.
Length of interview: No.1 = 74mins No.2 = 58mins
Style of interview / use of interview schedule: In both instances we decided to be outside and not to explore the exhibition together. We agreed it was the best way of drilling down without distractions. The only distraction outside was the
sound of bellbirds and casual chats with the gardener, Stavros.

**Registrar: Installation and Exhibitions Manager**

**Time of day:** 10am

**Type of interview:** Email correspondence and phone conversation

**Physical environment:** My home and she was in her office

**Length of interview:** 1 hour

**Style of interview / use of interview schedule:** Semi-structured with close reference to the interview schedule in terms of content and order.

**Observation of events and education programs hosted by CPAC (2012-2013):**
*Body Pacifica* and *C3West* events; Sydney Design satellite events; *Wild Stories* exhibition and observation/participation in related events, including Edible Weeds Workshop, Mushroom Hunt, Storytelling Tour, Wild Beauty: Soap Making Workshop, Wild Medicine at Your Doorstep, and the online *Wild Stories* community.

**Document analysis:** Strategic Plans; Annual Reports; Liverpool City Council Reports; LEAPS Multicultural Action Plans; National Cultural Discussion Paper; Sustainability Action Plan for Liverpool City Council; Media Releases; Art Centre Magazine: *Generator*; The *Wild Stories* Face Book; Exhibition catalogues; Art Centre website; Australia Council Reports.

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**General information: Bundanon Trust**

**Size:** Medium.

**Type:** Independent cultural organisation. Bundanon Trust runs residency programs for artists; provides custom-built spaces for education and workshop programs; curates exhibitions and host annual collaborative longitudinal projects and events.

**Location:** West Cambewarra, NSW (Regional and remote)

**Demographics:** Artists, architects and art audiences from metropolitan centres; Local indigenous communities; Primary, secondary and tertiary education day visits and residences from NSW and inter-state; Senior high school are about 80% of their education visits. Education tours and residencies are predominantly from private schools and this is beginning to change through efforts to link with local high schools. The local area is considered disadvantaged, lower socio-economic, with relatively high unemployment.

**Collections:** Large heritage responsibilities including a collection of Arthur Boyd’s art and other work from the Boyd family; Architectural legacies including the Boyd Education Centre by Glenn Murcutt (Riversdale) and the 19th century farm-scape and colonial homestead; artists in residency works and archives from Siteworks projects
Resources: There are two properties: Riversdale and Bundanon. There is 1,100 hectares in total, with 90 hectares of farmland and the rest is bush land. Funding comes from Arts NSW, federal government and private benefactors, with income generated through education programs. Partnerships provide strategies to extend what is possible, for example an MOU with Wollongong University, Landcare Australia and the Borland Bequest, the Clean Energy Futures Biodiversity Fund, which funded the Living landscape project.

Interviews, participant observation and document analysis:

**Bundanon Trust**

**Education Manager (two interviews, 4 months apart)**

*Time of day:* No.1: 10am, No.2: 10:30am  
*Type of interview:* No.1: Face-to-face; Semi-structured  
No.2: Face-to-face with ongoing dialogue during observation of education program, *Touched by the Earth*  
*Physical environment:* No.1 Sitting outside the homestead at Bundanon. No.2 Riversdale and Bundanon with canoe journey between  
*Length of interview:* No.1: 1 hour 13 mins  
No.2: Over 12 hours  
*Style of interview / use of interview schedule:* No.1: We stuck to the schedule, although the interview strayed in places and deepened. No.2 The dialogue was unstructured; building on the communication we had established exploring the details of the program.

**The Chief Executive Officer**

*Time of day:* 11:30am  
*Type of interview:* Face-to-face; Semi-structured  
*Physical environment:* In her office on site at Riversdale  
*Length of interview:* 1 hour  
*Style of interview / use of interview schedule:* We worked closely with the interview schedule.

**Property Manager**

*Time of day:* 3pm  
*Type of interview:* Phone interview, Semi-structured  
*Physical environment:* My home and the interviewee was on the property on his mobile  
*Length of interview:* 1 hour 15 mins  
*Style of interview / use of interview schedule:* We worked closely with the interview schedule.

**SiteWorks Associate and Contributing Artist**

*Time of day:* 3pm  
*Type of interview:* Face-to-face; Semi-structured  
*Physical environment:* At the University of Technology Sydney
Length of interview: 2 hours

Style of interview / use of interview schedule: This was a long and exploratory dialogue. The interview questions were referred to however they acted as a launching point for much bigger and more philosophical discussions to unfold.

**Artist in Residence at Bundanon Trust / Educator on Touched by the Earth**

Time of day: 4pm

**Type of interview:** Face-to-face; Semi-structured

**Physical environment:** At the Bundanon Homestead

Length of interview: 50 mins

Style of interview / use of interview schedule: This interview was mostly a reflection on the education programs. The interview schedule was not central to the discussion because there was an opportunity to discuss the education programs and the contribution this artist was making. He went into detail on the organisation and purpose of Bundanon Trust.

**Education Consultant for Bundanon Trust**

Time of day: 12pm

**Type of interview:** Phone Interview, Semi-structured

**Physical environment:** My home and the interviewee was at his office

Length of interview: 55 mins

Style of interview / use of interview schedule: We worked fairly closely with the interview schedule, although some of the questions were a stretch for him to consider since he has a freelance role at the organisation.


**Document analysis:** Heritage Management Plan; the Bundanon Trust Constitution; Indigenous Cultural Heritage Management Plan; SiteWorks promotional material; Bundanon exhibition catalogues; Annual Reports; Media Releases; Bundanon Trust Education Resources.
APPENDIX G

Seven Levels of Strata: An approach to the analysis of multi-site ethnography

Anthropologist Kim Fortun’s ‘seven strata’ provide a way of organising data that assists in synthesising and writing multi-site ethnographies. Fortun’s approach to analysing her data has influenced my own analysis.

Author of *Advocacy after Bhopal: Environmentalism, disaster, new global orders* (2001), Fortun’s research involved a complex engagement with transnational law, corporate governance, technological design and contingency for disaster and environmental fall-out after the Bhopal gas disaster. Her own research was honed at the ‘micro level’, specifically addressing the logic of activism in Bhopal, and it focused on how activists writing practices ‘indexed the ways they understood the world – local, national, transnational – that they operated within’ (Fortun 2009, p. 80). However, it was also important for Fortun to make sense of the vast, global dimension of the Bhopal disaster.

The approach Fortun adopted to analyse her complex and multi-layered data was to separate out different operating scales. She compares this to thinking ‘geologically’ in terms of multiple strata, an ordering that helps to orientate the analysis. Fortun explains that each of the levels are constitutive of Bhopal, however there differentiating them has value, ‘imagining the multicoloured layers of complex geological formations, some layers thicker than others, some with fissures, all subject to change, even if slowly’ (2009, p. 81).

The stratified levels in Fortun’s model help in structuring and visualising data, particularly when the research process has incorporated both human and non-human forces. In the table below the seven levels are separated into horizontal rows. The vertical columns describe the strata and a short example from Fortun’s own analysis. The first table demonstrates how Fortun used the model, as described by her. In the second table, I have adopted the model, organising my data across the same seven levels. Neither of these is exhaustive. They are included to demonstrate a process of scaling and visualising data in multi-site ethnography.

<table>
<thead>
<tr>
<th>Stratified levels of analysis</th>
<th>Strata description</th>
<th>Fortun’s example from Bhopal, India</th>
</tr>
</thead>
<tbody>
<tr>
<td>META LEVEL</td>
<td>The organising logic of the strata; the dominant discourses (there may be...</td>
<td>Dominant discourses include ideals of modernity and science as a means of...</td>
</tr>
<tr>
<td>Level</td>
<td>Description</td>
<td>Example</td>
</tr>
<tr>
<td>------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>MACRO LEVEL</td>
<td>The level where markets, laws and other translocal institutions operate. How</td>
<td>In Fortun’s case the force of law dominated her attention. The USA and Indian courts, jurisdi</td>
</tr>
<tr>
<td></td>
<td>translocal institutional forces are produced.</td>
<td>ctions and international law, since extra-local dynamics shaped what Bhopal looked like at the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>level of law.</td>
</tr>
<tr>
<td>MESO LEVEL</td>
<td>The level of social organisation and interaction. How social systems operate</td>
<td>Victim and activist organisations and networks, operating alongside government programs.</td>
</tr>
<tr>
<td></td>
<td>and the impacts on people ie the distribution of people through migration,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>capital flows and media.</td>
<td></td>
</tr>
<tr>
<td>MICRO LEVEL</td>
<td>The level of individual practice. Ethnographic considerations of how</td>
<td>This study focused on how activists (in particular) engage with the Bhopal crises through</td>
</tr>
<tr>
<td></td>
<td>particular practices occur, what shapes them and how they change. These</td>
<td>their writing. These observations gave an insight into how advocacy worked on the ground and</td>
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<tr>
<td></td>
<td>can include forms of writing, speaking, making etc.</td>
<td>provided individual readings of the other scales.</td>
</tr>
<tr>
<td>NANO LEVEL</td>
<td>The level of subjectivity or subject formation. Subjectivity is akin to</td>
<td>Fortun’s central focus in her ethnography was on the subject formation of middle class</td>
</tr>
<tr>
<td></td>
<td>personhood or worldview, and subjects are formed through processes of</td>
<td>activists and how caste and class backgrounds came together to form and inform worldviews.</td>
</tr>
<tr>
<td></td>
<td>‘accretion’, acknowledging the weight of history; the unconscious and the</td>
<td>She was also interested in the subject formation of corporate actors involved in the Bhopal</td>
</tr>
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<td></td>
<td>way space and practice inhabit and change the body.</td>
<td>crisis.</td>
</tr>
<tr>
<td>TECHNOLOGICAL LEVEL</td>
<td>The level of the technological, where infrastructures reveal how caste,</td>
<td>Exploring how technological issues are addressed in India, drawing comparisons between the</td>
</tr>
<tr>
<td></td>
<td>class and other</td>
<td>USA and Indian</td>
</tr>
</tbody>
</table>
Hierarchical orders are produced. At this level it becomes clear how some problems and people involved in the crisis are visible and attended to, while others are not. Ethnographic analysis can draw out how technological infrastructure materialises particular theories of change.

<table>
<thead>
<tr>
<th>Stratified levels of analysis</th>
<th>Strata description</th>
<th>Applied to three cultural sites in Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>META LEVEL</td>
<td>The organising logic of the strata; the dominant discourses (there may be several jostling and competing).</td>
<td>Sustainability discourses [Biodiversity/Cultural diversity/ Human well-being] Other dominant discourses include ideals of modernity and science as a means of progress (called into question).</td>
</tr>
<tr>
<td>BIO-MATERIAL LEVEL</td>
<td>The biomaterial level accounts for the human body and the ecological or ‘natural’ systems that interact with it. The material forces that have effects on human bodies and other living systems. Fortun explains, ‘viruses and toxins in the bloodstreams, contaminated water supplies and exhausted soils need to be attended to’ (2009, p. 83). This is the ‘metaphoric ground’.</td>
<td>Fortun’s examples include the toxins incorporated into the bodies of gas survivors in Bhopal, and the toxins that leach into water supplies from the factory’s sludge ponds etc.</td>
</tr>
<tr>
<td>MACRO LEVEL</td>
<td>The level where markets, laws and other translocal institutions operate. How translocal institutional forces are produced.</td>
<td>Structures and strictures for decision-making within museums / cultural organisations. Access to resources (public and private) funding streams. Local and global trends and the positioning of an organisation in response to broader transnational institutional developments (particularly the uptake of sustainability in the museum world).</td>
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<tr>
<td>MESO LEVEL</td>
<td>The level of social organisation and interaction. How social systems operate and the impacts on people ie the distribution of people through migration, capital flows and media.</td>
<td>The museum as a social system influenced and constrained by its own history and momentum. Human agents operate within the organisation, including staff, visitors, creator communities, collectors, scholars.</td>
</tr>
<tr>
<td>MICRO LEVEL</td>
<td>The level of individual practice. Ethnographic considerations of how particular practices occur, what shapes them and how they change. These can include forms of writing, speaking, making etc.</td>
<td>Professional practice within the museum organisation, particularly the work of curators, exhibition designers and educators developing strategies for sustainability as a ‘front of house’ agenda. Observations at the level of exhibition creation, curatorial narratives, learning experiences, collections management and the creative practice of artists and designers reveal how material assemblies are brought together to communicate a particular sustainability message.</td>
</tr>
<tr>
<td>NANO LEVEL</td>
<td>The level of subjectivity or subject formation.</td>
<td>Exploring the responsibility of museums and museum</td>
</tr>
<tr>
<td>Subjectivity is akin to personhood or worldview, and subjects are formed through processes of ‘accretion’, acknowledging the weight of history; the unconscious and the way space and practice inhabit and change the body.</td>
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<td>work via the level of individual subject formation and professional subjectivities. Questions of power, influence, social values and internal hierarchies are active at this level.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>The technological level. Technological infrastructures reveal how hierarchical orders are produced. At this level it becomes clear how some problems and people are visible and attended to, while others are not. Ethnographic analysis can draw out how technological infrastructure materialises particular theories of change.</td>
<td></td>
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<tr>
<td>Technological infrastructures and issues across each museum site. These include: The site of the museum, understanding the history and how changes are managed within operations guided by sustainability imperatives. Points of access, physical and virtual. Managing the spatial configurations of exhibition display and strategies for managing collections.</td>
<td></td>
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<tr>
<td>Exploring non-human things and their agency associated with each organisation, in collections, exhibitions, events and how these interact with and are ‘managed’ within each site. What of the ecological / environmental is attended to by each organisation? How are non-human / ‘natural’ systems cared for? By whom and for what reasons?</td>
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</tbody>
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