

2015

# forget me not: An exhibition –and– Creative Reuse: How rescued materials transformed my A/r/tographic practice: An exegesis

Susan Girak  
*Edith Cowan University*

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**forget me not**

*An exhibition*

– and –

**Creative Reuse:  
How Rescued Materials Transformed my A/r/tographic Practice**

*An exegesis*

This thesis is presented for the degree of

**Doctor of Philosophy**

**Susan Girak**

**Edith Cowan University**

**Faculty of Education and Arts**

**School of Education**

**2015**

The declaration page  
is not included in this version of the thesis

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# ABSTRACT

This thesis, comprising of a written exegesis, solo exhibition and an artist book, emerged from research undertaken by an artist-researcher-teacher. For that reason, a/r/tography was the overarching methodology used, incorporating a bricolage of methods to address a multifaceted study undertaken in two settings: a primary school classroom and an artist's studio. A/r/tography is a multilayered interdisciplinary Arts education research methodology that correlates well with my expertise as a primary Visual Arts specialist. The methodology allowed me to immerse myself in both teaching and the artmaking process, as ways of gaining a deeper understanding of Visual Arts pedagogy. The purpose of the study was to examine what the impact of making art with discarded materials had on raising environmental consciousness, from the viewpoint of an artist-researcher-teacher. Additionally, this research was positioned within the United Nations Decade of Education for Sustainable Development (2005–2014) and Sustainability, a cross-curriculum priority in the Australian Curriculum. The aim of this research was to show that Visual Arts is an effective way to embed Sustainability in the curriculum.

In a two-phase study, the role of artmaking to facilitate shifts towards sustainability was investigated among 12-year-olds and myself in my creative praxis. In Phase One, 20 primary school students, from an area of high socio-economic advantage, participated in a 10-session Visual Arts program, using discarded materials to make and exhibit artworks with an environmental focus. Then, as an artist, I followed the same brief as the students, resulting in an exegesis and two creative components: an artist book incorporated into the exegetical writing and a solo exhibition at Edith Cowan University's Spectrum Project Space in October 2014.

This study showed that the creative reuse of discarded materials promoted reflexivity and raised sustainable awareness, leading to positive attitudinal and behavioural shifts in both the students and myself. The outcome of my creative component was a catalyst for shifts in the way I made art and the way I taught Visual Arts. By immersing myself in the artmaking process, I questioned unsustainable artmaking processes and moved towards reducing my own environmental footprint. The symbiotic nature of a/r/tography meant that new knowledge gained in the studio could be transferred to the classroom. The results of the research are presented through this exegetical writing and an exhibition, which included: returning to techniques that promoted reflexivity; exploring the ephemeral through photography; and demystifying the artmaking process through an artist book. The most

significant finding of this study was that the physical act of artmaking enabled the students and me to re-examine our behaviours and to reconsider the value of discarded materials, which in turn triggered shifts in our awareness towards sustainability.

Self-initiated behavioural shifts in the students included reusing materials and reducing consumption. Further, the students were able to make personal connections between their behaviours and their environmental footprints. This has implications for teachers integrating Sustainability. Arts-led education provides an alternative approach to teaching Sustainability across the curriculum. A set of recommendations arising from the research include: to provide support mechanisms to assist in-service teachers to implement Visual Arts-led Sustainability programs in primary schools; to introduce a/r/tography into pre-service teacher training; and for REmida WA to provide professional learning to support innovative, low-cost, multimodal in-service teacher training for Visual Arts-led Sustainability programs.

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## LIST OF ACRONYMS

ABC	Australian Broadcasting Commission
ABS	Australian Bureau of Statistics
ACARA	Australian Curriculum Assessment and Reporting Authority
AGWA	Art Gallery of Western Australia
APA	American Psychological Association
APLR	Arts Practice-led Research
ARIES	Australian Research Institute for Environment and Sustainability
AuSSI	Australian Sustainable Schools Initiative
CFC	Chlorofluorocarbons
CGT	Constructivist Grounded Theory
CO <sub>2</sub>	Carbon Dioxide
CPS	Creative-Problem-Solving
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DCC	Department of Climate Change
DESD	Decade of Education for Sustainable Development
DEWHA	Department of the Environment, Water, Heritage and the Arts
DOTT	Duties Other Than Teaching
DSEWPC	Department of Sustainability, Environment, Water, Population and Communities
EE	Environmental Education
EfS	Education for Sustainability
ESD	Education for Sustainable Development
EYLF	Early Years Learning Framework
GFC	Global Financial Crisis
GHG	Greenhouse Gases
ICSEA	Index of Community Socio-Educational Advantage

IEA	International Energy Agency
IPCC	Intergovernmental Panel on Climate Change
ISTP	Institute for Sustainability and Technology Policy
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs
NAPLAN	National Assessment Program – Literacy and Numeracy
NASA	National Aeronautics and Space Administration
NFP	Not-For Profit
OECD	Organisation for Economic Co-operation and Development
PEAC	Primary Extension and Challenge
PISA	Programme for International Student Assessment
QCA	Qualifications and Curriculum Authority
RE	Reggio Emilia
REAIE	Reggio Emilia Australia Information Exchange
S&E	Society & Environment
T&E	Technology and Enterprise
TAFE	Technical and Further Education
UBC	University of British Columbia UN United Nations
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
US	United States
USSR	Union of Soviet Socialist Republics
WA	Western Australia
ZPD	Zone of Proximal Development

## Definition of Terms

Some terms in this exegesis have various or ambiguous meanings. The following is a list of definitions that qualify my understanding of key terms used in this document.

**Artmaking** – more than the process of making an art object. In the context of this research, artmaking is in keeping with arts practice-led research where the process is a form of visual inquiry and a mode of knowledge production (Barrett & Bolt, 2010).

**A/r/tography** – an umbrella term for a multimodal Arts education research methodology, specifically intended to enable Arts educators to examine “the education phenomenon through artistic and aesthetic means” (La Jevic & Springgay, 2008, p. 67). It is a self-reflective research approach, where researchers identify themselves through the multiple identities of artist-researcher-teacher, and investigate how those identities exist and relate to one another (Irwin & Springgay, 2008).

**Creative reuse** – an aesthetic experience of transformation where materials are recovered and repurposed in ways that create respect for the discard (Dewey, 1934; Gandini & Kaminsky, 2005; Gaut & Lopes, 2005; Giacopini & Ferrari, 2005).

**Critical moment** – the critical moments I describe in this research, commonly known as ‘happy accidents’ or ‘Eureka!’ moments, form a serendipity pattern, which “involves observing a surprising and irregular finding, recognizing that it is potentially strategic, and using it to develop a new theory or advance an existing theory” (Perry & Edwards, 2010, p. 859).

**Epistemology** – refers to “a field of philosophy concerned with the possibility, nature, sources and limits of human knowledge . . . [and] whether or how we can have knowledge of reality” (Sumner, 2006, p.93). “A central question in epistemology is: What constitutes knowledge?” (Mathison, 2005, p. 130).

**Installation art** – “constructions or ensembles of objects and effects which engage with and dominate their surroundings” (Lucie-Smith, 2003, p. 119). “Installation art can be temporary or permanent and can be presented in art venues or non-art spaces. It typically incorporates a broad range of materials not commonly associated with the production of art” (Weintraub, 2012, p. xxi).

**Materials-led Inquiry** – an arts practice-led research approach where materials (media) are privileged and are the determiners of the research through the creative practice. It is a materials-led approach to Grounded Theory (Glaser, 1992) and is building on from Arts practice-led research (Haseman, 2010) and new materialism (Barrett & Bolt, 2013), *material productivity* (Bolt, 2010) and *material thinking* (P. Carter, 2004).

**Ontology** – "refers to a branch of metaphysics that aims to dissect the underlying structure of reality. Ontology may also be concerned with the meaning of being or used to demarcate distinct positions towards the underlying nature of reality" (Nicholas & Hathcoat, 2014, p. 571).

**Research through practice** – "using creative techniques, often along with more conventional methodologies to generate knowledge" (Edith Cowan University, 2013a, p. 1).

**Reflexivity** – the process of developing self-awareness by considering one's "own thoughts and actions in light of different contexts. Reflexivity, then, is a researcher's ongoing critique and critical reflection of his or her own biases and assumptions and how these have influenced all stages of the research process" (Begoray & Banister, 2010, p. 789).

**REmida materials** – my working definition has evolved from my voluntary work at REmida WA, where I processed materials for display, my visit to the REmida centre in Reggio Emilia (REMIDA RE), Italy, and the associated literature. REmida materials are clean, unused discarded materials recovered from local manufacturers and businesses, predominantly off-cuts, seconds or unsold stock. They are catalysts for Materials-led Inquiry, chosen for their aesthetic appeal and transformative potential (Gandini & Kaminsky, 2005; Giacomini & Ferrari, 2005).

**Resist** – methods used to prevent dye from colouring the fabric, some include binding, stitching, tying, clamping and folding (Wada, Rice, & Barton 1999).

## Key Words

**Art teacher** – the colloquial term for a primary Visual Arts teacher.

**Artworks** – student artworks included drawings and maquettes. My artworks included an artist book and a mix of conceptual, installation, photographic and sculptural artworks.

**Discarded materials** – the students used a mix of domestic discards (household packaging or scrap materials) and REemida materials. I limited myself to REemida materials.

**Participants** – 20 12-year-old students and three teachers from Fairview, a government primary school located in a high socio-economic status area in Perth, Western Australia, and me, operating in the capacity of an artist, a researcher and a teacher.



1

# introduction

*Creative Reuse: How Rescued Materials Transformed my A/r/tographic Practice*

(incorporating a written exegesis, solo exhibition and an artist book) examines how arts practice-led research (APLR) raises environmental awareness and facilitates positive shifts in sustainable attitudes and behaviours in both a class of Year 7 students and my Creative Arts practice undertaken during this research. With a background in primary Visual Arts education and Contemporary Arts, I chose a/r/tography as a methodology to explore making artworks with discarded materials, primarily sourced from REmida Western Australia (WA), to provoke students to reconsider their environmental impact. On a personal level, this stimulated reflexivity in my creative and teaching practices. REmida WA is part of an international network of creative reuse centres, grounded in the Reggio pedagogical approach.<sup>1</sup> Its philosophy brings together aesthetics and sustainability to promote “environmental sustainability through the re-use of salvageable materials” (REmida's touch turns waste to gold, 2005, para. 2).

In the context of this research, sustainability refers to ways of preserving and protecting the Earth's environment beyond this current generation. The Australian Curriculum has responded with a commitment to embed *Sustainability* in all learning areas and at all year levels as a cross-curriculum priority (Australian Curriculum Assessment and Reporting Authority [ACARA], 2013a). This is linked to an internationally recognised constructivist pedagogical approach, Education for Sustainability (EfS), which aims to build people's capacity for sustainable behavioural change (Australian Research Institute for Environment and Sustainability [ARIES], 2004–2012, para. 1). The objective is to educate for sustainability rather than about it. Engaging in Visual Arts is a one way to bring about such transformational change. One strategy that may enable students and teachers alike to reflect and respond to their personal impact on the environment is creative reuse. Creative reuse is defined for the purpose of this research as an aesthetic experience of transformation that creates respect for the discard through repurposing and refashioning.

I have drawn on Dewey's (1934) aesthetic understanding (cited in Gaut & Lopes, 2005) (see Chapters 3 and 5) for this research in three ways. First, through the Pragmatic Social-Reconstruction Model (Efland, 1990), which ties pragmatic aesthetic theory with pedagogy (see Table 4). Second, through a/r/tography via Siegesmund (2012), who stated, “as Dewey stands in the mainstream of the traditions of Western intellectual thought, linking a/r/tography to Dewey's thought helps place arts-based methodologies within a larger history

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<sup>1</sup> For the purpose of clarity in this text, Reggio Emilia refers to the town and Reggio refers to the pedagogical approach and/or philosophy.

of intellectual inquiry” (p. 99). Therefore, Dewey’s pragmatism and constructivist ideals have helped to reposition research so that traditional methods of inquiry include visual modalities (see Chapter 3). Finally, Dewey education and aesthetic theories are among a number of theories that have been instrumental in developing Reggio pedagogy (Edwards, Gandini, & Forman, 2012), which in turn underpins REmida’s philosophy (Vecchi, 2010).

My research incorporated two phases. The first phase was a self-contained qualitative study, which took place at a government primary school located in Perth, WA. Twenty Year 7 students participated in a Visual Arts program with an environmental focus. I taught REmida’s philosophy of creative reuse implicitly, in order to promote environmental sustainability through the creative reuse of discarded materials, through a range of Visual Arts-related activities, culminating in a class exhibition. The second phase of the research centred on my creative practice in which I followed an exhibition brief, based on the students’ classroom project, to gain a better understanding of curriculum planning and development. Using a *bricolage* of methods, I became the subject of my own research. Through reflective practice, I became aware of how critical moments shifted my creative process. The outcome of Phase Two, was a solo exhibition presented at the Spectrum Project Space in Perth, WA, in October 2014.

## **Background to the Study**

### **Arts Practice-led Research**

My personal interest in the environment informed my Contemporary Arts practice, which in turn directed my research. I was concerned with how human activities and behaviours contribute to the planet’s current environmental crisis. These include pollution and excessive waste brought about by high levels of consumption, cultivated by consumerist ideology, leading to climate change (Flannery, 2005; Gore, 2006; Hamilton & Denniss, 2005; C. Hamilton, 2007; Lovelock, 2006; Lynas, 2007). Defined by the United Nations (UN) (2014) as “a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods” (article 1:2). From an economic perspective, Stern (2007) predicated the consequences of inaction to humanity and other life forms if governments and industries fail to take measure to mitigate climate change (see Appendix A). I discovered that research through artmaking was complex and that my artmaking process corresponded with Dewey (1934) in that I was able to process and comprehend information by thinking through the materials I used to make art. However, I found that by thinking through

materials, I was also contributing to the environmental crisis. My challenge was to reduce my environmental impact by finding alternative materials I could repurpose or 'upcycle'.

## **Teaching Practice**

My Creative Arts practice was not the only factor that directed my research. It also arose from a practical dilemma: to provide a quality Visual Arts program in primary schools with limited funding and resources. Inadequate Visual Arts funding often drives the search for alternative materials and resources. For example, in 2010–2011, when working in the position of a primary Visual Arts specialist, my annual budget for a school-wide program was approximately \$2,500. Although this sum may appear to be sufficient to fund quality programs, in reality it equates to approximately 25 cents per student, per lesson. Teachers with meagre funds cannot justify buying artist quality materials and equipment. Instead, they often resort to supplying inexpensive materials and equipment, which is usually an inferior grade; consequently, this reflects in the quality of student artworks (Bresler, 1998). Placing too much emphasis on the cost of materials by expecting students to 'get it right' the first time and as such could possibly disregard the importance of the exploratory process (Pettersen, 2007). The need to get it right leads to teacher-directed lessons; however, with current trends in technology expanding at an exponential rate, means that teachers need to rethink the way they teach. From a teacher's perspective, creative thinking skills ought to be cultivated in their students to prepare them for the challenges of adulthood in the 21<sup>st</sup> century (Bates, 2000; Edwards et al., 2012; Fraser, 2006; Robinson, 2001; Vecchi & Giudici, 2004). On their own, creative reuse programs dictated by budgets may not necessarily change students' or teachers' attitudes towards environmental sustainability. However, an added benefit may be that sourcing salvageable materials might lead to greater learning opportunities through open-ended and process-led activities. My research challenge at Fairview was to identify what types of approaches could lead to students' raised environmental awareness as well as improved artistic outcomes.

## **REmida Background Information**

REmida<sup>2</sup> WA is one of several EfS service providers competing for opportunities to deliver programs to schools in Perth. Their educational program provides workshops with a strong pedagogical foundation that reflect the Reggio Approach and tie into WA's curriculum

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<sup>2</sup> There are a number of spelling variations in the literature and the REmida network has been referred to as Remida, ReMida, REmida and REMIDA. For the purpose of consistency, I have used the Western Australian spelling, the only exception is when specific centres and cases are being referred to, for example, REMIDA RE in Reggio Emilia or the REMIDA®.

documents. The workshops incorporate REmida's philosophy of promoting environmental sustainability through the creative reuse of discarded materials. Collaborations are fostered with organisations including the Perth chapter of the REAIE, the Australian Sustainable Schools Initiative (AuSSI) and Waste Wise Schools (McAuliffe, REmida WA, 2006; n.d.).

REmida WA is part of an international network of creative reuse centres, first established in Reggio Emilia, Italy, in 1996. *Re Mida* is Italian for King Midas and RE is the abbreviation for the town of Reggio Emilia. The play on words connects the city of Reggio Emilia and Reggio pedagogy to King Midas, the mythical king who turned all that he touched into gold. Ironically, the 'REmida gold' being referred to is the industrial waste and off-cuts collected from local businesses (Giacopini & Ferrari, 2005). The network's aim is to "diffuse and support wider understanding of the problems connected to the entire production process, from design and planning to waste disposal and reuse; education for a sustainable future" (Vecchi & Giudici, 2004, p. 77). The fundamental points of difference between the REmida network and other creative reuse centres are REmida's educational foundations and the nature of the materials they offer to their members (Giacopini & Ferrari, 2005).

The REmida model originated from the established practice of the *atelier* (artist's studio) in Reggio Emilia's infant-toddler centres and preschools. From the 1960s onwards, the *atelier* played a major role in educating young children (Sharova, 2012), and their presence in the infant-toddler and preschool centres supports the aesthetic dimension of pedagogy, strongly positioned in Deweyan aesthetics (Edwards et al., 2012). Reggio pedagogy is constantly evolving, and has become a fusion of philosophical and theoretical perspectives, including those from Dewey and Kant (Edwards et al., 2012; Vecchi, 2010). Dewey's aesthetic understanding (diametrically opposed to Kant's philosophy) is more congruent with the Reggio Approach. In *Art as Experience*, Dewey (1934) argued that Kant separated the aesthetic judgment of an object from the five senses to make it an intellectual experience rather than an embodied one. Dewey's aesthetic experience is more than a theoretical application of formalised constructs, where one is a cold spectator. Instead, he stated, "even a crude experience, if authentically an experience, is more fit to give a clue to the intrinsic nature of esthetic experience than is an object already set apart from any other mode of experience" (p. 11). I consider Dewey's concept of aesthetic understanding to support the child-centred APLR in the *atelier* in the Reggio setting and the primary school classroom in the context of this research.

In Reggio pedagogy, the *atelier* is the manifestation of Malaguzzi's metaphor *The Hundred Languages of Children* (Rinaldi, 2006). In a literal interpretation, the languages extend beyond the disciplines of Reading, Writing and Mathematics to construct concepts to consolidate understanding. They include numerous possibilities, incorporating disciplines with a strong aesthetic, where extensive documentation makes children's learning visible. The studio workshop and *atelier* may appear to be similar, as the studio workshop is also a place to make art. However, the ideology that informs the *atelier* proposes that it is a space that is introduced to transform pedagogy through a new way of seeing, learning and working (Eckhoff & Spearman, 2009; Gandini, Hill, Cadwell, & Schwall, 2004; Rinaldi, 2006; Vecchi & Giudici, 2004). With the *atelier* model already firmly entrenched in Reggio pedagogy and drawing inspiration from the Boston Children's Museum, the first REMida creative reuse centre, REMIDA: *Il Centro di Riciclaggio Creativo* (REMIDA RE) was established in partnership with the Municipality of Reggio Emilia and Iren Emilia,<sup>3</sup> the municipal waste authority. The aim was to provide a centralised creative reuse centre, based on the *atelier* model, as an additional resource for the city's infant-toddler centres and preschools (Gandini & Kaminsky, 2005; Reggio Children, n.d.). In 2013, 17 centres operated under REMIDA®, predominantly in Italy and Scandinavia. REMida WA, in Perth, WA, was the first centre to open outside of Europe in 2005 (Gandini & Kaminsky, 2005; McAuliffe, 2006; Reggio Children, n.d.).

REMida centres source and process materials (REMida materials) for their aesthetic appeal. REMida materials are clean, unused discarded materials generally recovered from local industries, manufacturers and businesses. These materials are valuable resources, which create a catalyst for the creative process. REMida pays particular attention to easy access to materials, giving local communities opportunities to consider environmental issues and fostering collaborative relationships between schools and economic and creative communities. In the WA context, REMida WA is a not-for-profit (NFP) organisation that offers an annual membership to individuals and groups, for a small fee, allowing unlimited access to the materials to its members (Darmody, 2013; Gandini & Kaminsky, 2005; Giacomini & Ferrari, 2005; McAuliffe, 2003a; 2005; REMida WA, n.d.).

The REMida network, in partnership with childcare centres and schools, promotes a positive atmosphere where children enjoy the freedom to experiment with materials. Children have opportunities to think creatively and problem solve, in the same way artists and designers do (Eskesen, 2006/07; Gandini & Kaminsky, 2005; Pettersen, 2007). Discarded

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<sup>3</sup> Reggio Emilia's municipal waste authority is Iren Emilia, formally known as Azienda Gas-Aqua Consorziale and Enia.

materials are available in multiples. The advantage of having access to multiple off-cuts and discarded materials is that children are unhampered by strict economic barriers or “the burden of preciousness” (S. Chant, personal communication, June 4, 2014). REmida materials are not produced with any specific educational objective in mind, so their use is not limited or defined by a pre-determined outcome. In addition, often REmida materials are generally unfamiliar to students. This novelty provides students with opportunities to explore exotic materials creatively (Eskesen, 2006/07; Pettersen, 2007), which provokes the senses, hands and imagination of the user. Without having a pre-determined outcome, REmida materials provide teachers with avenues to plan for open-ended activities so their students may participate in open-ended research and learning (Eskesen, 2006/07).

REmida WA is an outcome of the passion and drive of Bold Park Community School’s principal, Gillian McAuliffe, and the school community itself. In order to adopt the REmida name and model, Perth representatives had to take part in a rigorous accreditation process to prove an ongoing commitment to promote environmental sustainability through the creative reuse of discarded materials. As with all REmida centres, the Perth centre is expected to adapt to its local context (McAuliffe, 2003; 2006). Aware of an obligation to adhere to the network’s aims and goals, REmida WA is recognisant to the particular needs of WA educators. Reggio-inspired workshops cater for childcare centres and schools, and REmida WA makes regular revisions and updates to programs to accommodate curriculum changes. For example, REmida WA targets childcare centres and school-based early childhood programs through the Early Years Learning Framework (EYLF), and primary and secondary schools through the Australian Curriculum (REmida WA, n.d.).

My understanding of REmida’s philosophy of creative reuse comes from hands-on experience as a volunteer. Haraway (1991) described such ‘knowing’ as *situated knowledge*. “Situated knowledges are always *marked* knowledges; they are re-markings, reorientatings, of the great maps that globalized the heterogeneous body of the world in the history of masculinist capitalism and colonialism” (p. 111 [original emphasis]). Overall, my experience as an artist, teacher and concerned citizen drew me to an organisation that undertook a creative response to sustainability. In 2007, my relationship with REmida began simply. With limited funding, as a primary Visual Arts specialist, the creative reuse centre became an important resource where I could supplement supplies with inexpensive, open-ended materials. During my first day as a volunteer, in 2008, I helped relocate materials from the library site of the former Carine Technical and Further Education (TAFE) campus, to the present location in Prospect Place, West Perth. From that moment, I was ‘hooked’. I had found an organisation

that embraced art, education and environmental sustainability, and I was eager to spread the message to a wider audience. In my excitement, I actively promoted REmida. While in essence I was aware of their aims and objectives, in the early days, I found it difficult to clearly express what the REmida 'cultural project' (see Chapter 2) was, an issue compounded by REmida WA's inability to articulate its own philosophy.

The year 2010 was a turning point for me. In April, I attended a Reggio Emilia Australia Information Exchange (REAIE) study tour in Reggio Emilia. Then, in August, Elena Giacomini, *pedagogista* (pedagogical coordinator) for REMIDA RE, visited Perth to present a series of workshops open to the public. In Italy, I attended a presentation where Graziella Brighenti (coordinator for REMIDA RE) reinforced that "REmida is not a solution for companies to get rid of their wastes [*sic*]" (G. Brighenti, personal communication, April 14, 2010). Yet, at the time, this was not what I was experiencing in Perth. Even though REmida WA had fostered ties with local industries and regularly sourced manufacturing discards within the Perth metropolitan area (McAuliffe, 2006; REmida's touch turns waste to gold, 2005) there seemed to be a lack of understanding among the volunteers. I got the impression that many people chose to volunteer from a genuine desire to minimise landfill. However, coupled with a feeling of gratitude for donations, volunteers would indiscriminately bring in materials regardless of their suitability, so much so that council verge collections or domestic donations became the source for materials. Giacomini's visit reinforced what I had learned during my visit to Reggio Emilia. She emphasised an aesthetic approach towards sourcing and displaying materials – to create respect for discarded materials sourced only from local manufacturers and businesses and the origin of discarded materials was REmida's point of difference (Eskesen, 2006/07; Gandini & Kaminsky, 2005; Giacomini & Ferrari, 2005; Lantz-Helm & Parnell, 2010; McAuliffe, 2003; Pettersen, 2007; Sharova, 2012). A consequence of these two events was that I realised that without accepting the underlying principles of REmida, to promote environmental sustainability through creativity, REmida WA would simply be a recycling centre, a salvage yard, or even worse, a dumping ground for rubbish.

In brief, it was my superficial desire to supply interesting and inexpensive resources for my students that first led me to REmida. Then, as I researched further, I began to appreciate that REmida is much more than the materials it supplies. Instead, it is an ideal, a pragmatic approach to fostering an understanding of environmental sustainability through materials-led projects.

## Statement of the Problem

Unconsidered choices in artmaking may leave significantly larger carbon footprints than anticipated, and:

as an artist, you are not an expert on environmental problems, but you realize that they exist. But it is not the work of the artists that is the solution. It is the results of the work, and what kind of thoughts, it inspires in people. (Boonma, cited in Rama IX Art Museum, 2012, para. 2)

In 2007, I identified a problem in my Creative Arts practice when I began to examine my behaviour. I found I was unwittingly contributing to climate change when I chose to use new materials in place of equally suitable salvaged materials. Equally, within a school context, budgetary constraints determined the direction of my teaching practice. Students were being disadvantaged due to the lack of resources. In an attempt to minimise waste, students were given less opportunities for experiential learning. The common link between the two problems was a need to find alternative materials that would support both practices.

## Rationale

Australia's current position in regard to EfS and the scope of this research corresponds with the UN Decade of Education for Sustainable Development (DESD), 2005–2014. Similarly, taking place in a period of change from state-based curricula to a national curriculum, the rationale informing this research is to provide primary generalist teachers and Visual Arts specialists with an Arts practice-led approach to Visual Arts education, which supports the Australian Curriculum. In WA, a commitment has been made “to adopt and adapt the Australian Curriculum to suit the specific needs of Western Australia's schools” (P. Collier, personal communication, January 28, 2014) and in that state full implementation of the Australian Curriculum is planned for 2017. With the introduction of a national curriculum and the implementation of Sustainability as a cross-curriculum priority (ACARA, 2013a), there is a growing need to incorporate a range of strategies to embed Sustainability into the curriculum. Apart from being a cost-effective resource, REmida materials offer possibilities for students to become more sustainably aware by providing opportunities for students to engage with discarded materials during meaningful activities. Encouraging creative reuse in the classroom is in line with ACARA's (2013b) approach to Sustainability, which:

will allow all young Australians to develop the knowledge, skills, values and world views necessary for them to act in ways that contribute to more sustainable patterns of living. It will enable individuals and communities to reflect on ways of interpreting and engaging with the world. (para. 7)

The aim of this research is to add to the body of knowledge by providing an example, demonstrating how Materials-led Inquiry can raise environmental consciousness to support students to make self-initiated sustainable shifts in their lifestyles and to minimise their environmental impact. This research also aims to show the value of adopting an a/r/tographic approach to Visual Arts pedagogy, where Arts educators foster empathy for student learning by participating in APLR and pedagogical research and immersing themselves in the artistic process. The hope is to foster a sound understanding of those processes and to transfer new constructions of Visual Arts pedagogy into WA classrooms (ACARA, 2013b), in order to deliver Visual Arts experiences that are meaningful for students (Dinham, 2011).

## **Significance of the Research**

This research has implications for REmida WA, curriculum planners and teachers working in Australian primary schools. There are further benefits for educators engaged in the theoretical debate of Visual Arts pedagogy at a tertiary level. This research demonstrates how an a/r/tographic approach to curriculum development can influence and enrich Visual Arts teaching practice. The A/r/tographic Action Research Spiral, I developed (see Chapter 5) is a hybrid representation of the Action Research Spiral that connects the reflective practice that occurs within a Creative Arts practice and Visual Arts pedagogy through a/r/tography. This particular model adds greater weight to the importance of a teacher's Creative Arts practice in influencing and shaping curriculum development. A/r/tography is a methodology that can be incorporated into pre-service teacher education. In addition, APLR fosters a deeper level of understanding of practice and theory to support Visual Arts pedagogy.

In response to the introduction of Sustainability (ACARA, 2013a), there is a growing need to support teachers through the services of organisations, such as REmida WA. They enable schools with limited funding to replace new materials for REmida materials, while still providing rich learning opportunities (Eskesen, 2006/07; Pettersen, 2007). REmida WA promotes environmental sustainability through creative reuse; however, there are serious implications for the integrity of the organisation if they cannot show a link between creative reuse and sustainable behaviour. The aim of this research is to show that a materials-led approach, through the creative reuse of materials otherwise bound for landfill, can add to a teacher's repertoire in integrating Sustainability into the curriculum. This approach may also empower some students to make positive and sustainable behavioural shifts.

# Research Questions

## Overarching Research Question

What is revealed through Materials-led Inquiry in regard to a student and/or an a/r/tographer's impact on the environment?

## Phase One

1. How does the act of engaging with discarded materials, in a Year 7 Visual Arts program, facilitate awareness of environmental sustainability?
2. What are the implications for an a/r/tographer's Arts-led practice in terms of teacher education and the improvement of pedagogical practices in primary Visual Arts education?

## Phase Two

How and to what extent does engaging with REMIDA materials inform my a/r/tographic practice?

## Limitations

The research has the following methodological limitations:

### Phase One

The sample for this research came from a single Year 7 class, from a government primary school in a high socio-economic area. The sample size was small and, as such, the findings cannot be generalised to other year levels at the same school or WA students enrolled in primary schools that have different socio-economic ratings and/or students enrolled in independent schools. Further, the findings cannot be generalised to interstate or international schools.

A number of circumstances that were beyond my control included student absenteeism, classroom excursions, the physical layout of the classroom and the teacher's influence on the students. These setbacks occurred because this research took place in a natural classroom setting. Another limitation concerned the timeframe of the research. The fixed timeframe of this study limited my access to the students to the duration of the Visual Arts program. Therefore, the nature of this research did not allow me to access longitudinal outcomes.

## **Phase Two**

During the second phase of the research, I identified a limitation with the proposed exhibition site after setting up a trial exhibition in April 2012. The trial revealed the initial site I chose for my solo exhibition was inadequate. The physical and contextual reading of the original space influenced the reading of the artworks. To address the issue, I sourced a more suitable location and decided on the Spectrum Project Space. The gallery is a more appropriate exhibition space, which privileges my creative process. For that reason, I had to reconsider how I would display works I had already completed in the new setting as well as plan for new site-specific installations.

## **Delimitations**

Through this research, I intended to cultivate greater respect for discard through a materials-led approach to artmaking. I did this by putting in place a set of self-imposed boundaries (on the students and myself). For the students, I presented them with an exhibition brief (see Appendix B), which stipulated the theme of their class exhibition, what materials they could use and how they could use them to produce their artworks. From a Visual Arts teacher's perspective, I wanted to extend my understanding of the artistic process within the classroom context by closely following the student's exhibition brief when preparing for my own exhibition. Further, within a Contemporary Arts context, I wanted to extend my understanding of creative reuse by sourcing my materials from REmida WA.

## **Assumptions**

This research included several assumptions:

My position, in relation to the climate change debate, is that I agree with the vast majority of scientists that carbon dioxide (CO<sub>2</sub>) emissions resulting from human activity is having a direct impact on our planet and our climate. We live on a planet with finite resources (Pettersen, 2007) and all actions have consequences. Our present measure of progress and success is determined by the acquisition and accumulation of material goods (C. Hamilton, 2003; Hamilton & Denniss, 2005; Naess, 1989), and as a consequence, the rate of climate change is increasing due to human activity (Flannery, 2005; Gore, 2006; C. Hamilton, 2007; Lewandowsky, Oberauer, & Gignac, 2013; Lovelock, 2006; Lynas, 2007; Stern, 2007; Washington & Cook, 2011).

In this research, environmental sustainability refers to ways of preserving and protecting our planet beyond this current generation. This definition is supported by initiatives undertaken at a national level to ensure the participation of all Australians to adopt more sustainable lifestyles. These initiatives include the 1992 National Strategy for Ecologically Sustainable Development (Department of Sustainability, Environment, Water, Population and Communities [DSEWPC], n.d.) and ARIES (2004–2012).

The timing of this research occurred during a period of transition in the WA education system, moving from a state-based to a national curriculum, and this research considers this. In a review authorised by the WA government considering the proposed impact the introduction of a national curriculum would have on WA schools and teachers, Andrich (2009) identified “a recurring reaction to the advent of the national curriculum is that the teachers are tired of what seems to be constant and relentless change” (p. 15). However, he also noted that “not everything in current approaches to teaching will need to change . . . This implies that the implementation of the national curriculum need not . . . create the impression of major changes to the Curriculum Framework” (p. 15). Andrich’s findings suggest that research such as this, conducted during periods of transition, can remain relevant. In response to the changes, the discussion in Chapter 2 refers to the *Curriculum Framework for Kindergarten to Year 12 Education in Western Australia (WA Curriculum Framework)* and the Australian Curriculum. In addition, from 2015, another change will affect WA education. The state will come into line with other Australian states in that Year 7 will be the first year of secondary school. In this research, the Year 7 students were completing their final year of primary school; however, the Visual Arts program taught during this study may be adapted to accommodate other years in primary school.

The final assumption relates to research methodology. I consider a/r/tography an appropriate multifaceted methodology positioning the identities of the artist-researcher-teacher as both interconnected and separate. A series of critical moments direct a/r/tography and lead to unexpected directions of inquiry. Irwin et al. (2006) have applied Deleuze and Guattari’s metaphor of the rhizome to describe the multiple connections made during a/r/tographic research (see Chapter 3). Applying a/r/tography has meant that my research has not been a linear process. At certain points of the process, I have had to privilege one identity while simultaneously endeavouring to keep the aesthetic underpinnings framing my research visible. For the sake of clarity, I have divided this exegesis into two phases. The first phase is a qualitative study that took place at a government primary school in Perth, WA, and the second phase is devoted to my Creative Arts practice.

## Writing Style

*Creative Reuse: How Rescued Materials Transformed my A/r/tographic Practice* is transdisciplinary research, situated in the School of Education at Edith Cowan University. My research shifts between education and Contemporary Arts, where the stylistic convention of academic writing in each discipline is markedly different. My aim is to offer an exegesis that functions as a consolidated body of work, yet at the same time respects the nuances of each discipline.

According to Sword (2012) “disciplinary styles constantly shift and evolve” (p. 173). In a meta-analysis of academic journal writing, Sword’s findings show that while authors are governed by the conventions of their disciplines, they still adopt a broad range of writing styles. This includes the use of first-person pronouns, where Sword did not “find a single discipline in which first-person pronouns are either universally required or universally banned” (p. 18), and the majority of journal articles adopted a unique or hybrid structure. In this exegesis, I have observed the writing guidelines of the School of Education at Edith Cowan University and followed the referencing system of the American Psychological Association’s (APA) sixth edition (2010). However, in response to Sword’s findings, I consider the exegesis may provide greater scope than academic journal articles to challenge the boundaries of stylistic traditions and conventions of academic writing. Although the active voice is preferred for direct communication and clarity, in this document some APA style conventions are abandoned. For example, double quotation marks only denote direct quotes, whereas single quotation marks indicate colloquiums and common phrases. The hierarchy of headings do not follow strict APA conventions and footnotes are included. Capital letters privilege Visual Arts education and other subjects in the Australian Curriculum and a change in font style (Cambria) signifies participants’ voices. Further, aesthetic considerations require that some images bleed off the page.

According to J. Hamilton (2011), *polyvocal* exegetical text addresses some challenges when attempting to avoid a fractured thesis. By merging disparate writing traditions to present an exegetical structure, it allows researchers to articulate the complexities of their multifaceted research, while maintaining an authentic voice throughout. Hamilton argued the exegesis becomes connected on the grounds that it “requires researchers to synthesize various perspectives, subject positions, writing styles, and voices into a unified and coherent text” (para. 2). Polyvocality is a strategy that enables researchers to simultaneously position their practice within an established field of research and to differentiate their research strategies by illustrating how their methods and processes have informed creative outcomes (J. Hamilton,

2011). In this exegesis, I have chosen to adopt a polyvocal structure to reflect the a/r/tographic nature of my research, to illustrate where I slip in and out of the roles of artist-researcher-teacher. I present my research in two phases, while being cognisant of the challenges of writing a polyvocal text. This structure should not be viewed as a split exegesis; instead, it is my interpretation of an exegetical structure that draws in all aspects of the research. The use of imagery and conceptual models are incorporated throughout the text to merge disparate research genres. In Phase One, I adopt the voice of the educator, and in Phase Two, I use the revisioning voice more in keeping with APLR. I have framed my research so that Phase One is a provocation, intended to inform and support the theoretical underpinnings that shape my creative outcomes discussed in Phase Two.

## Summary and Outline of the Thesis

This exegesis is presented in six chapters that reflect the chronological order of the research design, given that Phase One was a self-contained qualitative study completed prior to the commencement of APLR in Phase Two. As discussed previously, my intention is to connect the chapters through polyvocal writing, where a/r/tography is the means used to link three main themes explored throughout the research process. The themes that reappear at different points throughout the thesis are *materiality*, *reflexivity* and *shifts*.

This chapter included the following sections: background to the study, statement of the problem, significance of the research, rationale, research questions, and definition of terms, limitations, delimitations and a set of assumptions that frames the research. Outlined below, is the structure of the exegesis.

- In the literature review, I provide a historical overview of the modern environmental movement from the 1960s to the present, discuss how it has shaped EfS in the Australian Curriculum during the DESD and review EfS through the Visual Arts to identify gaps in the literature pertaining to the educational contribution of the REmida network.
- The theoretical framework and methodology informing this research are outlined in Chapter 3. In this chapter, I review the literature relating to a constructivist epistemology and the use of visual methodologies, principally a/r/tography and APLR, in primary Visual Arts education research.
- In Chapter 4, I present the methods, findings and discussion of Phase One, a qualitative study that took place at a primary school with Year 7 students.

- Chapter 5 covers how a/r/tography has transformed my Creative Arts and teaching practices. Adhering to the Research Question Model of exegetical writing, I focus on how the theoretical contextualisation of my research question informs my exegetical writing through my creative process.
- The concluding chapter consolidates what is revealed through Materials-led Inquiry from the students' perspective and my perspective as an artist-researcher-teacher.



2

literature review

This chapter presents the rationale for conducting research during the DESD (2005–2014) and provides a context to show how an a/r/tographer may incorporate REmada's philosophy of environmental sustainability in primary Visual Arts education. Although some information relating to climate change has been included to set the scene for the rise of environmentalism, the aim and scope of this literature review is to discuss trends that have led to Australia's current policies in EfS. The following review begins with a historical review of the modern environmental movement and the environmental archetypes that shape the environmental debate (Naess, 1989; 1995; O'Riordan, 1976). This includes the role the UN has played in supporting initiatives to address environmental degradation and how their focus has narrowed to climate change mitigation. I discuss the implications for the 21<sup>st</sup> century, in particular from the Australian perspective. Political ideology influences political policies to mitigate climate change, and a review of recent surveys shows incongruence between political action and what the Australian public believe is important (The Climate Institute, 2010). Political ideology also affects the direction of the Australian education system (Liberal Party of Australia & The Nationals, 2013).

In the following section, I provide a context for Phase One. This aspect of my research took place in 2009, prior to the Australian Curriculum's implementation. Therefore, the discussion begins with a summary of the *WA Curriculum Framework* and is followed by the influence the UN and Australian ideology have on the Australian Curriculum's model of EfS. In the final section, I review the draft of the Australian Arts Curriculum to provide an overview of the strengths and weakness of the document in its current form, and to address how REmada is framed in the literature and how that applies to the educational contribution REmada materials have as agents of change to increase environmental consciousness.

## **Environmental Movement**

In this section, I give a historical overview of the environmental movement. Although the timing of this research occurred during a period of transition as WA moved from a state-based curriculum to a national curriculum, the environmental values underpinning this research remain relevant and are applicable to both sets of curriculum documents. These values are to preserve and protect the environment for this generation and beyond (ACARA, 2013a; Curriculum Council, 1998). A defining moment in environmentalism was during the 1960s, with the release of Rachel Carson's book *Silent Spring* (1962); it marked the beginning of the modern-day environmental movement within the mainstream arena. From the late 1960s, the UN has played a prominent role in providing a platform for action, and since then environmentalism has played a greater role in government policies and agendas across the

globe. At present, the major concern is that increased human activity has an impact on the environment, and some consequences include the rise of the Earth's average temperature contributing to climate change (Brundtland, 1987; Flannery, 2005; Gore, 2006; C. Hamilton, 2007; Lovelock, 2006; Lynas, 2007; Washington & Cook, 2011). From an economic perspective, the likely economic fallout resulting from inaction includes the devastating consequences global warming may have on humanity and other life forms (Stern, 2007) (see Appendix A). This section addresses the changing consciousness and shifting emphasis of the environmental movement, and its impact on Australian society from the 1960s and beyond; the deep ecology movement; the role of the UN; and Australia's response to climate change in the 21<sup>st</sup> century.

## 1960s

The 1960s are regarded as the catalyst for the environmental movement and marked a shift in environmentalism, "a movement advocating for change to reduce the impact of humans on the environment" (Dauvergne, 2009, p. xiv). Prior to the 1960s, *environment* generally referred to the home or working environment, while in the 21<sup>st</sup> century, the term has political connotations with multiple understandings, including natural ecosystems, the global environment and the built environment (Dauvergne, 2009). A shift in consciousness leading to the beginning of the modern environmental movement came about during a time of political, social and cultural upheaval in American society, along with the anti-Vietnam War movement, the emergence of the civil rights movement and the rise of the feminist and hippie movements. Americans challenged established paradigms on many fronts as they tried to negotiate the environmental cost of post-World War II affluence against the rise of availability of consumer goods. Specifically, the environmental movement increased American society's awareness of the Earth's fragility and the pressures that were placing on its finite resources (Rome, 2003).

Arguably the most likely catalyst to raise environmental awareness during that period was the release of Rachel Carson's *Silent Spring* in 1962 (Dauvergne, 2009; Rome, 2003). Further, the first visual images of the Earth taken from space (see Figures 1 and 2) rekindled awareness (Chaikin, 2007). *Silent Spring* and the Apollo photographs of Earth are examples of how the Arts played a role in transforming human consciousness. The first example highlights growing awareness arising from the written word. *Silent Spring* drew attention to the devastating impact pesticides had on the environment, resulting from farming practices in the United States (US) (Krause, 1993; Rome, 2003). Carson's (1962) argument was that the Earth has limits and cannot support our environmentally destructive behaviours. Carson, a biologist, examined the unforeseen consequences of developing and using a dangerous mix of chemical

cocktails linked to the agricultural industry. Her writing reached a wider audience as she presented complex scientific concepts in a new and literary style, fuelling a change in American perceptions. Her approach may have reached the masses but it also polarised them. The argument against Carson was not concerned with the science supporting her case; rather, it was how Carson delivered her message that caused debate (Hazlett, 2004). Carson's supporters commended her for highlighting the impact of the indiscriminate use of chemicals (Ferguson, 1963; Went, 1963), while her detractors maintained that the Carson's claims were overly emotive and biased (B. N. Davis, 1964).

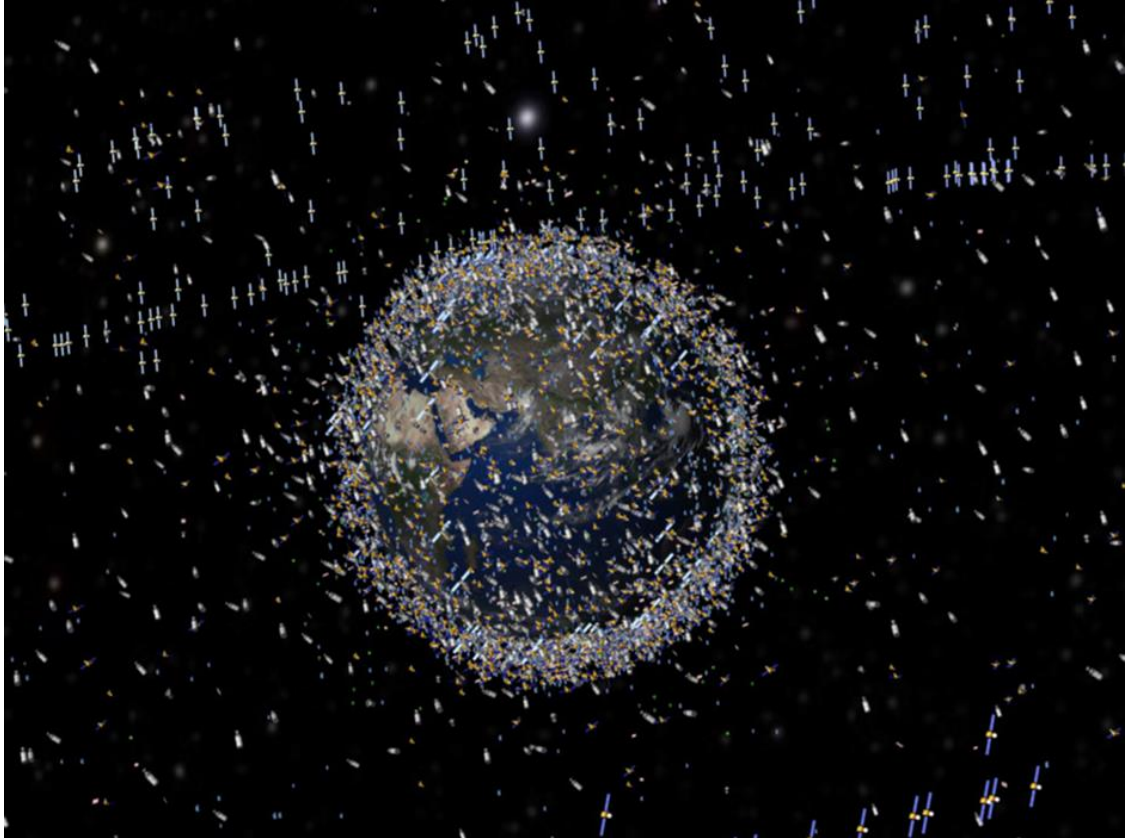
The second example illustrates that visual imagery was more accessible to a wider audience than the written word. Photographs taken from space during the Apollo space missions once again renewed a growing consciousness of the Earth's fragility. For the first time in history, people could see how Earth looked from a distance. The image *Earthrise* (see Figure 1) has been credited for triggering a permanent shift in our collective awareness of our planet's place in the universe, as the Earth seemed minute in an infinite universe (Chaikin, 2007; Gore, 2006). An unexpected consequence of the images, such as *Earthrise* and *The Blue Marble* (see Figure 2), which show a pristine planet unaffected by pollution, was the increase in environmental activism in the US (Chaikin, 2007; Gore, 2006). This is in sharp contrast to more recent images that show a very different view of the Earth than those presented to the world during the 1960s and 1970s (see Figures 3 and 4).



*Figure 1.* Bill Anders, 1968, *Earthrise* [Photograph].  
(Exception to copyright. Section: ss40, 103C. Exception: Research or study.)



*Figure 2. Apollo 17 crew, 1972, The Blue Marble [Photograph].  
(Exception to copyright. Section: ss40, 103C. Exception: Research or study.)*



*Figure 3. Unknown, n.d., A Beehive of Satellites [Unknown].  
(Exception to copyright. Section: ss40, 103C. Exception: Research or study.)*

National Aeronautics and Space Administration (NASA) shows how humanity's impact on the Earth has become conspicuously visible with this artist's impression of the space junk that has accumulated since 1957, with the launch of the first Russian satellite. Although the artist has exaggerated the scale of the space, the image was based on actual density data of debris objects.



*Figure 4.* NASA, n.d., *Earth at Night* [Composite of satellite images].  
(Exception to copyright. *Section:* ss40, 103C. *Exception:* Research or study.)

NASA used over 400 satellite images to create this composite image of Earth at night.

## Environmental Archetypes

Environmentalism and the environmental movement did not start and end in the 1960s nor was it limited to the US; others who followed Carson's lead included O'Riordan (1976) and Naess (1989). For example, O'Riordan (1976) believed that environmentalism could "no longer be identified simply with the desire to protect ecosystems or conserve resources – these are merely superficial manifestations of much more deeply-rooted values" (p. ix). He reasoned (though many may have had difficulty grasping the concept), "environmentalism is as much a state of being as a mode of conduct or a set of policies" (p. ix). O'Riordan (1976) argued that the shared ideology of political and economic leaders might contribute to setbacks in genuine environmental reform. He identified a number of archetypes adhering to different environmental viewpoints (see Appendix B). This spectrum extends from *ecocentrism*, which is concerned with *biorights* for all living organisms, through to *technocentrism*, which supports economic growth and the belief that humanity will always find a technical solution to any problem. Environmental policy is determined by *technocentrics* (O'Riordan, 1976) or *shallow ecologists* (Naess, 1989).

### Deep Ecology

Norwegian philosopher Arne Naess extended the environmental concerns raised by Carson and O'Riordan to a deeper understanding of the relationship between humans and the environment. Naess (1989) fused a universal interpretation of ecology and philosophy to present his new concept of *ecosophy* (cited in Drengson & Devall, 2010; cited in Lummis, 2001). Naess first introduced the term *deep ecology* and its counterpart *shallow ecology* in 1972. The terms drew attention to the divide between the two environmental approaches (cited in Drengson & Inoue, 1995). Naess (1989) argued that shallow ecologists have an anthropocentric value system where humankind is separate from nature. Humankind are displaying a superficial understanding of environmental issues and in turn relying on short-term and quick fix solutions. Naess also questioned shallow ecologists' drive and motivations, indicating that developed nations position their environmental policies within the shallow ecology paradigm (cited in Drengson & Devall, 2010; cited in Drengson & Inoue, 1995).

The alternative position is deep ecology, a 'total view' where humans are interconnected and co-exist with other life forms (Drengson & Inoue, 1995). Naess (1989) elaborated by maintaining deep ecology presents a greater challenge for humanity, given that at the global level, humans consider themselves the principle life form on Earth, and government policies reflect this entrenched belief. Naess (1995) resisted locking deep ecology

into a rigid definition or turning it into an organised movement, preferring supporters to look within and contextualise their own implicit understanding of the ecosophy.

During the late 1970s and early 1980s, Sessions and Devall (2007) brought Naess' deep/shallow ecosophy out of Europe to a wider North American audience, prompting them to develop an ecological platform. Its purpose was to articulate what the majority of Naess' supporters had already accepted implicitly (Naess, 1989; 1995). The points most relevant to this research are:

- “Present human interference with the non-human world is excessive, and the situation is rapidly worsening” (Naess, 1989, p. 29).
- “Significant change of life conditions for the better requires [*sic*] change in policies. These affect basic economic, technological, and ideological structures” (Naess, 1989, p. 29).
- “The ideological change is mainly that of appreciating *life quality* . . . rather than adhering to an increasingly higher standard of living” (Naess, 1989, p. 29 [original emphasis]).

## United Nations

In this section, I address the key discourses and trends underpinning the UN's education agenda. I discuss the educational implications of the UN in the EfS section of this chapter.

The UN has a number of objectives, including assessing environmental conditions and trends; developing environmental instruments; and giving support to governments and non-government bodies for the sustainable management of the environment at the global, national and regional levels. The UN's efficacy to realise real and effective change is compromised by resistance arising from: a lack of participation and commitment; a hierarchy of power existing among the participating nations; and competing interests arising from different agendas and priorities. Even so, the UN's influence cannot be readily dismissed (Ma, 2012; Prior, 2010). For example, it has been responsible for bringing environmental problems to the forefront of the international arena by facilitating substantive action through the unanimous support of the Montreal Protocol in order to address ozone depletion triggered by the use of chlorofluorocarbons (CFC) (Sunstein, 2007). The unanimous support of the Montreal Protocol shows humanity has the capacity to collaborate and to take positive action to change behaviours and combat environmental degradation.

The model of sustainable development within the UN has been constantly evolving since its inception. Capitalising on the wave of environmentalism during the 1960s, the first intergovernmental conference, aimed at reconciling socio-economic development with the environment, was the Biosphere Conference of 1968. This conference was the forerunner to the first UN Conference on the Human Environment in Stockholm, 1972. As a result, the UN formed the environmental agency United Nations Environment Programme (UNEP). The UNEP's early focus was to improve food, air, water and soil quality to improve human health and wellbeing. Next, the Stockholm Conference set the agenda for future conferences calling for a long-term commitment, at an international level, to collaborate and devise solutions to improve the global environment. Another outcome arising from the conference was Recommendation 96 (Johnson & UNEP, 2013; United Nations Educational, Scientific and Cultural Organization [UNESCO], 2005; 2007; UNEP, n.d.). This recommendation acknowledged the positive contribution education has on the environment.

In 1987, the UN released the *Our Common Future*, a report from the World Commission on Environment and Development, commonly known as the *Brundtland Report*. The Commission identified pressing environmental issues affecting the planet and put forward suggestions for sustainable development, defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987, p. 43). This comprehensive report recognised that unprecedented industrial and economic practices during the 20<sup>th</sup> century had put an enormous and unsustainable strain on the Earth's resources. It highlighted the important role education plays in establishing a sustainable future (Brundtland, 1987). Further, the chair of the World Commission, Gro Harlem Brundtland, the Norwegian Prime Minister at the time, was able to use her position to her advantage to promote the Commission's conclusions within the highest echelons of international politics. The *Brundtland Report* gained the support of over 50 national leaders, including Thatcher, Gorbachev, Mitterrand and Gandhi (Johnson & UNEP, 2013). Brundtland's actions demonstrate that even world leaders require passionate and committed leadership to inspire them work together towards the common good, for example, to address environmental degradation including climate change.

Climate change is touted regularly as being one of the greatest threats to humanity in contemporary times. Accordingly, the UN has long recognised that international co-operation is essential for industrialised nations to accept the responsibility of rising levels of greenhouse gases (GHG) in the atmosphere, and to actively commit to reducing those levels. At the 1988 UN Toronto Conference, the principle recommendation was to cut global CO<sub>2</sub> to 20% of 1988

levels by 2005. This was the same year the World Meteorological Organization and UNEP established the Intergovernmental Panel on Climate Change (IPCC). In 1990, IPCC findings showed that if GHG emissions were to be stabilised at 1990 levels, there needed to be a significant reduction of GHG in the atmosphere over time. The IPCC made a number of recommendations to take measures to limit the impact or adapt to climate change. An increased international commitment to mitigate climate change led to the Kyoto Protocol (Gupta, 2012; IPCC, 1990).

At the time, the Kyoto Protocol was the only international framework to combat climate change; signed in 1997, it came into force in 2005. It aimed to reduce global GHG emissions by 5.2% of 1990 levels; to encourage collaboration and transfer of green technologies among nations; and to establish arrangements for emissions trading for the main GHG contributing to climate change (Flannery, 2005; Napoli, 2012; United Nations, 2014). Australia refused to ratify the protocol until 2007. I draw attention to some possible reasons for Australia's conduct later in this chapter; however, during the first commitment period (2008–2012), only Australia and Iceland outstripped their projected quantified emission limitation and reduction commitment. Australia's levels increased to 108%. In 2012, the Doah Amendment extended the Kyoto Protocol to 2020. During this second commitment period, Australia's quantified emission limitation and reduction commitment is expected to go down to 98% with the option to move towards a target of 5%–15% or 25% below 2000 levels, albeit subject to conditions (United Nations, 2014).

Overall, the Kyoto Protocol has not lived up to expectations in fulfilling its original goals. Further, the "Kyoto Protocol may be the most bitterly contested international treaty ever to be realised" (Flannery, 2005, p. 222) and its legacy is complex and well beyond the scope of this research. The most likely reasons for the lack of consensus between nations were due to national and regional differences in economic and/or ideological principles. The provisions set out in the protocol were vague and ambiguous, thus providing opportunities to take advantages of loopholes and hinder its implementation (Ma, 2012). For example, there were inconsistent targets and benchmarks, and unrealistic targets were set too low to mitigate climate change. Short-term economic growth was favoured at the expense of the environment. There was overall cynicism and suspicion of other nations' lack of commitment in both developing and industrialised nations, and climate change denial refused to link human activity with increased GHG emissions (Flannery, 2005; Goodman, 2012; C. Hamilton, 2007; Gupta, 2012; Ma, 2012; Motaal, 2010; Napoli, 2012; Prior, 2010). Unlike the success of the

Montreal Protocol, the Kyoto Protocol demonstrates how nations are able to undermine positive long-term initiatives for short-term gains.

However, the shortfall of promised targets did not necessarily imply failure of the system. Although the group of countries committed to the Kyoto Protocol may have increased their GHG emissions by 3.4%, it was lower than the group of non-committed countries who in total increased their emissions by 27%. Germany and Belgium were success stories, reporting decreases of GHG emissions of 26.7% and 16% respectively (Aichele & Felbermayr, 2013). The counterargument highlighted discrepancies in the data, showing decreased GHG emissions from countries including Bulgaria, Germany, Lithuania and Latvia from 1990–2010. When data were reanalysed to take into account emissions from 2000–2010, inconsistencies showed many of the countries with decreased emissions were former Soviet Union and satellite countries (Napoli, 2012). A likely reason for the decrease was a reduction of output due to the economic crashes that occurred during the dissolution of the Union of Soviet Socialist Republics (USSR), rather than a resolute commitment to reduce emissions (Napoli, 2012). Even the restructuring efforts resulting from the German Reunification could explain, to some degree, Germany's success (United Nations, 2014).

As a final point, in spite of the apparent lack of commitment by nations to support the Kyoto Protocol, as shown in the literature, the UN has a multidimensional approach to the environment, including climate change. It remains committed to mitigating climate change and other environmental problems. One approach is through education initiatives. The IPCC have reinforced the UN's position to undertake an international program of public education and information (Gupta, 2012; IPCC, 1990). I address the UN's educational response to mitigate climate later in this chapter.

## **Implications for the 21<sup>st</sup> Century**

In this section, I put forward that Australian public opinion and the Australian Government's action and policies on climate change do not match. Since the turn of 21<sup>st</sup> century, Australian opinions and attitudes towards climate change have waxed and waned and successive governments have been able to take advantage of changes in public sentiment (The Climate Institute, 2007; 2010; 2013). Australian opinions are representative of the developed world (Garnaut, 2011), and the literature identifies a number of reasons why humanity resists action to mitigate climate change, despite shared opinions of scientists, economists and academics that action must be immediate (Bazerman, 2006; Flannery, 2005; C. Hamilton, 2007; 2010; 2013). In the past decade, Australian public attitudes towards the causes and

effects of climate change have varied from strong concern to increased scepticism, before shifting once more to a renewed interest. This renewed interest does not reflect the Liberal-National Coalition (Coalition) Government's position under the Hon. Tony Abbott, Prime Minister of Australia (The Climate Institute, 2007; 2010; 2013). In respect to education, there are significant implications for the Australian Curriculum if government ideology differs from the ideology taught in schools (as discussed in this chapter).

Climate change, only one of a number of environmental challenges the Earth faces at present, has dominated recent literature in regard to environmental sustainability. Climate change is not a stand-alone problem; even so, the literature suggests that environmental degradation either contributes to or is adversely affected by climate change. The common denominator appears to be unsustainable practices of developed nations, the most significant being the burning of fossil fuels to produce electricity, fuel for transportation and power for industry. The biggest contributor is CO<sub>2</sub>, a by-product of burning fossil fuels, and actions such as the Kyoto Protocol have been put in place to reduce carbon emission; however, there is resistance, possibly due to fear of change (Gore, 2009; C. Hamilton, 2007; 2010; 2013; Washington & Cook, 2011).

In the early 2000s, the collective voice of science told the world that if Earth's average temperature rises by 6°C, then there would be no way to predict the consequences on the planet's capacity to support human life or the diversity we take for granted. Consequently, if there is no change in our collective behaviour and if we behave as if it is 'business as usual', there would be devastating consequences (Lynas, 2007; Stern, 2007). International opinion corresponded with the Australian context when modelling went beyond the economic and took into account "the value of Australians' lives beyond the 21st century, the value of our natural and social heritage, health . . . and the value of insuring against calamitous change, strong mitigation was clearly in the national interest" (Garnaut, 2011, p. x).

Although there is hope that adopting significant steps to combat climate change will occur, the main obstacle is the collective will of humanity to heed the warnings (Gore, 2009; Lynas, 2007). Australia's actions and policies reflect those of other developed nations (Bazerman, 2006; Flannery, 2005; C. Hamilton, 2007; 2010; 2013). The sentiment is that change is unlikely, due to a combination of factors, including a growing scepticism towards climate change, governments' overriding yet unsustainable obsession of economic growth, the influence of lobbyists on determining environmental policies, and behavioural considerations such as consumerism (Flannery, 2005; C. Hamilton, 2007; 2010; 2013; Washington & Cook, 2011). By the same token, the obstacles that are in the way of adopting sustainable

behavioural change are more complex because it is not only what facts are presented to the public but also how those facts are framed (Spence & Pidgeon, 2009). Within the British context, a lack of knowledge as well as uncertainty and distrust, helplessness and a reluctance to change lifestyles were some barriers limiting individuals' engagement with climate change. This was further compounded by the lack of government, business and industry action, the lack of appropriate infrastructure and the 'free-rider' effect at the societal level (Spence & Pidgeon, 2009). Further, conflicting climate change information adds to the public's confusion and scepticism (Bazerman, 2006; Flannery, 2005; C. Hamilton, 2007; 2010; 2013).

### **Australian Views on Climate Change**

The Commonwealth Scientific and Industrial Research Organisation (CSIRO) measured Australian attitudes towards climate change and policy responses during 2008–2011 (Leviston, Leitch, Greenhill, Leonard, & Walker, 2011). Political preferences, gender and education strongly influence opinions and those with left-wing political leanings, women and/or those possessing university degrees were more likely to believe in human-induced climate change. However, during 2008–2011, the majority of Australians believed that climate change was happening. Of those who accepted this, a growing proportion accepted that human behaviour exacerbates climate change, an attitude mirrored in other Western countries at the time. The CSIRO also found that Australians considered that managing the economy was more important than the environment, and that more than half were willing to reduce their standard of living and pay more for essential services, with one-third willing to pay more tax to support mitigation action. However, Australians' willingness to pay reduced over time from 71% support in 2008 to 59% support in 2010. On the matter of climate action, the CSIRO found that Australians believed action should be taken primarily at an international level to reduce carbon emissions. Finally, Australians were found to be taking personal action to reduce their impact on climate change by recycling, using less electricity and water, and using environmentally friendly products. Even so, it was difficult to determine the extent of the impact climate change had on behavioural changes.

Other measures of Australians' attitudes towards climate change – from the Australian Broadcasting Commission (ABC) (takver, 2013), the Australian Bureau of Statistics (ABS) (2014), the Climate Institute (2007; 2010; 2013) and the Lowy Institute (Oliver, 2013) – correspond with the CSIRO's findings (Leviston et al., 2011). Additional findings showed that Australians were more concerned with pollution than climate change (ABS, 2014) and, in particular, 82% of respondents agreed that pollution is contributing to climate change. Australians were more concerned about immediate issues such as health and the economy and felt that businesses

should take more responsibility when dealing with their pollution (The Climate Institute, 2010). Regardless of the 'ranking' of concerns in various surveys, The Climate Institute (2007; 2010; 2013) noted that Australians' levels of concern for climate change had risen sharply from 2003–2013, apart from a tapering of concern coinciding with the Global Financial Crisis (GFC) when the cost of living pressures became a priority. In 2003, approximately 38% of Australians were worried and, by 2013, 87% accepted the reality of climate change, indicating they were concerned with the impacts. However, Australians felt helpless to address such a large and complex issue at an individual level, leading to renewed calls for Australian leadership to do more to find solutions to mitigate climate change.

In the Climate Change Review (2008), data cited from the Department of Climate Change (DCC), International Energy Agency (IEA) and the United Nations Framework Convention on Climate Change (UNFCCC) showed that, per capita, Australians were the highest emitters of GHG in the Organisation for Economic Co-operation and Development (OECD) and among the highest in the world. In 2005–2006, nearly 70% of primary energy consumption in Australia came from two sectors that were largely reliant on fossil fuels: electricity generation (45.5%) and transport and storage (24.0%) (Garnaut, 2008). By 2013, Australians' attitudes were only beginning to match behaviours; from 2012–2013, a 7% drop of emissions from energy use (approximately 9 million tonnes) was recorded, as more people were beginning to accept personal responsibility by changing behaviours (The Climate Institute, 2013).

The research identified changing Australian attitudes (The Climate Institute, 2013), yet it should be acknowledged that people experience internal conflict when faced with information that challenges deep-seated patterns of behaviour (Lynas, 2007). Climate change denial is a complex matter. It is a strategy adopted by individuals and governments because it is often easier to deny and to deflect blame onto others rather than admitting to negative behaviours. Consequently, inaction might be due to a fear of impacts any efforts to transform would have on industry, the economy and lifestyles (Lynas, 2007). An over-emphasis on exponential growth and an over-reliance on unsustainable practices are strong motivators to carry on as we are (Evans & Reimondos, 2013; C. Hamilton, 2013; Washington & Cook, 2011).

The implications for educators are far reaching, as "the denial response means that simply giving people more facts about climate change may not necessarily make them more determined to act against it in any straightforward cause-and-effect way" (Lynas, 2007, p. 284). The Climate Institute (2013) suggested the recent shift in behaviours might have been triggered from direct experiences such as drought and media exposure to catastrophic climatic events happening around the world. Considering the data, teachers need to find methods that

will support their students not only to learn the facts but also to facilitate behavioural change. One pedagogical example is to teach Sustainability through the Visual Arts (see Chapter 3).

### **Australian politics and climate change**

As discussed earlier in this chapter, political ideology strongly influences personal belief in human-induced climate change (Leviston et al., 2011). Therefore, the consequences of tackling environmental problems from an ideological perspective will have long-lasting ramifications beyond our current generation. In Australia, the succession of governments during the first two decades of the 21<sup>st</sup> century, from the Coalition Government (1996–2007) under the Hon. John Howard, former Prime Minister of Australia, to the present Coalition Government under the Hon. Tony Abbott, Prime Minister of Australia, reflect an inconsistent approach to environmental policy (Beeson & McDonald, 2013). For example, economic priorities overshadow environmental policy, including climate change policy. Even though Australia is among the largest per capita GHG emitters on the planet (Beeson & McDonald, 2013; Garnaut, 2008), the Coalition Government under Howard “failed to promote a culture of decarbonization or to establish enduring and effective institutions for climate policy development and implementation” (Christoff, 2013, p. 350). Australia’s economy was and still is heavily dependent on fossil fuel and mining, which in part explains passive climate change and environmental policies (Christoff, 2013). Other reasons include strong support for the US, and the powerful influence of the ‘greenhouse mafia’, who are carbon lobbyists representing corporations who have most to lose from sustainable policies (C. Hamilton, 2007).

From the mid-2000s onwards, the Australian discourse on climate change has polarised the population and “global climate change has become one of the most divisive issues in Australian politics” (Beeson & McDonald, 2013, p. 331). This may have, in part, attributed to Howard’s demise at the 2007 election. From 2006, Australians demonstrated overwhelming support for climate change action. The increased support coincided with the release of *The Stern Review* (2007); visits to Australia from both Al Gore to promote *An Inconvenient Truth* (2006) and leading environmental campaigner David Suzuki; and being faced with the most severe drought conditions in the nation’s history (Rowley, 2010). Within this context, Howard’s failure to read Australians’ growing concern for climate change and refusing to ratify the Kyoto Protocol made room for the Hon. Kevin Rudd, former Prime Minister of Australia (2007–2010 and 2013), to differentiate the Australian Labor Party (Labor) from the Coalition. As such, Labor fought and won the 2007 election campaign on a climate change platform. Rudd’s first action as Prime Minister was to ratify the Kyoto Protocol. Until

then, climate change had a marginal impact on environmental policy (Bongiorno, 2008; Crowley, 2013; Rootes, 2008).

However, public support for climate action lost momentum due to a combination of reasons, including the government's lack of commitment for decisive action. Former Labor Prime Minister Rudd's signing of the Kyoto Protocol became no more than a symbolic gesture as projected national emission targets were watered down to 5% below 2000 levels by 2020 (Christoff, 2013). Eventually, the *carbon tax*, the decisive action introduced by the Hon. Julia Gillard, former Prime Minister of Australia (2010–2013), became a contentious issue. Issues were exacerbated by vigorous opposition from the Coalition under Abbott's leadership, known as the carbon lobby, which was reflected in the decline of public support from 2008–2013 (Crowley, 2013; Grattan & Wroe, 2011; Kelly, 2011; The Climate Institute, 2010). Even so, the introduction of a carbon tax did not have to be as problematic as it became, because initial support from investment groups praised the tax for providing investment certainty. In addition, Australia gained international recognition for having clear carbon reduction targets, revealing a transparent climate policy and showing links to international markets (Wroe & Murphy, 2011). However, one of the greatest risks the tax faced was political: "in particular that the opposition Liberal Party may unwind elements of the proposals if elected" (Sullivan, cited in Wroe & Murphy, 2011, para. 9).

The return to a conservative federal government in 2013 marked a shift in climate policy. Just as Labor overthrew the Coalition in 2007, arguably due to overwhelming support for climate action, the Coalition achieved the reverse outcome six years later. Abbott claimed the win was a referendum on the carbon tax, contrary to the Climate Institute's (2013) findings "that there is no foundation for [such] claims" (p. 1). The Coalition's victory was, according to some, more likely due to Labor's perceived mishandling of the economy after the GFC (The Climate Institute, 2013). Nevertheless, Abbott's promised repeal passed in the lower house at the end of 2013 (E. Griffiths, 2013a; 2013b).

In 2013, the Coalition Government's environmental policies were diametrically opposed to the previous Labor Government's policies (2007–2013). The Coalition's first action was to disband the Climate Commission only days after the federal election. The newly elected government claimed that the Climate Commission was duplicating the work of the Department of Environment, together with the CSIRO, the Bureau of Meteorology and the IPCC (S. Phillips, 2013). Environmentalists Tim Flannery and David Suzuki strongly criticised the government's decision. Consequently, the Climate Commission's response to public demand was to reform as an NFP. It was renamed 'The Climate Council' (Kenny, 2013). The support for

the Climate Council from Australians is an example of the public's desire for an independent, scientifically based response to climate change.

### **Implications for the Australian Curriculum**

Ideological differences between the Coalition and Labor governments in Australia affect teachers and students. After Labor's election in 2007, the Australian education system experienced an overhaul then was heavily criticised by the Coalition in the 2013 federal election campaign. The Coalition condemned Labor's education policies, blaming Labor for falling education outcomes and political bias (Cox, Page, & Ireland, 2014). The Coalition indicated they would readdress the situation in their 2013 education platform, calling for a renewed emphasis on Science, Technology, Engineering and Mathematics (Liberal Party of Australia & The Nationals, 2013). In September 2013, there was a change of government and, by January 2014, the Coalition announced a review of the Australian Curriculum. The press reported fierce debate discussing the relevance of such a review (Cox et al., 2014; Elder, 2014; Marshall & Preiss, 2014; Vidler, 2014). The review was motivated by a number of criticisms directed towards the curriculum, while at the opposite end of the spectrum, there was criticism of the review itself (Cox et al., 2014). Two main criticisms of the Australian Curriculum that are relevant to this research are, first, the curriculum is embedded in constructivist pedagogy (see Chapter 3) suggesting there is a lack of diversity and balance in pedagogy (Elder, 2014). The other criticism relates to political ideology, where the Hon. Christopher Pyne, Minister for Education, criticised the curriculum in its current form for being politically biased towards the left (Cox et al., 2014; Elder, 2014). In direct contrast, there was criticism over reviewing a curriculum that had yet to be fully implemented (Cox et al., 2014; Marshall & Preiss, 2014). The major concern was that constant change is disruptive and disadvantageous to teachers and students. The perception that arises from every new government implementing an educational review is that the quality of Australian education is undermined (Marshall & Preiss, 2014; Vidler, 2014). Teachers report that they just want to be left alone to teach, as they are negatively impacted by constant and relentless curriculum changes (Andrich, 2009; Cox et al., 2014).

The Coalition's 2013 education policy was critical of the Rudd-Gillard Government with a pledge to restore focus on Science, Technology, Engineering and Mathematics, even though there was no indication of how other learning areas such as the Visual Arts or Sustainability would be considered. In addition, Pyne criticised the cross-curriculum priorities by stating, "the current three themes are: Australia's place in Asia, Indigenous Australia and sustainability. Now there's some question about whether those themes fit with maths and science for

example” (Pyne, 2014, para. 6). Given that Pyne did not elaborate on his comments, and the scope of this research does not include Science and Mathematics or the cross-curriculum priorities ‘Asia and Australia’s Engagement with Asia’ and ‘Aboriginal and Torres Strait Islander Histories and Cultures’, I am not in the position to comment on how they might be integrated. However, McGaw (2014), chairman of ACARA, explained that the three cross-curriculum priorities nominated in the *Melbourne Declaration on Educational Goals for Young Australians* (*Melbourne Declaration*) were relevant to the aims and goals of Australian education (Ministerial Council on Education, Employment, Training and Youth Affairs [MCEETYA], 2008). McGaw (2014) explained:

The curriculum consists of content descriptions that set out what students are entitled to learn and achievement standards that set out what successful students would know and be able to do. The Australian Curriculum does not prescribe how the content should be taught. That is a matter for schools and their jurisdictions. (para. 4)

Although McGaw (2014) did not specifically mention Pyne in his response to criticisms, it appears as if his rebuttal was aimed directly at the Minister:

The most extreme claim about the cross-curriculum priorities is that mathematics is somehow to be taught through Aboriginal and Torres Strait Islander histories and cultures. That is not the case. Not only does it miss the point that the relationship is the other way round, with the priorities to be taught through the subjects [*sic*] disciplines. (para. 6–7)

In regard to Sustainability, Pyne’s (2014) comment disregarded the UN’s commitment to redirect education to ensure sustainable development is incorporated as a critical part of education where “a thorough review of curricula should be undertaken to ensure a multidisciplinary approach, with environment and development issues and their socio-cultural and demographic aspects and linkages” (United Nations, 1992, p. 321). Further, Pyne’s (2014) criticisms of the Australian Curriculum were inconsistent with education policy from the previous Coalition Government. For example, the present Coalition’s education policy has renewed interest in *Primary Connections: Linking Science with Literacy* and *Science by Doing* (Australian Academy of Science, 2014), two inquiry-based programs introduced by the Howard Coalition Government, which include modules on environmental sustainability. Inquiry-based learning is grounded in constructivist epistemology (see Chapter 3), describing knowledge as being “personally constructed through active engagement and inquiry, albeit instructionally mediated in school, rather than transmitted unidirectionally from the teacher to the student” (Dai, Gerbino, & Michael, 2011, p. 141). Until the findings of the review of the Australian Curriculum are released, weary of endless change, teachers do not know if they face more changes (Andrich, 2009).

In brief, this section highlighted how education policy is often reviewed and modified to reflect the political ideologies of political parties. Teachers feel constant change comes at their expense and that of their students (Andrich, 2009; Cox et al., 2014; Marshall & Preiss, 2014; Vidler, 2014). In light of this information, it would be more beneficial to teachers and students alike if decisions made in regard to curriculum development are made with strong and proven pedagogical principles that are resistant to policy change.

## Education for Sustainability

In the previous section, I discussed how new research and ideology influences the environmental debate. In this section, I discuss how new research and ideology also influence educational trends that flow through to Australia. In an ever-shifting political landscape, educational and environmental policies that lack consistency have significant implications for the Australian education system. Curriculum planning and development needs to look beyond the short-term political goals to inform Australian students and teachers. “Education for Sustainability . . . is an internationally recognised educational approach that moves beyond just imparting knowledge about the environment . . . to building people’s capacity for transformational change” (ARIES, 2004–2012, para 1). The objective of EfS is to go beyond the school context to educate for sustainability rather than about it. In addition, EfS places value on inquiry-based and constructive pedagogy (see Chapter 3). By grounding EfS within the three pillars of sustainability (environment, society and economics), teachers are able to plan an interdisciplinary approach to support understanding and facilitate behavioural change (Littledyke, Taylor, & Eames, 2009). Further, innovation and investigation are encouraged as a means to connect young people with real-life experiences to secure civic participation, to make informed choices and to promote sustainable practices (Department of the Environment, Water, Heritage and the Arts [DEWHA], 2009; Qualifications and Curriculum Authority [QCA], n.d.; Te Kete Ipurangi, n.d.; Tilbury, 2011).

Australia’s position in regard to EfS is comparable to the DESD and curriculum statements from other nations such as New Zealand and Britain (DEWHA, 2009; Te Kete Ipurangi, n.d.; Tilbury, 2011; QCA, n.d.). The following section is an overview of international, Australian Environmental Education (EE) policies, and curriculum statements that have helped shape Sustainability in the Australian Curriculum. The section begins by drawing attention to the terminology relating to EE, EfS and Education for Sustainable Development (ESD).<sup>4</sup> The

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<sup>4</sup> In the literature, EE is the forerunner and different to EfS and ESD. EfS and ESD share the same meaning and the terminology is used interchangeably (ARIES, 2004–2012). EfS is used in the Australian context, whereas ESD is found in UN documents.

discussion then centres on the *WA Curriculum Framework*, since this curriculum document was in place in WA when Phase One of this research took place. The discussion then covers the UN and Australian initiatives informing Sustainability in the Australian Curriculum; EfS in schools; and EE service providers available in WA, including REMida WA.

## **Environmental Education, Education for Sustainability and Education for Sustainable Development**

The term *EE* was first coined in the late 1940s and re-emerged in the mid-1960s (Li, 2006). The principle was “to preserve the natural environment and reduce human impacts” (McKeown & Hopkins, 2003, p. 119). At the UN Conference on the Human Environment in Stockholm (United Nations, 1972), the UN recommended that EE should play a key role in devising solutions to improve the global environment. In 1977, at the Intergovernmental Conference on Environmental Education in Tbilisi, USSR, the UN once again acknowledged the crucial role of education where EE encompassed “learning from the environment as well as about the environment” (UNESCO, 1978, p. 12). The Tbilisi report (UNESCO, 1978) acknowledged the complexities of improving environmental conditions and recognised the role education should take to teach people how to alleviate problems as well as improve the environment. Apart from learning about the natural environment, the UN stated:

Environmental education must also help create an awareness of the economic, political and ecological interdependence of the modern world so as to enhance the spirit of responsibility and solidarity among nations. This is a prerequisite for resolving serious environmental at the global level . . . Environmental education must adopt a holistic perspective which examines the ecological, social, cultural and other aspects of particular problems. (UNESCO, 1978, p. 12)

In the Australian context, the nature of EE varied across the states and territories and was mostly taught in Society and Environment (S&E) (investigating local environments) and Science (learning about the natural environment) (Department of the Environment, 2003). Later in this chapter, I discuss the trend towards EfS.

## ***WA Curriculum Framework***

The *WA Curriculum Framework*, published in 1998 and implemented by 2004, was a comprehensive document that presented an overall focus towards a holistic approach to education. It included 13 Overarching Statements and five clusters of shared Core Values, which made links to the eight Learning Area Outcomes: the Arts, English, Health and Physical Education, Languages other than English, Mathematics, Science, S&E, and Technology and Enterprise (Curriculum Council, 1998; Andrich, 2009). Its central premise was to enable

students to gain knowledge and skills relevant for a dynamic 21<sup>st</sup> century. Learning how to learn was favoured over content (Berkhout, Hertin, & Gann, 2006; Curriculum Council, 1998; Wilbanks & Kates, 1999). The Visual Arts was one of five diverse Arts learning areas that fell under the banner of the Arts, the others being Dance, Drama, Media and Music. Each Arts learning area had the same four outcomes, each with specific objectives. Table 1 shows how the Arts outcomes were organised. Generalist and specialist teachers were expected to be cognisant of the aesthetic understandings and nuances for each art form they taught, and were therefore required to plan accordingly (Curriculum Council, 1998).

Table 1  
*Arts Outcomes in the WA Curriculum Framework*

Arts Ideas	Arts Responses
<ul style="list-style-type: none"> <li>• Creating original ideas</li> <li>• Interpreting the ideas of others</li> <li>• Exploring Arts Ideas</li> <li>• Developing Arts Ideas</li> <li>• Presenting Arts Ideas</li> </ul>	<ul style="list-style-type: none"> <li>• Responding to Arts works and experiences</li> <li>• Reflecting on Arts works and experiences</li> <li>• Evaluating arts works and experiences</li> </ul>
Arts Skills and Processes	Arts in Society
<ul style="list-style-type: none"> <li>• Using skills, techniques and processes</li> <li>• Using Arts conventions</li> <li>• Using and adapting technologies in the Arts</li> </ul>	<ul style="list-style-type: none"> <li>• Valuing the Arts</li> <li>• Understanding Australian Arts</li> <li>• Understanding historical and cultural contexts in the Arts</li> <li>• Understanding the economic significance of the Arts</li> </ul>

Adapted from *Curriculum Framework Curriculum Guide – The Arts*, by Curriculum Council, 2005, p. 6.  
(Exception to copyright. Section: ss40, 103C. Exception: Research or study.)

The *WA Curriculum Framework* recognised the importance of Values Education as part of an integrated curriculum. Five shared Core Values were “created through a process of consensus and wide consultation” (Curriculum Council, 1998, inside back cover) and implemented into the curriculum. Core Value 5 – Environmental Responsibility relates to this research:

The commitment to developing an appreciative awareness of the interdependence of all elements of the environment, including humans and human systems, and encouraging a respect and concern for Australia’s natural and cultural heritage and for forms of resource use that are regenerative and sustainable. (Curriculum Council, 1998, inside back cover)

Environmental Responsibility was a shared Core Value taught to WA students, well before a political focus on environmentalism arrived on the forefront of the national political agenda (discussed in the previous section). In 2012, the *WA Curriculum Framework* was replaced by the *WA Curriculum and Assessment Outline*, which preceded the Australian Curriculum (School Curriculum and Standards Authority, 2013). Even so, the environmental values outlined in the earlier document parallel those identified in Sustainability. They remain relevant to this research and the initiatives discussed in this section are consistent with Pragmatic-Social Reconstructionism, the theoretical framework of this study (see Chapter 3).

In respect to this research, in Phase One, all four Arts outcomes were addressed, with a particular focus on Arts Ideas and Arts Responses, where students created, explored and developed original ideas to exhibit their artworks as a means to reflect on humanity's impact on the environment. The Core Value of Environmental Responsibility was easily integrated into the Visual Arts program through the introduction of REMida materials and REMida philosophy.

## **Reviewing Education for Sustainability**

In this section, I discuss the influences on EfS from a historical context, and its influence on education policies in the Australian setting, including the UN's mission to take measures to reduce the impact of climate change, which set the agenda for the DESD. The UN and the IPCC promote education as a key strategy to help address environmental problems and degradation. In Australia, ACARA recognises that environmental sustainability is a significant issue facing young Australians and has incorporated Sustainability as a cross-curriculum priority in the Australian Curriculum, to be embedded across all levels and disciplines where appropriate (2013a).

### **The UN**

Prior to the politicisation of the environment (Tilbury, 2011), the UN drew attention to the imperative for taking pragmatic initiatives to address climate change, environmental degradation, ecological damage and increasing consumerism. The UN recognised the significant role education plays in addressing environmental issues that are affecting people both globally and locally. In particular, its objective is to address sustainable development beyond superficial activities and endeavour to approach it at a deeper level:

[As] a way of thinking about how we organize our lives and work – including our education system – so that we don't destroy our most precious resource, the planet . . . It must be much more than recycling bottles or

giving money to charity. It is about thinking and working in a profoundly different way. (Tilbury, 2011, p. 42)

The *Brundtland Report* (1987) acknowledged the importance of children's rights to live in healthy environments; however, it also recognised there is no single initiative or strategy that addresses all unsustainable practices and impacts. The *Brundtland Report* highlighted that education was a key component towards sustainable development, which aims to change unsustainable values and attitudes towards the environment and economic development. It indicated that teachers are essential in helping children make links between the environment and development through curricula that support multilevel, interdisciplinary EE. The report identified that teacher training and curriculum development was an important area of critical intervention to support teachers' self-efficacy to teach EE.

Chapter 36 of Agenda 21 was a significant outcome of the Rio Earth Summit in 1992. It reinforced the critical role education plays to achieve "environmental and ethical awareness, values and attitudes, skills and behaviour consistent with sustainable development and for effective public participation in decision-making" (UNESCO, 2002, para. 1). The UN found, "sustainable development is not so much a destination as a process of learning how to think in terms of 'forever' . . . that consider[s] the long-term future of the economy, ecology and well-being of all communities" (UNESCO, 2002, para. 13). It also recognised that the response to sustainable development is a difficult and complex challenge that requires a new vision of education. Accordingly, UNESCO coordinated initiatives to create partnerships between the relevant UN bodies, governments and/or non-government organisations with academic and scientific communities, teachers, local communities and the media to promote a culture of sustainability (United Nations, 1992).

Consequently, the 36<sup>th</sup> UN General Assembly adopted Resolution 57/254 stemming from the educational goals identified at the Rio Earth Summit, and so, in 2002, the UN declared that 2005–2014 would be the DESD. The UN's goal for ESD is to transform education so people transform and adopt sustainable behaviours at a societal level. They have a holistic approach involving all levels of formal and informal learning, including but not limited to curriculum development and implementation, policy development and teaching. In the DESD, the UN views education through four lenses:

1. an integrative lens, taking a holistic approach to integrate multiple facets of sustainability including physical, social and cultural aspects;
2. a critical lens, to deconstruct entrenched patterns of behaviour that may be unsustainable, such as lifestyle that cultivates consumerism;

3. a transformative lens, making the shift from awareness to incorporate behavioural change that leads to more sustainable lifestyles and values that flow into communities and businesses; and
4. a contextual lens, to recognise similarities and differences among people and to accept alternative strategies can be adopted to achieve the goal of sustainability (Nolan, 2012).

In a UNESCO review of ESD (Tilbury, 2011), the UN identified *participatory learning* as an effective method to support ESD. The UNESCO review cited numerous examples of successful small-scale research projects that effectively addressed sustainable development. By comparison, there was a lack of empirical evidence supported by large-scale research to establish the effectiveness of participatory learning. Regardless, the UN has put faith in participatory and active learning methods as the DESD's overarching teaching methodology. Table 2 shows how the UN during the DESD has aligned their educational approach to support a constructivist paradigm in pedagogy. The UN's vision of ESD to transform societies and cultures from within parallels the Pragmatic Social-Reconstruction Model for Visual Arts Education (Efland, 1990).

Table 2  
*Educational Shifts Proposed by ESD*

From	→	To
<ul style="list-style-type: none"> <li>• Passing on knowledge</li> <li>• Teaching attitudes and values</li> <li>• Seeing people as the problem</li> <li>• Behaving as expert – formal and authoritarian</li> <li>• Raising awareness</li> <li>• Changing behaviour</li> </ul>		<ul style="list-style-type: none"> <li>• Understanding and getting to the root of issues</li> <li>• Encouraging values clarification</li> <li>• Seeing people as facilitators of change</li> <li>• Acting as a partner – informal and egalitarian</li> <li>• Changing the mental models that influence decisions and actions</li> <li>• More focus on structural and institutional change</li> </ul>

Adapted from *Education for Sustainable Development: An Expert Review of Processes and Learning*, by D. Tilbury, 2011, p. 25.  
(Exception to copyright. Section: ss40, 103C. Exception: Research or study.)

### The Australian Context

ACARA is an independent authority responsible for developing a set of national education standards for all Australian schools. Those standards encompass curriculum development, assessment, data collection and reporting. Two key documents that were

integral to the design of the Australian Curriculum were the *Melbourne Declaration* and the *Shape of the Australian Curriculum* (ACARA, 2013b). The *Melbourne Declaration* provided the overarching goals for the future of Australian education (MCEETYA, 2008), while the *Shape of the Australian Curriculum* provided an in-depth explanation of how the Australian Curriculum would be applied (ACARA, 2013c). In the WA context, “the Australian Curriculum Pre-primary to Year 10 for English, mathematics, science and history and EYLF is endorsed and mandated curriculum for all students in Western Australia” (School Curriculum and Standards Authority, 2013, p. 5 [original emphasis]). Other subject areas, including Visual Arts, “will only be implemented once the curriculum is in a form that is suitable for WA schools and the achievement standards, work samples and judging standards support materials are fully developed” (School Curriculum and Standards Authority, 2013, p. 5).

At the start of the 2014 school year, WA schools were notified that the full implementation of the Australian Curriculum was postponed in that state until 2017 (P. Collier, personal communication, January 28, 2014). Nevertheless, the transition from the *WA Curriculum Framework* to the Australian Curriculum had already commenced with the *School Curriculum and Standards Authority* replacing the *WA Curriculum Framework* in 2012. Up-to-date information and access to curriculum, assessment and reporting is available for teachers through ministry directives and the WA Department of Education website (2014). In addition, at the start the 2014 academic year, WA had not fully implemented the Australian Curriculum’s Visual Arts learning area. However, the overarching outcomes of the *WA Curriculum Framework* had been phased out and the Australian Curriculum’s three cross-curriculum priorities, including Sustainability, were expected to be embedded into curriculum content where applicable (Department of Education, 2014).

The cross-curriculum priorities have been included in the Australian Curriculum to assist young Australians to become active and informed citizens and, according to Palmer (2011), their inclusion can be traced back directly to the *Melbourne Declaration*. The 2008 *Melbourne Declaration* builds on from the 1989 *Hobart Declaration* and the 1999 *Adelaide Declaration*. It claims to be a far broader overview, taking into account the unforeseen impacts globalisation and technological advancements have on social structures, unanticipated in the earlier declarations (MCEETYA, 2008). The *Melbourne Declaration* accepts the premise that schools are part of the wider fabric society by playing “a vital role in promoting the intellectual, physical, social, emotional, moral, spiritual and aesthetic development and wellbeing of young Australians” (MCEETYA, 2008, p. 5). It also acknowledges that schools

share with others in the community the responsibility of educating young Australians to become informed and responsible community members.

## Visual Arts Education

According to McNiff (1998), “Artistic knowing is different than intellectual knowing: this distinction is the basis of its creative value . . . and future significance for research” (p. 36). This section is a review of the current literature that supports McNiff’s claim, with a particular focus on how artistic knowing, through the Visual Arts in particular, can enhance learning for Sustainability. A number of disciplinary approaches can answer the same questions and issues raised in EfS. Similarly, EfS is a broad area of research, covered extensively in the literature. In this review, I have confined the scope of the literature review to address the Visual Arts as a mode of investigation to facilitate environmentally sustainable attitudes and behaviours in students. It begins with a review of the draft documents of the Australian Visual Arts Curriculum, followed with discussion on how others use the Visual Arts to facilitate sustainable attitudes and behaviours.

In this chapter, I discussed that in 2014 WA had not implemented the Australian Arts Curriculum fully. As part of the process, an extensive consultation and a review of the Australian Arts Curriculum occurred in 2012 (ACARA, 2013d). In its draft form, the review identified significantly more weaknesses than strengths. Positive feedback reported a greater emphasis placed towards fostering innovation, critical thinking and the imagination. Other positive feedback related to the emphasis placed on a cross-curricular approach to learning. However, the consultation process also revealed concerns relating “to perceptions of the Arts having a diminished place relative to other subjects in the Australian Curriculum. There was some concern about the Arts being ‘clumped together’, which for some respondents provided evidence of this supposed diminution of prominence” (p. 9).

The consultation report (ACARA, 2013d) provided ACARA with feedback on the suitability and relevance of each Arts subject area in relation to the broader application of the Arts for Foundation to Year 10 as part of generalist program in primary schools and a specialist program in secondary schools. The report identified a number of pertinent issues including the autonomy and flexibility schools had in delivering the Arts. The concern was the possibility that not all students would receive exposure to all five Arts learning areas and, in the worst-case scenario; some students would miss out entirely on one or more of the five Arts learning areas. The feedback also suggested that the link between the Arts and the cross-curriculum priorities were unclear, superficial and tokenistic. In reference to the curriculum

content, there was divided opinion between primary generalist teachers and secondary specialist teachers. Primary generalist teachers were concerned that there was too much content to manage reasonably, without adequate detail to support them. Whereas secondary specialist teachers considered the two strands, *Making* and *Responding*, too limiting, and that the content was too generic with the omission of specific art-based terminology for each art form (ACARA, 2013d). The feedback suggests that in its draft form, the Visual Arts Curriculum is too vague to support generalist teachers with limited Arts knowledge and low self-efficacy, and too ambiguous for secondary specialist teachers, who wish to deliver programs that make a distinction between and cater for the five unique Arts learning areas, which have been treated as one learning area.

An additional criticism not identified through the consultation process concerns the literature used to inform and plan the Visual Arts Curriculum. A comprehensive review of Australian Visual Education commissioned by the Australia Council and the federal government was one document used to inform the design of the Australian Visual Arts Curriculum (D. Davis, 2008). The purpose of the review was to “provide a long-term strategic vision for change to teaching practices – changes that will have far reaching effects into the next decades” (p. vi). The review included an overview of Visual Arts education in Australian schools, case studies of best practice and an in-depth analysis of art theory and Visual Arts pedagogy, including contemporary art practices and theory. The review identified four recommendations, all of which are relevant to this research:

1. the generalist classroom teacher would be responsible for delivering Visual Arts at the primary school level;
2. appropriate pre-service training in Visual Arts should be given to generalist primary teachers;
3. potential partnerships should be explored between schools and external organisations to contribute to Visual Arts education; and
4. resources should be devoted to Visual Arts education research.

In regard to Recommendation 4, the review identified a lack of national and international research of Visual Arts pedagogy in the classroom context. The review also identified a lack of data regarding current practice: “given the likely mismatch between what is the *status quo* and what is needed in terms of 21<sup>st</sup> Century skills, the issue of priorities in research must be addressed in creating a forward looking agenda for research (D. Davis, 2008, p. 214 [original emphasis]). The review substantiated Recommendation 4 by suggesting

resources should be “devoted to development and monitoring rather than documenting past practices and perceived points of tension” (D. Davis, 2008, p. 214).

Given that a national curriculum is being implemented to fulfil the goal of the *Melbourne Declaration* to provide a world-class curriculum relevant for the 21<sup>st</sup> century (ACARA, 2013b; MCEETYA, 2008; D. Davis, 2008), it appears that the literature ACARA has drawn on to overhaul the Visual Arts contradicts the recommendations of the Visual Arts Education Review. Many of the citations that populate the bibliography of the *Australian Visual Arts Curriculum Draft* document persist in revisiting past practice and reinforcing past points of tension that are no longer relevant to the Contemporary Arts debate. The Visual Arts bibliography is weighed down with citations of works published prior to 2005 (ACARA, 2011). Even so, it is reasonable to assume that ACARA would survey past curriculum documents, education policies and significant pedagogical sources for the purposes of curriculum development. Such an examination did take place in the Visual Education review (D. Davis, 2008), yet oddly enough, past curricula cited in a document designed to incorporate and implement current best teaching practice in Visual Arts education are absent in the *Australian Visual Arts Curriculum Draft* document (ACARA, 2013b). According to Rolling (2010), “Arts-based research becomes arts-based educational research, when it addresses the problem of shaping the curriculum” (p. 104). However, the dates of some of the articles in the reference list suggest that the literature shaping the Australian Visual Arts Curriculum comes from a postmodern lens of the 1980s and 1990s (Gray, 1996; Knowles & Cole, 2008; Prosser, 2013; Spenser, 2011; St. Pierre, 2012; 2013). Further, upon examining the reference list, I suggest the implications are more serious when the articles used to update curriculum documents do not reflect the shift to 21<sup>st</sup> century pedagogical practice. The lag between current practice and theory in both Visual Arts education and Contemporary Arts practice is evident and may affect classroom practice when out-dated practice and theory are presented as new, instead of in terms of how they can be adapted to meet present-day needs. Some examples include:

- dated arguments regarding feminism and patriarchal prejudices in the Arts are reinforced (Ashton, 2001);
- discussion concerning the legacy of past pedagogical approaches from the 1850s and post-World War I in the context of the 1980s classroom setting (Boughton, 1989);
- approach to the information revolution where the television is the most important agent of common culture (Duncum, 1997), despite the fact that the internet and

social media had been firmly entrenched in Australian culture by the release of the draft curriculum;

- *postmodernism* presented as up-to-date art theory, which is inappropriate as contemporary art theories and visual methodologies have moved beyond postmodernism (Gray, 1996; St. Pierre, 2013) (see Chapter 3); and
- Thomas' (2009) article that was current at the release of the draft curriculum yet whose premise is grounded in creativity theory from the 1960s–1980s.

The above examples support the argument that, in the 1990s, educational theorists had not yet fully begun to revise the Australian Arts Curriculum through the lens of Arts-based educational research (Slattery, cited in Rolling, 2010). The implications for WA teachers during the transition to the Australian Visual Arts Curriculum is that both it and the *WA Curriculum Framework*, introduced in the 1990s, share postmodern influences. The change means the same postmodern rationale that informed WA teachers in the 1990s are repackaged in the new document. Teachers will still have to plan for Dance, Drama, Media Arts, Music and Visual Arts; however, the four Arts Learning Outcomes of the *WA Curriculum Framework* have collapsed into two overarching outcomes, *Making* and *Responding*. Making refers to creating, making and presenting artworks that communicate meaning to audiences, which parallels Arts Ideas and Arts Skills and Processes in the *WA Curriculum Framework*. Responding refers to students' responses to the Arts, be it their own or others, where students are encouraged to use appropriate art-based terminology and respond to artworks in a variety of ways, rather than exclusively relying on written or verbal responses. In the Australian Curriculum, the cultural aspects of the Arts have broadened the cultural context, especially with increased Indigenous and Asian focus through cross-curriculum priorities (ACARA, 2013d; Curriculum Council, 1998).

Therefore, in its draft form, the Australian Arts Curriculum (as it appears in the new documents) is comparable to the *WA Curriculum Framework*. This suggests that WA teachers may not experience major disruptions due to the transition (Andrich, 2009), which is under the proviso that the Australian Arts Curriculum remains in its current state following the proposed review announced in 2014.

## **Promoting Sustainable Attitudes and Behaviours through the Arts**

The aim of EfS is to generate long-lasting and meaningful change in sustainable behaviour (ACARA, 2013a; ARIES, 2004–2012; MCEETYA, 2008; Tilbury, 2011; UNESCO, 1978; 2002). Researchers' initial assumptions were that if people were given information that linked

their actions with environmental damage, they would start making changes. Instead, researchers found initiatives that target the 'low-hanging fruit' – namely, 'simple and painless' behavioural changes, such as using energy-efficient light bulbs or reusing plastic bags – did not necessarily lead to more meaningful changes, because some people felt as if those superficial actions were enough (Corner, 2012).

Targeting individual activities such as turning off lights may not be as effective as developing strategy that "engages with people at a deeper level than single behaviours, and gives thought to how people's personal values and social identities shape a wide range of behaviours" (Corner, 2012, p. 13). The widely accepted view in both the private and public sectors is reducing energy consumption is a key strategy to reduce carbon emissions. Therefore, strong links between sustainable behaviours, legislative action and technological innovation need to be upheld to be effective. According to Corner, "Unless people can identify with and understand climate change and sustainability at a personal level, those political and technological shifts will never happen" (p. 14). This premise is in line with the environmental values and Goals espoused for Australian education (ACARA, 2013b; ARIES, 2004-2012; Curriculum Council, 1998; MCEETYA, 2008).

One way to establish the personal links is to facilitate sustainable attitudes and behaviours through the Arts. In this section, I narrow the scope of the discussion specifically to EfS through the Visual Arts. There are two separate pedagogical approaches that support EfS, and though they are not necessarily in opposition to one another, they do demonstrate different pedagogical positions. The first approach is the Arts-based method, where the Visual Arts is the medium used to illustrate student understanding of ecological issues (Inwood, 2010; Stathopoulou, Bolieraki, & Maravelaki, 2008). The second is an object-centred inquiry, which allows the student to cultivate a relationship with materials, be it natural materials or found objects (Walker, 2001), or REmida materials (Eckhoff & Spearman, 2009; Giacomini & Ferrari, 2005; Lantz-Helm & Parnell, 2010). The focus of my research centres on the pedagogical approaches identified in the second example.

### **REmida**

Teachers often collect a variety of domestic materials and packaging, such as egg cartons, bottle tops and cardboard boxes, as resources for experiential classroom activities. The practice is not new. An alternative approach would be to reuse materials that would otherwise be bound for landfill. REmida advocates the creative reuse of REmida materials as a means to promote environmentally sustainable attitudes and behaviours. Further, the discarded materials provide students with opportunities for exploration and experimentation

with exotic open-ended materials (Eckhoff & Spearman, 2009; Eskesen, 2006; 2006/07; Hobba, 2006; Pettersen, 2007). Although REmida is a collection centre for industrial off-cuts, discarded materials, seconds and unsold stock, it has become more than just that, because as a subsidiary of Reggio Children, Reggio pedagogy influences it. Originally established to support the learning experiences of children in Reggio Emilia, REmida has grown to become an international network located in a number of local communities, including Perth, WA. Creative reuse underpins REmida's philosophy and their approach to materials is immersive. The point of difference between this organisation and other creative reuse centres is that REmida principally sources materials for their aesthetic appeal and creative potential. This translates to how they display their materials (see Figure 5), in that they exhibit materials with an aesthetic sensibility to create respect and pique interest (Burke, 2006; Eckhoff & Spearman, 2009; Gandini & Kaminsky, 2005; Giacomini & Ferrari, 2005). Even though REmida's roots are in the context of early childhood education, their services and events extend to the general community, to educate for a sustainable future. They aim to support communities to understand problems associated with the full extent of the production process; develop greater awareness of society's impact on the environment; and in turn find creative ways and opportunities to reduce waste (ArtsEdge, n.d.; Giacomini & Ferrari, 2005; Vecchi, 2010). In other words, engaging with discarded materials is a proactive way to raise the level of environmental consciousness.

There is paucity in the literature, in English, pertaining to REmida. This is problematic in terms of the role REmida materials play in raising environmental consciousness. There is a lack of evidence to suggest that REmida or REmida materials are agents of change, either to support students to recognise their environmental impact or to facilitate sustainable behaviours. Instead, the literature provides anecdotal evidence (Burke, 2006; Eskesen, 2006) suggesting REmida materials provide students with opportunities for problem solving and decision making. Most literature focuses on the foundation of REMIDA RE and its commitment to supply interesting and unusual industrial discards and resources for young children. In general, the literature is non-academic and found via the internet. It is limited to a narrow application of self-promotion to the wider community through websites ([remida.randers.dk](http://remida.randers.dk); [www.remidawa.com](http://www.remidawa.com); <http://zerosei.comune.re.it/inter/remida.htm>) and media releases (Pollock, 2012; REmida's touch turns waste to gold, 2005). Journal articles, including those from academic journals, directly target early childhood educators and characteristically include reflections of children's learning experiences through photographic essays and transcripts of conversations. The conversations of both adults and children are treated with equal importance, which is in keeping with the Reggio philosophy. Dialogues are commonly used to

highlight the reflective process (Eskenen, 2006/07; Gandini & Kaminsky, 2005; Giacomini & Ferrari, 2005; McAuliffe, 2005; Pettersen, 2007).

Paradoxically, even though REMida's literature makes reference to their Reggio roots and credit Reggio for their philosophical foundations, Reggio's literature does not give REMida the same attention. *The Hundred Languages of Children* (Edwards et al., 2012) and *Art and Creativity in Reggio Emilia* (Vecchi, 2010) are seminal publications, yet both mention REMida only in passing. Edwards et al. (2012) refer to REMida in one sentence as a support mechanism for infant-toddler or preschool educators, whereas Vecchi (2010) devotes one paragraph, describing it as a resource centre where she has "seen trolleys usually seen in supermarkets filled up by teachers (as always many women), enthusiastic at the idea of different materials from the usual ones in their schools and attempting unusual and fun approaches with children" (p. 77). In addition, Vecchi's succinct explanation of REMida's aims, "to diffuse and support wider understanding of problems connected to the entire production process, from design and planning to waste disposal and reuse; education for a sustainable future" (p. 77), does not expand on REMida's philosophy, goals and pedagogical approach. An extensive review of the literature does not explain the disparity between the two organisations; further research would need to be carried out to ascertain the reasons, which is beyond the scope of this research.

The established description of the REMida organisation, often repeated in the literature, is:

[REMida] is a cultural project that represents an optimistic and proactive way to approach environmentalism and to build and change through giving value to imperfect products and otherwise worthless objects, with the aim to generate new opportunities for communication and creativity, all within a perspective of respect for objects and the environment. (Giacomini & Ferrari, 2005, p. 9)

The term 'cultural project' was first used in English-language publications originating from Italy (Giacomini & Ferrari, 2005; Reggio Children, n.d.; Remida, n.d.) and was subsequently repeated in non-Italian based literature, (Burke, 2006; Eskenen, 2006/07; Pettersen, 2007). However, there is no further elaboration of what a "cultural project" means outside Italy, suggesting that this term is an obscure ideal that is not fully understood beyond the Italian cultural context. The literature also alludes to REMida's philosophy, without explicit explanation or discussion – suggesting educators' tacit knowledge may be inadequate for anyone requiring a deeper understanding of the fundamental principles guiding the organisation's philosophy. The exception to the rule comes from McAuliffe's (2003) undergraduate research. McAuliffe's comprehensive knowledge of what it means to be

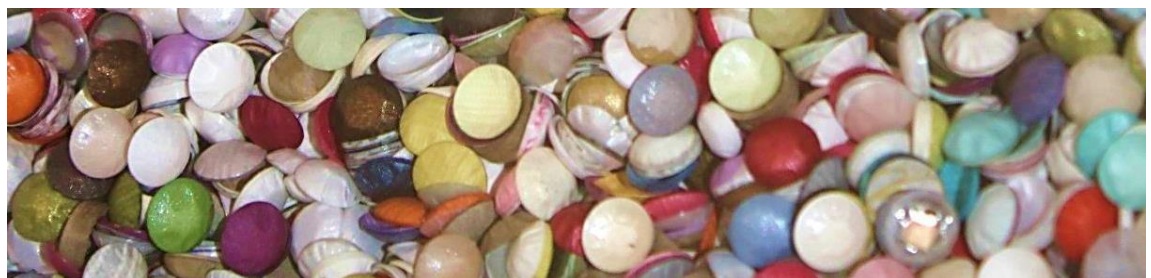
REmida developed from her role as the inaugural coordinator of REmida WA and from professional learning in Reggio Emilia (Institute for Sustainability and Technology Policy [ISTP], 2003). According to McAuliffe (cited in ISTP, 2003), the “cultural project” refers to REmida’s objective to relocate from the narrow confines of the classroom context and into the public arena. Widespread civic support and social engagement conveys “to younger generations that they are appreciated as active members of the wider community outside their family and school with valuable creative potential to contribute” (p. 16).

In addition, McAuliffe’s (ISTP, 2003) research provides a theoretical grounding for REmida that appears to be absent from the literature; that is, the education theory that links REMIDA with the Reggio Approach. McAuliffe discusses shared social constructivist foundations informed by education theorists including Dewey, Vygotsky, Piaget, and Bruner. Though they had different perspectives (see Chapter 3), each theorist believed children’s education should be child-centred. Loris Malaguzzi’s contribution to the foundation of the Reggio Approach is well documented in the literature. He was able to consolidate social constructivist theories and use them to formulate the Reggio Approach (Edwards et al., 2012; Gandini et al., 2004; Vecchi, 2010) also in the present in the WA context (REmida’s touch turns waste to gold, 2005).

As a means to ascertain REmida’s philosophy, one must look towards the literature in relation to the Reggio Approach, especially the role the *atelier* and the *atelierista* plays in pedagogy. Although McAuliffe’s (2003) research contributes to the knowledge, as unpublished research it is not readily accessible. She identified a set of principles REmida responded to in regard to educating for sustainable practices, explained in full in *Caring for the Earth: A Strategy for Sustainable Living* (1991). Recommendations included changing personal practices and behaviours to live within the Earth’s capacity and showing respect for all life. Whereas REmida has an implied philosophy (Gandini & Kaminsky, 2005) that is obscure, consequently, I identified a set of REmida guidelines (see Chapter 4) located in a dated interview with key members of REMIDA RE (Gandini & Kaminsky, 2005), which I followed during phases One and Two.

An extensive search of the related literature supports the unofficial REmida Guidelines (Gandini & Kaminsky, 2005), and McAuliffe’s (2003) undergraduate research provided the most information in regard to REmida’s philosophical foundations. Through the limited literature available, I found REmida’s philosophy is to instil respect for the environment through the creative reuse of discarded materials. This is supported by personal experience and my involvement in REmida WA, which I discuss in Chapter 5. On a final note, further

investigation of the operations of all REmida centres is necessary to define a shared understanding of REmida's philosophy that could be used to inform any future research involving the REmida network or individual centres.



*Figure 5. Sue Girak, The Small Room [Photographs]. REmida WA, Prospect Place, West Perth. The materials displayed in this room are, as the name suggests, small. The Big Room houses larger items.*

## Chapter Summary

In brief, this literature review has shown that EfS is a complex and multifaceted area of research. Having evolved out of the modern environmental movement during the 1960s, it continues to respond to external forces including the UN and the IPCC and, in the Australian context, through the values espoused in the 2008 *Melbourne Declaration* and political ideology. Scientific research informs UN environmental policies and Sustainability has been on their agenda for decades through the formation of the UNEP in the early 1970s. The UN's initial priority was to improve food, air, water and soil quality to advance human health and wellbeing. It has since moved to finding ways to limit or adapt climate change through initiatives including the Kyoto Protocol. In this chapter, I also discussed the implications the environmental movement has for the 21<sup>st</sup> century, with a particular focus on the Australian context. From an Australian perspective, the research identified that the public's attitude towards climate change, since the turn of 21<sup>st</sup> century, does not correspond with government policies. There is a growing disconnect between the action the Australian public expect from their political and industry leaders, and what government is prepared to put in place to mitigate climate change (The Climate Institute, 2007; 2010; 2013). In regard to education, the UN recognises the role education plays in empowering people to make transformational change. Through the DESD, multidimensional educational initiatives at international, national and local levels are underway. In the WA context, the *WA Curriculum Framework's* environmental values are comparable to Sustainability in the Australian Curriculum. While it is possible to teach Sustainability through the Arts, including Visual Arts, in response to the draft curriculum, the feedback suggests that the link between the Arts and the cross-curriculum priorities were unclear, superficial and tokenistic. Yet, teaching Sustainability through the Visual Arts need not be tokenistic. Since the aim of EfS is to generate meaningful change towards sustainability, organisations such as REmida offer services to provide such opportunities. At this stage, REmida's immersive approach to discarded materials as a strategy to encourage sustainable behaviours is unsubstantiated by a review of the literature.

In the following chapter, I present the grounds for engaging research methods that employ visual modalities to raise environmental consciousness. Framed within an interpretative inquiry and informed by constructivist epistemology, I identify Pragmatic Social-Reconstructionism (Efland, 1990) as my theoretical framework and a/r/tography as my methodology, which lays the foundation for a *bricolage* of methods supporting classroom-based and studio-based research.



3

theoretical framework  
and methodology

In this chapter, I discuss the theoretical framework and methodology informing this research. Figure 6 illustrates how I have situated a constructivist epistemology in an interpretative inquiry, and Pragmatic Social-Reconstructionism (Efland, 1990) provides the ontological context. Regarding my methodological choices, I position my research within visual research methodology and justify my choice by presenting a comparative analysis of research paradigms. My research is a *bricolage* of methods and I draw from qualitative and APLR methodologies and apply appropriate methods purposefully. In addition, I clarify the distinction between Arts-based research and practice-led research and introduce the term *Materials-led Inquiry* to narrow the focus of my research. The chapter culminates in a discussion on a/r/tography, where I explain relevance of this methodological choice for my multifaceted research.

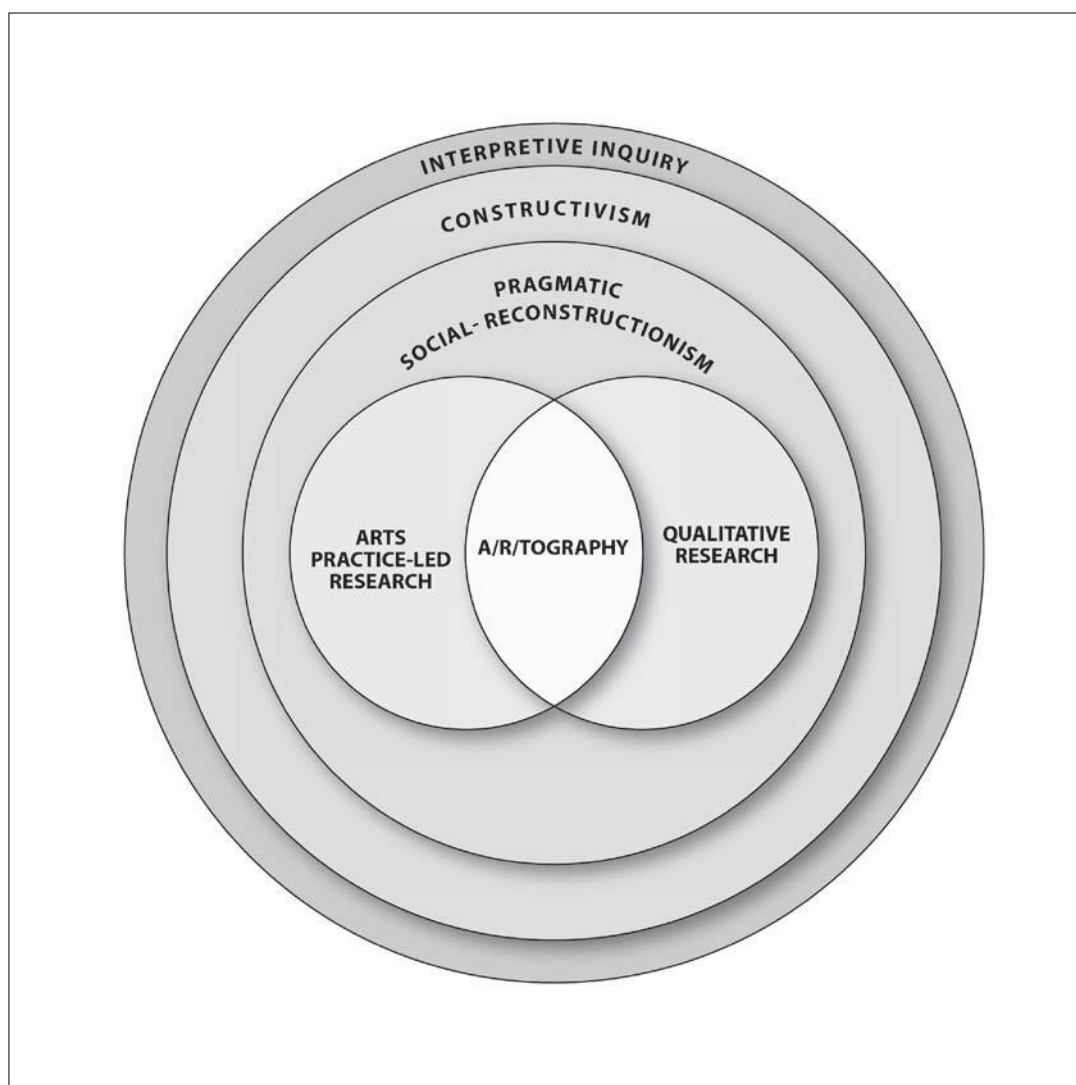


Figure 6. A conceptual model, illustrating the theoretical framework underpinning this research. Designer: Phil de Glanville.

## Interpretative Inquiry

This research is an interpretive study drawing on constructivist pre-suppositions.

*Creative Reuse: How Rescued Materials Transformed my A/r/tographic Practice* is transdisciplinary, borrowing heavily from qualitative and visual participatory research methodologies. Consequently, the research lends itself to an element of personal interpretation when the methodologies amalgamate. The interpretive paradigm is “a way of seeing both reality and knowledge as constructed and reproduced through communication, interaction, and practice” (Tracy, 2013, p. 62). It is not designed to identify key concepts before the research process has begun; rather, it is emergent and as such allows the researcher to develop a sense of *situated knowledge*. Situated knowledge recognises the context of knowledge production. From a feminist perspective, *knowledge* needs to be repositioned so that all forms of knowledge are taken into account to determine what is legitimate (Haraway, 1991). However, situated knowledge is not exclusive to feminism, as it is applicable to subjective research methodologies. The growth of non-traditional methodologies since the 1970s – linked to the dissatisfaction with the dominant view of Eurocentric, male-dominated, quantitative research – opened up new avenues of research (Eisner, 1997). Qualitative and Arts-based methodologies “broaden and complement traditional ways of thinking about doing educational research” (Eisner, 1997, p. 259). The scientific paradigm, has been the dominant ideological doctrine since the mid-17<sup>th</sup> century, at the expense of *contingent knowledge* or situated knowledge, where the marginalised are disempowered and disembodied from the bias towards the doctrine of objectivity (Eisner, 1997; Haraway, 1991). However, since the 1990s, the tensions regarding situated knowledge have dissipated. Participatory research – including APLR, a/r/tography and *new materialism*, which rely on the situated and embodied knowledge to inform the research – are no longer marginal and relies on situated knowledge to inform the research and the researcher (Barrett & Bolt, 2010; 2013; P. Carter, 2004; Haseman, 2010; La Jevic & Springgay, 2008; Sullivan, 2010). This is the position I take in my research, where as an a/r/tographer my knowledge is constructed from lived experience (Merleau-Ponty, 1962; Schwartz-Shea & Yanow, 2012); that is, experience that occurs through process, planning and reflexivity in either the studio or classroom.

Interpretative inquiry “sees humans as agents who act with others in a social and cultural context. Within this perspective, our understanding of humans cannot be separated from their social and cultural world and that is always in process” (Morehouse, 2012, p. 22). The inquirer’s worldview is integral to the construction of meaning, where “there is no single interpretative truth” (Denzin & Lincoln, 2008, p. 35). Truth from this perspective is layered,

continually building on a construct of multiple realities. APLR lends itself to interpretive inquiry, driven by research that engages in subjective, emergent and transdisciplinary approaches (Barrett & Bolt, 2010). In this type of research, the APLR researcher is not disembodied from the research experience. Rather, one is motivated by value systems and lived experience; these are integral to the process and become subjective measures for evaluating criteria (Denzin & Lincoln, 2008; Greene, 2000; Merleau-Ponty, 1962; Morehouse, 2012). Through a/r/tography, I set out in search of the layers of my 'truth', per se. I paid attention to personal interpretations and understandings to gain insights through process and reflection, while exploring my creative practice and engaging in exegetical writing (see Chapter 5).

## Constructivism

In this research, interpretative inquiry lends itself to a constructivist position. The constructivist paradigm examines the nature of knowledge and learning and reflects the theoretical perspective of the individual. However, within the literature, the terms *constructivism* and *social constructionism* have been used interchangeably. To complicate matters further, the discussion pertaining to constructivism is general, without bringing attention to the subtle differences that comprise the constructivist epistemology, including *pragmatic constructivism*, *radical constructivism* and *social constructivism* (Niaz, 2008). In as much as constructivism and social constructionism share common elements, there are distinctions (Young & Collin, 2004), which are addressed for the purposes of this research.

The common premise of all constructivist theories is that individuals construct their own understandings of truth from past experience. Shared events do not equate with shared experience or mutual understandings because responses are subjective, based on personal interpretations (Merleau-Ponty, 1962). "Constructivists acknowledge that their interpretation of the studied phenomenon is itself a construction" (Bryant & Charmaz, 2007, p. 607), including a researcher's approach and response to the research process. On the other hand, the basic tenet of social constructionism is that there is a communal view of knowledge making and meaning, where knowledge is a socially constructed phenomenon. There are shared understandings of rules and conventions, and to abandon those practices renders them incomprehensible. Within the qualitative research tradition, social constructionism privileges the shared worldview over subjective individual conceptualisations (Greene, 2000; Gergen & Gergen, 2008; Koro-Ljunberg, Yendol-Hoppey, Smith, & Hayes, 2009).

My research goes beyond an either/or choice of epistemological preferences. While I accept that one must have an intimate understanding of social conventions and traditions to

be able to function effectively within a given society, social constructionism is not the focus of this research nor is social constructivism. Nevertheless, I recognise the social constructivist foundations of the REmida and Reggio pedagogy and draw on social constructivists such as Vygotsky and Bruner to inform my research. However, this research has moved beyond the early childhood context (REmida's original context) to examine how the process of artmaking can function as a mode of embodied knowledge production. Phase One leans towards a radical constructivist position where situated knowledge is central to the learning process of upper primary students. In Phase Two, the radical constructivist link is found in new materialism, a constructivist approach to knowledge production through materials and materiality, where sensory and emotional understanding constitutes situated knowledge.

## **Constructivist Pedagogy**

Constructivist ideas originated with Vico in the 18<sup>th</sup> century (von Glasersfeld, 1995); however, Piaget was the first to take a developmental approach (Reich, 2009). Essentially, constructivist pedagogy, centred on school-aged children, is grounded in 20<sup>th</sup>-century developmental psychology and education theory from Western Europe and Russia. At the turn of the 21<sup>st</sup> century, constructivist theory has become the dominant epistemology of Western pedagogy, in particular among the English-speaking audience (R. Fox, 2001). Regrettably, complications arise from poor or literal translations of works into English. The social constructivist theories of Piaget and Vygotsky's *zone of proximal development* (ZPD) have had a tremendous influence on the Western teaching tradition. However, flawed translations and superficial articulations, accepted without question, do not take into account cultural or historical contexts of the original texts. Consequently, educators perpetuate incomplete, misleading guiding-myths in developmental psychology and education theory (R. Fox, 2001).

In the 1970s, there was a revival of constructivist philosophies, and *stage theory*, in particular, began to resonate with educators (Elkind, 1974; von Glasersfeld, 1995). Stage theory describes children's understanding of the world as biological, and there are systematic cognitive changes that occur as children develop (Wadsworth, 1971). A specific example relates to Piaget's theory of cognitive development. Von Glasersfeld (1995) claimed the teaching fraternity has latched onto Piaget's earlier research on cognitive development while overlooking later research. For example, a common misunderstanding that has become entrenched among educators is that children move evenly through a continuum as they mature. However, Piaget's later work (cited in von Glasersfeld, 1995) contradicts his earlier research. What Piaget subsequently discovered was that children do not move evenly through cognitive stages: while they may exhibit *formal operations* in one context, they may not in

other contexts. Piaget's work has helped shape constructivist pedagogy by maintaining that cognitive development is an individual phenomenon and context-dependent (von Glasersfeld, 1995). Piaget's finding is relevant to this research in regard to the lived experience as a fundamental element of knowledge construction in Visual Arts education.

The theories expressed in the works of Vygotsky (Kozulin et al., 2003; Vygotsky, 1978), Bruner (Takaya, 2008; Wood et al., 2006), von Glasersfeld (Lombardi, 2005; 1995) and Dewey (1934; 1956) (see following section) also inform this research, in particular, the importance of experiential, open-ended, process-led activities for children's learning and development. In addition, they support the essential role that teachers play to facilitate learning (Dewey, 1956; Kozulin et al., 2003; Lombardi, 2005; Takaya, 2008; Vygotsky, 1978). To begin with, Vygotsky's 1930s ground breaking theory, ZPD, explored children's capabilities and development from a social constructivist perspective. ZPD can be defined as *"the distance between the actual developmental level as determined by independent problem solving and the level of the potential development as determined through problem solving under adult guidance or in collaboration with more capable peers"* (Vygotsky, 1978, p. 86 [original emphasis]). Vygotsky challenged Piaget's position that "development and maturation is viewed as a precondition of learning but never the result of it" (p. 80), while maintaining that human cognitive development was a "social and cultural phenomena rather than an individual phenomena" (cited in Kozulin et al., 2003, p. 1). Although Western educators have embraced ZPD with enthusiasm, it is important to understand the role that context in ZPD plays in Vygotsky's theory of child development. Contrary to popular belief, ZPD is not a tool to support task acquisition. Instead, it is a marker to determine periods of transition in conceptual development as children mature. Further, it acknowledges that teachers play an important role in supporting children to stimulate their internal process to move from their current 'age period' to the next (Kozulin et al., 2003).

Scaffolding is an extension of ZPD, and one of a number of theories with which Bruner was instrumental in influencing educational theory and practice. It is a task-orientated process assisting a novice (or child) to solve problems, carry out tasks and/or achieve goals that would normally be beyond the novice's capabilities. The role of the expert (or adult) in scaffolding is to support the novice by providing opportunities to focus on certain elements of the task that the novice can achieve independently. At the same time, the expert is in command of the more difficult elements of the task. With planned expert intervention, this process has the potential to enable the novice to achieve far more than otherwise would result if working without assistance (Wood et al., 2006). Scaffolding activities (an essential component of

Phase One) allow students the opportunity to become active participants in their learning by building upon and reflecting on past experience. Programs designed to support and facilitate learning develop interactive inquiry skills as students begin to see themselves as reflective inquirers and authentic participants engaged in meaningful experiences (Splitter, 2009).

Von Glasersfeld's (1995) *radical constructivism*, another branch of constructivist theory, "is a way of thinking about knowledge and the act of knowing" (p. 14). Radical constructivism lays out two basic principles: "knowledge is not passively received but built up by the cognizing subject; and the function of cognition is adaptive and serves the organization of the experiential world, not the discovery of ontological reality" (p. 18). Process-based programs provide hands-on learning opportunities. In essence, it does not matter what is taught, what matters is that the instructional approach is learner-centred and process-led. Therefore, radical constructivism is an appropriate approach for Visual Arts education.

From a radical constructivist perspective, knowledge is not a commodity for teachers to impose on to passive students. Part of the learning process requires students to take an active role in building their own knowledge and to have the autonomy to apply it within their own context. This may leave some teachers feeling vulnerable by not having direct control of student outcomes. When teachers experience low self-efficacy in a subject, they tend to become risk adverse (von Glasersfeld, 1995). This has implications for WA primary generalist teachers because Primary Art Specialist education programs were phasing out as the *WA Curriculum Framework* was phased in. As a result, Visual Arts became the responsibility of generalist teachers (Dinham, 2007). A significant decline in Visual Arts instruction time within teacher education courses influences pre-service teachers' self-efficacy due to "time constraints within the teacher education course limit Arts instruction. In-depth instruction required for mastery can only occur if appropriate time allocation is given to develop this knowledge" (Lummis, Morris, & Paolino, 2014, p. 61). Considering the research (Dinham, 2007; Lummis et al., 2014), there may be ongoing implications for WA generalist teachers. For example, insecure teachers may steer students towards situations where learning fits within the teacher's own understanding, instead of being student-centred. On the other hand, if teachers are receptive to process-led learning, then the learning process becomes a reciprocal process where teachers have the opportunity to learn from their students and *vice versa* (von Glasersfeld, 1995, cited in Lombardi, 2005).

P. Carter (2004) stated, "The process of making the work becomes inseparable from what is produced" (p. 11). The product P. Carter refers to is not necessarily a physical object. It may be something intangible, such as the embodiment of an abstract idea through *material*

*thinking*. The art process may also lead to the disruption of established values and beliefs or allow new understandings to emerge. In that vein, material thinking corresponds with the way constructivist epistemology informs classroom practice and informs this research. I explored the reciprocal relationship between the artist-teacher and students (Phase One), followed by the dialogue between the maker and the materials (Phase Two).

Material thinking (2004) is fundamental for an artist's (child or adult) knowledge acquisition. Meaning making through materiality and material experience is "derived from an impulse to handle objects and to think and *feel* through their handling" (Barrett, 2013, p. 64 [original emphasis]). The concept of *handling* is supported by the constructivist epistemological perspective that explores meaning making from the individual's lived experience (Merleau-Ponty, 1962; Young & Collin, 2004). Material experience "is integral to the creation and resolution of work as well as the nature of what and how the work communicates to others" (Dinham, et al., 2007, p. 81). In this research, I substitute 'handling' (Barrett, 2013) and 'material experience' (Dinham, et al., 2007) with *dialogue*. The dialogue that occurs between materials and the maker is more than the physical engagement with materials: it is the embodied conversation that accompanies handling discarded materials and is in keeping with REmida's philosophy of creative reuse (Gandini & Kaminsky, 2005).

Undeniably, social constructivists have a valid argument for the place social interaction has in cognitive development and knowledge building, since learning does not come about in isolation. People make sense of events and phenomena through cultural traditions (Kozulin et al., 2003). However, this research is not a debate between individualism and collectivism:

Individuals are not mere receptacles of facts, nor is culture a mere collection of unambiguous and immutable facts; individuals construct meanings and culture is always in the process of change. Education is a process of negotiation between the individual and culture. (Bruner, cited Takaya, 2008, p. 4)

Undoubtedly, social interaction with peers and teachers allows students to reflect, refine and articulate their cultural understandings, and is an important component of process-based learning (von Glasersfeld, cited in Lombardi, 2005). However, this research is not limited to social constructivist pedagogy; it is concerned with personal shifts resulting from the artmaking process in students and myself. Radical constructivism provides the link between the personal shifts that arise in the classroom and the art studio as artists construct knowledge and meaning through APLR (Barrett & Bolt, 2010; Sullivan, 2010).

In short, the educational constructivist theories developed by Piaget (cited in von Glasersfeld, 1995), Vygotsky (Kozulin et al., 2003; Vygotsky, 1978), Bruner (Takaya, 2008;

Wood et al., 2006) and von Glasersfeld (Lombardi, 2005; 1995) have made a significant impact on Western pedagogy. The fluidity and transdisciplinary nature of constructivism stimulates reflexivity. Opposing theories need not be viewed as being mutually exclusive; rather, they can be brought together and examined in today's context to develop a personalised working knowledge of constructive pedagogy, designed to accommodate needs within an educator's teaching context (Elkind, 1974; R. Fox, 2001; Kozulin et al., 2003; Takaya, 2008; Wadsworth, 1971; Wood et al., 2006; von Glasersfeld, 1995). This practice may appear to be 'cherry picking' (von Glasersfeld, 1995), yet it enables educators to focus on the ideas that best meet their needs. Even though language and cultural misinterpretations may bring about superficial understandings, these initial misconceptions may become the platform for new and meaningful constructivist understandings, specifically reconstructed and adapted to apply to the Australian Curriculum.

## **Pragmatic Social-Reconstruction**

In *My Pedagogic Creed*, Dewey (1929) recognised that the future is unpredictable and the only way teachers may prepare a student to cope with unforeseen circumstances is "to give him command of himself; it means so to train him that he will have the full and ready use of all of his capacities" (p. 5). Efland (1990) drew parallels with Dewey through Pragmatic Social-Reconstructionism, a Visual Arts education model developed to encourage social reform through the curriculum. Pragmatic Social-Reconstructionism is a proactive approach that enables students to make sense of their world, offering practical ways to initiate behavioural and social change. A subjective understanding of curriculum documents, aesthetics theory and pedagogy influences how teachers present and deliver their programs to their students. For example, Australians promote and reflect society's core values through education. The particular relevance this has to my research relates to how creative reuse challenges underlying beliefs and assumptions regarding environmental sustainability.

Efland (1990) identified four major pedagogical models that significantly influenced Visual Arts education during the 20<sup>th</sup> century, and are still relevant in the 21<sup>st</sup> century (see Tables 3 and 4). The four models are:

- Mimetic-Behavioural Model;
- Pragmatic-Social Reconstruction Model;
- Expressive-Psychoanalytical Model; and
- Formalist-Cognitive Model.

Table 3

*Relations between Aesthetics, Learning Theories and Their Implied Ideologies*

<b>Aesthetic Theory</b>	<b>Learning Theory</b>	<b>Implied Ideology</b>
<b>Mimetic</b> Art is imitation	<b>Behaviourism</b> Learning is by imitation	Traditional morality: social control
<b>Pragmatic</b> Art is instrumental	Learning is instrumental	Social reconstruction
<b>Expressive</b> Art is self-expression	<b>Psychoanalytic</b> Learning is emotional growth	Personal liberation
<b>Formalist</b> Art is formal order	<b>Cognitive</b> Learning is concept attainment	Technocratic control by experts

Source: "Change on the Conceptions of Art Teaching", by A.R. Efland, 1990, *Australian Art Education*, 14 (3), p. 13.

(Exception to copyright. Section: ss40, 103C. Exception: Research or study.)

Table 4

*Pragmatic Social-Reconstruction Model*

<b>Components of Pragmatic Aesthetics</b>	<b>Components of Social Reconstruction Educational Theories</b>	<b>Prescriptions for Art Education</b>
<b>Nature of Art</b> Art is an object that provides aesthetic experience and has instrumental value	<b>Nature of Knowledge</b> Knowledge is experience that has instrumental value	<b>Content</b> Is expressed in the terms of problem situations
<b>Creative Process</b> Reconstruction of experience by giving it artistic form	<b>Nature of Teaching</b> Uses problem situations to enable students to transact with their environment	<b>Teaching Methods</b> Poses problems to be solved, helps students identify resources to solve problems
<b>Response to Art</b> Reconstruction of experience through transactions with works of art	<b>Nature of Learning</b> Reconstruction of knowledge through transactions with the environment	<b>Student Activities</b> Students work on artistic problems in the home, school, and community
<b>Value of Art</b> Emerges through transactions with works of art, criterion is instrumental value	<b>Value of Education</b> Emerges through transactions with experience, criterion is instrumental value	<b>Evaluation of Learning</b> Students and teachers determine instrumental value of aesthetic solutions to problems

Source: "Change on the Conceptions of Art Teaching," by A. R. Efland, 1990, *Australian Art Education*, 14(3), p. 5.

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Of the four models outlined, the Pragmatic-Social Reconstruction Model (see Table 3) is the most applicable to this research because it combines two complementary theories in aesthetics and pedagogy to provide a process-led approach to the Visual Arts Curriculum. Efland (1990) demonstrated how elements from Pragmatic Aesthetics and Social Reconstruction theories could apply to a Visual Arts education context. He recognised the similarities between his model and Dewey's (1970) observations of how artists operate. Dewey argued that schools played a pivotal part in the reconstruction process and identified four steps that may facilitate social reconstruction. These are:

1. Direct experience – the teacher provides a stimulating environment and opportunities for students to learn.
2. Refine experience – the teacher provides students with opportunities for reflection as a means to seek new understandings. The teacher's presence is important to facilitate reflection because in an unstructured environment the students' opportunities are limited.
3. Simplify experience – the teacher modifies the curriculum to break down and organise the experience into chunks.
4. Link the activity to the student's context – when actively engaged, participating students might transform their thinking and/or behaviour.

### **Applying the Pragmatic Social-Reconstruction Model to the Australian Context**

Pragmatic Social-Reconstructionism is as pertinent today in Australia as it was when it was first developed in the US during the 1930s. Significant events that have occurred during the past decade – including but not limited to the GFC, the exponential growth of information and communication technologies, and extreme climatic events – have had a global impact on the economy (Brimble, Stewart, & de Zwaan, 2010; Reck, 2008). Despite the fact that, post-GFC, Australia was in a better position than other major developed nations, many Australians (outside the mining sector) shared perceptions of global economic insecurity (Mazzarol, 2011).

These global concerns, during and post-GFC, measure up against the anxiety and collective angst experienced during the Great Depression of the 1930s (Taylor, 2009). One response from the Australian Government has been to extensively review and revise the education system by nationalising it (ACARA, 2011; Gonski, et al., 2011). Their purpose is to increase the quality of Australian schooling through curriculum and funding changes, in order

to foster “the development of creative, informed and resilient citizens who are able to participate fully in a dynamic and globalised world” (Gonski, et al., 2011, p. xiii).

Pragmatic Social-Reconstructionism is a framework that allows educators to teach a curriculum that is relevant and responsive to societal change as a method to support students’ needs.

In relation to the Australian context and in particular to this research, the nature of Pragmatic Social-Reconstructionism is to construct new knowledge through Visual Arts to initiate social change. According to Hughes (1991), artists respond to, react to and challenge social norms through their art, and he cited numerous examples in *The Shock of the New*. Since there is greater emphasis on embedding Sustainability education into the Australian Curriculum (ACARA, 2011), Pragmatic Social-Reconstructionism provides students the measures to follow artists’ examples. The following international, national and local sustainability initiatives – the DESD, the *Melbourne* Declaration, ARIES, the Australian Curriculum and REmida’s philosophy – all of which advocate for the transformative power of education, inform this research.

Briefly, in this section, I have discussed the theoretical framework informing my research. *Creative Reuse: How Rescued Materials Transformed my A/r/tographic Practice* lends itself to an interpretative approach. I have defended my ontological position of radical constructivism by identifying the distinction between social constructionist and the diversity of constructivist theories. In addition, I have discussed the relevance of Pragmatic Social- Reconstructionism to this research.

# Methodology

In this section, I discuss how I have positioned my research within a Visual Arts education research methodology and argue how this model is more appropriate to my study compared to traditional quantitative or qualitative models. I draw attention to the distinction between Arts-based research and practice-led methodologies, including APLR, and discuss the implications for this research. In addition, I outline how the use of a/r/tography, as a methodology, frames my Arts-research-teaching practice within a primary Visual Arts education context.

## Comparison of Research Paradigms

A dichotomy of quantitative and qualitative research is no longer appropriate with the expansion of visual methodologies. Table 5 outlines the key principles of established quantitative and qualitative methodologies, and recent participatory methodologies, such as APLR and a/r/tography. A comparison between traditional quantitative research and research led by Arts practice pinpoints the disparity. In some ways, qualitative research in the social sciences exhibits some similarities to visual research methods, in that the two paradigms are multimethod approaches where the researcher's subjectivity is present and accepted. Even so, the methodologies are different and qualitative practices and visual practices are not interchangeable since the key difference is how data are gathered and presented. Traditionally, in qualitative research, the written and spoken word is privileged over other 'languages', whereas within visual research, there is a specific visual, non-verbal means of communication known as 'visual language'. In this case, symbols, imagery and artefacts express complex ideas and emotions (Eubanks, 1997; Gray, 1996).

Visual research, including APLR, should be considered on an equal footing with conventional quantitative and qualitative methods, yet this will only be achieved when researchers cease to 'borrow' research methods from outside the sphere of Arts practice and begin to develop new methods that are sensitive to a contemporary epistemology (Sullivan, 2010). Mainstream attitudes specifically directed towards Arts-based research reveals that Arts-based research has been marginalised and "will have an uphill battle to fight to maintain its place as legitimate form of inquiry in the educational research community" (Eisner, 2008, p. 19). I concur that visual methodologies offer innovative ways to generate new knowledge and expand the parameters of research, complementing research as a whole by offering alternative viewpoints. Rather than arguing against the use of traditional quantitative and qualitative research methodologies, I found that visual methodologies were more appropriate

for Phase Two. I agree with leading theorists that practice-led research, including APLR, is a valid form of academic research and can be used to invite a wider audience into a dialogue, as well as offering an alternative perspective (Barrett & Bolt, 2010; Candy & Edmonds, 2011; Haseman B. , 2010; Irwin & Springgay, 2008; Leavy, 2009; Mercer, Robson, & Fenton, 2012; Spenser, 2011; Sullivan, 2010). Further, I consider that visual methodologies reflect the particular nuances of various visual languages in a way that demonstrates values and respect.

Although visual methodologies have been accepted internationally and in Australia across a number of research disciplines since the 1990s, an over-emphasis on traditional research methods challenges the legitimacy of Arts-based research (Gray, 1996; Gray & Malins, 1993; Spenser, 2011). The biggest drawback comes from indiscriminately applying traditional research methods not specifically designed for visual research. It is not that the creative work lacks meaning; rather, complications arise when the artist's intention is detached from the context of production (P. Carter, 2004). When the spoken words and/or written text are employed exclusively to articulate meanings arising from the visual experience, something invariably gets lost in the translation. From an education perspective, a multimodal approach to learning is especially relevant, as children learn to communicate visually before they learn to speak (Vecchi & Giudici, 2004). *The Hundred Languages of Children* (Edwards et al., 2012) metaphor acknowledges the complexity of knowledge-building and process-led learning through the Arts and engaging with materials. According to Vecchi and Giudici (2004), infants and toddlers construct new awareness and understandings of their encounters with objects through material thinking. Similarly, at an adult level, P. Carter (2004) and Barrett and Bolt (2013) also value the importance of material thinking to articulate new understandings within the Creative Arts. The concept of material thinking discussed from an education and Creative Arts perspective is integral to this study. In my case, using discarded materials added an extra dimension to my research and I have introduced the term *Materials-led Inquiry* to describe how material thinking through artmaking facilitates positive sustainable shifts in primary-aged students and myself.

Table 5  
A Comparison of Four Research Paradigms

Quantitative Research	Qualitative Research	Practice-led Research	
Positivist	Constructivist	Arts Practice-led Research	A/r/tography
An objective research approach where the researcher assumes a neutral position to avoid bias.	A subjective research approach where the researcher is immersed in the research.	Practitioner driven research where creative practice initiates the research process, often resulting in deeper insights of personal practice.	A self-reflective research approach where researchers identify themselves through the multiple yet simultaneous identities of artist, researcher and teacher.
Hypotheses formulated at the beginning of the research processes and findings apply to general populations.	Theories arise based on findings and may be revised throughout the research.	Understandings arise from the working methods of the artist-researcher.	Understandings arise from the working methods of the artist-researcher-teacher.
Researchers work methodically.	Researchers are multidisciplinary and may adopt a number of methods.	Researchers are multidisciplinary, where a new research paradigm has emerged from a combination of more traditional methodologies and creative disciplines.	A/r/tographers respond to critical moments by undertaking a 'rhizomatic' approach to lead, synthesise and inform new directions of inquiry.
Data and results converted to numeric terms.	Data and findings expressed through the written word and increasingly with multi-modal methods in the education context.	Non-numeric, non-linguistic articulations of research expressed through modes specific to the researcher's practice.	New articulations of understandings are expressed through creative practice and writing where the aesthetic underpinnings framing the research are visible.
Scientific method	Multi-method	Multi-method led by practice	Multi-layered, inter-disciplinary methods led by a/r/tographic practice
Mixed-methods			

Adapted from "Exegesis as Meme," by E. Barrett, 2010, *Practice as Research: Approaches for Creative Inquiry*; "Slowmotion: A Multimodal Strategy for Engaging Children with Primary Science," by J. Brown, K. Murcia, and M. Hackling, 2013, 59(4), *Teaching Science*; *Social Research Methods*, by A. Bryman, 2012; "A/r/tography as Pedagogy: A Promise without Guarantee," by M. Carter, D. Beare, G. Belliveau, and R. Irwin, 2011, *Canadian Review of Art Education*, 38; *The Sage Handbook of Qualitative Research*, by N. K. Denzin and Y. S. Lincoln,

2011; "Rapture and Recognition: Identifying the Performance Research Paradigm," by B. Haseman, 2010, *Practice as Research: Approaches for Creative Inquiry; The Practice of Qualitative Research*, by S. N. Hesse-Biber and P. Leavy, 2011; "The Rhizomatic Relations of A/r/tography," by R. Irwin et al., 2006, *Studies in Arts Education*, 48(1); *Doing Research in Fashion and Dress: An Introduction to Qualitative Methods*, by Y. Kawamura, 2011; *Live Research: Methods of Practice-led Inquiry in Performance*, by L. Mercer, J. Robson, and D. Fenton, 2012; "A/r/tography as Living Inquiry through Art and Text," by S. Springgay, R. L. Irwin, and S. W. Kind, 2005, *Qualitative Inquiry*, 11(6).

## ***Bricolage***

I have approached this research wearing a number of metaphorical hats. The challenge that comes with multimethod research is being able to establish and situate my own practice on the research map. In this research, I have not privileged one research paradigm over the other; instead, I have employed each as needed and have framed a/r/tography as a hybrid of qualitative and APLR methodologies. *Bricolage* weaves together the overlapping and sometimes seemingly competing methods that have merged to become my praxis. With the ever-expanding body of knowledge pertaining to the multifaceted and complex nature of qualitative research, it is not feasible to categorise and view methods through a singular theoretical lens (Lincoln & Denzin, 2008; Stewart, 2010). I agree that researchers should be sensitive to the constantly changing research landscape and note that traditional labels may perform dual roles or alternatively become irrelevant to the discussion. To accommodate new ways of viewing the qualitative landscape, *bricolage* is used as an aesthetic metaphor to describe the purposeful piecing together of a range of research methods to construct a personalised research model (Kincheloe, 2004; Lévi-Strauss, 1966). The construction of my model is emergent and interpretive in nature and is framed within a post-Cartesian context, where APLR can be the catalyst for social change.

## **Visual Methodologies**

On occasions, when numerical statistics or texts are unsuitable methods for gathering data and/or articulating findings, the solution may be found through visual imagery and/or artefacts. Prosser (2013) observed that "Visuals are pervasive in public, work, and private space, and we have no choice but to look" (p. 177). Visual literacy and fluency are important competencies in contemporary times where, in a progressively globalised world, imagery helps break down communication barriers for those who do not share a common spoken or written language. As visual communication is increasingly becoming the *lingua franca*, there are implications for researchers as they endeavour to understand societies increasingly dominated

by visual language. Visual methodologies, including Arts-based research,<sup>5</sup> are an alternative research paradigm where, within a single moment, an image or an object can communicate intrinsic meaning, via our senses and emotions (Prosser, 2013). Stephenson (2004) described Arts-based research as “a systematic investigation in order to establish facts and reach new conclusions” (p. 155) and as a form of academic research. Spenser (2011) differentiated visual methods from others, stating “visual methods offer some unique insights not readily accessible to traditional methods” (p. 43).

Gray and Malins (2004) claimed that visual methodologies are not a ‘new’ approach to research. They cite Leonardo da Vinci, working more than 500 years ago, as an excellent model of a practitioner-researcher who used visual thinking in transdisciplinary research. Da Vinci’s “sketchbooks, drawings, models and writing represent, perhaps, the first coherent example of what might be called as ‘visual research methodology’” (p. 94). However, while visual methodologies had surfaced during the Renaissance, they did not enter the mainstream until the advent of postmodernism, and according to Gray and Malins (1993), this was problematic because up to then there was not a strong tradition of visual research. As such, the risk was that artistic researchers would not produce rigorous research because they had to borrow or adapt established methodologies that were unsympathetic to visual research. A turning point was the 1960s, when artists and designers challenged the hegemony of centuries-old traditions. Artists and designers wanted to exercise more control over the design process. The revival of visual research methodologies became a part of the great postmodern movement that questioned and disrupted traditional paradigms (Gray & Malins, 1993).

By the 1990s, visual methodologies achieved normative status in disciplines including but not limited to the Arts, Health Studies, Sociology and Anthropology, as well as penetrating traditionally quantitative traditions such as Psychology and Medicine (Prosser, 2013; Spenser, 2011). In contrast, the paucity in the literature suggests visual methodologies are not as widely accepted in education research, although some exceptions include alternative methods such as the Reggio Approach (see Chapter 2). Apart from a few exceptions, there appears to be a lag in education. For example, in the university domain, visual methodologies are expanding into disciplines beyond the Arts; however, this trend is not reflected in schools, where current policies and ideologies in the school system may be to the detriment of the Arts, for example, the push for explicit measures of educational accountability in Australia and its global counterparts (Collard, 2012).

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<sup>5</sup> Arts-based research differs from Practice-led research. Arts-based research centres on the artefact, not necessarily created by the researcher, whereas Practice-led research centres on the practitioner’s creative process and practice.

A growing trend shows that standard measures of academic success are equated with the 'three Rs', which leaves the Arts out of the equation altogether. A preoccupation with policy-driven assessment such as the Programme for International Student Assessment (PISA) rankings, the National Assessment Program – Literacy and Numeracy (NAPLAN) in Australia, and the No Child Left Behind Act in the US have had a direct impact on curriculum design and instruction. Increased attention is given to literacy and numeracy to the detriment of other subject areas including the Arts (Collard, 2012; Groen, 2012; Hamilton, Schwartz, Stecher, & Steele, 2013; Klenowski, 2013; Kostogriz & Doecke, 2011). There is no doubt that literacy and numeracy are important but the "increasingly narrow focus of the metrics used to assess progress run the risk of diverting schools from a focus on a rounded education" (Collard, 2012, p. 4). In the WA context, findings from the 2011 *Thinker in Residence* program showed that teachers recognised the value in developing creativity and wellbeing in their students through the Arts. Even so, indications are that many teachers lacked time and self-efficacy to make "changes in their own practice without support through appropriately designed and targeted professional development programs" (Collard, 2012, p. 18). One objective of my study is to add to the body of knowledge relating to visual methodologies, in particular APLR. The paucity in the literature suggests visual research is not common in Australian mainstream education. My objective is to broaden the conventional understanding of visual research to include primary Visual Arts education.

## **Arts-Based and Practice-Led Research**

The challenge to traditional epistemologies proposes that the Arts can be a different pathway to knowledge. The discourse informing visual research stems from two perspectives, Arts-based and practice-led research, where study in the Arts includes a wide range of Creative Arts. Arts-based research examines the artwork as the basis of social science research (Barone & Eisner, 2012; Cahnmann-Taylor & Siegesmund, 2008; Leavy, 2009; McNiff, 1998; Prosser, 2013; Sullivan, 2010). Framed within the social sciences, Arts-based research is not practice-led. In Arts-based research, artefacts or images are data. Alternatively, practice-led research considers the way an artist's practice leads exploration and transforms understandings through process. The artist is the researcher and one's Arts practice is the methodology (Gray, 1996; Irwin & Springgay, 2008; Haseman, 2010; Sullivan, 2010). Both perspectives have examined the parameters of quantitative and qualitative research to argue a place for the Arts as a valid form of research. In regard to this research, my visual inquiry lends itself to APLR. This discussion centres on practice-led research across the Visual Arts to support

Visual Arts pedagogy through a/r/tography. By way of /r/eseach, the /a/rtist supports the role of the /t/eacher.

### **Arts-Based Research**

Arts-based research is an approach that utilises the Arts as methodological tools to collect, analyse, interpret and represent data. It draws on an extensive range of Creative Arts genres and adapts “the tenets of the Creative Arts in order to address social research questions in holistic and engaged ways in which theory and practice are intertwined” (Leavy, 2009, p. 3). The foundation of Arts-based research methodology occurs within an educational research framework. During the 1980s, Eisner and Barone (forerunners in Arts-based research) were heavily criticised by the educational community at large, who considered such research in the social sciences as unorthodox. By challenging the Cartesian worldview, best reflected in quantitative traditions, Eisner, Barone and others laid the foundations for Arts- based research, widely accepted as a postmodern approach (Cahnmann-Taylor M., 2008; Gray, 1996; Moran, 2009). The term *postmodernism* has different meanings in the Arts and qualitative research. The impact postmodernism has on the Arts and culture are far reaching and too complex for the scope of this study, and is simplistically stated here as a movement that emerged in the 1970s in reaction to modernism challenging the boundary between art and everyday life (Wilson & Lack, 2008). In qualitative research, a postmodern shift, also known as poststructuralism, began occurring in the mid-20<sup>th</sup> century to “describe the academic, theoretical critiques of structuralism . . . [and has become] the codeword for any social science approach that is not positivist” (St. Pierre, 2012, p. 496).

Historically speaking, there have been successive waves of epistemological theorising (Denzin & Lincoln, 2011). While it appears that the postmodern era has ended, this may not be the case entirely as artists and researchers often traverse boundaries to revisit the past (Bryman, 2012; Denzin & Lincoln, 2011; Gray & Malins, 2004; St. Pierre, 2012). Only the luxury of hindsight will reveal the dominant ‘isms’ of the 21<sup>st</sup> century; however, current trends indicate that the Arts and Arts-based research have expanded beyond postmodernism (Smith, 2009; St. Pierre, 2012; 2013). The Arts are entering a period of *new materialism* (see Chapter 5) and, as for the research arena; research is progressing in a number of directions. St. Pierre (2013) noted a growing trend towards neopositivism, where an audit culture is privileging efficiency and productivity over values and purpose, while another school of thought is moving towards a ‘post-everything’ period, including poststructuralism, postmodernism and postexperimentalism, among others. St. Pierre (2013) also maintained that ‘posts’ are not alternative methodologies or a corrective fix for postqualitative research.

Rather they are different perspectives on knowledge, to generate different knowledge and to create knowledge differently, and Arts-based research is able to provide the researcher with such opportunities.

Eisner and Barone have been instrumental in advocating for Arts-based educational research (T. Barone, 2008; Barone & Eisner, 2012; Eisner, 1997; 2008) and, according to Cahnmann-Taylor (2008), they were responsible for the theoretical framework for Arts-based educational research. However, there are limitations to such research in so much that the image, the object or the artefact is seen to be central to the research in one of two ways, either as a catalyst for research or as the culmination of research. The new knowledge that comes from the artmaking process is absent from Eisner and Barone's theoretical framework. On the other hand, in APLR, the artmaking process is the research by providing opportunities for artists to initiate research in their creative practice. APLR can also apply to the classroom context so that students learn through the Visual Arts in order to gain deeper insights through artmaking and material thinking (Barrett, 2010b; Vecchi, 2010; Vecchi & Giudici, 2004).

### **Practice-Led Research**

According to Barrett and Bolt (2010), practice-led research "is a new species of research, generative enquiry that draws on subjective, interdisciplinary and emergent methodologies that have the potential to extend the frontiers of research" (p. 1). Practice-led research encompasses a range of practices, including the Visual Arts, and has the potential to extend research. However, using the term 'new' is misleading when Gray and Malins (1993; 2004) and Prosser (2013) have shown that visual methodologies were well established by the 1990s and have achieved normative status across a number of disciplines. In addition, Cahnmann-Taylor (2008) showed that Arts-based educational research was gaining traction during the same period. The 'newness' discussed in Barrett and Bolt (2010) refers to the changing path of practice-led research in the university setting as inquiry is moving beyond the studio where creative works are critically interpreted through exegetical writing (Barrett, 2010a; Candy, 2009; Marshall C., 2010; Milech, 2006).

I argue that using practice-led research as a *cross-disciplinary* approach in traditional quantitative research disciplines (Prosser, 2013; Spenser, 2011) limits the scope of practice-led research. It implies practice-led research occurs across disciplines, whereas in the context of this research, *transdisciplinary* is the more appropriate term. It widens the scope for the research to become situated knowledge and repositions what may be considered *knowledge* to determine what is legitimate (Haraway, 1991). Martin and Booth (2006) stated, "When lenses

from two discipline domains, from two different ways of knowing, are focused on a selected topic . . . there is the potential for a response far richer than that which arises through a traditional, one-dimensional approach” (p. vi). Accordingly, I found that a/r/tography, a variant of practice-led research, enabled me to best articulate my research to an audience that extends beyond academia and bridges the gap between theory, pedagogy and practice via the Visual Arts.

I consider a/r/tography as a composite of practice-led research, comprising Arts-practice-led research and teaching-practice-led research. I also take into account that practice-led research is not exclusive to the visual, instead covering a broad range of creative practices (Barrett & Bolt, 2010; Haseman B., 2010; Mercer et. al, 2012) and, through a/r/tography, I widen the scope to include my teaching practice. I discuss the role a/r/tography plays in this research, in detail, in the following section. Setting aside the teaching-practice-led research at this point, in regard to APLR, material thinking contributes to an embodied dialogue that comes from physically engaging with REmida materials, all of which drives my Creative Arts practice. REmida’s philosophy of creative reuse informs my practice; therefore, I have chosen to use the more precise term *Materials-led Inquiry* over APLR to describe my working method in Phase Two.

## **A/r/tography**

A/r/tography is an umbrella term for a multimethod education research methodology, specifically intended to enable Arts-based educators to investigate “the education phenomenon through artistic and aesthetic means” (La Jevic & Springgay, 2008, p. 67). Although a/r/tography is the most fitting methodological choice for this study, initially I struggled to identify a methodology that could encompass all aspects of my research. The insatiable need I have to make art equals the insatiable desire for learning and discovery. This creative curiosity is not necessarily a solitary pursuit carried out in my studio; it also extends to my classroom. Therefore, my goal was to find a methodology that best suited my needs and could describe the interconnected identities of a practising artist, researcher and teacher. Intuitively I have always sensed that I am an a/r/tographer, although for a very long time I grappled to put a name to my identity.

I began an extensive search to find a methodology I could identify with and apply to my entire research project, not just aspects of it. My investigations included but were not limited to autoethnography (Chang, 2008; Muncey, 2010), self-study teacher research (Samaras, 2011), reflective practice (Schön, 1983; 1987), Arts-based research (Cahnmann-Taylor & Siegesmund, 2008; T. Barone, 2008; Barone & Eisner, 2012) and APLR (Haseman, 2010; Sullivan, 2010).

However, each option was lacking in some way; the emphasis was on either the creative aspect or pedagogy. I was searching for a methodology that could delve into my studio and classroom encounters, stemming from a desire to consolidate my three identities of artist-researcher-teacher. After an enormous struggle to place my research within an appropriate methodological context, I came across a/r/tography.

A/r/tography is a dynamic methodology that is practice-based, process-led and action-driven. As a methodology, a/r/tography is characterised by an accommodating set of conventions *per se*, as it challenges the traditional synergy between theory and practice, through reflexivity, the process of developing self-awareness through critical self-reflection (Begoray & Banister, 2010, p. 789), to become a living inquiry. As a living inquiry, a/r/tography is comparable to action research (see Chapter 5), as it unfolds to become a performative act by way of both generating theory and enhancing practice (Irwin R. , 2013; Springgay et al., 2005).

De Cosson suggested that a/r/tography is subversive and used Chambert's observation to support his claim that "Artists interpret the new contexts at the same time as they rebel against them" (2003, p. 4). De Cosson (2003) elaborated further by indicating:

The generative power of a/r/tography as a research methodology lies in its refusal to be tucked away with an easily condensed set of rules to follow that embodies the metonymic spaces that slide effortlessly out of view as soon as they are pigeon holed. (p. 136)

In 2005, when a/r/tography was an emergent methodology, Springgay et al. argued, "if art-based research is to be taken seriously as an emerging field of educational research, then perhaps it needs to be understood as a methodology in its own right" (p. 897). Initially, the subversive research outcomes through a/r/tography were necessary to push the boundaries of research; however, a decade later, this aspect of the methodology is not as relevant given the acceptance of Arts research methodologies. A/r/tography has introduced new ways of seeing to the research table. It is a logical progression in Arts-based research to help shift the conversation to Arts-led education, within the realms of APLR in the primary school context, in order to develop a deeper understanding of Visual Arts pedagogy. Through active inquiry, supported by a/r/tography, entrenched beliefs can be challenged and change may be initiated (Gouzouasis, Irwin, Miles, & Gordon, 2013). As such, a/r/tography is a methodology that sits well within a constructivist and Pragmatic Social-Reconstructionist framework.

## **Origins of A/r/tography**

A/r/tography stemmed from a strong research culture within the University of British Columbia's (UBC) Faculty of Education (de Cosson, 2003). From the mid-1990s, UBC were accepting more Arts-based works as doctoral submissions and needed to support their students with Arts-based expertise. Responding to student demands, the Faculty of Education, UBC, saw a shift in the way they mentored their students. They developed a culture that embraced undertaking Arts-based practice as research. This commitment to regard the Arts not only as an object of study but as a form of inquiry allowed the Arts and education practice-based research to flourish within that environment (Sinner, Leggo, Irwin, Gouzouasis, & Grauer, 2006). In a 10-year comparative study from 1994 to 2004 of Arts-based education dissertations submitted within the Faculty of Education, UBC, Sinner et al. (2006) traced the emergence of a "uniquely arts and education practiced-based methodology" (p. 1227), first appearing as a methodology in academic literature in 2003. No longer a localised methodology, a/r/tography has 'matured' in the last decade and has subsequently been used and cited as an Arts-based educational methodology in Canada, the US, Europe and Australia (Sinner, Leggo, Irwin, Gouzouasis, & Grauer, 2006).

## **A/r/tography as Methodology**

A/r/tography allows the researcher to speak with one voice by clarifying the blurred identities of artist-researcher-teacher, where each role informs the other but neither is privileged over the other. This enables the a/r/tographer to be mindful of their Arts, research and teaching practices and to decide on appropriate modes of representation for each aspect of the research. While traditional methods may be chosen, the a/r/tographer's primary objective is to extend their work conceptually on all levels. At times, the a/r/tographer may shine the spotlight on a particular identity but will always ensure the aesthetic underpinnings framing the research are visible (Irwin, et al., 2006; M. Carter et al., 2011; Hesse-Biber & Leavy, 2011). Aesthetics is characteristically associated with the philosophy of art and beauty "but despite the considerable consensus on such definition, the concept of aesthetics remains deeply ambiguous, complex and essentially contested" (Shusterman, 2006, p. 237). Given the in-depth discussions that have preceded this research, I have narrowed the focus to present-day assumptions, which I framed through three different interpretations. According to Shusterman, the first interpretation is a Kantian understanding emphasising taste and judgment that is "involved in discerning and producing beauty" (p. 239). The second maintains that aesthetic ideals are determined within each cultural context and are modified accordingly,

and the final interpretation is the aesthetic experience that is embodied knowledge, which links to Deweyan aesthetics.

An extensive review of the literature shows that, in regard to a/r/tography, the theoretical underpinnings of aesthetics are vague and ambiguous. One reason may be that aesthetic awareness is inherently a personal understanding whereby the a/r/tographer embraces “wonder and surrender, while being attuned to what is unfolding. Rather than relying on structures or routines to form final products, surrendering to the unknown often brings disruption and surprise that in turn allows aesthetic knowing to emerge” (Irwin, 2003, p. 67). Siegesmund (2012) highlighted an omission in a/r/tography in that the methodology has not made the connection between their aesthetic understanding and Dewey’s aesthetic legacy found in *Art and Experience* (1934). Siegesmund continued that Dewey could be a frame of reference considering that a/r/tography and Deweyan aesthetics share common elements. I concur with Siegesmund that aesthetics is an embodied experience and I connect with the Deweyan notion of sensory aesthetics that delivers more than an intellectual response to artworks (Dewey, 1934; cited in Gaut & Lopes, 2005; cited in Siegesmund, 2012). This in turn corresponds to the Australian Curriculum’s definition of aesthetics that “describes the fusion of our thoughts, senses and emotions with the diversity of our personal, social and imagined experience which comprises our response to art works” (p. 26) and is compatible with how I approach aesthetics in the classroom.

As a methodology, a/r/tography challenges traditional quantitative and some qualitative research methodologies by placing the researcher in the midst of the research, thus diminishing the distinction between the researcher and the researched (see Table 5). Irwin et al. (2006) adopted Deleuze and Guattari’s metaphor of the rhizome to illustrate the way an a/r/tographer’s inquiry often evolves and emerges as new information arises, redirecting the research along a number of pathways simultaneously. A/r/tography is deliberately subjective in that it is responsive to experiences because knowledge is constructed from such encounters (Irwin, et al., 2006; La Jevic & Springgay, 2008; Springgay et al., 2005; Stewart, 2010). The rhizomatic structure, used as a metaphor by Deleuze and Guattari in Irwin et al. (2006), is a powerful illustration of a/r/tography as a methodology.

The basis for this metaphor is that it draws attention to the artist-researcher-teacher’s research. Coming from the lived experience, typically it is complex, interconnected, spreading and non-linear. Deleuze and Guattari (1987) proposed a lack of hierarchical order of knowledge, as there is no beginning or end. To be more precise, knowledge is built from multiple entry points that can be connected with one another. Deleuze and Guattari (1987)

drew on rhizomes including but not limited to the potato and couch grass examples to illustrate the metaphor of the rhizomatic structure. These examples depict how 'rhizomatic' research occurs in the 'real' world of research, continually building on knowledge by making connections and spreading in a multitude of directions. Paradoxically, while research within a postgraduate degree investigates 'real-world' phenomena, research within this context is itself a construct.

In the context of postgraduate studies, working in a rhizomatic fashion presents some challenges. To maintain rigour in academic research, practical limits restrict how many tangents the student may follow in the pursuit of knowledge. Parameters, such as word counts, timeframes and the submission process, are set in place by academic institutions not to limit or control research output but to provide a framework for the research. This is in direct contrast to the essence of rhizomatic research, which pushes the boundaries of closure in the traditional sense, where open-ended investigations are fostered without the expectation or acceptance of closure, and there is an expectation to ask as many questions as are being answered (de Cosson, 2003). Ironically, this is incongruent with the working methods of practising artists outside the university context (Candy, 2009), where process above outcome is paramount. Characteristically, APLR is process-led and the practitioner is concerned with developing one's own practice (see Table 5) with no expectation of visible outcomes. In contrast, when APLR occurs within a university setting, expectations shift to render the artmaking process visible to others through material thinking, practice and process by way of the production of resolved artworks and through exegetical writing (Barrett & Bolt, 2013; P. Carter, 2004; Edith Cowan University, 2012; Milech, 2006; Milech & Schilo, 2004).

In regard to my working methods, I did not see APLR within the structure of an education degree as an obstacle. While explorations of lived experience and materiality through the art process are typically the domain of Creative Arts research, instead I approached the framework as an intellectual challenge in a number of ways. First, practicing as an artist and simultaneously conducting research within the School of Education, Edith Cowan University, was an opportunity for creativity and innovation, comparable to an artist's brief. Second, as a researcher, I was able to apply a transdisciplinary approach to Visual Arts education research, and third, as a teacher, all new knowledge arising from this research extended my pedagogical understandings. In addition, *Creative Reuse: How Rescued Materials Transformed my A/r/tographic Practice* should not be viewed as a complete body of work investigating my lived experience but as the foundation for additional research beyond the scope of this study.

The a/r/tographic exegesis is mindful and respectful of qualitative research practices and traditions, while at the same time eliminating perceived boundaries by being innovative and committed in order to extend the conversation to include non-traditional ways of presenting research. Being pioneers of a/r/tographic research, UBC has cultivated a/r/tography as being reflective of artistic expressions emerging from researchers' lived experience. The uncertainty faced by the a/r/tographer's practice can be a compelling force that lends itself to explorations, often leading to a crossing over of boundaries (de Cosson, 2003; Sinner et al., 2006) through *bricolage*. By pushing the boundaries and moving away from traditional models, the a/r/tographer must reconsider the format of the exegesis. An Arts-based exegesis should be sensitive to the complexity of the research and rich layering of meaning and narrative.

UBC's commitment to question traditions and to explore options effectively supporting Arts practice-based research in education has brought about international acceptance of a/r/tography as a methodology in Arts education (de Cosson, 2003; Sinner et al., 2006). Even though I identify with principles espoused by UBC, I have not replicated their methodology; in its place, my methodology comes from my living inquiry, resulting in an exegesis, artist book and an exhibition.

## Chapter Summary

In conclusion, this is an interpretative study positioned within a constructivist epistemology and, as such, I have used situated knowledge to frame this research so that it simultaneously observes established research conventions and reflects my multimethod approach. Essentially, I have positioned this research within the context of Visual Arts education research. The purpose of this research was to facilitate positive sustainable shifts in my students and myself, reflected in Efland's (1990) analysis of Visual Arts pedagogy. He noted that the Visual Arts are instrumental in bringing about social change, otherwise known as the Pragmatic Social-Reconstruction Model. As such, Efland's model provided the ontological framework of my research. The methodology that supports multimethod research, where I reflect on my Arts-research and teaching practices, needs to be flexible enough to support the research in its entirety. Therefore, a/r/tography became my obvious choice as it is grounded in Arts education research. Before the discussion regarding a/r/tography took place, I presented a comparative analysis of research paradigms to the reader so that I could explain the complex nature of a/r/tography. A historical review of research paradigms showed how research is adapting to current needs, including the emergence of visual methodologies, accepted since the 1990s. Nevertheless, the literature identified a lag in the university educational context

compared to other disciplines, such as health and the social sciences, where visual methodologies are commonly used. In regard to art education in schools, Eisner and Barone advocated for Arts-based education from the 1990s onwards. In this chapter, I drew attention to the difference between Arts-based and practice-led research, which concluded with a detailed description of a/r/tography.

The discussion in the following two chapters relates to the research design, research methods, data collection and analysis, the findings and discussion for each phase of this study. As noted in Chapter 1, this document is a polyvocal text (J. Hamilton, 2011) and the writing styles for each phase are consistent with the research approach for each phase. In Phase One, I adopted the role of the educator and carried out qualitative research, and in Phase Two, I transitioned to the artist's role to conduct APLR. As such, the change in writing style is reflective of each genre.



4

phase one

In 2009, I conducted qualitative research (Phase One) in a Year 7 class at a government primary school, in Perth, WA. As the sole researcher, I worked in the capacity of a primary Visual Arts specialist for 10 two-hour sessions. Apart from a whole day excursion to the Art Gallery of Western Australia (AGWA) and REMIDA WA, each two-hour session took place in the students' classroom. The purpose of Phase One was twofold. First, I explored how a Visual Arts program with an environmental theme could facilitate positive, environmentally sustainable shifts in the students. Second, this phase was the provocation for Phase Two of this research, a personal exploration of my Creative Arts and teaching practices from the perspective of an artist, researcher and teacher at an adult critical level (see Chapter 5). In this Chapter, I discuss Phase One, the school-based research design and reasons for choosing Fairview Primary School (hereafter Fairview, a pseudonym) as the research site. I provide background information pertaining to the research participants and research design. Research methods and data collection included photographs, student work samples, digital audio recordings and observations. With regard to interviewing 12-year-olds, I took into account the methodological challenges of including adolescents as research participants, and designed methods of data collection accordingly (Bassett, Beagan, Ristovski-Slijepcevic, & Chapman, 2008; Harwood, 2010; Holstein & Gubrium, 2003). I conducted a thematic analysis of the data (Braun & Clarke, 2006; Saldaña, 2009). The student findings section is heavily saturated with student quotations, in order to give voice to their learning experiences (Bassett et al., 2008; Harwood, 2010; Holstein & Gubrium, 2003) because the teacher findings, in the following section, indicate that the teachers' perceptions of their students' experiences may not always be accurate. The discussion section draws on the findings to identify the key themes of materiality, reflexivity and shifts. Additionally, the findings show that the Fairview students' attitudes and values are reflective of the broader Australian context.

The following diagram (see Figure 7) is an overview of the research conducted during Phase One. In this diagram, the roles of the artist, the researcher and the teacher are separate, which describes my approach to a/r/tography during the early stages of the research process<sup>6</sup>. Figure 7 also outlines the data collection methods and data analyses.

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<sup>6</sup>As this research progressed, my understanding of a/r/tography deepened, and the implications of new constructs are discussed in Chapter 5.

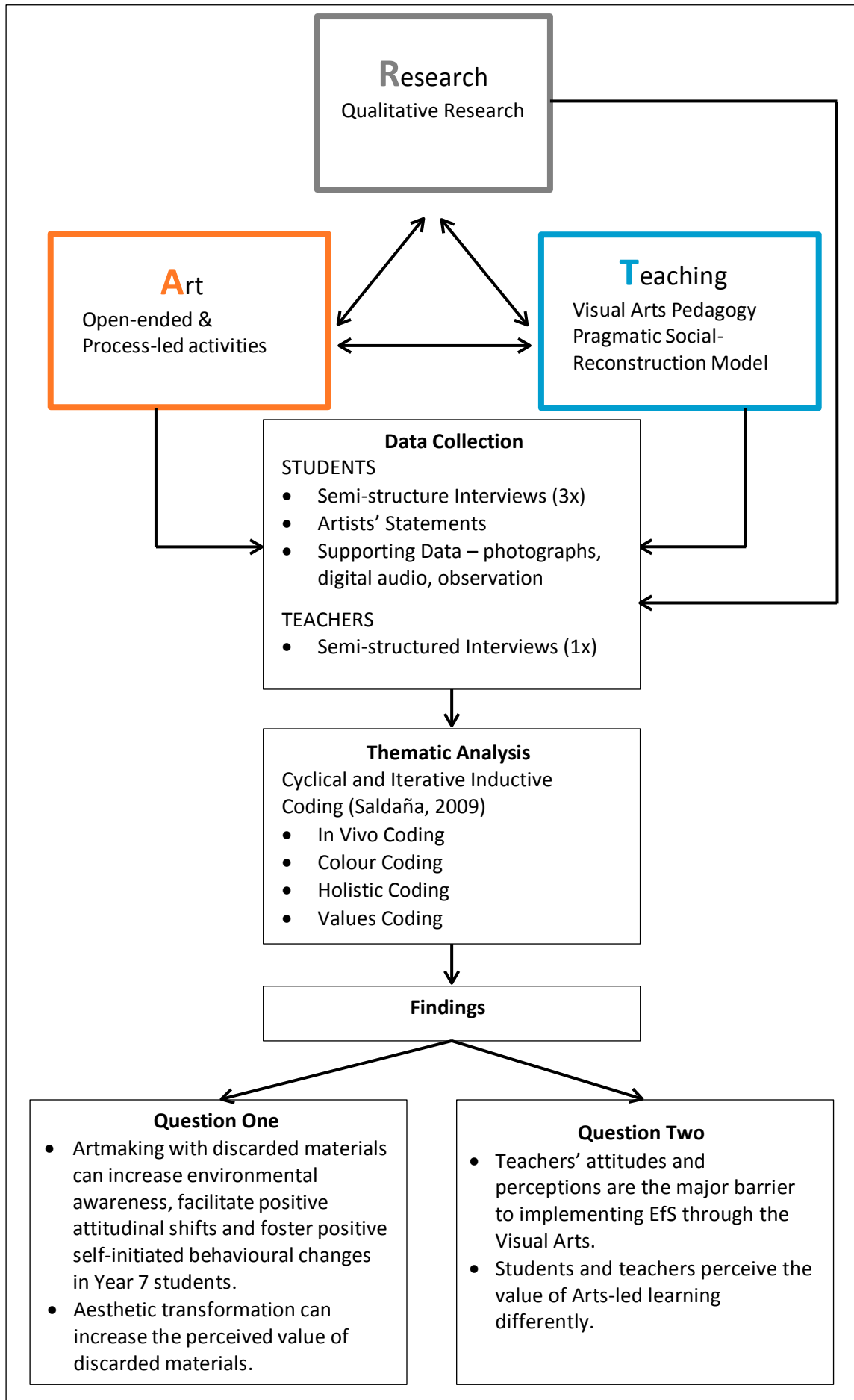


Figure 7. An overview of the research conducted during Phase One.

# Methods

## Research Design

### Description

During Semester Two, 2009, 20 Year 7 students from Fairview, a government primary school in the Perth metropolitan area, were involved in a Visual Arts program on a Thursday between 1–3pm for 10 sessions. REmida's philosophy was the foundation of the program design, where students worked in small groups to produce an artwork for a class exhibition, which was open to parents, teachers and students from the school, as well as invited community members. The exhibition theme was 'Humanity's Impact on the Environment' and each group was free to choose their own area of focus.

### Choice of Site

To link the school-based research with my creative project, I chose a primary school in a suburb that mirrors my own standard of living. I live in an affluent Perth suburb where the houses are often extravagant and overt consumption is evident. There is limited infrastructure in place to promote environmental sustainability. Evidence shows there is a close correlation between prosperity and negative environmental impact, as greater wealth leads to more spending and higher consumption (Australian Conservation Foundation, 2004–2012). In 2009, figures from the Index of Community Socio-Educational Advantage (ICSEA), a demographic measure used to compare student populations throughout Australia, showed that Fairview had an ICSEA value of over 1200, whereas the Australian average was 1000 (ACARA, 2010). The ICSEA value reflects the relationship between the consumption profile of Fairview and its surrounding suburbs. Fairview's environmental footprint per person per year is 20%–25% greater than that of the average Western Australian, suggesting that the Fairview students, like me, have some of WA's largest environmental footprints.

### Student Participants

The 20 participants chosen for the study were from a single stream Year 7 class at Fairview. They were 12-years-old or turning 12 at the time of the study. There were 13 boys and seven girls enrolled in the class and all chose to participate in the research. Before the program commenced, the classroom teacher organised the students into groups at her discretion. There were seven groups: Group 1 had two members but all the other groups had three members.

As a cohort, the school ranked the students as high academic achievers. Every student achieved the minimum or above the national standard benchmark in numeracy, reading, writing, grammar, punctuation and spelling for the 2009 Year 7 NAPLAN tests. The majority of students achieved bands 7+ in all subject areas (band 5 is the minimum and band 9 is the maximum national standard for Year 7) (ACARA, 2010). Although the students showed strengths in numeracy and literacy, they had had limited exposure to a specialist Visual Arts program. During Year 6 and the first semester of Year 7, the students had a weekly Visual Arts class with a Visual Arts specialist teacher (art teacher), for 60 minutes per week. Prior to that, their classroom teachers had taught Visual Arts. The art teacher revealed that when she began teaching the class in 2008, the students lacked confidence and had “no skills”, so her priority in Year 6 was to develop and advance the students’ skills. The art teacher reported that her focus for the Year 7s was to increase their confidence and for them to learn that “art was somewhere they can make mistakes.”

In 2009, according to WA Department of Education data, the primary attendance rates for the Year 7 students at Fairview was 96%, 4% above the state average (Department of Education, 2011). Even so, a number of absences affected the research. There was at least one student absent every session. Regular absences were due to Primary Extension and Challenge (PEAC) classes or elite sporting commitments. One student could only participate in the first five sessions because of his PEAC commitments and another’s sporting obligations meant that he had to leave school 30 minutes before the end of each session. Five students were absent for the AGWA and REmida WA excursion, during Week 2, due to sporting commitments. Other absences were due to family holidays. Only one absence was due to illness.

Table 6 offers some limited background information about the students, including how they engaged with the project, group dynamics and any factors that may have had an impact on the research. I chose to use descriptors instead of pseudonyms. The absences during the research period mean that it was not possible to track each participant to identify individual shifts. Further, I planned for the students to work together in a naturalistic classroom setting, where they could work in groups for the duration of the program. Consequently, it is reasonable to assume that the students influenced one another in regard to ideas and opinions. From my perspective as a teacher-researcher, it was more useful and feasible to track group or class shifts than individual shifts.

Table 6

*Fairview Student Participants – Background Information*

Group	Participants*	Background Information
1	G1S1; G1S2	1 boy and 1 girl The two students cooperated with each other throughout the project.
2	G2S1; G2S2; G2S3	3 boys G2S1 was reluctant to participate during the interviews. Otherwise, he was engaged during practical activities. G2S2 was enthusiastic and tended to follow the others' leads. G2S3 was an enthusiastic student who became the unofficial team leader. He had to leave each session at 2:30pm (30 minutes early) to fulfil extra-curricular commitments.
3	G3S1; G3S2; G3S3	2 boys and 1 girl G3S1 preferred making to planning. G3S2 had a strong personality and tended to be assertive. She had firm opinions and did not accept alternative ideas during the group decision-making process. G3S3 was the most insightful of the group. He suggested abstract ideas for artworks, not accepted by the others.
4	G4S1; G4S2; G4S3	1 boys and 2 girls The group cooperated with each other and worked as a team throughout the project. They took the task seriously and explored other options before deciding on their final piece.
5	G5S1; G5S2; G5S3	2 boys and 1 girl G5S1 and G5S2 cooperated with each other and worked as a team throughout the project. G5S3 was present for the first half of the program but was absent during Weeks 6–9.
6	G6S1; G6S2; G6S3	2 boys and 1 girl G6S1 was the unofficial leader of the group. She made most of the decisions and did most of the work for this group. G6S2 was enthusiastic and tended to follow G6S1's lead. G6S3 was reluctant to participate during the interviews; he tended to reiterate what the other two answered. He did not engage well with the group and tended to work autonomously.
7	G7S1; G7S2; G7S3	2 boys and 1 girl G7S1 sourced materials from home for the artwork. G7S2 was actively engaged in all aspects of the project. G7S3 was responsible for most decisions and took the lead.

\* G= group, S = student

## Teacher Participants

I interviewed three teachers after the class exhibition: the Year 7 teacher (classroom teacher), the S&E teacher and the Visual Arts specialist (art teacher). The purpose of the semi-structured interviews was to determine whether the teachers identified any noticeable changes in the students' environmental awareness. Table 7 provides some background information describing the teachers' role in the school and their teaching style. I identified the teachers using descriptors instead of pseudonyms, as the teachers' different roles did influence their attitudes and opinions.

Table 7

### *Fairview Teacher Participants – Background Information*

Participants	Background Information
Classroom teacher	<p>The classroom teacher was present for every session and supported the project by giving students opportunities to work outside the art sessions. Even though she was disengaged, she was willing to have the program take place in her class. The classroom teacher would help when I asked but felt she had no ownership of the program.</p> <p>The classroom teacher preferred to work autonomously and resented school initiatives implemented from administration. She felt time-poor because of the school's extra-curricular commitments. One way to overcome her overcrowded timetabling issues was to have a checklist approach to her programming. She also had afternoon sessions where she taught programs in 2–3 week blocks.</p> <p>The classroom teacher's overall teaching style was explicit but she did set up a vegetable garden the year before. The vegie garden was a significant component of her Sustainability program, which she taught implicitly. In regard to the Visual Arts, she thought its purpose was to provide students with opportunities for fun.</p>
S&E teacher	<p>The S&amp;E teacher worked in isolation and had no direct involvement in the research project. She taught the students S&amp;E for two 60-minute lessons each week, for the entire year. The S&amp;E teacher had a fixed program that she taught from year to year. At the beginning of Term 1, she presented all teachers with yearly programs. The theme for Year 7, Term 3, was based on the DVD <i>An Inconvenient Truth</i>.</p>
art teacher	<p>The art teacher* worked in isolation and had no direct involvement in the project. She taught the students Visual Arts for 60 minutes per week. While in Year 6, the students had had specialist lessons for the entire year, but in Year 7, they only had them in Semester One. The art teacher felt that generalist teachers were only interested in her because she could provide them with 'Duties other than Teaching' (DOTT) time. She turned this into an advantage by working autonomously. While the art teacher did not have any formal art training, she had a passion and a broad knowledge for the Visual Arts. Her program was skills-based to raise the students' confidence levels due to a lack of consistent Visual Arts exposure prior to her appointment. The art teacher's teaching style was based on the Mimetic-Behavioural Model (see Table 3). She taught Arts and Crafts and her teaching style was explicit.</p> <p>* I differentiate the art teacher's teaching style from mine by using a lower case 'a' for art.</p>

## **Outline of Upper Primary Visual Arts Program**

The Visual Arts program (see Appendix C) commenced on July 30, 2009 and ended after the final interview on October 30, 2009. The WA K–10 Syllabus in the WA Curriculum Framework was still in place. I taught the lessons accordingly, and followed the Values and Outcomes outlined in the WA Curriculum Framework. The S&E teacher's program ran concurrently, which provided the students with alternative experiences. Apart from a whole day excursion to AGWA and REmida WA, each Visual Arts session took place, in the students' classroom on a Thursday between 1–3pm.

The Visual Arts program was divided into two parts. The first half of the program was a series of planned lessons referred to as scaffolding activities (see Chapter 3). The aim was to expose the students to as many artistic experiences as possible prior to the artmaking sessions, since I was not in a position to determine the students' previous Visual Arts or EE experiences. By incorporating scaffolding activities into the program, students had opportunities for shared experiences they could reflect on. The second half of the program was designed to be open-ended and process-led, directly inspired by the Reggio Approach and REmida's philosophy (see Chapter 2), which meant that the students were expected to be the protagonists of their inquiries (Harwood, 2010).

During stage two, the students worked in small groups of up to three to produce an artwork based on the topic 'Humanity's Impact on the Environment'. The students followed an exhibition brief, completed additional activities in a project workbook (see Appendix D) and were expected to make their own decisions regarding the subject matter and design of their artworks. The students were also required to take an active role in preparing their classroom for the exhibition. The aim of the exhibition brief was to limit the amount of new materials the students could use in their artworks. A minimum of 75% of materials had to be REmida materials or other materials recovered from an alternative source. A major stipulation was a ban on the use of glue, sticky tape or staples. The use of these materials was actively discouraged for two reasons: first, to allow students to develop a 'dialogue' with the materials to gain a better understanding of the properties of the materials being used; and second, to challenge students to find alternative solutions when the 'easy' option was not available.

## **Research Methods**

During Phase One, I incorporated the 'Big Ideas' Model (Walker, 2001), the Creative Problem-Solving Model (CPS) (Bates, 2000) and REmida's philosophy into the Visual Arts program. Interviews 1 and 2 were integrated into the lesson structure to make the

students' learning experiences as routine as possible. Interview 3 was the only activity where students were required to withdraw from routine classroom activities.

## **Interviews**

### ***Semi-structured interviews***

Possibly the most widely used method in qualitative research is the interview. The semi-structured interview is one such type in which an interview guide directs the interviewer. The purpose of the interview guide is to provide a clear focus for the investigation, and while the questions are often framed using the same wording, the interviewer has some flexibility and is not required to follow the guide precisely. This interview technique allows interviewers to follow-up on any pertinent comments made by interviewees. Additional issues raised by the interviewee can add to the study's findings (Bryman, 2012). Four interview guides were prepared (see Appendix E):

1. Student Interview Guide One – followed during interviews 1 and 2, prior to the artmaking sessions. The questions focused on the students' environmental awareness. The purpose of these interviews was to establish two baselines, the first at the commencement of the Visual Art project and the second at the commencement of the artmaking stage.
2. Student Interview Guide Two – followed during Interview 3. The questions were reflective in nature, providing students with opportunities to discuss what they had gained from the experience, as well as other issues they thought were relevant to the interview.
3. Teacher Interview Guide One – followed during the classroom and S&E teachers' interviews. These questions investigated an alternative perspective of the program.
4. Teacher Interview Guide Two – followed during the art teacher's interview to determine the students' previous Visual Arts experience.

### ***Interviewing 12-year-olds***

As a teacher, I find that understanding my students' learning experiences, from their perspective, is necessary for effective planning and teaching. Phase One of my research investigated the artmaking process from the students' point of view, and therefore the research methods needed to reflect those perspectives (Bassett et al., 2008; Harwood, 2010; Holstein & Gubrium, 2003). Children have long been the object of research rather than a participant or co-participant. Consequently, the child's voice has rarely been heard in

educational research, as it was typically designed and analysed from an adult-centric perspective. A child-centred approach to educational research minimises possible misinterpretations that are likely when adults make assumptions on behalf of children (Harwood, 2010).

Interviews were an ideal method of capturing the perspectives of the 12-year-olds (early adolescents) who took part in the research. There are a number of challenges particularly related to adolescent interviews, which include addressing the power imbalance between adult/child or teacher/student relationships, encouraging participation and extending responses beyond yes/no answers (Bassett et al., 2008; Harwood, 2010; Holstein & Gubrium, 2003). As a means of pre-empting potential problems, I applied the following strategy: I conducted small group interviews to address power imbalance and participation. When more children are involved in a group, an adult's power is reduced (Holstein & Gubrium, 2003) because in small groups children can support each other during the interview. If anyone feels intimidated by a one-to-one interview, they deflect direct attention away from each other. Also, the dynamics of a small group interview can offer students opportunities to 'bounce' ideas off each other and still allow every student adequate time to contribute to the discussion. In addition, multiple interviews are an iterative process of refinement, stimulating responses with a greater level of depth (Bryman, 2012; Holstein & Gubrium, 2003). The students were interviewed on three occasions, in weeks 1, 5 and 10, allowing opportunities for contemplation and reflection.

### ***Arts-Based Research with Children***

Arts-based research using "art-based techniques and visual methods are child-sensitive approaches that uniquely elicit from children information that affords researchers new insights and understandings that have been difficult to access using existing approaches developed for adults" (Driessnack & Furukawa, 2011, p. 7). Story-telling or self-reporting techniques are favoured, since children are the experts of their own lives. In such cases, the Visual Arts supports children's spoken and/or written explanations or narratives and, as such, visual data are analysed alongside text-based data. The most common form of visual data collected from children are drawings and/or photographs collected as part of a single episode. With younger children, drawings facilitate data generation since children can draw in detail with minimal effort. On the other hand, photography is more effective with older children, especially when they begin to become more self-conscious of their drawing skills. Thus, the context is paramount when using Arts-based research methods with children. For example, drawings are an appropriate form of data when working with ill children in a hospital setting

(Carter & Ford, 2013; Coad, 2007; Driessnack & Furukawa, 2011; Eldén, 2013; Mand, 2012; Pahl & Pool, 2011; White, Bushin, Carpena-Méndez, & Ní Laoire, 2010). However, if the sole reason for collecting two-dimensional data is that it is an easy option, then the data may be limited. In a school setting, researchers may have access to facilities that yield richer, multilayered data through methods such as process-based and/or three-dimensional art.

Traditionally, child research was something that was ‘done’ on them through experimentation and observation. In contrast, participatory research, which is more akin to APLR, is a bottom-up approach to data collection and so the participants essentially become co-constructors of the research (Coad, 2007; Eldén, 2013; Mand, 2012; Pahl & Pool, 2011; White et al., 2010). Although participatory Arts-based research is able to provide an informative view of a child’s world in his/her own voice (White et al., 2010), researchers are still heavily reliant on the spoken/written word for analysis and interpretation. Carter and Ford (2013) argued that analysis becomes a co-construction so that participatory research should not be mistaken for emancipatory research, in which participants have control of the research process (Mand, 2012). Consequently, I used Arts-based research in Phase One to support the student interviews as a method of capturing what may not be easily expressed verbally. Further, Arts-based research, an inclusive method, took into account the developmental differences and different competencies (Coad, 2007) that occur in age-based groupings.

### **Big Ideas**

The Big Ideas Model (Walker, 2001) is a constructivist approach to the artmaking process, where artmaking is considered a form of conceptual problem solving. It investigates personal connections that develop into artist’s concepts; some examples include environment, identity and human emotions. The Big Ideas Model enables students to move beyond simply creating products from rote formulas. It supports students to investigate the ideas and working practices of adult artists and use them as real-life examples of Arts practice. The aim is not to emulate the practices of adult artists, “but to structure classroom artmaking into a more meaningful activity based upon real-world authenticity” (p. xiv).

### **Creative Problem-Solving Model**

The CPS Model (Bates, 2000) is a framework for open-ended, process-orientated activities (see Figure 8). In Phase One, the CPS Model was applied in the following manner. The students had the same theme and, during lessons, they were given opportunities to generate multiple ideas for their artworks (Dinham, 2011). The students participated in

brainstorming and planning activities, and independent research. They were given time to explore and experiment with discarded materials sourced from REmida WA. Next, the students synthesised their ideas to produce resolved artworks for the exhibition. Given that expectations outlined in the exhibition brief were the same for all students, the open-ended nature of the CPS Model allowed for autonomy in the artmaking process.

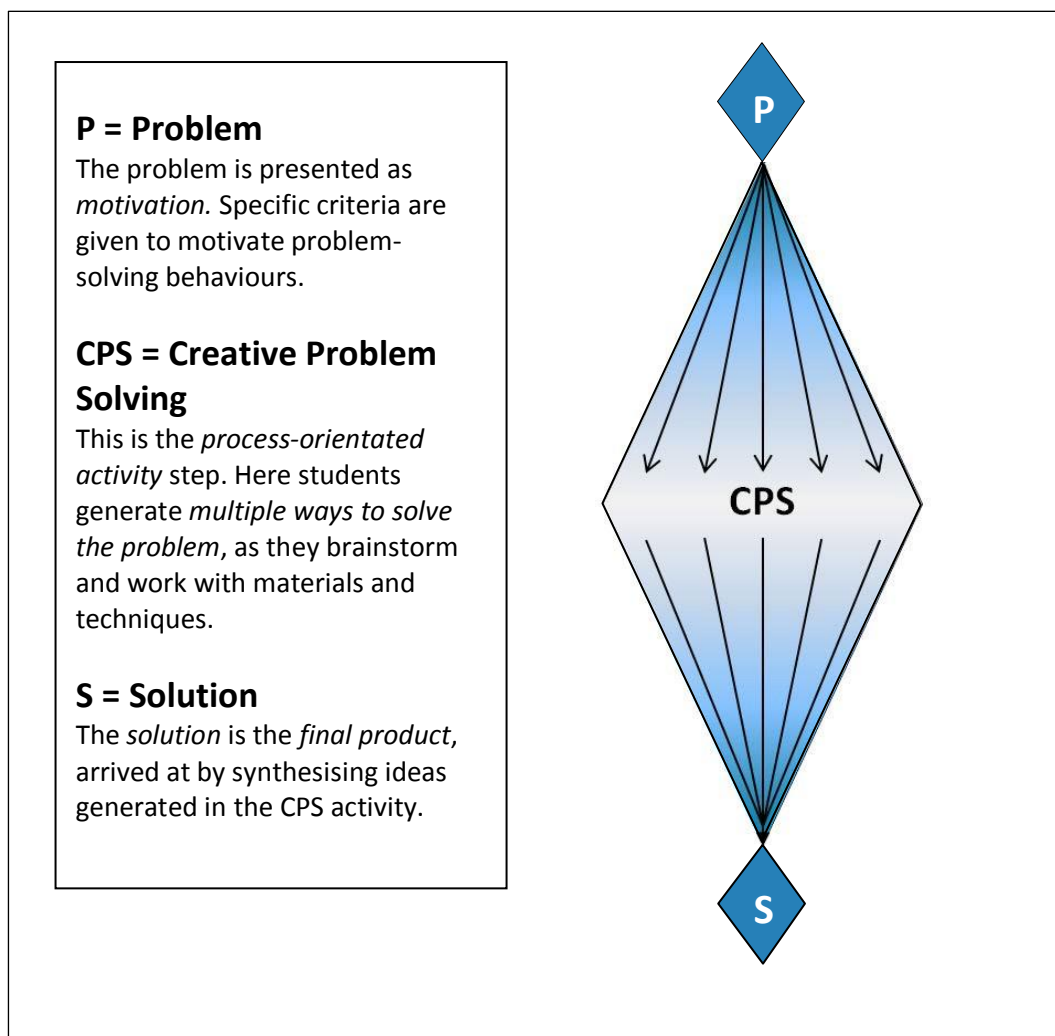


Figure 8. The CPS Model. Adapted from *Becoming a Teacher*, by J. K. Bates, 2000, p. 145. (Exception to copyright. Section: ss40, 103C. Exception: Research or study.)

### REmida's Philosophy

As discussed in Chapter 2, REmida's philosophy<sup>7</sup> is largely invisible in the academic literature. The 'guidelines' (REmida Guidelines) followed during this research were located in a journal article based on an interview with key members of REMIDA RE (Gandini & Kaminsky,

<sup>7</sup> In regard to REmida's philosophy and REmida Guidelines, the terms are not used interchangeably. The discussion pertaining to the guidelines relates directly the five guidelines identified in this section, whereas the philosophy encompass the totality of REmida's undocumented, though accepted, aims, objectives, goals and values.

2005). Through my association with REmida WA, my visit to REMIDA RE and discussions with REmida co-ordinators from Europe and the US, I found the guidelines discussed in Gandini and Kaminsky's (2005) article supported REmida's accepted, although undocumented, philosophy to instil respect for the environment through the creative reuse of discarded materials. Whether or not a set of formal guidelines is necessary or even relevant to the REMIDA network is beyond the scope of this study; however, for the purposes of this research, I identified and adhered to the following from Gandini and Kaminsky (2005):

1. "To prolong the life of materials and give them new identities" (p. 6) through creative recycling.
2. "To understand the true value and respect for the environment through the creative process" (p. 9).
3. To use different languages (modalities) to develop a relationship/dialogue with the materials.
4. To create "respect for discarded things" (p. 4).
  - a. The discarded object is beautiful/a treasure.
  - b. Materials should be exhibited in ways that add to their value.
5. To develop "a minimalist attitude towards the accumulation of objects", as in "less is more" (p. 9).

# Data Collection

## Interviews

The students were interviewed three times. In the semi-structured interviews, I asked the students what they knew about the environment and how they would express their understanding visually. In addition, I expected the students would complete a final written reflection after the class exhibition. However, as the program progressed, I realised the students were reluctant writers, so the third interview following the class exhibition was useful for two reasons: first, to support student learning by allowing them to reflect on their experiences and artworks; and second, it became a substitute for written data. The interviews were as follows:

- Interview 1 – pre-project (Week 1), four questions, approximately 10 minutes per group;
- Interview 2 – mid-project (Week 5), the four questions from Week 1 were repeated, approximately 10 minutes per group;
- Interview 3 – post-project (Week 10), semi-structured interview, approximately 30 minutes per group; and
- Teacher interviews – the teachers were interviewed post-project, to determine whether any students experienced attitudinal shifts resulting from the program. The interviews were semi-structured, lasting approximately 20 minutes each.

## Interview Location

The location for student interviews was different each time, due to unforeseen complications. In an effort to keep the research as naturalistic as possible, I interviewed the students in the corridor outside their classroom during the first cycle of interviews. The corridor was an established area especially organised for small group work, and students were able to access this location as part of their normal classroom routine. Unforeseen distractions made the interview process difficult. They included loud noise from outside, other students moving between classrooms and curious staff members stopping to 'chat'.

In an attempt to avoid distractions, I chose an alternate site. The Year 7 classroom was more suitable to manage the changeover between activities. However, the main difficulty with this site was the noise level, making recording the interviews more challenging. The Interview Room was the most suitable area. The school Interview Room was used as a quiet place for small group work. The classroom teacher agreed to excuse one group at a time from their

regular classroom activities for the final interview. There were minimal interruptions in this location.

For their convenience, the teachers chose a time and place for their interviews. The classroom teacher was interviewed at school and the other two teachers chose to be interviewed offsite.

## **Artist Statements**

Each group produced a written artist statement (50–100 words) as a means to describe and explain their artworks to an audience (see Table 10). The statements were coded for analysis.

### **Supporting Data**

Supporting data for Phase One came from a number of sources:

1. photographs of artworks – three-dimensional artworks: five group works were made during the REmida WA visit (Week 2) and seven group works were made for the class exhibition (Week 10);
2. work samples from the students' workbooks and visual diaries;
3. digital audio recordings, weeks 6–9; and
4. my observations and personal reflections written during the project.

## **Rigour in Research**

To maintain rigour in qualitative research, Lincoln and Guba (1985) developed a set of criteria (credibility, dependability, transferability and confirmability) to access and ensure trustworthiness, because the traditional criteria used in quantitative research (internal validity, external validity, reliability and objectivity) are somewhat incongruous. Credibility, dependability, transferability and confirmability originated as a response to defend the trustworthiness of qualitative research and, in doing so, the emphasis has moved from the researcher to the data. Table 8 shows how Lincoln and Guba's (1985) criteria applied to phases One and Two of this research.

## **Ethics**

Ethics approval sought for this research project came from Edith Cowan University.

In Phase One, additional ethics approval came from the WA Department of Education. Each institute required separate ethics applications. The WA Department of Education has

very strict guidelines and procedures regarding research with children and for the copyright of their intellectual property. I was required to have current Working with Children clearance; adult participants had to sign consent forms accompanied by a letter of information; and student participants had to have two separate consent forms signed, one by them and the other by a parent/legal guardian. Edith Cowan University protocols were in line with WA Department of Education protocols; however, as the WA Department of Education required specific templates to be used, these were incorporated into the letters and consent forms (see Appendix F). Following the requirements of the two ethics committees, the school and participants have not been identified. The students were given codes, the teachers were identified by their job description and the school was given a pseudonym. Ethics clearance was granted by both Edith Cowan University and the WA Department of Education.

Ethics approval sought for Phase Two came from Edith Cowan University for permission to use photographic images of models and conversations with a critical friend. The models used in the artworks were under 18 years of age. They were given an information letter, consent form, Deed of Release by a Performer and Photographic Release forms, which were signed and co-signed by a parent/legal guardian. The critical friend, an adult, was given an information letter and signed a consent form (see Appendix F).

Edith Cowan University and the WA Department of Education granted ethics clearance. All data will be securely stored for a minimum of five years after the completion of this research, and in keeping with Edith Cowan University's guidelines.

Table 8

*Establishing Trustworthiness in phases One and Two*

Criteria	Methods to Meet Criteria	Phase One	Phase Two
<b>Credibility</b> The likelihood that data and findings present an authentic representation of the research from the perspectives of the researcher, participants and readers	Prolonged engagement	Classroom project: August–October 2009	Creative practice: 2009–2014
	Persistent observation	Personal reflections, reflexivity through critical conversations, iterative process of data analysis	Reflexivity through critical conversations, visual diary, Creative River Journey
	Triangulation of data sources	Student cohort and teachers	
	Triangulation of data collection methods	Semi-structured interviews, samples of students’ written work and artworks, participant observation	
	Member checks	Informal checks with students during the project	Discussions with artists
<b>Dependability</b> Processes to determine the quality and integrity of the inquiry, across researchers, methods and over time	Code-recode	All stages of coding chronicled	
	Dense description of research methods	Qualitative methods – detailed in Chapter 4	APLR – detailed in Chapter 5
	Peer examination	Discussions with supervisors	Discussions with artists
<b>Transferability</b> The likelihood the findings of the study can be applied to other contexts	Dense description of research methods, processes and outcomes	Some transferability was built into the research design as the research questions were applied to two different contexts, the classroom setting and the studio setting	
<b>Confirmability</b> Processes to determine the extent to which the data, findings, interpretations, and recommendations are consistent and a fair representation of the data collected	Audit trail	Raw data – audio recordings, photographs, samples of students’ drawings and writing, reflexive writing  Explaining sequence – data collection, processing, arriving at themes and display  Conclusions – explicitly linked with displayed data  Researcher – to acknowledge personal biases  Data – retained and available for reanalysis as per Edith Cowan University’s guidelines (see Ethics)	Raw data –photographs, visual diary, tapes    Conclusions – explicitly linked with exhibited artworks  Researcher – to acknowledge personal biases  Data – retained and available for reanalysis as per Edith Cowan University’s guidelines (see Ethics)

Adapted from “Rigor in Qualitative Research: The Assessment of Trustworthiness,” by L. Krefting, 1991, *The American Journal of Occupational Therapy*, pp. 214–222; *Naturalistic Inquiry*, by Y. S. Lincoln and E. G. Guba, 1985; *Qualitative Data Analysis: A Methods Sourcebook*, by M. B. Miles, A. M. Huberman and J. Saldaña, 2014.

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# Data Analysis

## Thematic Analysis

Thematic analysis is a flexible analytical approach applicable across a number of fields and disciplines; however, it is poorly defined in the literature and lacking in clear guidelines for those who wish to “conduct it in a more deliberate and rigorous way” (Braun & Clarke, 2006, p. 77). Principally, thematic analysis is a systematic approach for identifying patterns or themes within data where interpretations result in thematic structures that show commonalities, relationships, overarching patterns and theoretical constructs. Data can be obtained from a diverse range of sources that are text-based, visual and audio, including interview transcripts, field notes, photos, audio and video transcripts, and samples of participants’ writing or drawings (Braun & Clarke, 2006; Lapadat, 2010).

Thematic analysis is compatible with a number of disciplines. Parallels can be drawn between Grounded Theory, in particular Charmaz’s variation – Constructivist Grounded Theory (CGT) and a/r/tography. Charmaz (2012) argued, in contrast to Glaser and Strauss’ seminal Grounded Theory model, that in CGT the epistemological assumptions inform the researcher how to approach analysis. Considering this, CGT is an emergent approach for data collection and analysis, allowing a researcher to keep an open mind to all possible theoretical understandings. Inductive-deductive coding is used during analysis, which is an ongoing comparative, interactive and iterative process. CGT emphasises identifying processes, where instead of themes, gerunds are used as a coding device to achieve that objective (Charmaz, 2006; 2012; O’Connor, Netting, & Thomas, 2008; Puddephatt, 2006). According to Charmaz (2006) coding for gerunds fosters theoretical sensitivity, which primes a researcher to see sequences and make connections. While I recognise a number of similarities between the two analytical approaches, I approached the data iteratively, allowing for constructs and themes to emerge from the data using thematic analysis.

Table 9 shows a six-stage guide for thematic analysis (Braun & Clarke, 2006) that are guidelines rather than a fixed set of rules. The way I approached data analysis was neither sequential nor linear; instead, it was a cyclical and iterative process and reflective of the six stages (Braun & Clarke, 2006).

Table 9

## Stages of Thematic Analysis

Stage <sup>8</sup>	Description of the process
1. Familiarising yourself with your data	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas
2. Generating initial codes	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code
3. Searching for themes	Collating codes into potential themes, gathering all data relevant to each potential theme
4. Reviewing themes	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis
5. Defining and naming themes	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme
6. Producing the report	The final opportunity for analysis. Selection of vivid, compelling examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis

Adapted from "Using Thematic Analysis in Psychology," by V. Braun and V. Clarke, 2006, *Qualitative Research in Psychology*, 3(2), p. 87.

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### Transcription

Decisions made by a researcher in terms of how the spoken word is transcribed make transcribing an inherently interpretive and active process and, as such, transcribed data may be considered a researcher construct. From the start of the process, the researcher interprets the data to make decisions concerning how to represent the spoken word as text (Bryman, 2012; Jenks, 2011; Lapadat, 2000). Likewise, as the researcher, I made the decision to prepare the transcripts to familiarise myself with the data as much as possible. In Phase One, I recorded each interview using an audio digital recorder and the voice recorder on a laptop as a

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<sup>8</sup> In the original table Braun and Clarke used the word phase, to avoid ambiguity in this exegesis 'stage' has replaced 'phase'.

backup, and saved the recordings for transcription and analysis. All audio recordings were saved as MP3 files, loaded into Express Scribe Professional and transcribed into a Microsoft Word document. The decision to remove some of my questions and comments from the transcripts was made for ease of analysis. However, wherever I felt it was necessary to include my 'voice' to add meaning or context to the participants' responses then I included them.

### **Student Interviews**

I listened to the interviews and transcribed them on three separate occasions. During the first round, I transcribed each interview verbatim and responses were arranged in order of their groups. I used colour to identify speakers and, in the first round, initials identified the participants. In the second round, I listened to the recordings again and the students were given codes for anonymity (see Table 6). The data were categorised by questions and formatted into a table. To improve continuity, I chose to remove questions for clarification, repetition, false starts, changing mind mid-sentence and sentence fillers (e.g. "well", "like", "um", "ah", "sort of", "kinda", "yeh", "and everything" and "stuff like that"). On reflection, in the final round, the editing decisions made during the second round diminished the quality of the data. Authentic student voices were lost during the 'clean-up' process, so I re-examined the data and decided to transcribe it again, verbatim. To prepare the transcripts, in case I decided to enter the data into NVivo, I created a Style Set in Microsoft Word where I attributed a unique font style to each participant. However, after preparing the third round of transcripts, I chose to code manually to remain immersed in the data.

### **Teacher Interviews**

I transcribed the teacher interviews verbatim. For the reasons stated above, I removed as much of my voice as possible for the sake of clarity and ease of analysis. During the analysis stage, I returned to the audio recordings often to recall the context of some of the participants' responses.

### **Coding**

Coding is the first step of a systematic approach to ordering and preparing data for analysis and reporting. It is a cyclical act, where data may be coded across a number of cycles to identify and classify patterns. In qualitative data analysis, a code is often a word or short phrase that assigns an attribute for a segment of language-based or visual data. The iterative process as qualitative inquiry demands attention to language and time for reflection to enable a researcher to develop deeper links between an idea and the data, and as the researcher becomes attuned with the data, recoding can occur (Saldaña, 2009). I began with the teacher

data using Colour Coding to identify codes, themes and categories. In respect to the student data, initially I regarded everything I collected with equal importance. As I became more accustomed with the data, I found the patterns that emerged from the students could be refined through the iterative process of analysis. I filtered and refined the process and applied a range of coding methods to the data.

### **In Vivo Coding**

In Vivo Coding, also known as Literal Coding and Verbatim Coding, refers to the process of coding words or short phrases used by the participants. According to Saldaña (2009), In Vivo Coding is particularly useful in research with children and adolescents, as their voices are often marginalised: “Coding with their actual words enhances and deepens an adult’s understanding of their cultures and their world views” (p. 74). I used In Vivo Coding during the first coding cycle of the student interviews (see Appendix G).

### **Colour Coding**

The Text Highlight feature in Word was used to Colour Code data. Colour Coding enables a researcher to identify emerging patterns at a glance (Miles, Huberman, & Saldaña, 2014). I chose to Colour Code single words and chunks of text. Colour Coded data made it easier to compare a number of transcripts simultaneously, to identify similarities and common threads between the participants.

### **Holistic Coding**

After familiarising myself and identifying common threads, I revisited the data and used Holistic Coding to see what would emerge. Holistic Coding is an appropriate method to use when a researcher has a general idea of what to investigate. This method can be used to analyse a wide variety of data forms (e.g. interview transcripts and artefacts) and is particularly useful for analysing self-standing units of data, such as interviews, where the data are treated as a whole rather than in segments (Saldaña, 2009). In my case, I had previously identified descriptive codes through In Vivo Coding, and through Holistic Coding I was able to return to the interviews and identify codes based on shifts in the students’ attitudes and behaviours. I also reviewed the artist statements, artworks, diaries and casual conversations to support the codes I identified.

### **Values Coding**

Holistic Coding revealed that the students expressed a greater awareness of environmental issues and the artmaking process. The students also experienced attitudinal

shifts and were making positive behavioural changes. This led me to return to the data a final time to investigate the data through Values Coding (see Appendix G). Values Coding identifies participants' values, attitudes and beliefs, reflecting their perspectives and/or worldview. In brief, *value* refers to the importance of personal ideals, shared cultural ideals or the importance that is placed on objects. *Attitude* relates to our feelings towards ourselves, others, objects or ideas. *Belief* is what we hold true based on personal knowledge and experience, which includes our values and attitudes (Saldaña, 2009).

Values Coding is an appropriate method for exploring participants' intrapersonal experiences and actions. It explores the complex interplay between the three constructs, yet Values Coding does not have to code for all three or differentiate among them (Saldaña, 2009). LeCompte and Preissle, cited in Saldaña (2009), stated that this method is applicable for interviews and field notes, can use both sources to corroborate the coding and in turn enhance trustworthiness. According to Saldaña (2009), this is particularly useful since participants' statements may not always be truthful or match their actions or the researcher's observations.

## Themes

During this stage, codes were reorganised and reanalysed to identify a broader set of categories and themes (Saldaña, 2009). According to Braun and Clarke (2006), a "theme captures something important about the data in relation to the research question, and represents some level of *patterned* response or meaning within the data set" (p. 82 [original emphasis]). In qualitative research, identifying a theme is a flexible process, dependent on a researcher's judgment as to what constitutes a theme. This stage is iterative, in which a researcher takes an active role in identifying patterns and themes. In this research, I followed an inductive approach to identify themes across the data. When following an inductive approach, evidence is linked to the data and does not try to force outcomes from a pre-existing framework arising from the interview questions; rather, it allows themes to emerge directly from the data (Braun & Clarke, 2006; Saldaña, 2009). I found that I arrived at the same themes – *materiality*, *reflexivity* and *shifts* – from the student data as I did with my data (see Chapter 5). In regard to the student data, I arrived at a constructs by collating codes identified from Interview 3 and supporting data, and clustered them into broader categories. I used thematic maps to assist with the process. I discarded some descriptive codes to 'give voice' to the codes I identified through Holistic and Values Coding. For example, Table 14 (see Appendix G) is an excerpt of how constructs emerged through thematic analysis. In this example, the students discussed what they thought the purpose of art and artmaking was. Through In Vivo Coding, I assumed the students thought art was a way to pass on a message. During

subsequent cycles of coding, I arrived at the construct that the students described as a three-way interchange between the artist, artwork and viewer. An unexpected outcome was that not only did *materiality*, *reflexivity* and *shifts* emerge from the same data set, but it also illustrated how the Year 7s applied new materialism (Barrett & Bolt, 2013; P. Carter, 2004) to their artmaking. In addition, it revealed the inextricable relationship between the three themes. To a degree, the dialogue the students entered into by engaging with discarded materials (*materiality*) invited *reflexivity* and thus initiated internal *shifts*.

## Findings

This section presents findings resulting from Phase One and is divided into two parts: student and teacher findings. The aim of the classroom research was to ascertain whether the students would become more aware of their personal impact on the environment were they to make artworks with discarded materials. The students are the primary focus of Phase One; therefore, student quotations heavily populate this section in order to give voice to their learning experiences (Bassett et al., 2008; Harwood, 2010; Holstein & Gubrium, 2003). Student findings are grouped into two broad areas of *Environment* and *Visual Arts*. The data used to support the student findings resulted from: Interview 1 and 2, conducted prior to the artmaking stage; digital recordings and observations, students' work samples, artworks and artist statements made during the program; and Interview 3, conducted at the conclusion. I found that the richest source of data came from the students' final reflections in Interview 3; therefore, the majority of the student findings have emerged from Interview 3, and where appropriate, additional findings are identified from other data sources. Second, I present findings resulting from teacher interviews and my weekly reflections. After the class exhibition, I interviewed the students' classroom teacher and two specialist teachers to determine if they had noticed any changes in the students' environmental awareness.

There were unexpected outcomes that emerged from the data. Several students made positive attitudinal shifts towards the environment and some responded by changing their behaviours. For this reason, I present the student findings in terms of *awareness*, *attitudes* and *behaviour*. In addition, the findings showed that the teachers did not notice any changes in the students; rather, the findings highlighted the teaching culture of Fairview as the teachers discussed their teaching styles and time issues. Further, there were unexpected findings that emerged but do not directly relate to the research questions. These findings are relevant to this research and are in this section.

### Students

#### Environment

##### *Awareness*

The students made a distinction between their personal environment and the overall environment. Responses referring to the students' personal environment remained consistent over the three interviews where they generally considered environment to mean the natural *environment*.

In regard to the global environment, the responses also remained consistent. A typical response was the environment was “where we live” and “our surroundings”. The students generally regarded the environment as “everything” and “everywhere” and by the end students moved from regarding the ‘environment’ as being a place, to it being something of which they were a part.

Nineteen students were present for Interview 3 and every student indicated that their awareness towards the environment had increased. Sixteen students cited specific examples of humanity’s negative impact on the environment, including consumerism, pollution and climate change. Using discarded materials made the students think about the environment differently, as it highlighted the waste and pollution associated with the manufacturing process. In varying degrees, six groups indicated they had been thinking about the environment more during the artmaking stage. They identified working on their topic, learning what the other groups were doing and using discarded materials as triggers. However, Group 3 felt any changes they made were “subconscious” and could not identify specific examples. G3S2 said, “I think I’ve thought about it more than I usually do.” Some students thought that they were aware of how much humanity relies on the environment before; however, the artmaking process made them more mindful. Others thought their awareness had shifted to understanding, for example, G4S2 stated, “It’s a bit more than awareness. It’s more like understanding.” G7S3 thought that participating gave him a deeper understanding of *environment* and moved him from a “very stereotyped” interpretation of “natural land” to one that encompassed “where we live, everywhere, our area.” G7S3’s raised awareness was typical of the class. When G1S2 discussed what he had learned he said, “I don’t think I know a lot more about the environment but I do look at it differently. Well, I just value it a little bit more now.”

### ***Attitudes***

Throughout the project, all of the students indicated that the environment was important to them. Prior to the artmaking, each group indicated that the environment was “very” and “really” important to them. After the artmaking stage, the students still indicated the environment was important to them using terms to indicate its value, for example, “important”, “protect it”, “value”, “priceless” and “we need it”.

The reasons why the students thought the environment was important were categorised as *habitat*, *lifestyle*, *survival* and *resources* and these categories remained consistent. In Interview 1, the most common answers related to maintaining present lifestyle

and having a clean environment. As the project progressed, two more categories emerged: *global responsibility* and *stewardship*. The students' responses began to reflect the negative consequences of not looking after the environment, which would affect "future generations" and other species, and they talked about looking after the environment for the environment's sake. G2S3 stated, "We have to change what we do, otherwise we will destroy it", and continued with "some people are trying to save the environment." He also conceded, "Some people just don't give a toss." G4S2 thought stewardship was a priority: "We really have to protect it because we've only got one shot at this."

In general, the students' awareness towards the environment increased. The artmaking process facilitated reflection. How they thought about the environment shifted as the students reported they were thinking about the environment more. Even though the students still associated *environment* with the natural environment, they broadened the context to include the built environment. At the end, the students spoke more about how humanity relies on the environment for our survival. During the artmaking stage and the final interview, I noticed the students had a deeper appreciation for the environment as they were able to clearly articulate why they thought the environment was important to them and humanity.

### **Environmental Impact**

Each group was able to demonstrate what they thought was humanity's impact on the environment visually through their artworks, which were supported by a written artist statement (see Table 10).

### ***Awareness***

"If humanity didn't have any impact, we wouldn't be in this situation that we had to think how much of an impact we had on the environment," G7S1 said in Interview 3. By the end, the whole class thought that humanity had a negative impact on the environment and the majority of students claimed, on a personal level, that they too had a negative impact. An exception was G1S1. While she could identify humanity's negative impact on the environment, in each interview she only reported the positive impacts she and her family had made, for example, by dressing warmly, taking shorter showers and switching off lights and appliances not in use.

G2S2 made the greatest shift in recognising his personal impact on the environment. When asked in Week 1 if he had an impact on the environment, G2S2 answered "No." In Week 5, his response was "Yes, I have an impact on the environment with everyone else because

if we kept on using all the environment's resources . . . the Earth will become much more polluted." During the final interview, G2S2 responded with, "Yes, I do have a footprint. Everyone put together is a big footprint on the environment cos everyone is thinking of themselves mostly."

G6S2 was typical of students' awareness of their personal impact on the environment:

I've really like started to think about how much we are really damaging the world. Like I knew before that we were but like after doing it [participating], it's really opened my eyes about how much we actually are doing it.

### **Attitudes**

G3S1 reflected that the Visual Arts program did not have any noticeable effect on him: "I don't think I've changed noticeably." However, he did concede that "just maybe we just kinda changed subconsciously." Even though he did not acknowledge any shifts, G3S1 did display some attitudinal shifts. In the beginning, G3S1 said he wanted a "clean" environment "because I wouldn't like to go swimming in a dirty ocean." I noticed the turning point during the local history librarian's presentation in Week 3. I could tell that G3S1 was engaged by the way he was watching the presentation and his contribution to the classroom discussion afterwards. G3S1 was making connections between local landmarks in his suburb and their changes over time. Another turning point was viewing *The Story of Stuff* (L. Fox, 2009). G3S1 said:

I learnt a lot about . . . the golden arrow and . . . what's happening when you buy something from the shop. How it's actually worth a lot more to the countries where all the materials all come from cos they, they have had their surroundings and environment destroyed so we can use that product.

G3S1 went on to say that it made him feel "annoyed" and "furious" because "I won't want them to use our resources for their own benefits." G3S1 referred to *The Story of Stuff* (L. Fox, 2009) several times during the project.

The turning point for G1S1 came during the artmaking stage. She did not discuss any negative impacts she or her family had on the environment. Prior to the artmaking stage, G1S1's attitude was that the environment was important and if it was damaged then "it could harm our lifestyles." During Week 7, G1S2 reflected on how the Sustainability Conference had influenced her: "We just realised that they [Bangladeshis] don't have very big houses and we just thought . . . We have big houses but I'm not really sure if we need them." In Week 8, she revealed that the artmaking process made her think about the environment more: "Well, just doing this you realise that well lots of things but it just becomes more clear

when you're doing it." At this point, G1S1 began to query her personal values and lifestyle, which was reflected in Group 1's artist statement, "Do we need this much space?" (see Table 10).

### ***Behaviours***

#### *Personal shifts*

Most students acknowledged that, personally, they had both a positive and negative impact on the environment. During Interview 3, 12 students revealed a number of personal behavioural changes they had already made. G2S3 said, "I'm trying to decrease my footprint on the environment." He did this by walking more and "not using so many electronics" because "all the little things add up to big things." Along with G2S3, 11 students were able to identify changes they had made to reduce their environmental impact. The most common changes that had already taken place were that students reduced computer time, turned lights off when leaving the room, turned appliances off at the wall when not in use and took shorter showers. Before buying new things, the students began to use what they already had at home. G1S1 recycled "as much as possible" and the students began to reuse more materials for craft activities. The students began to walk to more places, including school and the shops, rather than rely on their parents to drive them. However, since the students were 12 years old, it is not possible to tell if protecting the environment was the only motivating factor or if developing independence was also a significant motivator. Other changes that the students planned to make with their families included: planting vegetable gardens, installing rainwater tanks and getting larger recycling bins.

By the end of the project G6S1 told me he was using less water in the shower and he was also monitoring his mother's time in the shower: "Like trying to get my family eco-friendly. My mum's gone from 10-minute showers to two-minute showers." However, even though he realised it was a negative impact to use the car, he was still having difficulty making a shift. He explained, "I just live around the corner but I'm not very organised in the morning so I'm always running late and I have to get driven. I'm always getting driven to school." Similarly, G2S2 was having difficulty making some changes. G2S2 told me that although his mother no longer drives him to school, he was having difficulty cutting down on his computer usage, "but I'm working on that."

The three students in Group 3 told me directly that they had not changed their behaviour, nor did G5S3, who did not participate in the artmaking stage because of his PEAC commitments.

## ***Humanity***

According to the students, the negative impacts humanity have on the environment are a consequence of current lifestyles in first-world countries. Overall, the students believed consumerism was a negative value that led to overconsumption, with devastating consequences. The students could identify that humanity's behaviour had a negative environmental impact, but they also recognised that not everyone thought about the consequences of their actions. G7S1 thought it might be due to a lack of awareness: "You think you might not be doing much harm but you actually are." For example, references to *The Story of Stuff* (L. Fox, 2009) included "destroying the environment" to source resources to make "stuff". G7S3 argued, "When [people] buy lots of stuff and use lots of energy, they don't see it . . . They don't know the consequences . . . they . . . think it's fine but it's actually not."

The students discussed the negative impacts of humanity's behaviour on a global level, such as:

- unsustainable Western lifestyles – groups 1,2,3,4,5,6 and 7;
- chopping down trees – groups 1,4,5 and 7;
- unsustainable use of natural resources – groups 3,4 and 6;
- overpopulation – groups 1 and 6;
- pollution – groups 3 and 7
- urbanisation of the environment – groups 4 and 6;
- rise in arsenic levels in the Bangladeshi water supply – group 1;
- raised atmospheric CO<sub>2</sub> levels, leading to global warming and rising sea level – group 2;
- unnecessary use of electricity when Perth skyscrapers have their lights turned on at night – G2S3; and
- Timor Sea oil leak in 2009 – G6S2.

Early on in the project, the students could identify a limited number of positive steps humanity could take to reduce their environmental impact (see Appendix G). The most common response prior to the artmaking stage was to use alternative modes of transport other than cars. Another positive step the students discussed was to use solar energy. By the conclusion of the project, the students began to reflect on the devastating consequences of unsustainable behaviours. G7S3 remarked, "our dependability on oil is you know huge . . . but when that runs out, yeah I mean we're gonna be stuffed. We need to kinda change our viewpoint on energy and resources." The students noted that to reduce negative environmental impacts, sustainable behaviours would have to be at a global level. What is

more, according to the students, to bring about positive change, there needs to be more than direct action, in that humanity needs to undertake a collective mind shift, which includes self-reflection, taking personal responsibility to change behaviours and global collaboration.

### *Challenges*

Considering negative impacts, the students said humanity's greatest challenge to "save the environment" was a lack of "commitment". The students cited "being lazy" as one reason for inaction to address environmental issues. Prior to the artmaking stage, the students talked about easy actions on an individual level that could bring about sustainable change, but they are the 'low-hanging fruit', including walking and riding more instead of driving, conserving energy by turning off appliances, growing fruit and vegetables and saving water. By the end, the students were still identifying 'low-hanging fruit' as measures for personal behavioural change (see Table 13, Appendix H). However, the Year 7 class had made a greater shift in recognising the scale of behavioural change that humanity needs to make in order to repair the environment (see Table 13, Appendix H). By the end of the project, the students recognised that making change was more complicated. G3S3 believed that the biggest challenge to humanity was humanity itself:

Human beings like change but not when it's for the worst . . . they don't want the environment to get worse but . . . they're not doing anything about it because they think someone else will come along and do it for them.

G3S2 stated, "We are doing something wrong. We need to change our lifestyle." Even so, the students were able to identify a number of reasons that would thwart change, including denial, laziness and being overwhelmed. "If you try and think about the environment all the time you can just like go crazy," said G2S1. Another reason, G7S3 pointed out, was accepting some personal responsibility:

It's not your responsibility? It actually is. As you know everyone on the planet needs to take responsibility or else the human race are not going to survive . . . It will be quite hard to change but you know as a planet it's necessary.

At the beginning of the project, the Year 7s were able to identify small sustainable changes they and others could make to improve environmental conditions. By the end of the project, the students recognised there were no simple solutions. They felt that the problem was far more complex because people's unsustainable values were being challenged. At this point, the students were not sure humanity had the resolve to make the necessary changes. For example, G4S2 argued:

There's not enough commitment . . . We're not fully committed enough to give up our TVs or turn off our lights . . . Maybe we're not ready for change . . . We're so used to the lifestyle we live.

## **Visual Arts**

### **Creative Reuse**

#### ***Awareness***

The Year 7s displayed very little awareness in regard to creative reuse prior to the REmida WA visit. G2S1 indicated that he recycled when possible. During Interview 1, Group 1 and G3S1 indicated they were aware that the class would be using recyclable materials as art resources. During Interview 2, following the REmida WA visit, Group 4 suggested that recycled materials could be a component in artworks with an environmental theme.

Following the artmaking stage, every group talked about the value of reusing materials. G7S1's response, "I've learnt you don't have to use new materials", was representative of the opinions expressed by the students. The students reflected that they had previously regarded discarded materials as "junk", "rubbish", "trashy" and "waste". After making their artworks, the students reflected that discarded materials were "useful", "valuable" and suitable "alternatives" to new materials. Some students such as G5S2 appeared to be amazed that "Some stuff we think is rubbish can actually be useful in some way."

In regard to using discarded materials as art resources, G6S2 said, "almost . . . anything is reusable and you can use it in any way, and you can make it into anything you want." However, he went on to explain that the materials needed some form of aesthetic transformation to encourage people to appreciate the value of discarded materials. Even though many students talked about how they could recognise the value and potential of discarded materials, G6S2 was able to give a reason as to why discarded materials need aesthetic transformation to increase their perceived value. G6S2 recalled a Year 5 project where the class had to "recycle things." He reflected that his project had not "turned out that well" because the materials he used had not been altered in any way. "It just makes it look like junk you find around the house," he explained, "if you don't make it look, like beautiful, the audience won't . . . take a second look . . . You have to make it more appealing than the actual product is."

The students became more mindful of the potential of discarded materials such as "thinking outside the box" and using discarded materials "in a different way". Some students

only thought about the concept of creative reuse as finding alternative resources for artmaking, such as G1S1, who said, “I’m more aware now, just thinking about it. When I’m using resources and try not to waste things and stuff.” Other students, such as G4S3, found that creative reuse facilitated sustainable values: “I think I’ve got more of an awareness of the less obvious things about the environment, like reusing things.”

In addition, eight students recognised the value of REmida WA as a source for useful resources. Prior to their visit, some students were unaware of the potential some discarded materials hold. For example, G5S3 stated, “Before this I didn’t know there was any place, like REmida, where they make junk into artwork. I just thought it all went into recycling or . . . landfill.”

### ***Attitudes***

Prior to the artmaking stage, G3S3 was the only student to discuss his attitudes towards reusing and recycling materials. He indicated it was important to reduce, reuse and recycle because “we’ll fill this planet up with junk and trash and we’ll destroy the atmosphere.”

At the beginning of the artmaking stage, the students’ attitude towards creative reuse of discarded materials differed. During the artmaking stage, in Week 8, G2S3 stated, “I would personally use the recycled materials”, and G4S2 thought they were “not as convenient. Instead of going out and buying exactly what you need, you have to think.” Following the artmaking stage, G2S3’s attitude remained the same: “I’ve learnt that any rubbish, you can make beautiful again. Like if you get the right things and show them in a way you think looks good.” However, G4S2’s attitude became more positive, “there’s more to recycling than just reusing it to make something new. You could just recycle to make it beautiful.” Additional attitudes towards the creative reuse of discarded materials talked about the importance of aesthetic transformation: “yeah, the artwork was amazing for what we did, with literally garbage” (G2S3).

Following the artmaking stage, every group’s attitudes towards the creative reuse were positive. The most common reason cited for reusing discarded materials was that there was no need to buy new materials since many of the materials were useful. Another reason was that discarded materials could be transformed easily to suit any purpose. G2S2 said, “I would have thought to buy but now I’ve changed my mind.” G2S2’s attitudinal shift was reflective of many students in the class.

## ***Behaviours***

The exhibition brief determined the percentage of new and recovered materials that could be used in the artworks. The students adhered to the brief by only reusing materials. Groups 1, 2, 3, 4, 6 and 7 explicitly stated that they did not buy or use new materials to make their artworks and the only new materials Group 5 used for their mobile were photographs of houses. The students justified their decision by saying they wanted to lessen their environmental impact and “protect” the environment, and because there was “no need”. Group 5 talked about the specific materials they sourced, for example, G5S1 said, “I found the stickers were very lifesaving.”



*Figure 9. Group 7, 2009, Capacity [Mixed Media, Dimensions Variable].*

Every group sourced some items from home including toys, photos, artificial lawn (found on a neighbour’s verge) and chocolate wrappers. G7S1 proudly hinted how she ‘took one for the team’ by purposely eating chocolates left over from her Perth Royal Show bags for the wrappers: “yeah, it was a tough gig.”

Behavioural changes that occurred outside of school included not throwing “stuff” away, recycling more and reusing materials. G4S3 said, “I’m reusing a lot more things, like


I'm throwing a lot less things out." G6S1 made similar changes: "I knew you had to use the recycled stuff but now I'm using it more than I was." The students were reusing materials for craft projects, for example, making toys and building cubbies. G4S3 told me that since the project began, she had not bought any new cards – she made her own instead.

### **Scaffolding Activities**

As discussed in Chapter 3, I adopted a constructivist approach. The reason for including the scaffolding activities was so the students had a foundation to support their learning. The students had autonomy in planning their artwork. During the planning, the students were able to draw on previous classroom activities for thematic inspiration. Each group was able to recall at least one activity that helped them decide the focus of their artwork. Table 10 shows how each group was able to identify the scaffolding activity or other triggers that directly inspired their themes, designs or understanding of environmental issues. When I asked G1S1 if the excursions had any relevance to what I was teaching, she told me that at first she thought they may not have, "but then they actually really helped what to do our art about." G1S1 said, "The Sustainability Convention we went to, all the information and slide shows and talks that we've had have informed us all." Table 10 also challenges the classroom teacher's opinion that the students did not see any connection between the scaffolding activities and artmaking, especially in regard to Group 1's artwork examining the contrast in Australian and Bangladeshi living conditions.

On the other hand, Group 3 claimed that they were not influenced by any of the artists they had learned about during the first half of the project. Although they were not aware of it, *The Story of Stuff* (L. Fox, 2009) directly influenced Group 3. Table 10 shows how this group duplicated the Linear Model of Consumption (shown in the film) in their own artwork. In addition, G3S1 mentioned the 'golden arrow' a number of times during the project, a concept discussed in the film.

Table 10  
Scaffolding Activities Influencing Group Themes

Group	Artwork	Artist statement	Scaffolding activity	Pinpointing Critical Moments
1	 <p>Group 1, 2009, <i>Different but the Same</i> [Mixed Media, Dimensions Variable].</p>	<p><b>Different but the Same</b></p> <p>The message is different countries use different amounts of space for properties and homes. We're showing the differences between Australian homes and Bangladeshi homes. We have chosen to make houses out of cardboard. The Australian house also contains wood. We have used wire and stickers to put the walls together.</p> <p>The question we ask is: 'Do we need this much space?'</p>	<p>Sustainability Conference (Town Council activity)</p> <p><i>Bottled Water Disaster</i> (Janine @ Wai Not Go Green, 2009)</p>	<p>"We went to a sustainability conference . . . the guy . . . had been to Bangladesh . . . and he was telling us about how many people have to fit in their house" (G1S2).</p> <p>"We're showing the differences between Australian homes and Bangladeshi homes" (Group 1 artist statement).</p> <p>"The slide show about the plastic water bottles . . . That's bad for your health. Um, I kind of realised that in real life, when I had a water bottle in the car, and it had been really hot, and I went to drink from it and it tasted a bit funny, but I didn't really think it would be bad for me . . . it's like kinda drinking oil in a way . . . if you think about it" (G1S2).</p>

<p>2</p>	<div></div> <p>Group 2, 2009, <i>Rising Up</i> [Mixed Media, Dimensions Variable].</p>	<p><b>Rising Up</b></p> <p>We would like our artwork to show that if we don't do something now, some of our coastal cities will be flooded by water due to icebergs melting! Our style of artwork is an installation artwork. All of the materials that we used are recycled. The subject we chose was the water rising up over the time period of 50 years.</p>	<p><i>An Inconvenient Truth</i> (Gore, 2006) (S&amp;E program)</p> <p>Neighbourhood walk with local history librarian</p>	<p>“We made a [<i>sic</i>] installation artwork about global warming and the ice caps melting, which shows the waters rising and most of the coastal cities might be flooded in the near future . . . . I learnt it form watching the DVD <i>An Inconvenient Truth</i>” (G2S3).</p> <p>In <i>Rising Up</i>, the city of Perth is separated from the rising ocean by a band of yellow representing sand dunes. G2S3 said, “When we went on the walk, they said they demolished the sand dunes and they put them back and they demolished them and they put them back again. And that had a huge impact on the environment, and building new cities to accommodate all the people on the Earth.”</p>
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3



How *The Story of Stuff* (L. Fox, 2009) influenced Group 3's artwork.  
 top: Linear model of consumption from *The Story of Stuff*  
 middle left: G3S2's visual diary entry  
 middle right: G3S3's visual diary entry  
 bottom: Group 3, 2009, *What a Wonderful World <DUMP>* [Mixed Media, Dimensions Variable]

### What a wonderful world <DUMP>

Our 'big picture' for our artwork is 'The Environment'.

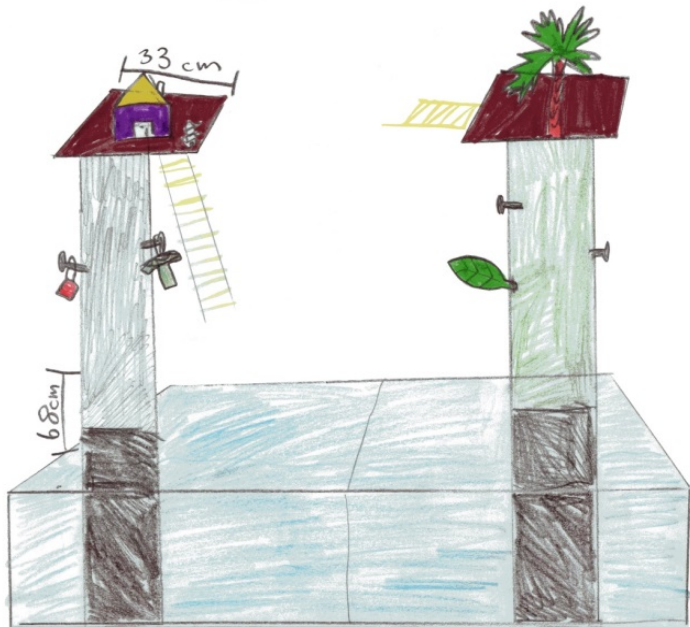
We have damaged our environment. We are showing you what once looked beautiful, is now a dump. In our comparison, one side is a fresh, happy and healthy environment while on the other side everything is dead, dark and gloomy. If we don't clean up our act (or the Earth), we will be polluting our air, speed up global warming and run out of natural resources.

YouTube documentary – *The Story of Stuff* (L. Fox, 2009)

Group 3's claim that their artwork was "totally original and was not inspired by any artist" (G3S1, visual diary) conflicts with visual evidence.



G4S1, G5S1 and G7S1, 2009, *Cities* (detail) [Mixed Media, Dimensions Variable]



Front view plan for *Broken Bridge* (G4S3, visual diary)

**Broken Bridge**

In our artwork, we are trying to show the broken bridge between society and the environment. The connection was once strong. We are also showing how the environment desperately needs our help and is reaching out to society to re-join. Our artwork is a sculpture, and the subject is 'Humanity's Effect on The Environment'. We used materials such as: cardboard, paint, wire, skewers, toothpicks, old computer parts and Lego© to make our artwork. We all had great fun working on this piece.

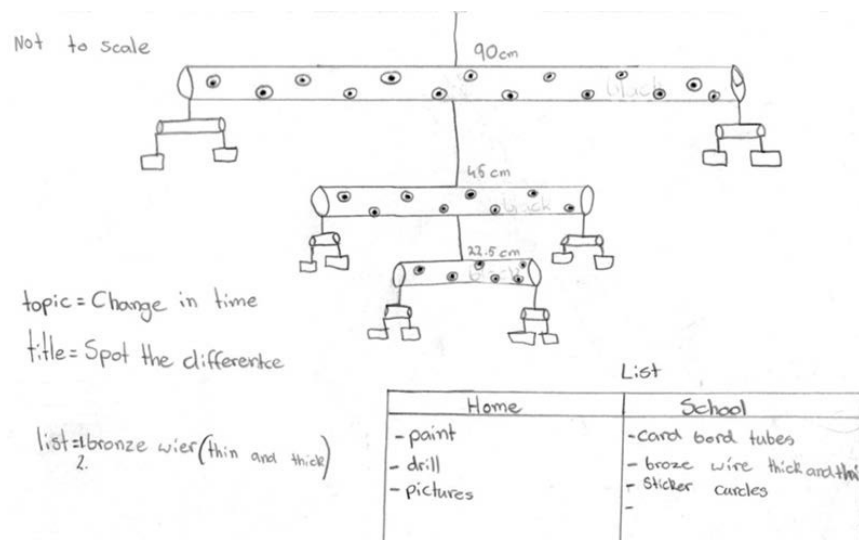
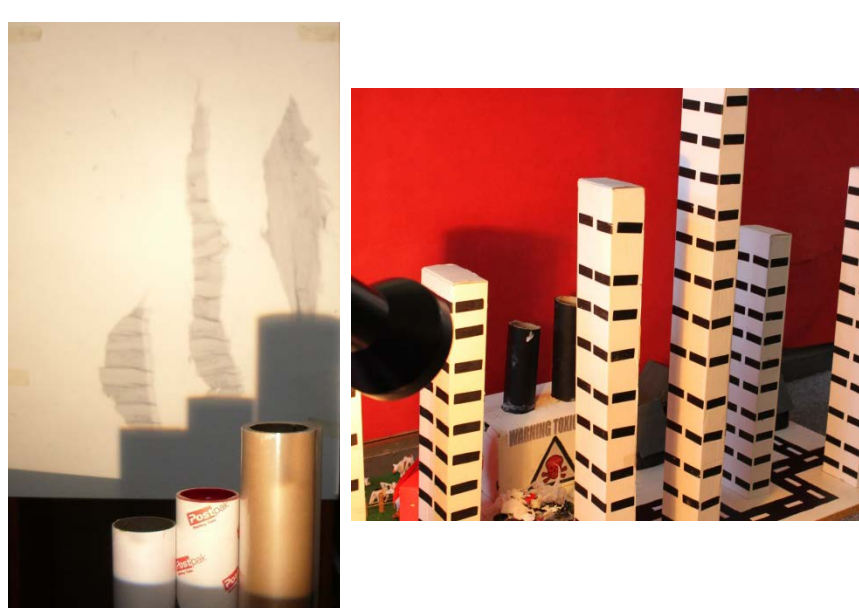
**Enjoy!**

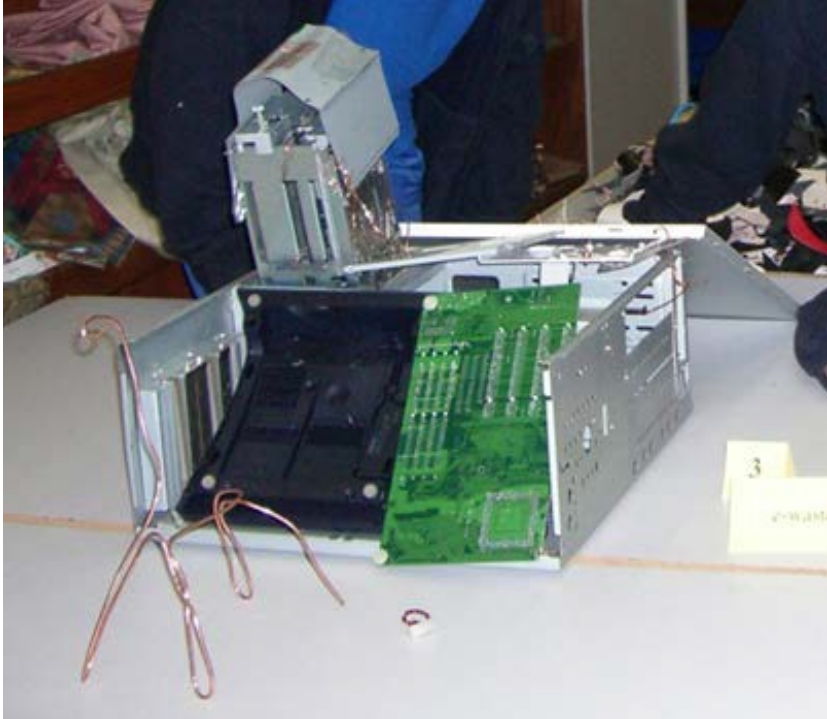
REmida excursion

S1G4 worked with S1G5 and S1G7 to produce a timeline sequence on the plinths found in the REmida gallery. Each plinth supported a small landscape. The sequence began with an idyllic countryside scene, which was green and pollution-free. Subsequent models became more and more polluted, showing how the environment is becoming more polluted as people are leaving the countryside to move into the city. The placement of the installation encouraged the audience to walk through the artwork and to view the work in sequence.

Similarities between the two artworks were:

- the artworks a perched on the cardboard tubes;
- the dichotomy between the idealised environment and the polluted environment;
- the placement of the pieces to encourage interaction viewer interaction with the artwork; and
- the introduction of colour as symbols (e.g. green for the countryside and browns, blacks).

5	<div></div> <p>Front view plan for <i>Spot the Difference</i> (G5S1, visual diary)</p>	<p><b>Spot the Difference</b></p> <p>Look at the past, present and future.</p> <p>Can you spot the difference?</p> <p>Is bigger better?</p> <p>Will houses get bigger or will they get smaller? In 1962, houses were smaller. They were easier and quicker to build than nowadays. Today, houses are big and take ages to build; some houses take as long as 3 to 4 years to build.</p> <p>The environment will suffer and the bigger things get the more the environment will lose.</p> <p>So</p> <p><b>Spot the Difference</b></p>	<p>Neighbourhood walk with local history librarian</p> <p>Alexander Calder mobiles (Visual Arts specialist program, Semester One)</p>	<p>The students’ observations were reflected in their artist statement</p> <p>During Semester One, the students studied the work of artist Alexander Calder and made mobiles (art teacher interview).</p>
6	<div></div> <p>left: G1S1, G4S3 and G6S1 explored transparency and opacity during REmida excursion</p> <p>right: Group 6 incorporated light into their artwork <i>Cornered</i></p>	<p><b>Cornered</b></p> <p>Our task was to reflect on humanity’s impact on the environment. This got us thinking: how could we show this through art? We presented this piece by showing the city taking up the majority of space and the country only having a small corner. This signifies the fact that the city is ‘cornering’ the country.</p> <p>Our message symbolises our reliance on the city.</p>	<p>Workstations – Weeks 1 and 5 REmida excursion</p>	<p>The students had several opportunities to experiment with transparency and opacity during the program. Group 6 incorporated light into their group’s artwork. Light and shadow were central elements in <i>Cornered</i>, where shadows were cast over the rural landscape so that all that could be seen was the dominant cityscape.</p> <p>“All the overhead projector ones gave us the idea, like putting the lamp and casting the shadow. Sort of like shadowy over the country” (G6S2).</p> <p>During the REmida visit, S1G1, S3G4 and S1G6’s task was to make the overhead projector an integral part of their artwork. The students experimented with the materials and made discoveries during the activity.</p>

<p>7</p>	 <p>G6S2, G7S1, and G7S3 used e-waste as materials to build an African hut</p>	<p><b>Capacity</b></p> <p>Our artwork symbolises how rubbish and landfill are taking over. Our purpose with this installation is to persuade the viewer that the rubbish being placed in landfill is too much, so it's going to natural landforms. The materials that we used include household rubbish, <i>papier-mâché</i>, paint and cardboard. The message behind this work is that we need to recycle more and reduce our landfill space.</p>	<p>REmida excursion</p> <p><i>Rivers and Tides</i> (von Donop, 2004)</p>	<p>Group 7's initial idea was inspired by an activity where G7S1 and G7S3 used e-waste to build an African landscape. Their artwork showed a city with an African village. "It's comparing a town or the middle of the city at night with lots of buildings and lots of empty space with all the lights on and no one's there. Then, on the other side, there's a real African area or a remote tribe with lots and lots of people and one hut and one water pump and it's all very, very small" (G7S3).</p> <p><i>Rivers and Tides</i> (von Donop, 2004) explored Andy Goldsworthy's artmaking process and gave G7S3 a conceptual understanding of installation art: "[it partially] relies on where it is, and you know the area that it's placed in or the conditions that its placed in. Like how . . . Andy Goldsworthy . . . used to do artworks in . . . forests and by rivers . . . That was his gallery. It was an outdoor gallery."</p>
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## Message

A construct that emerged from the student data was that Visual Arts is a dialogue between the artist, artwork and viewer. Research demonstrated that within this dialogue discussion and ideas arose and debated specifically though not exclusively about sustainability. This construct was visible in how the students attempted to inform and engage their viewers and is discussed in this section. The dialogue was also visible in my development as an artist (see /a/) and the response of adult viewers at my exhibition (see a/r/tography). An excerpt from Interview 3 (see Appendix G) shows that the students believed that Visual Arts have a purpose. For an artist, the purpose was “to show” or convey a “message”, and for the viewer, it was to “look” and “gain understanding”. The students experienced a shift in their beliefs. In the first interview, no one talked about how art could show a message; in the second interview, four students said they could create artworks with a message; by the end of the project, 14 of the 19 students interviewed cited “message”.

The students talked about how they were able to understand the messages conveyed in the other artworks displayed in the class exhibition. For example, G2S2 said, “I noticed that every single artwork we did showed a message and all of us could easily understand what it meant.” The students also noted how the artist statements supported the viewer to understand what artworks mean. G3S2 explained, “I was asked by my sister. She said, ‘what does it mean?’ and so I then told her to read the artist statement and then she kinda figured it out.” During the exhibition, I was able to observe how the artist statements supported the deputy principal’s appreciation of the students’ artworks. I noticed he had only glanced at some of the pieces. When I showed him the artist statements, he went back to read each one, and seemed to have a deeper level of engagement with each artwork. During his second look at the artworks, the deputy principal spent time reading the artist statements and came back to tell me how impressed he was by what the students had learned. He told me how the artist statements gave him a better understanding of what the students had made. He also appeared less dismissive of the ‘product’ compared to his first ‘viewing’.

Group 4 preferred to make art that was not “too literal” where the viewer “didn’t have to think”. The following dialogue is Group 4’s response when I offered my interpretation of *Broken Bridge*:

G4S3 – You interpreted that and . . . that’s . . . good that you got more message in it than we thought, like there was. That there was so many more hidden, like messages.

G4S2 – Things that we didn't see and other people look on it and go, 'Oh wow.'

G4S3 – It's different because you can ask what the viewer interprets from it and then share with them you're your interpretation . . . I think that I much prefer doing this type of art like, with meanings and stuff. Even if it just wasn't about the environment. I just think it's more enjoyable, like putting meanings and seeing how people interpret them.

G4S3 welcomed an exchange between the artist and the viewer and the possible ongoing dialogue through the exhibition process. Until this point, G4S3's previous experience of displaying artwork was to show, not engage the viewer. When exhibiting their artwork (see Figure 10), Group 4's intention was to have viewers engage by allowing them to walk through it.



*Figure 10.* Group 4, 2009, *Broken Bridge* [Mixed Media, Dimensions Variable].  
(Participants removed from the image to protect their identity.)

As well as delivering a message, the students recognised that Visual Arts could be used to initiate social change. The students used verbs to “teach” and “persuade” and to raise awareness. G1S2 explained:

I think that there's only a certain limit you can do as an individual because if you're the only person doing it then it's not getting far. You need to actually spread the message. Doing projects like this one makes people more aware.

Group 5's intention was to use *Spot the Difference* to encourage viewers to reflect on their lifestyles. G5S1 wanted her artwork to provoke viewers to question their values: “I want the viewer, after they've left, to look at the space that they live in and think to themselves: do I really need all this extra space that I won't use?” She wanted the viewer's experience to last longer than the time directly spent in front of the artwork. Group 5 attempted to give their viewers a strong message by positioning their artwork by a classroom window in order to incorporate the outside view. Group 5 had been commenting on unsustainable lifestyles, and the very homes they photographed for *Spot the Difference* could be seen from their classroom window. G5S2 said, “Sometimes you could just have a plain background to make art stick out or you could try and make the background be part of the meaning.” G5S1 continued, “We put it there and I saw the houses in the background and I thought ah it gives it a bit of a deeper meaning.”

An unexpected finding was that some students confused the term *installation art* with *conceptual art*. Installation artworks are mixed media constructions or assemblages usually designed for a specific place and for a temporary period. Works often occupy an entire room or gallery space that the spectator invariably has to walk through in order to engage fully with the artwork, while others are designed to be walked around and contemplated (Wilson & Lack, 2008, p. 106). On the other hand, conceptual artists “think beyond the limits of those traditional media, and then work out their concept or idea in whatever materials and whatever form is appropriate” (Wilson & Lack, 2008, p. 52). The common misconception from the nine students who believed installation art was “installing ideas”, or to “show your feelings”, was that these students thought installation art was artwork with a “message”. Even so, this misunderstanding did not affect what the students had learned about humanity's impact on the environment during the artmaking process.

## Process

My objective for teaching an open-ended, process-led program was to promote thinking and experimentation. When reflecting on the Visual Arts program, every group revealed that they found the nature of process-led lessons difficult at the beginning. In the beginning, the students told me, they experienced challenges with either working with the materials or choosing a theme for their artworks. Some students used emotive terms to describe how they felt, for example, “annoyed”, “stressed”, “frustrated” or “stuck”. Even so, each group managed to work through their process and completed their artworks and artist statements in time for the exhibition.

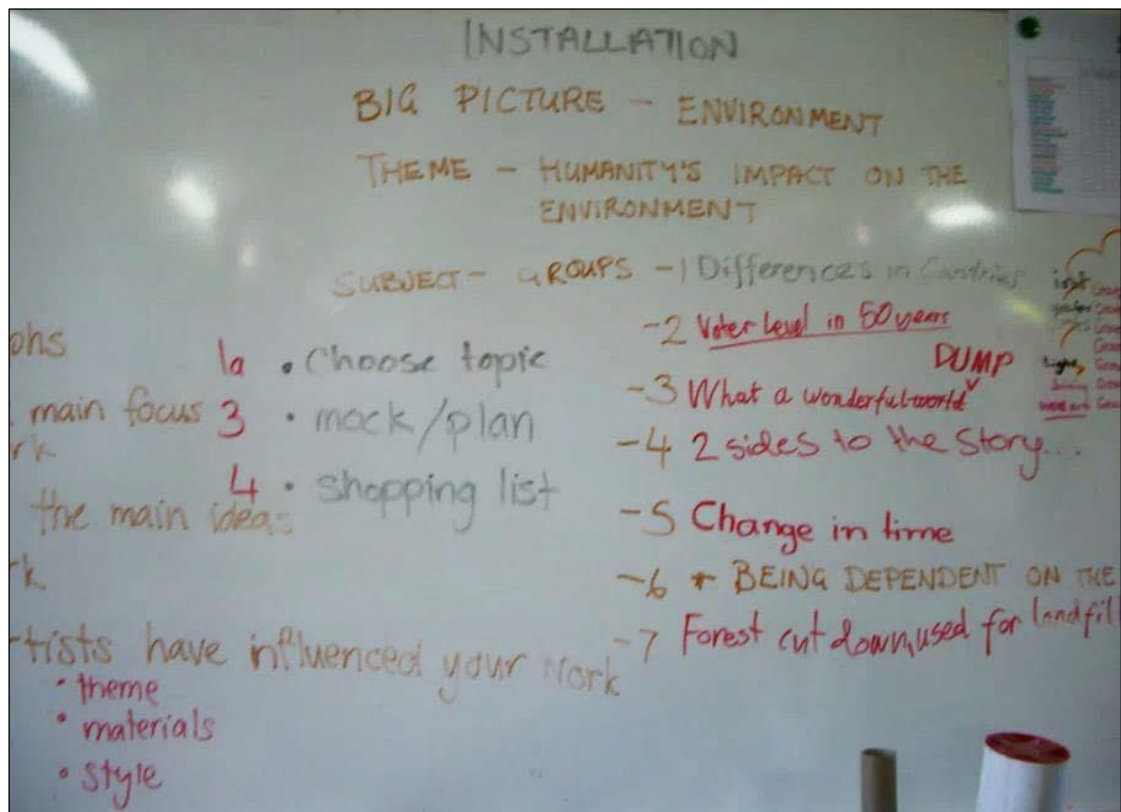


Figure 11. Students' choice of themes in Week 6. By Week 7, groups 4 and 7 had changed their themes.

When choosing a topic (see Figure 2), G1S1 highlighted some advantages: if “everyone ... [had] different topics ... then you’d learn more about lots of different things, instead of just one thing.” The students discussed how they came up with their ideas. Groups 1, 2 and 7 said they brainstormed ideas. By the second artmaking lesson in Week 7, groups 4 and 7 had changed their minds and were working on different ideas. Both groups thought their original ideas were too literal. G7S3 described his group’s decision-making process for Capacity (see Figure 1): “[We] racked our brains for about an hour. Yeah, it was actually really hard ... we wanted to think of something ... that wasn’t, you know, really obvious.” Likewise, G1S1 said it took time to decide on a theme.

The students reflected they needed to have time to decide on themes, plan artworks and to experiment with materials. Students used terms such as “eventually” and “finally”, which suggests the students require a significant amount of time to work through ideas and making time for reflection promoted creativity, “How could you make it more creative? I guess you could spend some time on it, leave it for a day, and think about it” (G5S1).

The exhibition brief required the students to make their artworks with a minimum amount of new materials. The students used a variety of materials sourced from REmidia WA and their homes to make their artworks. This meant that the materials the students chose to use to make their artworks did influence the students’ planning and artmaking process. For example, Group 2 (see Figure 12) wanted to include water as part of their installation artwork; however, they realised that they would not be able to build a watertight structure. Their solution was to paint a section of their artwork blue to represent the rising sea levels. When discussing her experience with using discarded materials, G1S1 said, “It was hard at first but then when you kinda got into the hang of using it then it got better.”

Just as G1S1 revealed the process was hard at first, each group reflected on how they worked through their challenges to find solutions. While the students used emotive terms to describe challenges, they were not so emotive when describing their successes. Even so, some students appeared proud when recalling how they overcame difficulties. For example, “got into the hang of”, “in the end we did it” and “it turned out”. Although G3S1 reminded me in Interview 3 that “kids don’t like planning”, it appeared that most of the groups had a positive attitude towards process-led lessons. G1S2 reflected, “I didn’t think that there would be a lot of planning because we’re not used to that sort of stuff so it was actually good for a change.” On the other hand, Group 4’s attitude was very positive towards process-led lessons and G4S3 told me: “I think that I much prefer doing this type of art . . . even if it wasn’t about the environment . . . I think it meant more to us and it got us thinking a lot more.”

On reflection, G1S1 revealed how she felt about being allowed to work autonomously and choose their own theme: “I think that if you did it yourself you get to learn more cos then everybody would have different topics and then you’d learn more about lots of different things, instead of just one thing.” Most groups had similar attitudes and, during Interview 3, they talked about other groups’ experiments with materials and artworks as well as describing their own processes and artworks.

At the end, the students reflected on the deeper insights they acquired from participating. For example, when G6S2 was reflecting on how much humanity was damaging

the world, he said, "I knew before that we were, but like after doing it, it's really opened my eyes about how much we are actually doing it."

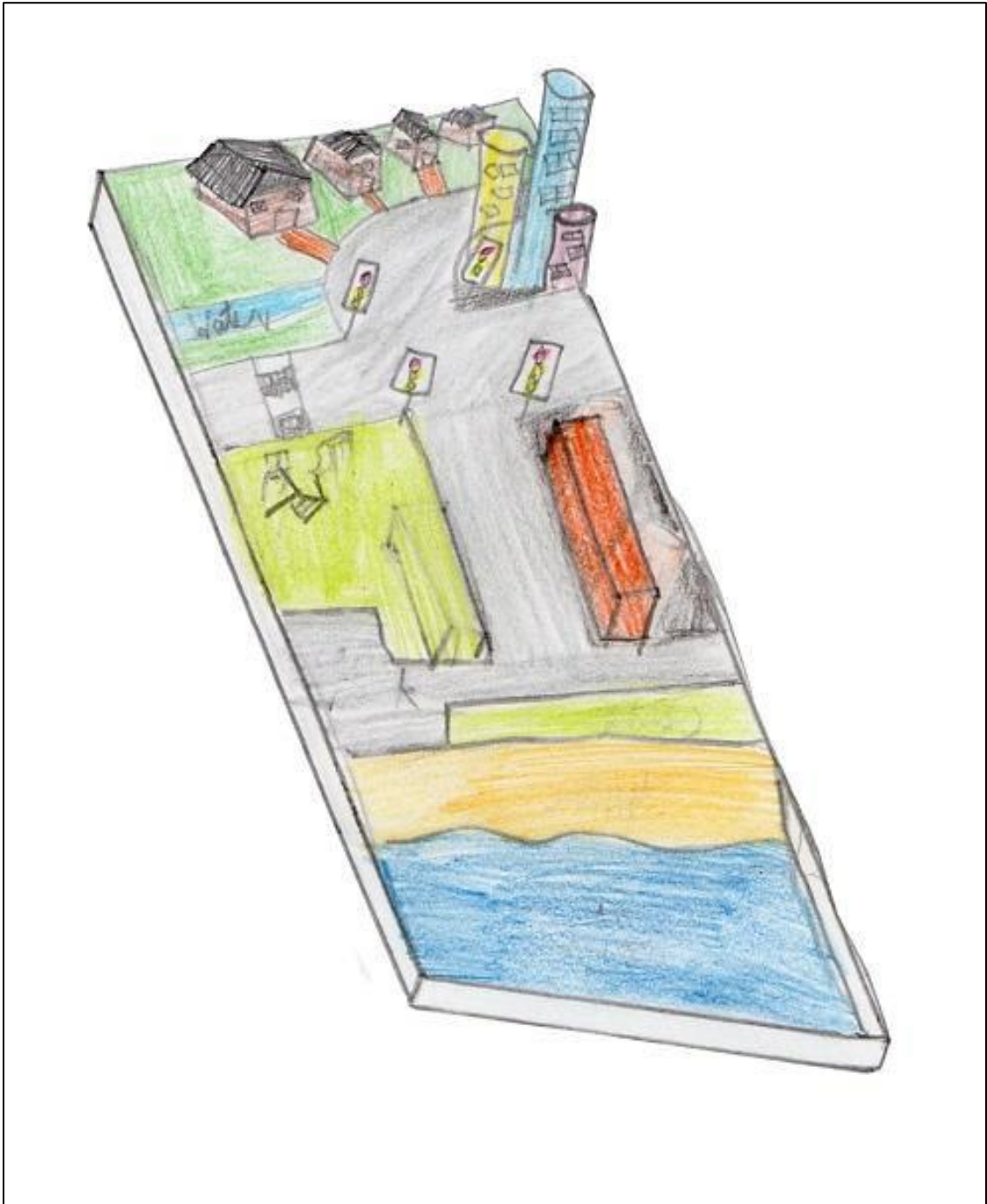


Figure 12. Bird's eye view plan for *Rising Up* (G2S2, visual diary)

## Teachers

### Explicit Teaching

#### *Classroom Teacher*

The classroom teacher had several concerns regarding the project, including a lack of explicit teaching and that the students were expected to demonstrate higher-order thinking skills:

I think they were incredibly high-order skills that you were asking . . . but I believe really strongly that they need to be explicitly taught how to do it first and then practise, practise and then an opportunity to then go, 'hey here's the materials go do it', but you can't do that in 10 weeks and that's not something that's done in [pause] that's something that's slowly built on isn't it? . . . It can't appear in 10 weeks.

My Visual Arts program was different to how the classroom teacher thought Visual Arts should be taught. She thought art should be a "fun" subject with opportunities for students to play, because, "put it this way, they want to get their hands dirty; they want to get in and make", and when reflecting on the students' experiences, the classroom teacher said, "they really struggled."

The classroom teacher considered Visual Arts to be in the same vein as Technology and Enterprise (T&E) and Science, and that all three subjects should be taught in a similar way, through explicit instruction. The classroom teacher did not see the relevance for 'hands-on' activities and experimentation to take place prior to any planning, nor did she give students much scope to change their minds once plans were drawn. During Week 7, the classroom teacher addressed the whole class:

This is art . . . if you don't take the time to use a ruler, to use a protractor or compass etcetera, it will look rubbish. Guarantee it. So go back to the drawing board, and I know because I've been teaching long enough. Every kid hates this part of T&E, of art, of science. Cos you guys love to do, I like to do as well, but your product will be much better if you plan. So go back to the drawing board.

In spite of what the classroom teacher told me during the interview, that Visual Arts should be fun, her directive to the class in Week 7 suggests otherwise. Instead, she expected it to be a skills-focused and product-based process. Even though the classroom teacher recognised the students' dislike of planning, she still insisted they refine their plans before making anything.

The classroom teacher was critical of my teaching program because she did not observe any specific examples of explicit teaching, “perhaps if you actually worked with someone and it was a proper plan and that I think can be improved for sure.” Further, the classroom teacher did not seem to notice the expertise provided by the educational officers from AGWA, REMida WA and the local council librarian.

### ***Specialist Teachers***

The specialist teachers had a predominantly explicit teaching style. The S&E teacher used a number of strategies to teach the climate change topic, including recalling, categorising and summarising information through investigations, note taking, report writing and discussion. The art teacher said she provided her younger students with opportunities for greater autonomy. However, because of the Year 7’s lack of confidence, resulting from their poor skills base, the art teacher modified her teaching style. The art teacher mostly taught a skills-based program, from Year 6 onwards, to prepare the students for high school:

They were just hesitant to do any art. They were hesitant to explore and they had no skills whereas by grade 6 you should have skills . . . but they had nothing . . . I want them to have confidence in themselves, to be able to explore so . . . I just went through basic things.

### **Collaboration**

#### ***Classroom Teacher***

The three teachers in this study did not collaborate. They worked autonomously. When discussing the Visual Arts program, the classroom teacher said, “I don’t think we worked as an integrated pair on that because it was you’re [pause] running your program in my room.” While I was teaching, the classroom teacher spent the majority of time in the classroom, using the time as her unofficial DOTT time.

The classroom teacher used strong emotive language when discussing collaboration, stating that there would be difficulties in timetabling and coordinating DOTT times: “The logistics of it within a school setting are – I think a nightmare.” The classroom teacher’s perception of collaboration was for teachers to work together in a tandem situation, where each teacher would have the responsibility for teaching a separate curriculum area, such as literacy or numeracy, because “it’s one less thing to think about.”

Although the classroom teacher thought that it “would be really difficult”, she said it was possible to collaborate with a Visual Arts specialist to run an Arts-based program. However, the classroom teacher thought the idea could only work if it was “initiated by the

teachers who are interested in working with the art teacher . . . . It has to come from within. No one can be forced. You've got to volunteer to do it." Considering her responses, it seems that the classroom teacher did not want to work collaboratively. She justified her decision by listing a number of factors that would limit working in collaborative teams, such as lack of time and teacher interest. However, the S&E teacher contradicted the classroom teacher by saying her programs were made available to all classroom teachers at the beginning of the year. The S&E teacher also explained that the school administration coordinated DOTT time for year groupings, "so that they might be able to plan or work together" (even though no such provisions were made for specialist teachers); however, the classroom teacher did not take up any of the opportunities.

### ***Specialist Teachers***

The S&E teacher was more willing to collaborate with others and thought it was possible. She told me that one of the reasons she taught her sustainability program in third term was because she was aware that it would coincide with my program.

The art teacher's interview revealed why the specialist teachers worked autonomously. When asked if she coordinated her program with any of the generalist teachers, she told me she did not. Her reason was that the other teachers did not want to collaborate because:

They just want me to give them their hour so they can have their break . . . . You basically can't even be sick as a specialist because they miss out on their time. Yep, I accepted that a long time ago. Yep, [the teachers are] not interested at all.

Despite the school culture, the art teacher turned many of the teachers' lack of interest to her advantage. Her Year 7 art program was student-centred, where "we just concentrated on what they wanted to do." The art teacher identified that, as a cohort, the students lacked confidence, so she wanted to teach them skills to develop their confidence in a fun way, "to learn that art was somewhere that they can make mistakes."

### **Time**

#### ***Classroom Teacher***

The classroom teacher timetabled an additional eight hours of class time dedicated to the art project, even though she complained, saying that time was a "massive issue" and "it's a constant issue with teachers", especially when it came to timetabling.

The classroom teacher remarked that the students' "enthusiasm waned" because they had worked on the project for many weeks and "nothing gelled". Discussing her encounters with the students, she said, "They were like 'ahhhh'" because they were still doing the project after three months. Her strategy to maintain the students' level of enthusiasm was to "do three weeks solid in the afternoon and work on it so it's a constant project . . . and I think that makes a huge difference to their level of enthusiasm. That's what I do in my programs." As a means of fitting everything into the curriculum, the classroom teacher had a 'tick the box' approach to teaching. Her strategy was to 'chunk' blocks of time:

That's how I run my T&E program. I call it my chunking sessions in the afternoon and I just nail it within two or three weeks, whatever the project might be, just to get it out of the way but also to give that opportunity so that the kids can . . . roll with it.

The classroom teacher did not consider allocating time for reflection. During Week 9, the classroom teacher and I discussed a possible date for the class exhibition. She suggested: "I think we pump it, because what will happen is whether we give them two weeks or one week, it's not going to make any difference."

### ***Specialist Teachers***

The common issues the specialist teachers had in regard to the lack of time, in particular, was that they were working over a number of sessions and wanted to make sure that they made effective use of their time during each session. The S&E teacher also discussed maintaining student interest and continuity. The S&E teacher said that showing *An Inconvenient Truth* (Gore, 2006) presented problems because the movie was approximately two hours long yet her lessons ran for only one hour. To maintain the students' attention, the S&E teacher told me that the students could only view the DVD in 40-minute blocks because it took time to settle the class. The art teacher also noted that the effective teaching time within a 60-minute sessions was less and complained that there was not enough time. She "hated" the lack of time and found it "horrible" because she had to be "very organised before I go in and pack so much into an hour." The art teacher would have preferred to have 90-minute sessions because she thought the students felt "rushed" because each session also included cleaning-up time. For the art teacher, the impact of 60-minute sessions meant: "so about the time you've finished explaining something, ah get onto it and then clean up, that's it and you have to really limit your talking." The other issue the two specialist teachers experienced with a fragmented program was they "had to do it over sessions", said the S&E

teacher, and the art teacher explained how one art project took the students “weeks and weeks and weeks and weeks to do.”

A separate issue the S&E teacher highlighted was that she did not get continuity in her program. She compared her situation to high school, “where you only see them for a period and they go somewhere else.” She thought one disadvantage of this model of teaching meant:

If you’ve got something going and you are able to fly with it then you are able to maintain that interest, whereas when you have to switch it off and start again, you know you’ve got to fill that up again and all this takes time.

### **Teacher perceptions of student learning**

#### ***Classroom Teacher***

The classroom teacher said, “I don’t think they got it to be honest, Sue”, when discussing what she thought her students had learned from the project. She elaborated by recalling her interactions with the students, who said:

‘Ah we don’t know, understand.’ They did not understand why they went on the walk . . . I said, you know . . . sustainability, the network meeting we went to. Going and talking about the Bangladesh acidic water, blah, blah, blah. They didn’t get it. They didn’t get how all those pieces connected together.

#### ***Specialist Teachers***

When I asked the S&E teacher why the students did not tell me they did not understand, her response was: “I think they gave you answers you wanted to hear because of . . . [the] types of kids they are.” The art teacher concurred: “They said they didn’t understand what they were supposed to do . . . but because they are so well behaved they didn’t come up and ask you.”

## Discussion

The discussion in this section relates to Phase One findings and is framed in terms of the Phase One research questions. In terms of student learning, the aim of the classroom study was to use Visual Arts to facilitate environmentally sustainable awareness, with particular emphasis placed on the creative reuse of discarded materials. In terms of improving pedagogical practice, the classroom study aimed to demonstrate how EfS could be implemented through Visual Arts education. The findings show that the Visual Arts program did facilitate shifts in environmentally sustainable awareness among the students. Every group was able to fulfil the exhibition brief to produce an artwork that explored humanity's impact on the environment. The students worked in small groups and shared in the decision-making process. Working in the capacity of a teacher, in regard to topic choice, I played no part in any of groups' decisions. I offered help during the planning stage, when requested; however, the students worked autonomously throughout the artmaking stage. An unexpected finding that emerged from this research was that the Visual Arts program also facilitated shifts in the students' attitudes and behaviours. By participating in the artmaking process, the students had time to reflect on Western values, to the point where they began to question Australian lifestyles and the role that consumerism plays in environmental degradation. The students also began to make small self-initiated behavioural shifts outside the classroom. In contrast, the teachers' perception of student learning conflicted with my observations of the student learning that was taking place in the classroom. In addition, the teachers were unaware of any behaviours occurring beyond the classroom context, as they reported no change in the students' awareness, attitudes or behaviour. They claimed the students did not understand or were unable to see the relevance of the scaffolding activities, even though the evidence suggested otherwise.

The disparity between the students and the teachers shows how the ideological and methodological decisions made by a researcher can affect the outcome of their research. If I had chosen to frame the research in a way where the teachers' voices were privileged over the students', my findings would have shown that the Visual Arts program did not make any difference to the students' sustainable awareness. Instead, I designed child-centred, open-ended, process-led lessons steeped in constructivist ideology, where the methods of data collection were aimed at giving children their voice (Harwood, 2010). The findings reveal the student experiences were inconsistent with the teachers' perceptions of students' learning outcomes. The disparity in these findings may have significant implications on the perceived value of the role Visual Arts may play in integrating Sustainability into the curriculum, if Visual

Arts education is devalued. As P. Carter (2004) argued, “the process of material thinking enables us to think differently about our human situation” (p. xii).

## Research Question One

*How does the act of engaging with discarded materials, in a Year 7 Visual Arts program, facilitate environmentally sustainable awareness?*

### Environment

My research adhered to REmida’s philosophy and guidelines (Gandini & Kaminsky, 2005). Through the scaffolding activities and along with the S&E program, the students had access to information that explored local and global environmental degradation. Apart from the school-based activities, the students had access to external education service providers, including AGWA, REmida WA, the local council and the local library. REmida WA is one of many EfS service providers available in the Perth metropolitan area (see Appendix H). The students then followed a structured exhibition brief that guided rather than directed them, so they were free to explore environmental topics they found personally relevant. To date, there has been one previous study relating to REmida WA (McAuliffe, 2003); however, there are studies that indicate how other EfS service providers are supporting Sustainability in Perth schools. These programs go beyond providing content-based learning, and move towards supporting students to become environmentally conscious, and thus play a role in generating sustainable solutions (Lewis, Baudains, & Mansfield, 2009; Prabawa-Sear & Baudains, 2011; Salter, Venville, & Longnecker, 2011). In regard to achieving behavioural change, Prabawa-Sear and Baudains (2011) found that while it was easier to raise environmental awareness and change students’ attitudes, behavioural change was more difficult to achieve. Whereas, my findings show that the Fairview students had made some behavioural changes, including reducing the use of electrical appliances, consumption of water, riding and walking to more places and reusing materials more often. Prabawa-Sear and Baudains (2011) also found, overall in Australian schools, that students are taught facts through Science-led EE. I concur with Prabawa-Sear and Baudains, in that teaching through a single method fails to provide tools to support social reconstruction advocated by the UN (United Nations, 1992; UNESCO, 1978; Tilbury, 2011).

Teachers should aim to expand their range of methods to teach Sustainability across the curriculum. Visual methodologies may add a different perspective, for example, the creative reuse of discarded materials may encourage students to reflect on potential resources sent to landfill. This research revealed that all the students experienced some raised

awareness through the artmaking process. G2S2 experienced the greatest shift. At the beginning of the project, he reported that he made no impact on the environment; at its conclusion, he was able to reflect and identify the consequences his behaviour could have on future generations. Likewise, G1S2 became more aware of humanity's impact. He was able to make personal connections with what he learned through the scaffolding activities. Further, G1S2 experienced attitudinal shifts by revealing he valued the environment more. The artmaking process shifted his perceptive by allowing him to think about the environment at a deeper level over the four sessions he spent making his artwork. It could be argued that the students were learning about climate change through the S&E program and the scaffolding activities; however, my observations and the data from Interview 3 confirm that most of the changes occurred because of the artmaking.

For the students, the artmaking stage initiated dialogue with discarded materials. The *materiality* of processed materials, discarded and destined for landfill, invited *reflexivity* and in turn facilitated *shifts* within the students. Interviews 1 and 2 showed that the students were beginning to make minimal shifts during scaffolding activities, whose purpose was to introduce REmida materials as a stimulus to plant the seeds for future 'green' behaviour on a personal level. For most groups, they revealed the greatest shift occurred during the artmaking stage, when they began to engage with the materials physically. The students' attitudes towards discarded materials and reuse changed. During the course of the project, many of the students began to question the need to use new materials when there was so much waste going to landfill. They began to perceive discarded materials as valuable resources, regardless of whether they were REmida materials or not. The students brought in materials from home, to supplement the available art resources. Their attitude towards REmida materials was becoming increasingly positive as they started to re-examine the potential of all discarded materials around them. Towards the end of the project, the students showed that they had made an attitudinal shift towards the concept of creative reuse that led to behavioural changes occurring out of school. At home, the students were reusing materials for arts and crafts projects or saving them as art resources for future activities. Others collaborated with friends or siblings to make cubbies and toys. In each case, the students made self-initiated behavioural changes. There was no mention of any adult involvement or acknowledgement that parents or teachers were even aware that creative reuse was taking place in the home.

The Fairview students were making small changes, such as reducing energy consumption and reusing materials without any adult involvement or intervention. However, it is possible for children to motivate and mobilise people with the support of their school, parents and the wider community. For example, secondary sources of information from

websites provide examples of small classroom projects, in the US and Europe, that have inspired young people to rally large groups of children and adults to instigate real change. These initiatives are gaining support in that a number of companies are reconsidering their unsustainable behaviours and making changes to their product packaging (<http://storyofstuff.org>). Another website highlights how one child's commitment to the environment has led to Plant for the Planet, a global movement pledging to plant one trillion trees to help reduce carbon emissions (<http://www.plant-for-the-planet.org>). However, in the context of this research, due to my limited time and exposure to the students, there is no way of knowing if the small changes that were started by the Fairview students continued into the long term.

Nevertheless, what this research did indicate was that the students' completed artworks and artist statements reflected their raised awareness of environmental degradation, including global warming, consumerism, industrialisation and pollution caused by adhering to an unsustainable Western lifestyle. In general, the students associated the concept of nature and the natural *environment* with the term *environment*, including the built environment. The students started to think in global terms, where the term *environment* no longer meant *place*; instead, it meant *everything* and *everywhere*. Throughout the project, the students acknowledged that the environment was important to them for their wellbeing and survival. Initially, some of the students gave relatively superficial, self-centred reasons. As the project progressed, these same students started to think globally, not only in terms of humanity, but also for the wellbeing of other species and for future generations. Further, the students acknowledged that humans, including themselves and their families, have a negative impact on the environment.

Not only did the students acknowledge that humanity has a negative impact on the environment, they were also able to recognise why individuals and societies were not willing to make sustainable shifts. The students were able to identify some of the same barriers to sustainable change that were identified in the literature (Bazerman, 2006; Flannery, 2005; C. Hamilton, 2007; 2010; 2013; Spence & Pidgeon, 2009). By the end of the project, the students were able to identify personal barriers that hindered change. For example, the students noted that some people thought that some minimal effort was sufficient to make a difference; others felt overwhelmed, lacked foresight, were lazy, apathetic or were selfish. Some students also exhibited some scepticism towards the current behaviour of governments. Other students believed that the problem lay with multinational companies who promoted a culture of unsustainable consumerism, used the resources of developing nations or developed products with planned obsolescence. The students expected governments and industry to

take a greater role to reduce environmental degradation, considering their actions had global implications. In general, the students' attitude towards climate change corresponded with Australian attitudes. They believed climate change was happening and they reported they were taking personal action to reduce their impact on the environment (The Climate Institute, 2010; Garnaut, 2008; Leviston et al., 2011).

### **Visual Arts**

During the artmaking stage, I was present in the students' classroom for eight hours over four sessions. The teacher advised me that she provided additional class time for the students to plan and make artworks so that they would complete their art in time for the exhibition. Therefore, I am unable to ascertain what influence, if any, the classroom teacher had in the design and construction of the students' artworks. Considering this, it appeared as if the groups did not make much effort to alter the materials other than to cut them to size or paint them. The artworks looked like 'school art', even though the students were encouraged to reuse the discarded materials in a creative way. The 'look' of the student artworks is consistent with other research incorporating Visual Arts in schools (Anderson & Guyas, 2012; Campbell, 2011; Inwood, 2010; Marshall J., 2010; Stathopoulou et al., 2008). The students' reflections, in Interview 3, reinforced that the 'look' of the artefacts did not match the learning that was taking place through the artmaking process.

A variety of REMIDA materials were available for the students; however, the students chose to work predominantly with cardboard boxes and tubes. Despite having had previous experience working with cardboard boxes and tubes, the exhibition brief forced the students to explore alternative joining methods, where the students experienced difficulty and frustration as they were engaging in material thinking for the first time (Barrett & Bolt, 2013; P. Carter, 2004). For Group 2, this meant rethinking the design of their artwork after realising their materials were incompatible, for example, trying to fill a chipboard container with water. For other groups, they had to learn new techniques to achieve their vision, for example, learning how to make *papier-mâché* volcanoes and how to attach photographs to a mobile using thin copper wire.

Through the artmaking process, the students recognised how the power of aesthetic transformation can increase the perceived value of discarded materials. The groups found no problem with upcycling and no one used any new materials, other than paint. Their shared attitude concurred with artists such as Goldsworthy and Mach, in that it is not enough just to assemble discarded materials, it is also important to make them look beautiful so that others stop and take notice. The artists believed the artwork should expose the beauty and hidden

potential of everyday materials (NTDTV, 2008; von Donop, 2004). According to the students, aesthetic appeal is the trigger that changes people's minds and makes them reconsider the value of discarded materials.

## **Research Question Two**

*What are the implications for an a/r/tographer's Arts- led practice for teacher education and the improvement of pedagogical practices in primary Visual Arts education?*

### **Barriers for Teaching EfS through Visual Arts**

The teacher interviews revealed that the teaching culture at Fairview would not support an EfS program grounded in the Visual Arts. I was able to identify a number of barriers for Visual Arts-led EfS at Fairview. Although the teachers experienced institutional barriers, including time issues associated with a crowded curriculum, their biggest barrier was the teachers themselves. Factors such as teacher-directed lessons, a superficial understanding of the value of Visual Arts in EfS and the lack of interest towards collaboration are personal barriers that affected the implementation of an integrated approach to EfS.

At Fairview, the classroom teacher considered that Visual Arts offered students relief from the 'real' learning that occurs in classrooms. I agree with the classroom teacher that Visual Arts should be enjoyable; however, this research reveals that Visual Arts is not a superficial 'soft' subject and that handling discarded materials, such as REMIDA materials, facilitated shifts in sustainable awareness and attitudes. The findings show that an open-ended, process-led approach to artmaking encouraged the students to reflect on their environmental footprint. Further, some students were making self-initiated behavioural changes. Teacher-directed instruction is an effective approach to teaching skills and techniques; however, it is not appropriate in all situations, particularly when Visual Arts is an agent for social reconstruction (Efland, 1990). At Fairview, the art teacher was inclined to base her program on the Mimetic-Behavioural Model. She justified her explicit teaching style as a means to instil confidence in the students and to prepare them for high school. Even though Efland (1990) identified four teaching models (see Table 3) of Visual Arts education, linking aesthetics, pedagogical theories and ideology, the students were used to an explicit teaching style. At Fairview, Visual Arts was regarded as a stand-alone subject and there was no evidence to suggest any integration in the Year 7 class. A likely explanation for this could be that Visual Arts was considered a 'specialist' subject; therefore, the classroom teacher did not

feel the need to plan for this subject, leaving her more time to prepare and devote to other subjects.

An important theme that emerged from the teacher interviews was a perceived lack of time. The classroom teacher had to cope with a crowded curriculum and was expected to participate in school-wide initiatives and programs. The classroom teacher's strategy was to program in "chunks" of time where she would timetable afternoon sessions for projects in order to "nail" a project over consecutive days, over a two- to three-week period. The teacher gave two reasons for this strategy. The first was to "just to get it out of the way." The second was to maintain continuity. Alternatively, working as a specialist teacher had its own challenges. The two specialist teachers' major hurdle was delivering their programs in one-hour blocks. They felt they did not have sufficient time; consequently, it affected the delivery of their programs. The S&E teacher identified a lack of continuity as a key factor that made it difficult to maintain a level of interest in her programs. An added challenge the art teacher faced was to factor in time for cleaning up after her lessons. She claimed it limited the amount of talking in her lessons. The implication of having limited opportunities to talk during a hectic Visual Arts lesson means there are probably even less, if any, opportunities for reflection. Therefore, the challenge for implementing visual methodologies in the primary school setting is making time for practice-led research.

Nimkulrat (2009) noted that a limitation of practice-led research, which complements the Pragmatic Social-Reconstruction approach to Visual Arts education, is that it is time-consuming. Time is necessary to develop a dialogue with materials, and to understand their physical and metaphoric properties. Students cannot develop the quality of dialogue that is promoted through REMida's philosophy of creative reuse (Eskesen, 2006/07; Gandini & Kaminsky, 2005; Giacomini & Ferrari, 2005; Pettersen, 2007), the Reggio Approach (Dewey, 1934; Vecchi, 2010; Vecchi & Giudici, 2004) and new materialism (Barrett & Bolt, 2013; P. Carter, 2004) when the finished product becomes the measure of achievement. Fairview's culture of explicit teaching was incongruent with the exploration and experimentation that comes with Materials-led Inquiry. The students were expected to 'get it right' the first time, without being given time to work out what 'right' meant to them. The classroom teacher privileged the plan over the materials. In this particular context, when the Visual Arts are the vehicle in which EfS is being taught, I disagree with the classroom teacher's approach of planning before handling the materials, especially when the objective of EfS is to build the students' capacity for transformational change (ARIES, 2004-2012) and artmaking can be a method to initiate attitudinal and behavioural shifts. In this situation, I suggest that it may be more beneficial if students are allowed to handle unfamiliar materials, so that they can identify

and take into account the potential and limitation of materials they choose to use, before any planning takes place.

The situation at Fairview mirrored the research (Prabawa-Sear & Baudains, 2011), where students were exposed to lessons based solely on knowledge acquisition and learning about climate change through one subject area. In the Fairview context, the students learned about climate change during S&E. The limitations faced by the S&E teacher were that she was working in isolation and teaching in one-hour blocks, which made it pragmatic to focus on teaching content and skills. Likewise, the classroom teacher was experiencing her own time constraints; therefore, she preferred to work autonomously as a way of coping with a crowded curriculum. Teaching content was the classroom teacher's priority and she did not accommodate time for student reflection in her timetable. However, with support from the classroom teacher, the S&E and the Visual Arts programs could have been the basis for an integrated approach to Sustainability. For example, if the classroom teacher was open to collaborating with the specialist teachers, the art teacher's role could be adapted to reflect the way that an *atelierista* supports educators in the Reggio setting. In the Reggio setting, the *atelier*, *atelierista* and the entire school are interconnected. The *atelierista*'s role is to bridge teaching and learning through the creative process and visual modalities. The *atelierista* collaborates with the classroom teacher to co-construct learning experiences for the students and works alongside students to co-construct meaning and to learn through visual languages (Parnell, 2005).

I acknowledge that the Reggio Approach is an early childhood approach to education that leans heavily towards social constructivism. However, Hesterman (2011) has identified an independent school in Perth, WA, where those educational principles are taught through to Year 10. Further, Reggio principles only guide REmida; they do not bind REmida. Sustainability through creativity is what underpins this organisation's philosophy. REmida is an extension of the *atelier* model, a space that invites visual methodologies into the classroom where the *atelierista*'s role is to provoke learning through artmaking. There is no reason why such an approach cannot work in a WA government primary school, considering the Australian Curriculum expects Sustainability to be integrated into the curriculum wherever possible (ACARA, 2013a). When an individual teacher's passion drives EfS, rather than a whole school's commitment, behavioural change is less likely to occur (2011). It is more likely that the barriers are in the classroom, including the barriers of teacher and parental views on sustainability, rather than in administration or through the curriculum (Lewis et al., 2009; Prabawa-Sear & Baudains, 2011; Salter et al., 2011).

For example, in the context of this research, the Pragmatic Social-Reconstruction Model (Efland, 1990) was the most appropriate model to apply considering that the aim of EfS is to do more than just inform students about the environment but to bring about change on a personal level and through social reconstruction (ARIES, 2004-2012; Tilbury, 2011). Visual Arts can become part of a teacher's repertoire to embed Sustainability across the curriculum, where Visual Arts can add an extra layer to knowledge acquisition through material thinking (Dewey, 1934; Barrett & Bolt, 2013; P. Carter, 2004). The Pragmatic Social-Reconstruction Model can empower students to adopt Australian values outlined in the Melbourne Declaration (2008), ARIES (2004-2012) and the Australian Curriculum (ACARA, 2013b), and to fulfil environmental goals espoused for the DESD (Tilbury, 2011) and beyond its conclusion in 2014.

### **Teachers' Perception of Student Learning**

Together, the classroom teacher and the art teacher thought the Year 7s did not understand the purpose of the Visual Arts program. The students complained to their teachers that they did not know or understand my expectations. Since the teachers did not specifically mention or recall who, when or how many students approached them, it is impossible to know exactly what circumstances elicited those responses from the students. Contrary to the two teachers' perceptions, my observations, my interactions with the students during the project, and the students' discussion of process, during Interview 3, revealed otherwise. I found all students did understand the exhibition brief and showed their understanding by fulfilling the brief to complete an artwork for the class art exhibition. What I assume was occurring was that the students' interactions with the teachers, early in the artmaking stage, influenced the teachers' perceptions. When some students expressed a measure of discomfort, the reason may have been the students were not used to my teaching style.

A possible explanation for the teachers' perceptions may have related to their own confusion rather than the students' confusion. According to Long (2008), teachers experience a level of discomfort when they are exposed to unfamiliar situations where multimodal projects incorporate traditional and non-traditional methods. Teachers sometimes express "doubts about their capacity to help students find topics that interest them, research the topics, and ask hard questions about the materials they are engaging with because they are struggling with the same issues themselves" (p. 287). At Fairview, the classroom teacher could not come to terms with how Visual Arts education could be a platform to develop higher-order thinking skills. Long (2008) went on to explain that teachers "find it hard to imagine how their students will collaborate and engage with materials, often without teacher's direct

intervention" (p. 287). This was evident in Week 6, when the classroom teacher stopped the class and asked the students to revise their plans. This example highlights what Long ascertained in regard to students' reactions to coping with the change from teacher-directed to open-ended lessons. Long discovered that when students are first exposed to autonomous learning, they approach the experience with some caution, especially when they are accustomed to fulfilling a teacher's criteria for success. The Fairview students did display some degree of caution during class discussions. They were reluctant to talk in front of a large group; however, when they were on-task, they spoke freely. Some students approached the project with resistance and the teachers reported their complaints. During Interview 3, reflecting on the artmaking process, the students used strong emotive language to describe their struggles with process; however, each group also described how, through persistence, they were able to find solutions. Group 3 admitted they did not like the planning and process; nevertheless, they recognised it played an important part in long-term projects.

Another likely explanation for the students' reactions may be the discomfort they were feeling as they were being pushed out of their *comfort zone*. For example, Piaget's theory of cognitive development, describes the discomfort associated with being in unfamiliar territory as typical of personal growth and development as students move past their comfort zone (M. Brown, 2008). The "intellectual development and personal growth do not occur if there is no disequilibrium in a person's current thinking or feeling" (Prouty, Panicucci, & Collinson, 2007, p. 39). This period of disequilibrium, known as the *groan zone*, occurs when students experience some feelings of uneasiness and self-doubt. By overcoming these negative emotions, students enter the *growth zone*, where learning occurs (M. Brown, 2008). Likewise, during artmaking, taking a 'leap of faith' and moving into unfamiliar territory is disruptive:

One of the difficulties of such a repositioning of the students' attention is their likely initial resistance to this idea. There is no sure and safe path through the conceptual material that will take them beyond their known map of their world. It is a journey, the beginning of which is one of disorientation and loss, one that necessitates a certain amount of anxiety and confusion. The trick is to provide them with the confidence to leave behind the safety net. (Ravenswood & Wearne, 2003, p. 60)

The students at Fairview experienced some level of discomfort and the classroom teacher and art teacher recalled complaints made during the initial stage of the artmaking process. During Interview 3, every group recounted the difficulties they encountered while in the *groan zone* by describing incidents of annoyance, frustration and restriction. Nevertheless, the students did not reflect negatively on the artmaking process. The strategies students employed to achieve a measure of growth were collaboration, brainstorming and

experimentation. Further, G3S1 reported that in order to complete the process, they needed time and did not want to feel rushed. The students' response to an alternative teaching style and the teachers' perception in response to student learning emerged as an unexpected finding; any further investigation as to why the students and teachers felt the way that they did is beyond the scope of this research.

In this chapter, I have discussed the perceptions of the three Fairview teachers. The perceptions of the fourth teacher, myself, have been absent from much of the discussion. In the following chapter (see section /t/), I discuss the aftermath of the Visual Arts program at Fairview and how this research reformed my teaching practice. What I found was the students' artworks challenged my expectations. What I expected I would see was examples of installation art that were very similar to the quality of artwork regularly produced in the Reggio setting. I was disappointed with what I encountered: seven models typical of the S&E or T&E genre. Although the students were immensely proud of their efforts, I had to hide my disappointment. The lack of beauty (in my eyes) held me back from assessing what the students had learned from the project (see /a/). In some ways, I was no different from the deputy principal who, at first, found it difficult to engage with the artworks.

Halliday (cited in McCormick, 2011) stated that language functions as means of communication. I concur with Halliday and, in this context, I privileged visual language over the written and spoken word; in my case, the lack of aesthetics present in the student artworks prevented me from engaging with many of the pieces. It was only by engaging with the linguistic modality that I was able to appreciate the visual modality. According to McCormick (2011), creating meaning in more than one modality forces the "artist to re-examine the central concept of the original composition" (p. 380). I consider the same is true from the viewer's perspective, and transmediation supports analytical thinking across two systems where "the supporting details of a concept are inherently connected in one sign system in order to create the structural equivalent in the second system" (p. 380). Once I resigned myself to the fact that the students' strongest modality was the linguistic, as indicated by their NAPLAN results (Australian Curriculum and Assessment Authority, 2010), I could then appreciate the learning that had occurred through artmaking.

The value of approaching learning through transmediation is that it goes beyond translating ideas. When working multimodally, students need to make new connections to construct meaning (McCormick, 2011) and, as such, I found that in order to understand meaning effectively, I needed to engage with all aspects of the students' learning, including the artwork, artist statements and the final reflections in Interview 3. What I found was, overall,

the students' skills levels did not progress, since this was not the purpose of these Visual Arts lessons. Instead, the learning that took place was at a deeper level. What all the students learned, in varying degrees, was how they were connected to the environment and that environmental degradation was not just the fault or responsibility of others. In addition, the students recognised that the limited sustainable behaviours they reported at the beginning of the Visual Arts program were inadequate to effect real change. For all the students, this meant raised sustainability awareness and attitudes, and some students reported they were making behavioural shifts.

## Chapter Summary

In this chapter, I presented the research design, findings and discussion of the qualitative Phase One research conducted with the Year 7 students from Fairview. I taught Visual Arts in order to raise student awareness in regard to the environment and sustainability. The students participated in a child-centred, process-led program where I implicitly taught REmida's philosophy. Factored into an exhibition brief, the students were required to reuse discarded materials. The aim was to trigger reflective thinking in the students to raise their environmental consciousness. As the sole researcher of this study, I worked in the capacity of a primary Visual Arts specialist for the duration of Phase One.

The participants attended a government primary school in an affluent Perth suburb, especially chosen because of the close correlation between prosperity and negative environmental impact (Australian Conservation Foundation, 2004-2012). The students' NAPLAN results show that the Year 7s were high achievers in numeracy and literacy (Australian Curriculum and Assessment Authority, 2010). However, according to their art teacher, they had limited skills in Visual Arts. The research design and data collection methods took into account the challenges of working with 12-year-olds and I was mindful of making sure the students' voices were heard over and above the adult participants in the study. In doing so, the findings reveal that there was some disparity between student learning and the teachers' perceptions of that learning. Through thematic analysis, I arrived at a number of constructs that emerged into three themes: *materiality*, *reflexivity* and *shifts*. The findings were presented in two sections relating to the Phase One research questions. To provide the reader some sense of the inconsistency between student and teacher findings, this section was densely populated with the participants' own voices. The teaching culture at Fairview showed a propensity for explicit teaching, lack of time and no evidence of collaboration, which made it difficult for the teachers to engage with the research, so much so that their perceptions of the research did not correspond with the student findings. Although the classroom teacher could

not see the benefit of the Visual Arts program, student findings suggested otherwise. The students were able to make personal connections between their behaviour and their impact on the environment. As the research progressed, the students developed deeper understandings of the concepts covered. According to the students, aesthetic appeal is the trigger that changes people's minds and makes them reconsider the value of discarded materials. By using discarded materials as a medium in artmaking, the students were able to reposition themselves in the sustainability debate. The unexpected findings that emerged from this research were that the Visual Arts program did more than raise the students' environmental awareness. They began to recognise the part they played in the problem and solution, and so their attitude towards the environment shifted to include a sense of responsibility. As a result, some students began to make self-initiated behavioural shifts. There was no mention of any adult involvement or acknowledgement that parents or teachers were even aware that creative reuse was taking place in the home.

5

phase two



The provocation for this stage of my research emerged from my classroom experiences during Phase One. As discussed in Chapter 1, the structure and writing style in this chapter is consistent with a/r/tography and Materials-led Inquiry, situated within APLR, and as such differs from the traditional structure of qualitative research found in the preceding chapters. The exegetical writing carried out in this chapter specifically centres on the theoretical contextualisation of my creative process and artworks through the multiple perspectives of artist-researcher-teacher. My work has become “an iterative process with work in one domain informing and energising that in the other” (cited in Martin & Booth, 2006, p. vi), similar to writer Rosemary Fitzgerald’s creative process, which involved her exploring her topic metaphorically and through scholarly theory.

The exegetical model most applicable to the context of this phase of my research is the Research Question Model (Milech, 2006). Milech’s model attempts to rethink the binary interplay of creative output and exegesis by introducing a third element – the research question. “In this model both the exegetical and the creative component of the research thesis hinge on a research question posed, refined and reposed across the several stages of a research program” (p. 11). By applying the Research Question Model to my research, I have investigated my research questions through multiple modalities and perspectives.

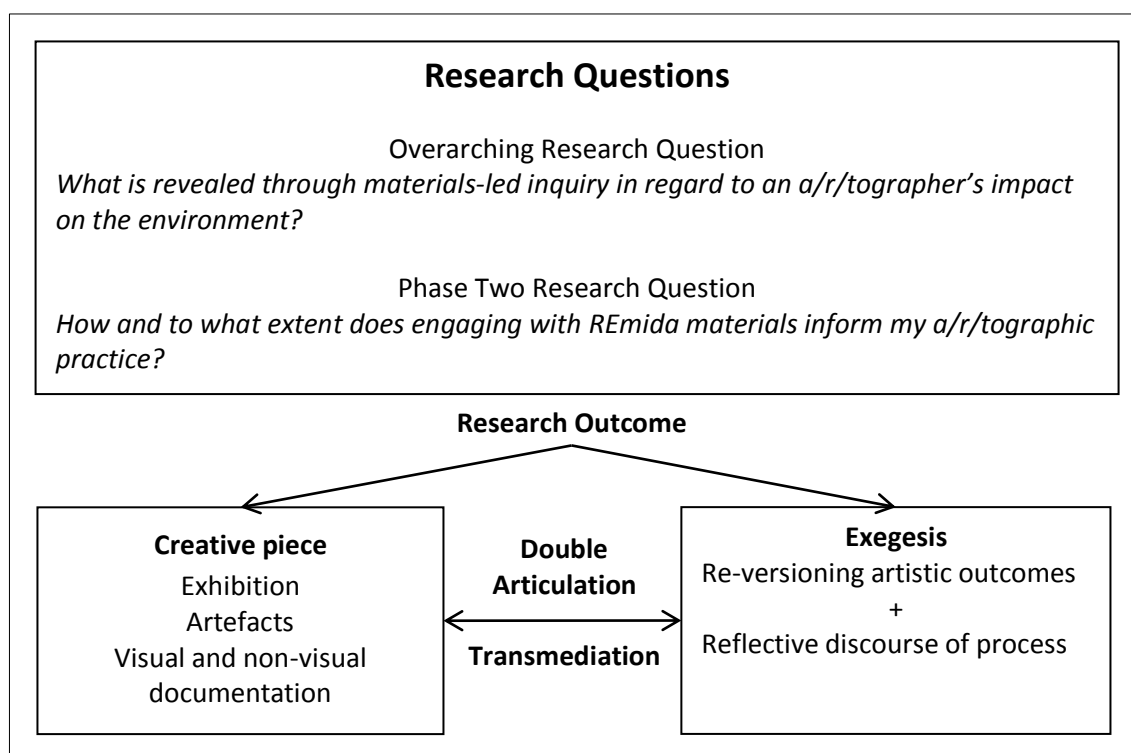


Figure 13. The Research Question Model applied to this research. Adapted from “The Critical Artist,” by B. H. Milech, 2006, *Art-based Research: A Proper Thesis*, p. 10; “The Exegesis as Meme,” by E. Barrett, 2010, *Practice as Research: Approaches to Creative Arts Enquiry*, pp. 59–163. (Exception to copyright. Section: ss40, 103C. Exception: Research or study.)

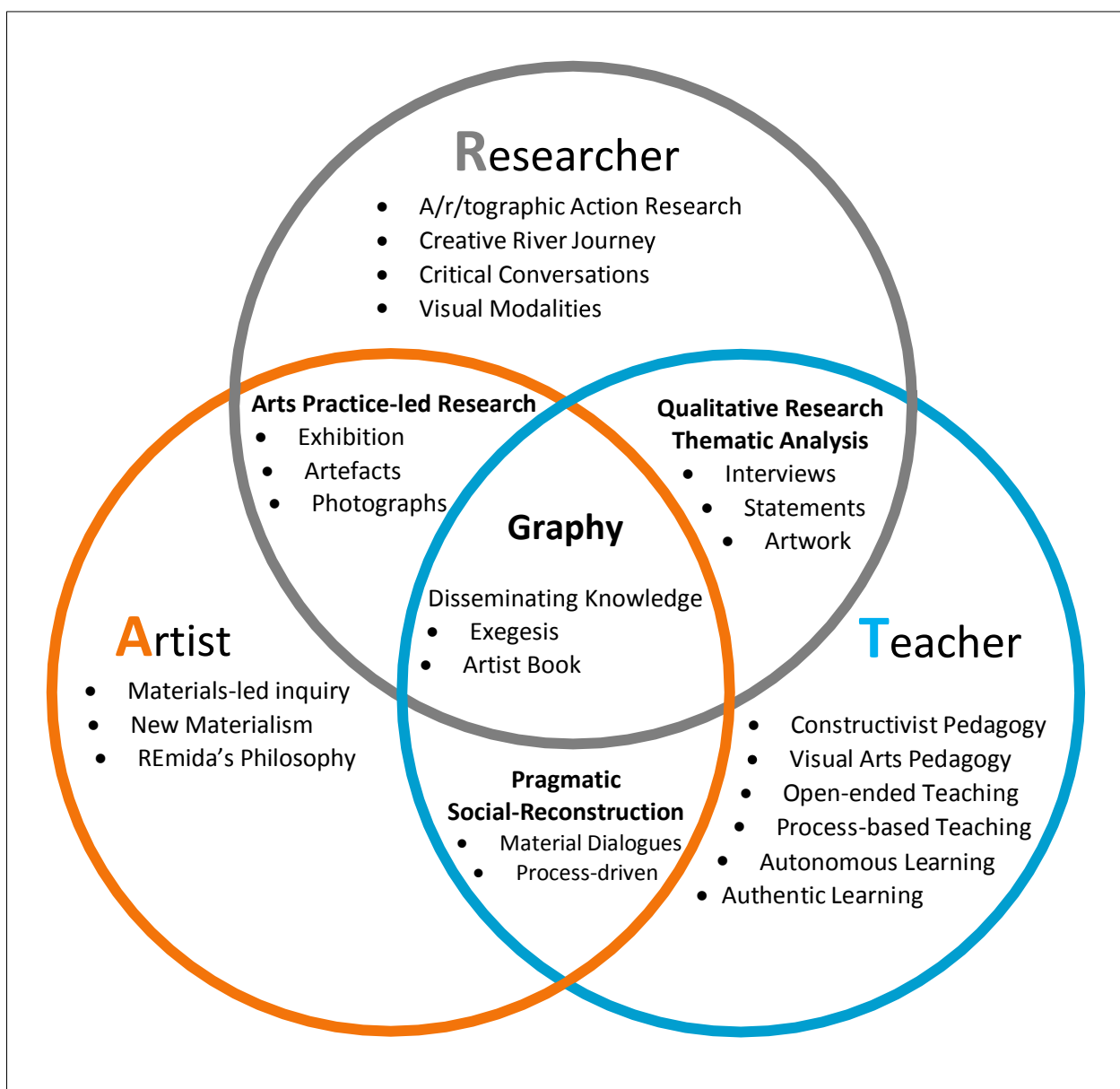


Figure 14. Phase Two, a conceptual model of how I applied a/r/tography to this research. Adapted from "Creative River Journeys: Using an A/R/Tographical Framework for a Multifaceted PhD Project," by K. J. Stevenson, 2013, *UNESCO Observatory Multi-Disciplinary Journal in the Arts*, 3(2), p. 7. (Exception to copyright. Section: ss40, 103C. Exception: Research or study.)

The Venn diagram (Figure 14) is an adaptation of Stevenson's Venn diagram (2013a), and is the conceptual framework for Phase Two. A/r/tography, defines the separate roles of artist-researcher-teacher and identifies intersections in practice. In Figure 14, the roles of artist-researcher-teacher and their junctions represent the research process for Phase Two. However, my construct of a/r/tography has extended beyond initial encounters during Phase One. Hence, Figure 7 represents a preliminary command of a/r/tography, which has since moved forward, and Figure 14 represents my increased working knowledge of a/r/tography.

In this diagram, the roles of artist-researcher-teacher merge, indicating the symbiotic nature of a/r/tography.

The rhizomatic nature of a/r/tography (see Chapter 3) directs the thematic structure of this chapter, since a linear format would not be able to convey the iterative qualities of multifaceted research grounded in materials-led practice. The six sections within Chapter 5 are as follows.

### **/a/ – artist**

In this section, I provide the context for Phase Two. I begin by considering the impact my creative practice has on determining the course of this research. Next, I theoretically position new artworks within new materialism and discuss the material choices that have led me to reflect on and respond to the concept of sustainability and my environmental impact. In addition, this section explores the critical moments that set me off on tangents and redirected the course of my creative practice.

### **/r/ – researcher**

The research design of Phase Two is discussed in this section, in particular, the way new materialism and material thinking directed my Materials-led Inquiry. I describe the reflective methods to track and identify critical moments in my creative process through critical conversations and discuss the development of the a/r/tographic research spiral.

### **/t/ – teacher**

My creative practice is a significant influence on my teaching practice. In this section, I consider the unexpected outcomes that emerged from Phase One, and how they affected me and transformed my teaching practice, beyond what I had envisioned.

### **/graphy/ – documentation**

This discussion centres on methodological foundations of a/r/tography in relation to /graphy/ and its role in disseminating a/r/tographical research. This section is the digital version of *Forget Me Not*, my artist book.

### **a/r/tography**

In this section, I showcase my creative output and explain the reasons that informed my choice to exhibit the outcomes of the creative research at the Spectrum Project Space.

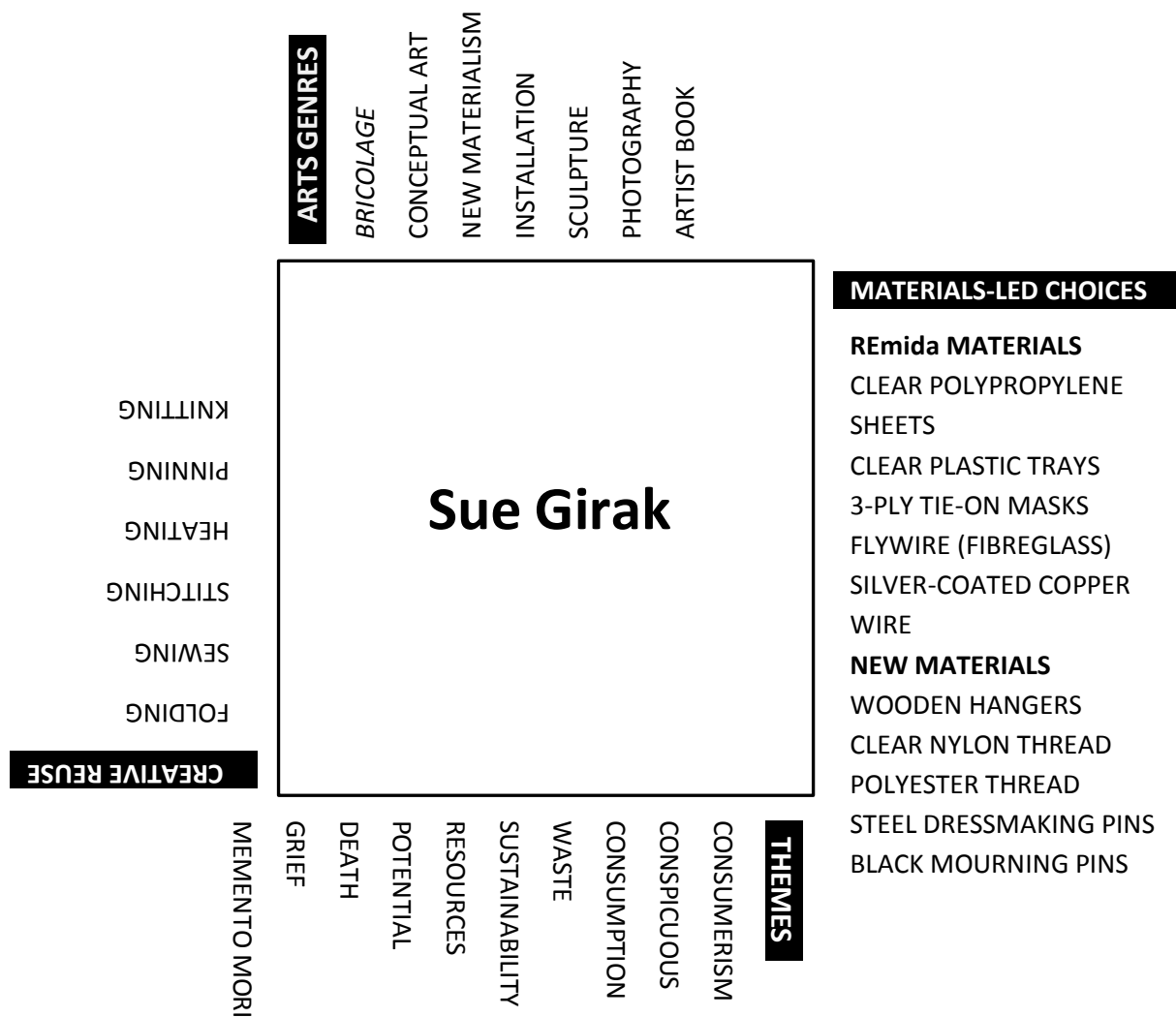


Figure 15. A conceptual framework of my creative practice. Adapted from *To Life!: Eco Art in the Pursuit of a Sustainable Planet*, by Linda Weintraub, 2012. (Exception to copyright. Section: ss40, 103C. Exception: Research or study.)

/a/

The conceptual framework of my creative practice (Figure 15) discussed in section /a/, where choices regarding themes, materials, techniques and art genres are explained in relation to the artworks. In addition, Figure 15 posits my work conceptually, culturally and theoretically in regard to materials-led art genres (Edith Cowan University, 2012).

## Provocation

From the moment I began to incorporate REmida materials into my creative practice, I noticed a shift in how I thought about the artmaking process. I assumed that in some way REmida materials were the agents of change, responsible for redirecting me towards a more sustainable practice. I undertook APLR in an attempt to establish if this was so. The aim of this research was to explore if REmida materials would facilitate sustainable art practices. In this section, where /a/ is the equivalent of the artist's identity in a/r/tography, I provide the rationale that led me to turn to discarded materials as art resources. I discuss my studio practice and the critical moments that were integral to the conceptualisation and creation of new artworks.



Figure 16. Sue Girak, 2006, *5°C\** [Silk, Rayon Thread (New Materials). Landscape Dyes (Acid Dyes for Silk), 900cm x 30cm (Detail)]. Not exhibited.

As the issue of environmentalism was entering my consciousness, it coincided with the wave of public awareness that swept across Australia. In October 2006, Al Gore was touring to promote *An Inconvenient Truth* (2006) and it seemed to me that Australia was experiencing a collective mind shift. Where once 'green' issues were only for deep ecologists and those

leading the shift in environmental consciousness (see Chapter 2), they were now becoming more important for the mainstream population. It was in the midst of this social change that I had an epiphany. I was reading Lovelock's (2006) *The Revenge of Gaia* and what he wrote truly concerned me. For the first time, I seriously began to contemplate how little the Earth's average temperature would have to rise to have a profound effect on the planet (see Figure 16). At the same time, I was experimenting with a resist fabric-dye technique, *arashi shibori*. *Arashi*, a Japanese word for storm, aptly describes the resist patterns made when fabric is dyed. Fabric is wrapped around a pole, tightly bound with string or elastic bands and then tightly compressed so that only fragments of fabric are exposed to the dye bath. This process is repeated a number of times to produce a layered effect (Wada, Rice, & Barton, 1999). When experimenting with one piece in particular, a length of silk, I used a number of transparent browns and umbers to produce layers of colour. The final effect gave the impression of a desolate, lifeless landscape. The result, titled *5°C<sup>+</sup>*, invited me to rethink Lovelock's warning as I related the shibori piece to humanity's destructive impact on the environment.

A critical moment, which challenged my fundamental beliefs, occurred when presenting an artist talk about the work *5°C<sup>+</sup>*. As I was explaining how people needed to change their behaviour to protect the Earth, it did not occur to me that I was aiming a provocative environmental message at others. I was oblivious to the fact that I could possibly be part of the problem until a friend took me aside. She was making explicit the connection between the maker and materials that I had not yet made. My friend asked: how was it possible to talk about caring for the environment when the acid dyes I was using to make my artwork were harmful to the environment and therefore not sustainable. I was dumbfounded. I realised how hypocritical I appeared, only paying lip service to a concept that I thought was central to my artwork, without understanding the significance of materiality. Before that moment in time, I had placed no thought in my choice of materials other than their aesthetic appeal. I did not give any attention to the way materials would affect the meaning of an artwork, more importantly, how using certain materials could have a detrimental effect on the Earth.

As I was becoming more aware of the 'big picture', I began to question how personal decisions could have a direct impact on our planet. This sent me off on the first of many tangents, leading to visual inquiries that prompted me to question my values and behaviour, which at times was personally challenging and confronting. A subsequent artwork I made reflected this mind shift. Inspired by Coleman (2007), as he spoke of first-world cities leaving large ecological footprints, I reflected on my personal choices. *Footprint* (see Figure 17), a

fragile 'safety net' of safety pins and paper, suggested the consequences of unsustainable lifestyle choices. It is made from shredded glossy new home magazines, pinned together to represent the floorplan (to scale) of my home. This was superimposed over the floorplan of a 1950s suburban house, built in the same suburb. I felt 'gutted' to find that the footprint of my home was significantly larger than that of those around me. I had never considered myself as an excessive consumer, having no desire to wear the latest fashion or follow trends. A bout of 'Affluenza' gripped me, as "an epidemic of stress, overwork, waste and indebtedness caused by the dogged pursuit of the Australian dream" (Hamilton & Denniss, 2005, p. 3).



Figure 17. Sue Girak, 2007, *Footprint* [Brass and Gilt Safety Pins, Jump Rings, Magazine Paper (New Materials), 427cm x 235cm (Work in Progress)]. Undergraduate assignment, exhibited at the Spectrum Project Space, 2007. Photographer: Gunilla Brattström-Conqvist.

I continued my journey with *Retail Therapy* (Figure 18), where I attempted to deconstruct the myth of the perfect life that is marked by the consumption binge gripping first-world countries (Hamilton & Denniss, 2005). Twelve flimsy shopping bags made from safety pins were filled with empty boxes made from the pages of the same glossy magazines I bought regularly, which urged me to consume. Yet, I knew I still was not 'getting it' and I needed to make art in a different way. I was endeavouring to find a greater personal

connection to what and how I was making art. Deep down I knew I had to do something different. I needed a new 'set of lenses'.



Figure 18. Sue Girak, 2007, *Retail Therapy* [Brass and Gilt Safety Pins, Jump Rings, Magazine Paper and Wooden Hangers (New Materials), Dimensions Variable]. Undergraduate assignment, exhibited Edith Cowan University, 2007.

Photographer: Gunilla Brattström-Conqvist

I felt I had only touched the surface with *Footprint* and *Retail Therapy*. On an intellectual level, I could acknowledge my actions – yet my negative behaviours did not change. Ironically, my biggest addiction was buying new art supplies. Surely, there had to be a way I could reduce my artistic footprint. This provocation became a starting point for my PhD research, leading me to explore a/r/tography – a new set of lenses (Irwin, et al., 2006; Irwin & Springgay, 2008). A/r/tography is a methodology that effectively deals with my insatiable need to make art, combined with an equally insatiable desire for learning, teaching and discovery. The creative curiosity I have is not necessarily a solitary pursuit carried out in my studio, because as a primary Visual Arts specialist my creative passion extends into the classroom. One of my goals in my research was to identify an approach that could best support my needs as an artist-researcher-teacher. There were a number of methodological options I could have applied to my research; however, I found many inadequate because they did not address the entirety of my working method. I struggled for a very long time to identify

an appropriate research methodology until I came across a/r/tography (see Chapter 3). The more I read about how others applied a/r/tography within an Arts education context, the more it resonated with me. A/r/tography felt like a natural fit. Through a/r/tography I became reflexive towards my art, research and teaching practices (M. Carter et al., 2011; Hesse-Biber & Leavy, 2011; Irwin, et al., 2006), which offered clarity from all perspectives (see sections /a/, /r/ and /t/).

**Transition – *The Empty Promise***



*Figure 19. Sue Girak, 2011, The Empty Promise [Clear Polypropylene Sheets (Sourced From REmida WA), Clear Nylon Thread and Wooden Hangers (New Materials), Dimensions Variable (Detail)].*



Figure 20. Studio process.  
Making *The Empty Promise*.  
Photographer: Dianna Vitasovic  
(Top photograph).

New work for this research began with a transitional piece, one that consolidated previous learning and prepared me to crossover from Phase One to once again immerse myself in the artmaking process that informed Phase Two. *The Empty Promise* (see Figures 20, 21 and 22), a collection of fragile bags made with clear thread and filled with clear boxes, changed the way I approached making. This time, the materials I chose to work with would not allow me to work in a way that I was used to. If I wanted to make more boxes, I had to adjust. To put it simply, the plastic did not produce the same result as the strong magazine paper used in *Retail Therapy*. Even so, I kept working on autopilot, trying to make boxes in the same way I had done before. Ignoring the qualities of polypropylene, I did not notice it was delicate and unable to hold its shape. It was when I stopped to let myself feel what the materials were asking of me that I easily found a rhythm – *fold and turn, fold and turn, fold and turn* – to make 1,000 origami boxes.

The delicate bags, made by sewing clear thread onto clear water-soluble stabiliser, made me realise that I could not make the bags in my own time. I had to fit in with my external environment, such as taking advantage of the natural light to improve the visibility of the thread. Humidity was something with which I also had to contend. I had to move out of my usual laundry corner because the humidity in the laundry was affecting the stabiliser, making it difficult to sew by affecting the thread tension on my sewing machine, and I would have to spend hours unstitching, which took so much longer to complete a bag. Making the bags in the midst of what felt like a particularly wet Perth winter made me more attuned to the weather. When it was about to rain, the stabiliser became sticky and I would have to stop sewing. On the other hand, when the sun was out I could work uninterrupted for hours. The repetitive process of sewing gave me time to develop a dialogue with my materials.

While working in quiet solitude, I began to appreciate how making the bags for *The Empty Promise* was more than a mechanical process. Changing my workspace allowed me to reflect-in-action. Consequently, the way I approached the sewing process shifted. When I was at home alone in the early morning, in silence and solitude, the process became artmaking. In contrast, when my family were up and the television was on, the telephone was ringing and the dog was barking, there was no space in my head for reflection. Surrounded by the noise and chaos of everyday activities, I was just 'sewing'.

To some degree, making *The Empty Promise* did not facilitate the apparent attitudinal shifts I had seen in the Fairview students during Phase One, and while I began to appreciate my part in the consumerist 'rat race', I was still being seduced by packaged dreams targeted to manipulate and control my behaviour. *The Empty Promise* opened up a Pandora's Box of pertinent questions; it seemed that through Materials-led Inquiry, more questions were being asked than answered. The rhizome (see Chapter 2), a metaphor used by Deleuze and Guattari (1987), is a powerful example of my working method and my life, where 'rhizomatic' research occurs in the 'real' world, continually building on knowledge by making connections and spreading in a multitude of directions. Coming from the lived experience, typically it is complex, interconnected, spreading and non-linear, with no beginning or end. De Cosson (2003) concurred with Deleuze and Guattari that the essence of rhizomatic research suggests traditional boundaries are challenged by open-ended investigations and are fostered without the expectation or acceptance of closure.

The notion that one should expect that their answers will become the source of new questions (de Cosson, 2003) is recounted in reflective writing throughout /a/. For example, the catalyst for my research arose from the inner dialogues I was having while making *Footprint* and *Retail Therapy*. At the time, I thought they were resolved pieces; however, on reflection, given that rhizomatic inquiry is fluid, questions arose that were never fully answered; instead, they became the provocations for new inquiries such as *The Empty Promise*.

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*Figure 21. Sue Girak, 2011, The Empty Promise* [Clear Polypropylene Sheets (Sourced from REmidA WA), Clear Nylon Thread and Wooden Hangers (New Materials), Dimensions Variable]. Exhibited April, 2012 for the trial exhibition, Edith Cowan University.





Figure 22. Sue Girak, 2011, *The Empty Promise* [Clear Polypropylene Sheets (Sourced from REmida WA), Clear Nylon Thread and Wooden Hangers (New Materials), Dimensions Variable]. Exhibited April, 2012 for the trial exhibition, Edith Cowan University.

*The Empty Promise* marked a shift in the way I began to approach artmaking. It also encouraged me to open up to the possibilities discarded materials had to offer, which motivated me to transform my creative practice. Yet, I struggled, and I suspect the reason was that I still naïvely thought my research was a linear process. I believed I could simply replicate Phase One of this research by producing a series of works based on the Fairview project and, in turn, I would make some amazing discoveries along the way. I thought my experiences would enhance my creative practice and pedagogical understanding. In short, that was what happened: however, the experience was not as straightforward as I foolishly thought. Of course, there is more to APLR; when I chose to fully surrender to APLR, what I found was Materials-led Inquiry steered me towards unexpected benefits. I made the decision to source as many materials as possible from REmida WA. In the beginning, the process was especially challenging because I noticed I would flip between artist-researcher and teacher-researcher. On many occasions, through sheer frustration, I wanted to ‘cheat’ and I would berate myself for imposing the ‘REmida rules’ onto my project. However, through experimentation and play, I was starting to make the similar links between materiality, experience and knowledge that Barrett and Bolt (2013) refer to as carnal knowledge. Most importantly, I chose to put my trust in the materials and trust that something would emerge, where *emerge* is not considered a

passive act. Rather, it is a deliberate act of meaning making, reflection and connection, not unlike Dewey's (1916) interpretation of experience (discussed in this chapter).

## **Materials-led choices**

Materials-led Inquiry has been a driver of this research and materials-led choices have defined the parameters of my exhibition in that I decided to source materials from REmida WA. The literature pertaining to creative reuse predominantly covers the types of discarded materials that in some capacity or another has had a previous life. There are a number of terms that describe discarded materials, which include but are not limited to, found objects, junk, recycled, rubbish, salvaged materials, scraps, trash, upcycled and waste (Cerny & Seriff, 1996; Herman, 1998; Vergine, 2007). The paucity in the literature lies in the creative reuse of virgin discards, such as REmida materials. A century ago, the concept of creative reuse emerged as the *avant-garde* began to incorporate discarded materials, found objects and *readymades* into their art. Marcel Duchamp's use of readymades, where "a common object rose to the level of a work of art through the process of appropriation" (Hopps, Linde & Schwarz cited in Herman, 1998, p. 12), is well documented and includes *Bicycle Wheel* (1913), *Bottle Rack* (1914) and *Fountain* (1917). Duchamp paved the way for a growing trend of artists to utilise manufactured objects for their visual qualities and their application has been widespread and varied from the early 20th century to the present. Throughout this exegesis, I have traced what led me to REmida materials; however, reusing REmida materials does not equate to having a sustainable practice. In this section, I discuss and justify my material choices and according to Herman (1998), knowing that I am not alone, appreciating that many artists are motivated to reuse discarded materials creatively for a variety of aesthetic and ecological reasons. There are numerous examples exploring how artists approach their personal creative reuse. In this section, I present my personal account of creative reuse and my materials-led choices.

### **REmida Materials**

Discovering REmida was a critical moment, one where I began to see discarded materials in a new light. Discarded materials could easily be 'invisible' in our everyday lives; however, when displayed with respect, they give a hint of the potential they hold. Recovered materials are revered as if they are valuable treasures (Gandini & Kaminsky, 2005; REmida's touch turns waste to gold, 2005). I do not go to REmida to pick up art supplies. Instead, I go there with an open mind, hoping to recognise the untapped potential of the unused discarded materials with an intention of extending the materials' usefulness through creative transformation. I often walk into REmida without a specific project in mind, and yet the

selection process is not random. I choose everything I bring home for its potential although an outcome may not be immediately apparent.

Choosing materials for their aesthetic potential is a priority for me. My standpoint that when I make art *I want to make beautiful objects* is reinforced by the earlier discussion of aesthetic experience (see Chapter 3), positioned within a Deweyan framework (1934). It is more than an intellectual response to artworks. The aesthetic experience is an embodied experience, informed by the senses. Along with *aesthetics*, a thorough theoretical discussion of *beauty* (a term burdened from centuries of philosophical debate), is well beyond the scope of this research; suffice to say that it is highly politicised and contested terms in the context of contemporary art and culture (Beech, 2009; Gilbert-Rolfe, 1999; McMahon, 2005; Scruton, 2009). In the Western tradition, the concept of beauty dates back to Plato and Plotinus and continues to the present day (McMahon, 2005; Scruton, 2009). While civilisation may need beauty, “the contemporary art world is uncomfortable with it [beauty]—a discomfort that seems to . . . derive from beauty’s irreducibility to, and consequent irresponsibility toward, other forms of discourse . . .” (Gilbert-Rolfe, 1999, p. 41). Therefore, the scrutiny afforded to defining *beauty* constantly shifts as it “enters restricted economies of work, framed by history and judgement, framed in place” (Ross cited in Gilbert-Rolfe, 1999, p. 147).

The conundrum is that beauty is not quantifiable; it is a subjective judgment and a pleasurable embodied response (McMahon, 2005). Further, beauty is not “transitive, neither represents nor possesses actual power, but instead frequently identified by or located with fragility and the delicate—and . . . importantly, the frivolous” (Gilbert-Rolfe, 1999, p. 147). Given the comprehensive debate preceding this research, I have narrowed the focus to concentrate on the aesthetic transformation of REMIDA materials. From my perspective, beauty is subjective – it guides a pleasurable response. I find agreement with Dewey’s (1934) explanation:

Unfortunately it [beauty] has been hardened into a peculiar object; emotional rapture has been subjected to what philosophy calls hypostatization, and the concept of beauty as an essence of intuition has resulted. For the purposes of theory, it then becomes an obstructive term. In case the term is used in theory to designate the total esthetic quality of an experience, it is surely better to deal with the experience itself and show whence and how the quality proceeds. (pp. 129-130)

Dewey (1934) discusses the risk associated with the over-intellectualisation of beauty when perceptual experience is subordinate in a hierarchy of attributes and philosophical debate that continually repositions how beauty is defined. I concur with Santayana (cited in Dewey, 1934) that the “value lies in meaning, not in substance” (p. 292). Through Pragmatic

Social-Reconstructionism (Efland, 1990), the challenge is to question the values of a 'throw-away' society's hegemony and to create respect and to give value to REmida materials. My subjective intention is to make artworks that look beautiful to me. I judge beauty by a set of self-determined criteria built up over decades of making, and my carnal knowledge (Barrett & Bolt, 2013) of materials and materiality. When I make art, I bring seemingly jarring and disparate materials together as a harmonious whole. There is tension between materials and meaning when I aesthetically transform discarded materials. *Forget Me Not* (see Figure 39) is beautiful, no more or less. It is loaded with multiple meanings, which permeate through the seamless blend of the white surgical mask – cold, sterile and clinical – with white ball dress – innocent, pure and frivolous. I did not feel that the artwork was resolved nor was I satisfied until it carried the aesthetic qualities of fragility, delicacy and frivolity, which is beauty. I know that this example seems to contradict Dewey's protests of over-intellectualisation, but it does not. The value of *Forget Me Not* lies in its meaning. When my artworks are complete, I hand them over to the viewer without a didactic intention. I cannot control how others will judge my works, according to their own lived experience (Merleau-Ponty, 1962) and subjectivity, where "beauty is the response to that which to reflection is the consummated movement of matter integrated through its inner relations into a single qualitative whole" (Dewey, p. 130).

When artists use non-traditional art materials, they add an extra layer of meaning to their work. "In every work of art . . . these meanings are actually embodied in a material which thereby becomes a medium for their expression" (Dewey, 1934, p. 273) and 20th century artists have left a rich legacy of creative reuse using techniques such as:

- *assemblage* – "art made by assembling disparate elements often scavenged by the artist . . . [and] was the basis of Surrealist objects . . . and continues to be extensively used" (Wilson & Lack, 2008, p. 29);
- *bricolage* – "in an art context is an ability to make art out of any materials that come to hand" (Wilson & Lack, 2008, p. 41); and
- *collage* – "used to describe both the technique and the resulting work of art in which pieces of paper, photographs, fabric and other ephemera are arranged and stuck down to a supporting surface" (Wilson & Lack, 2008, p. 49).

By incorporating salvaged materials into artworks, artists take into account the memory and meaning; they embody those materials hold and how they reinforce their intention (Herman, 1998). For example, *Arte Povera*, a term coined in the 1960s, was an Italian art movement that began from the economic and political instability of Italy post-World War II (Wilson & Lack, 2008), the same conditions in which the Reggio Approach emerged

(Edwards et al., 2012). The literal translation of *Arte Povera* is 'poor art', where 'poor' represents:

The movement's signature exploration of a wide range of materials beyond the quasi-precious traditional ones . . . *Arte Povera* therefore denotes not an impoverished art, but an art made without restraints, a laboratory situation in which any theoretical basis was rejected in favour of complete openness towards materials and processes. (Wilson & Lack, 2008, p. 27)

No matter what materials are chosen as a medium, assembling them only becomes a work of art when it is ordered and organised to fulfil an artist's intention (Dewey, 1934). Therefore, *Arte Povera's* relationship with materials was not benign. Their *bricolage* took on political undertones as they questioned commercialism through their material choice, where they made sculpture from rubbish to displace the hierarchy of the art object in support of the ordinary and everyday object (Wilson & Lack, 2008, p. 27). On some levels, the same motivation applies when I use REMIDA materials except, being new, the unused discarded materials have no memories. Instead, as off-cuts and seconds, they have no perceived value. They become 'invisible' and are discarded without thought.

My motive for using 'invisible' materials, manufactured without an explicit purpose, corresponds with artists Andy Goldsworthy and David Mach's motivation to utilise materials that are overlooked. Goldsworthy's decision to source materials found only on-site for his site-specific installations is an example of how Materials-led Inquiry can sensitise one to the beauty of common materials. "That's the way of understanding. Seeing something you never saw before and it was always there but you were blind to it" (Goldsworthy, cited in von Donop, 2004). Not only has Goldsworthy limited materials to those found on-site, he also limits the materials to one or two types, such as leaves *Rowan Leaves Laid Around Hole* (1987) or stones and wood *Hanging Trees* (2006). Similarly, Mach's alternative approach to raise awareness of invisible materials means that he has limited his material choices to mass-produced everyday objects. He stated, "I love the idea that matches are like nothing. You don't think about stuff like that" (cited in New Tang Dynasty Television [NTDTV], 2008). In both cases, the artist's choice is deliberate. With multiples and repetition, the materials are given a voice. As individual objects they go unnoticed, whereas in multiples the invisible becomes visible. There are many examples where Goldsworthy and Mach have limited their material choice to multiples of one material. This is a different approach to *assemblage art*, where grouping disparate objects to form a unique piece is the aim. REMIDA celebrates the aesthetics of multiples, rather than the beauty of individual pieces. The displays of vast quantities of mass-produced off-cuts provoke thought and invite members to extend the discard's life through creative transformation, which for some may become *assemblages* but not in my

case. Metaphorically speaking, *bricolage* informs my overall methodology (see Chapter 3), as well as in the literal sense where my art is *bricolage*. I approach materials like a *bricoleur*, making do with what I find at REmida. It is inextricably challenging and stimulating to walk into a room filled with potential treasure. Sometimes I am tempted to dismiss seemingly ordinary materials, which indicates I am rushing. I need time to evoke all my senses other than sight and I have done so to the point where REmida materials have become my muse. I strategically position materials in my studio so they are in reach. I wait for something to emerge even if it may take years.

In this research, ecological considerations are as significant as aesthetic and thematic choices, hence my decision to use REmida materials. During this research, I developed a deeper understanding of the repercussions of my material choices. At first, I sourced REmida materials to reduce my burden on the Earth's natural resources, believing that it was enough. To some degree, my art is eco art in that I have consciously turned to materials to express my "concern over the state of the Earth's ecosystems" (Weintraub, 2012, p. 43) and that material choices are consistent with my intention. During Phase Two, my predicament was that I did not want to sacrifice the aesthetic appeal of my artworks. I had to decide how far I was prepared to go. Nevertheless, "while footprint considerations may limit artistic licence, environmental responsibility does not constitute an impoverishment of creative opportunities" (Weintraub, 2012, p. 44). As such, I decided that I was comfortable to divert non-biodegradable by-products from unsustainable manufacturing processes from landfill. In due course, I found it was not enough just to interrupt the flow of materials to landfill. I had forgotten what I had learned through *5<sup>o</sup>C<sup>+</sup>*, because back in the studio I fell back into my old habits, directed by aesthetics. For example, after a casual conversation (referred to in this chapter) reignited my excitement for plastics, I began to use heat on plastics (see Figures 23 and 24). My results inspired me. I was oblivious to the toxins released through the process. I worked outside and smelt nothing so I did not think about the impact of my actions. It was 'out of sight, out of mind' as the sea breeze blew my lapse in judgment away. That was until I brought the process into the studio. The smell the melting plastic emitted was acrid and toxic. In a state of denial, I opened doors and windows and reached for my safety mask. Then – as if struck by a bolt of lightning – I had a critical moment. Obviously, I had learned nothing from *5<sup>o</sup>C<sup>+</sup>*, since I was spouting an environmental message while toxic fumes were spilling into the atmosphere. In that moment, my conscience would not allow me to carry on as I had been doing. I could not bring myself to finish a dress I thought held some potential. As the unfinished dress hung in my studio, it was a stark reminder of how Materials-led Inquiry made me reassess my environmental footprint and re-examine my practice yet again (see Figure 25).



Left

*Figure 23.* Plastic lids (sourced from REmida WA).



Right

*Figure 24.* Process – plastic lids were pinned together over a form and a heat gun was used to shape them to make a dress in *Here Comes the Bride* (see Figures 31 and 32).

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*Figure 25.* Black plastic dress abandoned after I realised that it was not enough just to reuse materials – I also had a responsibility to ensure my art making did not add to the problem.



## Materials-led Inquiry

A quality of a/r/tographical research is the value that is placed on tangents to redirect inquiry (Irwin, et al., 2006). In my case, rhizomatic research strategies pull me from one inquiry to another. Sometimes it is an image or a sound bite, but most often tangents arise from casual conversations (see Figure 26). For example, at the end of a school day, a teacher asked me about my progress in the studio. I told him how I had been struggling for weeks with a roll of transparent cellophane tape. I wanted to take advantage of the 'invisibleness' and 'weightlessness' of the materials, yet the traditional techniques I played with produced solid, heavy pieces. Unbeknownst to him, the teacher's simple question, "Have you tried heat?" set me on a new trajectory.



Figure 26. Sue Girak, 2011, Have You Tried Heat? [Digital Image]. Casual conversations are often the source for new directions of inquiry.

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Figure 27. Details of an experiment heating and joining layers of polypropylene sheets (sourced from REMida) with steel dressmaking pins (New Materials) to take the shape of a female form (mannequin sourced from REMida WA).



The teacher's question sent me racing to my studio, where I applied heat to some cellophane tape but with no success. Even so, heat seemed to be the answer I was searching for. My eyes eagerly darted around the studio until they rested on the plastic sheets I had used to make *The Empty Promise*. My conversation triggered a critical moment of new possibilities (see Figure 27). I take advantage of these critical moments, otherwise known as 'happy accidents' or 'Eureka!' moments that occur in and out of my studio environment (Perry & Edwards, 2010). For example, contemporary artist Lyndall Adams (2008) revealed her space is not pristine; instead, it is stacked with paraphernalia and not willing to be controlled. I am able to relate to Adams' description of her studio and welcome the organic nature of the studio space. My space moves back and forth from organised to chaotic as I sort and shift my treasures. I had an assortment of REmida materials, including five mannequins, which had been sitting in my studio for years. Occasionally, I considered painting or dressing them but whatever I considered seemed contrived. This time, I wrapped a mannequin with polypropylene sheets. As I heated the sheets, they took the form of the mannequin. Excited by the prospect of making clear torsos, I experimented with heating and joining the sheets to make them large enough to completely wrap the mannequin. Following the 'REmida rules' not to use glue, sticky tape or staples to attach materials meant that I had the opportunity to develop a deeper, more nuanced understanding of the materials I worked with. I thought it would be easy enough to find alternative joining techniques, but I was surprised by how reliant I had become on the easy option. In the end, discovering alternative methods has proved to be much more exciting, providing insights into the potential each new material I work with had to offer.

Materials-led Inquiry is rhizomatic inquiry through materiality. Not all of the ideas exhibited and examined for this research resulted in resolved artworks. Nevertheless, they are equally significant for their lessons in process and materiality. For example, *Soulless* (see Figure 28) was my first experiment in heating plastic on a female form. This work was an important example of my working method as it is a by-product of my resistance to immerse myself in the creative process. Although I had played with plastics and was acquiring new knowledge through Materials-led Inquiry, I was still very much outcome orientated. Initially, I took the 'tick a box' approach when preparing for this exhibition. I found a theme – tick, I chose materials – tick, and I followed a process – tick, I produced an artwork – tick, and then I went on to the next piece. I had forgotten what I had learned as an undergraduate art student, which was to consider three aspects of an artwork: materials, process and intent. *Soulless* is an example of what art looks like without intention. As a product, *Soulless* does not look very different to the *Here Come the Bride* dresses that followed (see Figures 30, 31 and

32), except that *Soulless* has no story to tell.



Figure 28. Sue Girak, 2012, *Soulless* [Plastic Trays (Original Source Unknown), Steel Dressmaking Pins (New), Dimensions Variable]. Photographer: Marziya Mohammedali

Determined to develop a dialogue with REMIDA materials, I neglected to think about my intention. The prospect of heating plastics excited me; however, I had no reason to make the piece, other than I wanted to fill a gallery space. My creative process felt forced, hence soulless. In recognising the lack of intent, *Soulless*, among other false starts and dead ends, is no less valuable. I learned that I needed time to tell my story in my own way and, if need be, reject preliminary ideas. Time was like the negative space of an image: just as important as positive space. I worried about deadlines and not being productive enough, yet what I needed to give myself was time to make connections. By allowing time to accept the physicality of the materials, I was able to enter a dialogue and make “the link between materiality, experience and knowledge” (Barrett, 2013, p. 67). As Barrett (2013) defends new materialism, she draws on Dewey’s (1934) *Art and Experience* to show that aesthetic knowledge is captured in artworks through the creative process. However, Dewey (1916) did not limit his understanding of ‘experience’ to the aesthetic context; he also made connections to pedagogy. This, in turn, has implications for both the artist and student, in that he argued that the mind should not be separated from the body in the course of knowledge acquisition.

Dewey (1934), described an experience as: “A piece of work is finished in a way that is satisfactory; a problem receives its solution . . . Such an experience is a whole and carries with

it its own individualizing quality and self-sufficiency” (p. 35). I trust Dewey did not mean ‘finished’ as in a finished product. When Dewey (1916) explained that an experience is more than just ‘activity’, I equate activity with ‘busy work’, mindless activity done to fill in time. However, activity is more than just busy work. Activity is part of the experiential process where experience becomes explicit meaning making through action, connection and meaningful change: “we do something to the thing and then it does something to us in return” (Dewey, 1916, p. 163). According to Dewey (1916), meaningful change requires reflection, and cumulative growth is a process of experiences and reflection.

It can be argued that Dewey’s (1916; 1934) notion of activity and experience is practice-led research, the embodiment of knowledge (Mercer et al., 2012): not outcome dependent but dependent on process to inform one’s practice. Nevertheless, in the context of a postgraduate degree in a university setting, finished products are examinable. The tension that arises during this undertaking is the inconsistency between practice and theory. In reality, the research is ongoing; however, the deadlines that are enforced as a condition of formal study create openings for dialogues that may or may not lead to resolved artworks. I use Materials-led Inquiry as a method of problem solving. By documenting process, I am able to open way for visual inquiry, in so much that there are times that artworks do not need to be completed in order to teach the lesson, as in *Soulless*, where I learned a technique that set another path.

In regard to my process of Materials-led Inquiry, at first I did not allow the time or space to reflect on my experiments and found any tangents exciting yet frustrating. I felt I was being pulled away from a linear path of research. I thought I was losing sight of what I envisioned research would be: a logical straightforward process and neatly mapped out. Even though I have acknowledged that research is a rhizomatic process (see a/r/tography), by framing this research through a/r/tography, I did not want to accept the chaos. I felt that the art teacher within was not prepared to let go. I had spent many years denying my artistic process in favour of planning and supporting my students’ aesthetic experiences. As a teacher, I would often position myself so that I had an overview of the artistic process. In Phase Two, as artist, I recognised I was experiencing the same feeling of resistance to trust the process the students had. I tried to force my ideas upon the materials, instead of listening. The reflective process (see sections /r/ and /t/), allowed me to appreciate the tangents and recognise them as scaffolds, supporting my transition from art teacher to artist.

For me *The Empty Promise* marked a shift in the way I began to approach artmaking. It also encouraged me to open up to the possibilities discarded materials had to offer. I was

motivated to transform my Arts practice by sourcing and working with REmida materials. Yet, I struggled and I suspect the reason was that I still naïvely thought my research was a linear process. I believed I could simply replicate Phase One of this research by producing a series of works based on the theme 'Humanity's Impact on the Environment' and make some amazing discoveries along the way. In turn, I would use those findings to enhance my creative practice and pedagogical understanding. Without a doubt, I have always known there is more to APLR. What I found were the unexpected benefits that came from surrendering to APLR, especially through Materials-led Inquiry.

### ***Here Comes the Bride***

I made the decision to examine my impact on the environment and sourced discarded materials from REmida WA, even though I berated myself for being foolish for following the 'REmida rules'. In the beginning, the process was especially challenging because I noticed I would flip between artist-researcher and teacher-researcher. However, through experimentation and play, I found that I was starting to make the similar links between materiality, experience and knowledge that Barrett (2013) had discussed. Most importantly, I chose to put my trust in the materials and trust that something would emerge, where emerge is not considered a passive act but a deliberate act of meaning making, reflection and connection, not unlike Dewey's (1916) interpretation of experience.

I knew I had only scratched the surface with *The Empty Promise*. Through the iterative process of artmaking, I oscillated between the 'hard sell' of the perfect life I touched on in *Retail Therapy* (see Figure 18), and the void that comes from buying into the consumerist dream in *The Empty Promise*. As I reassessed my lifestyle choices and re-examined my levels of consumption, once again I thought of the magazines I had used to make *Footprint* (see Figure 17) and *Retail Therapy*. Some were old bridal magazines, filled with images of young women wearing white wedding dresses. When viewed *en masse*, the symbols, rituals and meaning associated with the lifetime commitment of marriage were lost in a sea of meringue: the pageantry remained with no substance to support it. The short-sighted decisions made by shallow ecologists in governments and industry, supporting economics in favour of the environment (see Chapter 2), mirrored my perception of a stereotypical bride: fixated on planning the perfect wedding day, the bridal industry targeting and fuelling her preoccupation, and minimal attention given to the marriage that follows. The wedding dress symbolises the wedding, and so in *Here Comes the Bride*, the wedding dress is a metaphor for the decision to choose instant gratification over long-term commitment.

While the wedding dresses appeared to be invisible, they were not. In the sunlight, they cast a long shadow onto the landscape (see Figure 32). The outcome of investigating the wedding dresses' shadows on a variety of surfaces became the provocation for a series of photographs of the 'invisible' wedding dresses. The shadows reminded me of the ramifications of clinging onto unsustainable lifestyles. Nevertheless, even though I recognise the madness of consumerism, I still make excuses to justify my actions, especially when I feel pressured for time. Further, I was one of those people the students from Fairview had talked about, those who resisted change. It is thought-provoking to have to admit to myself, even as I endeavoured to understand my behaviour through artmaking, that I was *still* 'one of those' people. In spite of what I had learned about myself, I had not fully committed to make sustainable changes in my life, although I knew every one of my actions makes an impact on the environment. By acknowledging this, I continue to strive to reduce my environmental footprint by casting a shadow onto the landscape, instead of leaving a lasting impression.



Figure 29. Sue Girak, 2001, *She Loves Him* [Lacquer Thinners Transfer on Toilet Paper, 634cm x 10cm (Detail)]. Undergraduate assignment, not exhibited.

When I grew up, bride was the synonym for housewife. When my children were young, I explored my role as housewife (see Figure 29). In part, the resistance to being regarded as 'just' a housewife was influenced by growing up in a Macedonian household, where a woman's value was measured by how well she kept house. I grew up with loaded terms such as *nevesta* (невеста), meaning bride/new wife, *žena* (жена), meaning wife/woman/female, and *stopanka* (стопанка), meaning housewife, where housewife and houseproud are synonymous. Challenging traditional roles, I drew on Maushart's (2001) *Wifework*, imagery from contemporary artists Barbara Kruger, Cindy Sherman and women's magazine illustrations from the 1950s. In *Here Comes the Bride*, I was not drawing on stopanka or nevesta to explore my identity. I decided to take myself out of the equation by working with bodiless dresses inspired by *Soulless* (see Figure 28).



Figure 30. Sue Girak, 2012, *Here Comes the Bride* [Plastic Lids (Sourced from REmida WA), Polypropylene Sheets (Sourced from REmida WA) and Steel Dressmaking Pins (New Materials), Dimensions Variable]. Installation of dresses, exhibited April 2012 for the trial exhibition, Edith Cowan University.

Others have used bodiless dresses, for example, in Nithikul Nimkulrat's (2009) *Seeing Paper*. The artist suspended a series of white paper string dresses. According to textile artist Nimkulrat, she removed the body; first, to draw attention to the material qualities of paper string through the interrelationship of materiality and artistic expression in the creative process; and second, so the structure of the dress became a metaphor for the female form. In my case, *nevesta* encompassed the wedding ritual, in particular the significance of the wedding dress. The wedding dress became a metaphor for my choices, favouring short-term gratification despite being aware of long-term environmental consequences. The body became redundant as I called to attention how the ritual has surpassed personal experience. The hype and conspicuous consumption associated with weddings has become an industry (Otnes & Pleck, 2003) where the bride is invisible and the groom is superfluous, and the original meanings associated with the ceremony are lost.

Following page

*Figure 31. Here Comes the Bride*, taken during an autumn morning, at a local Perth beach.





*Figure 32. Here Comes the Bride, taken during an autumn morning, at the car park of a local Perth beach.*

According to Otnes and Pleck (2003), the wedding ceremony is the most significant ritual in contemporary Western culture. Grimes (cited in Otnes & Pleck, 2003) observed that families spent the greatest amount of time, energy and money on the wedding ritual. Otnes and Pleck surmised, since couples were marrying later in life, “the wedding has lost its potency as a rite that marks the transition from adolescence to adulthood” (p. 5). Even so, they noted weddings are the visible mechanisms by which individuals can demonstrate their social, legal and financial commitment to each other. Further, weddings are the showcase for families’ wealth, through conspicuous consumption, so much so that the emphasis is on consumption rather than ritual (Otnes & Pleck, 2003). Paul (cited in Otnes & Pleck, 2003) described preparing for the fairy tale wedding as ‘matrimania’. She found that couples were often absorbed in preparing for the wedding day, keeping them from thinking about their relationship beyond the event.

As mentioned previously, consumption is an overarching theme in my art. Where previously I explored conspicuous consumption, new works were moving towards sustainability. Through the wedding dress, I questioned sustainable practices, for example, the intensity that was associated with planning the first day of a marriage, even going into debt, without any thought for what came next. This could be equated to humanity’s lack of consideration of the future of the planet. Even so, the wedding dress does bring hope for a future with the promise of a ‘happily ever after’, whereas the ball dress promises so much but delivers relatively little.

## ***Party Dress***

As the mother of four children, two sons and two daughters, I think I was in a state of shock when my daughters began attending school balls. If I had just had sons, the conspicuous consumption associated with school balls would have been lost on me. My sons and their friends made relatively little effort to prepare for their balls. In direct contrast, I despaired at the amount of time, energy and my money each daughter spent on each ball. Within a four-year period, my daughters attended eight school balls between them. Each ball took months of planning and preparation. At the same time as dealing with daughters who were gripped by 'ball fever', I was immersed in making, exploring the materiality of 'invisible' wedding dresses. As such, the transition from making wedding dresses to ball dresses was seamless.

The transience of the school ball became another symbol for unsustainable behaviour. The ball dress was an analogy for a lack of foresight. During my ball dress explorations, I observed how my daughters prioritised their Year 12 ball over the build-up to final exams. The ball was a fleeting moment in the school year, whereas Year 12 was supposed to be preparation for the future. My initial focus was on the glamour, the pageantry and the conspicuous consumption of the Year 12 School Ball, enlightened by observations as I watched my daughters dart from one ball to the next. In the studio, I experimented with materials other than the transparent plastic, trying to recapture my daughters' experiences in the bodiless dresses. The first ball dress, *Party Dress*, was a black 1950s style ball gown constructed from black fibreglass flywire salvaged from REMIDA WA. Growing up, in my household, where observation and my situated knowledge (Haraway, 1991) informed me, the implicit understanding was that black was a woman's colour, not a girl's colour. Following on from *Here Comes the Bride*, my first thought with *Party Dress* was to address the ritual and frivolity of school balls as a metaphor for humanity's relationship with the environment. However, while 'playing' with *Party Dress*, I compared its shadow to the plastic dresses. The shadow was different. Layered shadows were a two-dimensional representation of the undulating flywire. In this instance, the shadow takes on a different meaning to the *Here Comes the Bride* series: it represents the brevity of childhood and the dress becomes part of a ritual marking the transition to adulthood.

The black flywire had many properties I had not considered before I began to understand its materiality. Wound tightly on a roll, it was opaque, whereas unrolling it, a single layer was translucent (see Figures 33 and 34). The shadows fascinated me; they had a painterly quality to them, as soft and delicate shadows recorded folds and creases on the hard cold surfaces in my studio. By attempting to capture the shadows, *Party Dress* taught me a

lesson in photographic documentation. Before this, I had never considered myself a photographer. Even so, with an underdeveloped photographer's eye, I had been using photographs to document my process (see Figure 35). As a maker, I was engrossed in the process. I did not consider how lighting or the space the object occupies might alter its reading because in my mind's eye I was constantly editing out the superfluous. When I began documenting through photography, I began to notice the visual litter in the background. In the context of this research, the photographs were becoming more than a method of documentation. They were becoming compositions in their own right.



Above

*Figure 33.* Experimenting with light and shadow in the studio. The flywire was painted white to differentiate the material from the shadow.



Left

*Figure 34.* Initial shadow experiments using *Party Dress*.



Figure 35. Examples of photographs used to document progress in the studio.

When I chose to work with flywire for *Party Dress*, I had to adjust to working with an unfamiliar material. Previously, I developed an understanding of how different types of plastic reacted to heat but the flywire was different. It responded more like fabric and I was able to use traditional dressmaking techniques to make the dress. Unlike the plastic dresses, this dress called for a body to give it form. I was still interested in the idea of fleeting shadows and so I dressed a model in *Party Dress* and took photos of her shadow. As I looked through the photos, I realised a potential new artwork was developing. In my mind, I envisioned a ghostly image of a young girl the beach with no trace of the girl, apart from her shadow. In the afternoon light, an elongated shadow would give the dress a mysterious ethereal feel to it. At least, this was my intention when I started the process.

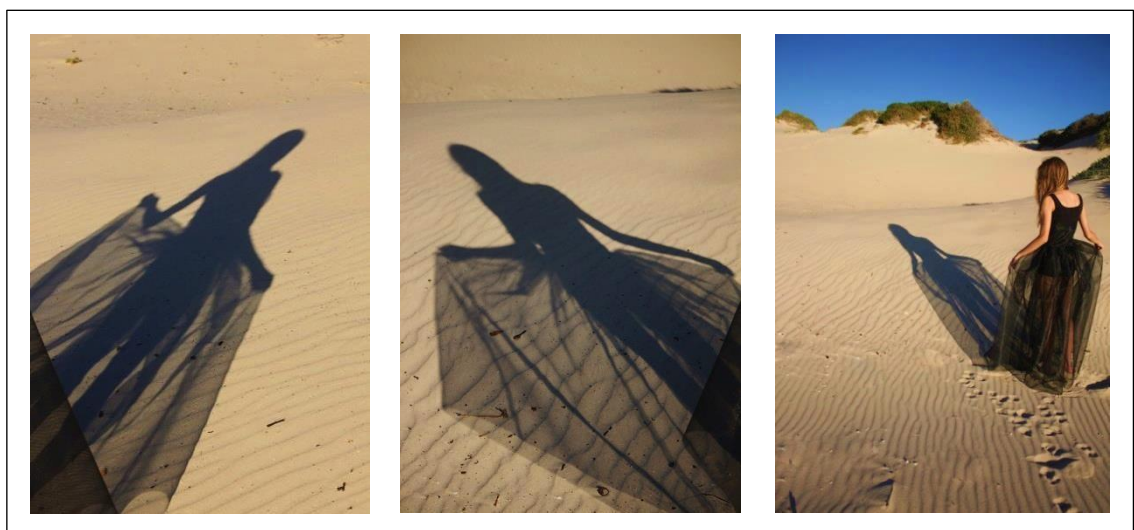
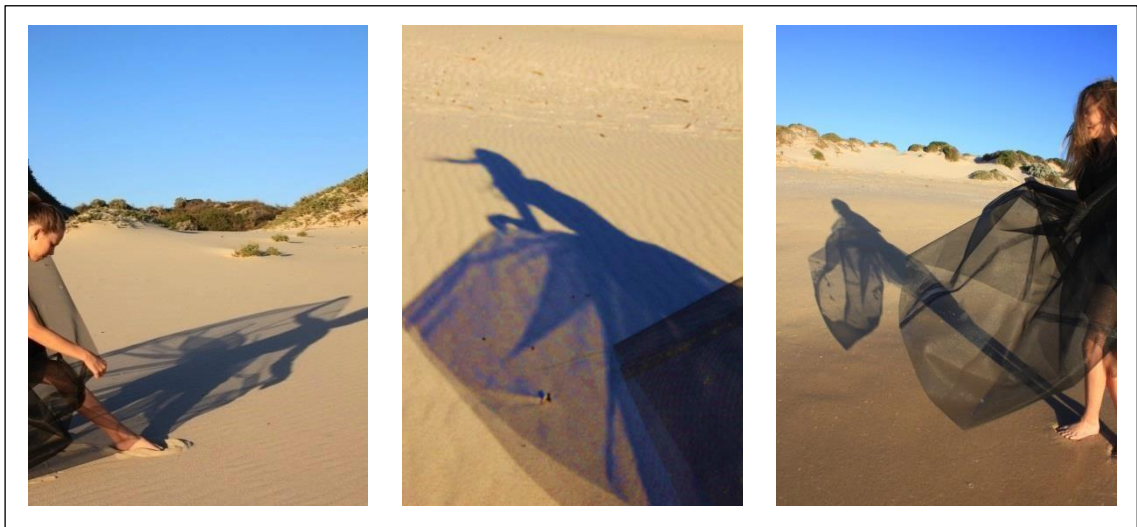


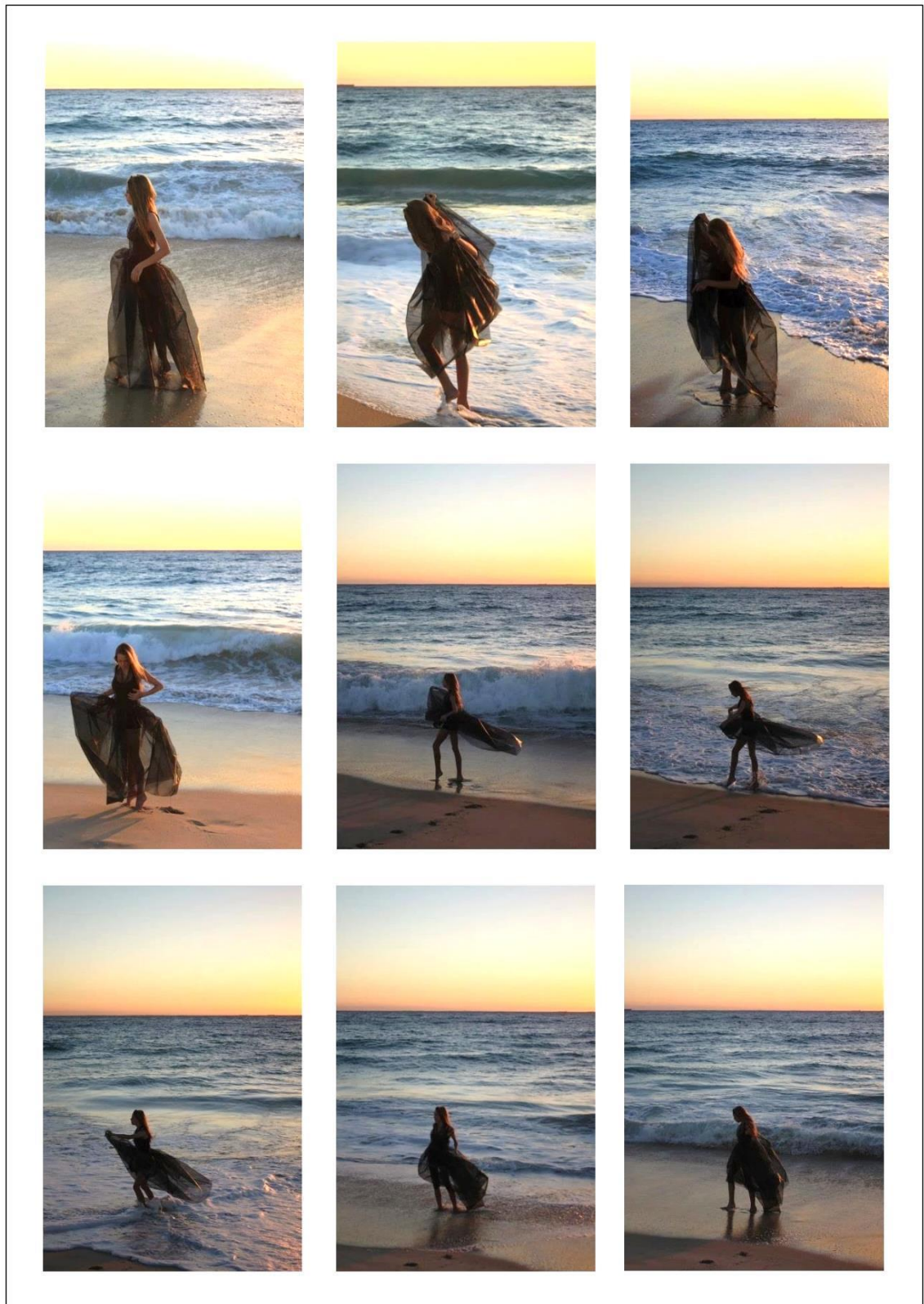
Figure 36. Documenting shadows at a local Perth beach.

At first, the model was stiff and self-conscious (see Figure 36). I imagined the perfect image but it did not happen. When I started to think in terms of composition, not documentation, locating a pristine space became a priority. However, as much I as tried to control the situation there was always something spoiling the shot. I thought I was wasting my time but, before long, there was a shift. The model was not taking directions from me anymore. Instead, she was offering her own suggestions; she was taking cues from her shadow (see Figure 37).



*Figure 37.* The model taking cues from her shadow during the photo-shoot.

We moved to the water's edge, hoping to capture shadows in the water, but the light was fading. I was about to call the model back but I stopped for a minute. I was mesmerised. The dress was beginning to take on a life of its own and the model was its muse. They danced in the fading sunlight as the water ebbed and flowed beneath her feet. Our time at the beach was no longer about me recording images of my artwork. My role of maker had transformed into documenter, documenting the model's engagement with the dress. As the sun inched behind Rottneest Island, I kept photographing the model until there were no more shadows (see Figure 38).



*Figure 38.* Photographing the model at the water's edge at a local Perth beach.

## ***Forget Me Not***

In *Here Comes the Bride* and *Party Dress*, the dresses are a reflection on my environmental footprint, those unsustainable behaviours that still persist. The shadow, on the other hand, symbolises my commitment to be more mindful in my creative practice. Coinciding with research, my day-to-day existence was encroaching into my studio through the metaphor of the ball dress. As new ideas were evolving, in a heartbeat everything changed. The school ball has become a rite of passage in the life of a Perth teenager, a transition into adulthood; however, not all teenagers make that transition, some die. In the space of a year, our family, in particular my daughters were affected by the tragic passing of a number of close friends. The first occurred after my youngest daughter's school ball.

I have never experienced a mother's grief for a lost child, but I have witnessed it, first-hand. When I was 13, my sister, who was 20 at the time, died in an accident, and from that point, her death overshadowed my family's life. For a long time, my mother's grief was all consuming and, in our family, there was a hierarchy of grief: my mother's grief followed by my sister's (the twin of the sister who died) and, after that, there was no room for anyone else. I cannot recall my father grieving, although his loss must have been equally devastating. Yet, in saying that, my father was not unscathed; it is just that my mothers' grief dwarfed his grief, my sister's, my brother's and mine.

Even before my sister's death, death was ever-present in my family. My mother was still grieving for her 16-year-old sister, killed during the Greek Civil War, 1946–1949. Some of my first memories were of me perched on our kitchen bench as mother recounted stories of her beautiful sister. As a three or four-year-old, I thought my mother was telling me fairy tales of exotic children who lived in a faraway land. It was not until I was an adult that I began to suspect that my mother's loss had probably overshadowed her own mother's anguish. I also presumed that, through story-telling, my mother was coming to terms with her loss. Then, when I was five-years-old, my grandfather died. Even though I cannot recall him, I probably felt the effects far longer than I should have. My grandfather left me an inheritance in the form of a roommate for the next seven years. Until her passing, I shared my bedroom with my black-clad grandmother. Hence, I listened to my mother's stories during the day and my grandmother's grief became my lullaby. In my childhood, my parents and grandmother did not shield me from conversations about death and dying. Death was spoken about openly in our home and among our extended family, and it was not something that adults thought should be hidden from children. Before I entered adulthood, I was familiar with the rituals of mourning that contained grief – taught to me by women dressed in black.

Experiencing death through several degrees of separation, I watched from the background as my own daughters were experiencing it first-hand. The ripple effect of 'those passing' was widespread in our community; the local media reporting each one, front-page news in some cases (T. Barone, 2013; Price, Eliot, & Hiatt, 2013). According to Adams (2008), the impact of serendipity cannot be underestimated in constructing narratives nor can the interplay of colour, texture, sound and smell be ignored, as action becomes the lived experience achieved through material thinking. Barrett and Bolt (2013), P. Carter (2004), Dewey (1934) and Merleau-Ponty (1962) support this notion and, in my case, serendipity played a significant role in how I was catapulted from participating in a discourse centred on unsustainable practices and propelled onto a new trajectory.

'Befores' is a photo opportunity for Year 12s before they head off to their Year 12 ball. I resented all the preparation of one short hour where dozens of excited teenage girls hugged each other, and the boys, many wearing a suit for the first time in their lives, played 'men' as they greeted their friends with a firm handshake. On that Friday afternoon, proud parents were adjusting ties, pinning on corsages, taking photographs and tearing up. As I welcomed, dozens of excited teenagers and their parents to our home, I had to ask myself: was it really worth it, to put in so much effort for one hour? Yes, it was!

The next afternoon my youngest daughter received a devastating phone call. Her close friend was in hospital on life support.<sup>9</sup> I still feel guilty that my first reaction was to tell my daughter off for being so melodramatic. I assumed the news was an exaggeration, mixed with teenage theatrics. I had no sense of the tragedy that was unfolding nor was I aware of the immediacy and accuracy of social media; I was oblivious to it all. I was on a 'need-to-know' basis and sensed the hierarchy of grief connected with a teenager's death. There seemed to be an unwritten rule about how people could publically grieve and because there was no room for me to grieve for my daughter's loss, I retreated to the studio.

*Forget Me Not* speaks of loss of an enduring legacy. The funeral of a young person differs from one whose long life was well lived. For the old, lifetime achievements are celebrated. For the young, the grief is unbearable and the pain is raw. 'Loss' and 'wasted' are repeated like a mantra and everyone feels robbed of time, opportunity and potential. Forget-me-nots were a favourite motif for Victorian *memento mori* jewellery, symbolising

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<sup>9</sup> Although the circumstances of this teenager's death and the others I respond to through my artworks are well documented in the local press, out of respect to the families and friends of the teenagers, I will not name them or discuss the particular circumstances associated with their passing.

remembrance. Its function is to constantly “remind the living of the ever-present possibility of death which can strike young or old, rich or poor without warning” (Taylor, 1983, p. 227). In this case, the surgical masks used to make *Forget Me Not* (see Figure 39) uses wordplay to symbolise a modern-day version of *memento mori* – organ donation. The dress represents one coping strategy parents and families use to deal with loss in their desire to maintain links with children taken well before their time. To illustrate this, when I stood among a sea of mourners at the teenager’s funeral, I heard about the teenager’s precious gift: from one senseless death, five lives benefited, as if that would give the parents solace. At home, organ donation became a topic of discussion. My daughter asked me what I would do. I told her I would donate my organs in a heartbeat, but that was not what she meant. She rephrased her question and asked what I would do if she were on life support. I hesitated. The question threw me! I told her that I would be prepared to donate her organs and launched into an altruistic rhetoric to support my argument. Back in the studio, I ran my fingers through the ties spilling from *Forget Me Not* as tears spilled from my eyes. To be honest, I was too scared to think of the possibility in case it might come true. Moreover – the tears? *They were guilty tears*. In part, they were for the teenager. Mostly they were tears of relief that it was not my child – lying cold in the ground.

Following page:

*Figure 39.* Sue Girak, 2014, *Forget Me Not* [Three-ply Tie-on Masks (Sourced from REmida WA), Foam Shoulder Pad Masks (Sourced from REmida WA), Polyester Thread (New Materials), Dimensions Variable]. Work in progress.



## ***Inconsolable***

Over the following months, I felt as if my daughters were living in a war zone with the news of one teenage death after another. As a mother, from the outside looking in, I noticed that in my encounters in the supermarket and school car parks, on the outside, I was respectful. Internally, I felt ashamed that I was grateful it was not my child. Conversations with close friends comforted me because I knew I was not alone. We were ‘shell-shocked’ and confused. For the children we knew well, we could publically comfort one another and shed our tears, but how could we rationalise our strong sense of grief for children we hardly knew, if at all? How could we defend those guilty feelings as we whispered to each other how thankful we were that it was not our child?

*Forget Me Not* was an expressive response to teenage death; however, as my daughters’ friends began to pass away with what seemed like monotonous regularity, I entered my studio wearing my Arts practice-led researcher’s hat. In the time it took me to complete *Inconsolable* two teenagers had passed. One, I only knew by name, and the other, since playgroup.<sup>10</sup> One passed suddenly and violently, the other’s death was long and lingering. Once again, the shock of each death reverberated across the community. As a response, I stopped making works about conspicuous consumption and started to explore new themes, including death, grief and motherhood through ritualised mourning. Emotion was my driver; I was trying to make sense of my world through artmaking and, in doing so, I decided not to rely upon my tacit knowledge of Macedonian mourning rituals. I wanted to explore these themes through different lenses. In my mind, Victorian England turned ritualised mourning into an art form that far outclassed Macedonian traditions. “It was [Queen] Victoria, the middle-class ideal of Christian widowhood who fanned the cult of mourning . . . . During the 1850–90 period mourning became such a cult that hardly anyone dared defy it” (Taylor, 1983, p. 122). To my surprise, a spouse remained in mourning for a significantly longer period compared to a parent. I wondered what mathematical formula the Victorians used to quantify a mother’s grief.

Strict rules of etiquette and dress codes applied to mourners in Victorian England where the colour black dominated the social landscape. During the Victorian era, not only was black associated with death and mourning, it was how black was worn that was important.

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<sup>10</sup> Playgroups are play-based sessions for mothers and toddlers.

The properties of black worn in clothing and accessories differentiated mourners. Victorians strictly adhered to three cycles of mourning, where the length of each cycle was dependent on the mourner's relationship to the deceased (Taylor, 1983). Steeped in ancient superstition, during the initial stage of mourning, mourners wore clothes and jewellery with dull matt finishes. "Reflections had to be avoided at all costs" (Taylor, 1983, p. 229), lest the spirits captured the deceased's soul.

The Victorians' preoccupation with death extended to *memento mori* disturbs me. Preserving dead people's hair as keepsakes or displaying photographs of dead people (Taylor, 1983) repulses me. Yet, I am very comfortable with the idea of donating and receiving dead people's organs. I wonder if it is because the organs are concealed, hidden away in bodies. To some degree, *Inconsolable* (see Figure 40) deconstructs *memento mori*. *Inconsolable* is bodiless, representing universal grief. Disregarding ancient superstition, the dress stands alone in a mirrored room reminiscent of Yayoi Kusama's Installation *Infinity Mirror Room--Phalli's Field* (1965) where the dress becomes a player in a private performance between viewer and dress. Entirely in black, the dress is made from salvaged flywire, new thread and black mourning pins. Self-supporting black plastic tubing encases the wire armature, which is inserted into the seams. The black mourning pins have a dull finish and are an analogy for the mourning process: they close the wound even though the scars remain as a constant reminder.

This dress represents my recent experience with grieving mothers, and my relationship to it is deeply personal. The experience of making the dress brought to the surface unforeseen feelings of relief mixed with shame and guilt. This artwork is not so much a portrait of the bereaved mother as it is my self-portrait. There she stands, alone, unapproachable, protected by a barbed barrier. I cannot approach her. I cannot comfort her when my children are still alive. I do not and cannot begin to understand. What I do understand is the divide created through a heavy sense of relief, shame and guilt: nothing more.

Following page:

*Figure 40.* Sue Girak, 2014, *Inconsolable* [Black Fibreglass Flywire (Sourced from REmida WA), Non-reflective Black Mourning Pins, Steel Wire, Plastic Tubing, Polyester Thread (New Materials), Dimensions Variable]. Installation view: forget me not Exhibition, Spectrum Project Space.



## ***Silver Linings***

In our household, the excitement involved in planning for the Year 12 ball has been surpassed by other milestones, including 'leavers' (end of high school celebrations), 18<sup>th</sup> and 21<sup>st</sup> birthday parties and planning to travel abroad. School balls are now a distant memory for my children – only to confirm what I had suspected all along, in that there is an inordinate amount of time, energy and resources put into one event, without a long-term pay-off. While the wedding ceremony marks the first stage of a shared life, the school ball stops short. However, after the death of so many teenagers within my children's circle of friends, through accident, illness and misadventure, my dresses made from discarded materials are a heart-breaking reminder of lost potential. No longer was I looking to highlight the lost potential of discarded materials: the dresses symbolised the lost potential of young lives. In contrast, the final dresses in this series are *Silver Linings I and II* (see Figure 41), knitted dresses made from a discarded reel of pliable silver-coated copper wire, which represents the aftermath of a tragic year.

A conversation between maker and materials took the form of a silver-knitted dress, *Silver Linings I* (see Figure 42). As I knitted each stitch, I struggled to come to terms with waste: the waste of young lives, and the waste of precious materials. Although the wire was malleable, it was not compliant. It directed my hands and I tried to resist. I experimented with complicated patterns, which in wool translated into delicate patterns but in wire were ungainly. For this reason, I resolved to *listen* to the wire and to do as I was told. I was told to knit simple stitches. The stitches were simple to look at – but not to knit. At first, each stitch was a battle for conformity as I pushed my needle through wire loops in an attempt to achieve uniform stitches. My residual knitter's memory expected the wire to perform like wool. I tried to force a familiar technique onto a new medium and, in turn, I was punished. My fingertips were ripped to shreds and my hands were gnarled at the end of each day. I approached each new knitting session with hesitation. The wire remembered me – and taunted me. Each stitch is a record of my process – as I attempted to reconcile that wire is not wool. Each medium speaks its own language. When I began to understand how this length of silver-coated copper wire responded to the needles, the process became fluid.

According to Searle (2008), knitting in its traditional form is a 900-year-old technique for producing clothes and other textiles. The 1960s marked a shift when textile artists, including Mary Walker Phillips, challenged the stereotypical perception of knitting as a technique used in domestic craftwork and rebelled against the prevailing definition of art at that time. Textile artists sought to elevate knitting into the realm of contemporary and

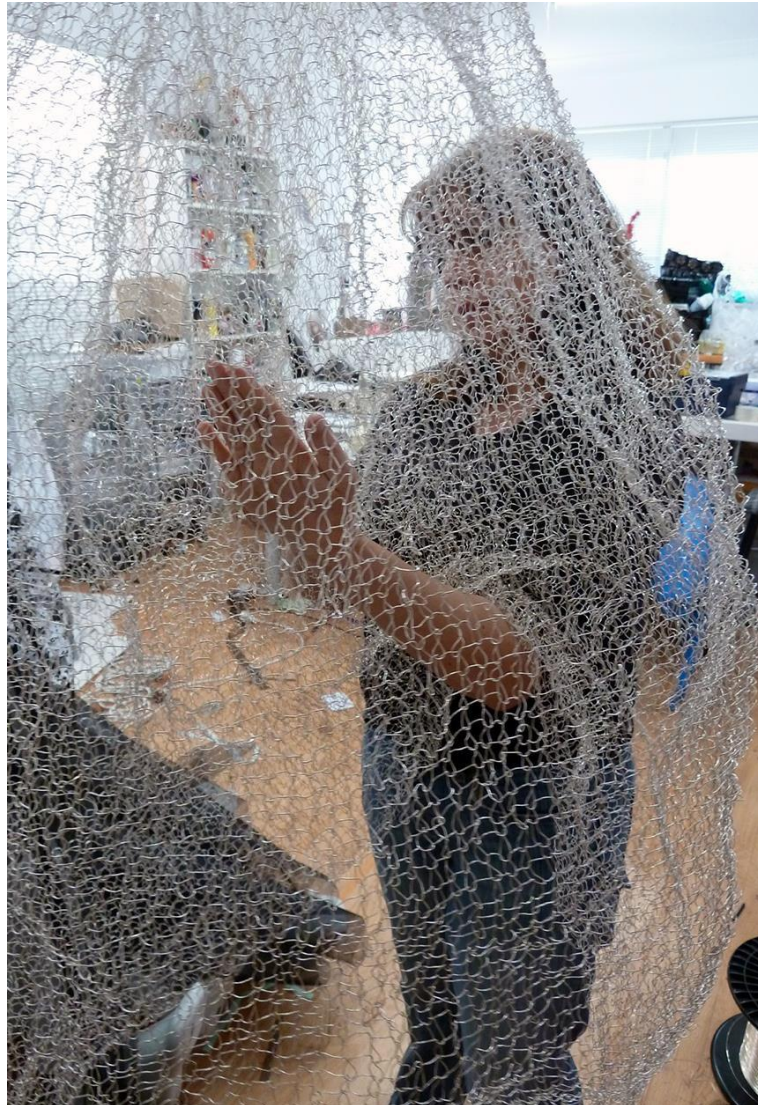
conceptual art. In the 1970s and 1980s, the numbers of artists who utilised knitting rose in the US; even so, the rise was more rapid in Britain and Europe. By the turn of the 21<sup>st</sup> century, there was a renewed interest in knitting as a traditional craft form and a subversive Visual Art form. Searle (2008) maintains that the knitting renaissance was, in part, brought about by the rise of social media, where internet sites and weblogs extended the parameters of traditional knitting circles, including subversive knitters. Subversive knitters challenge traditional stereotypes. In the 1960s, M. W. Phillips (2013), an influential knitter of the time, knotted with non-traditional materials including wire to reject the traditional and adopt a free-form style to produce experimental pieces. The depth of research that comprises M. W. Phillips' APLR goes well beyond the scope of this research, because knitting is one of several techniques I have used to invite a dialogue with REMida materials.



Figure 41. Sue Girak, 2014, *Silver Linings I* [Silver-coated Copper Wire (Sourced from REMida WA), Dimensions Variable (detail)].

Knitting in the 21<sup>st</sup> century questions and challenges stereotypes by placing the disparate ideas alongside one another, for example, the growing international guerrilla knitting movement 'tags' the urban landscape with knitted graffiti. While the motivation among yarn bombers varies, on the face of it, street fixtures wrapped in knitting appear to be innocuous. However, yarn bombing is a subtle form of activism through art (Moore & Prain, 2009). "The juxtaposition of yarn and graffiti is humorous to some artists, while others see it as a more serious act that builds on a long-standing practice of renegade street art" (Moore & Prain,

2009, p. 18). On the other hand, in the gallery space, centuries-old traditions of knitting of materials and techniques are suspended where “the works reflect more generous and fluid definitions within a much broader and more inclusive definition of art, no longer concerned with the hierarchies and value systems that separate art from craft design” (McFadden, Scanlan, & Edwards, 2007, p. 9).



*Figure 42.* Materials-led inquiry requires the maker to actively engage with the material.  
Photographer: Carmel Warner

Although I acknowledge knitting as a technique and/or product loaded in terms of handicraft, domesticity and gender stereotypes, the *Silver Linings* dresses are not part of that conversation. Instead, the materiality of the wire determined the technique I used (see Figures 43 and 44). In this case, working by hand is not handiwork; rather, the hand relates to new materialism, which is to embody knowledge by handling materials (Barrett & Bolt, 2013). The hand is present in this artwork and it is important for the reflexive dialogue it invites through knitting. At first, I envisioned that *Silver Linings II* would reflect how we ‘move on’

from tragedy, trying to find the meaning in the senseless. However, while knitting, I found the meditative clicking of the needles invited an unanticipated dialogue. During the process, I turned inward and began to process my grief. In a way, *Silver Linings II* was a release. For a long time I was hyper vigilant: I was afraid that if my children left the house, out of my sight, they would not come back alive, and I was too uncomfortable to discuss my children's achievements with my friends, in case I invited bad luck. *Silver Linings II* took a very long time to knit and, as my fingertips hardened up, I found that I too was building some resilience and learning to let go. In the end, the silver lining was about me and no one else. I looked back on the past year with all its incredible lows and renegotiated my role as mother. In one way, this was similar to Kelly in *Post-Partum Document*, who explored the mother-child relationship where the focus was on the child "seen through the loving, anxious eyes of the mother" (Iversen, Crimp, & Bhabha, 1997, p. 41). In another way, the difference was that in Kelly's work the child is visible, showing the innate bond between mother and child. In my work, the physical bond between mother and child is broken through death, hence the bodiless dress emphasising the loss of potential.

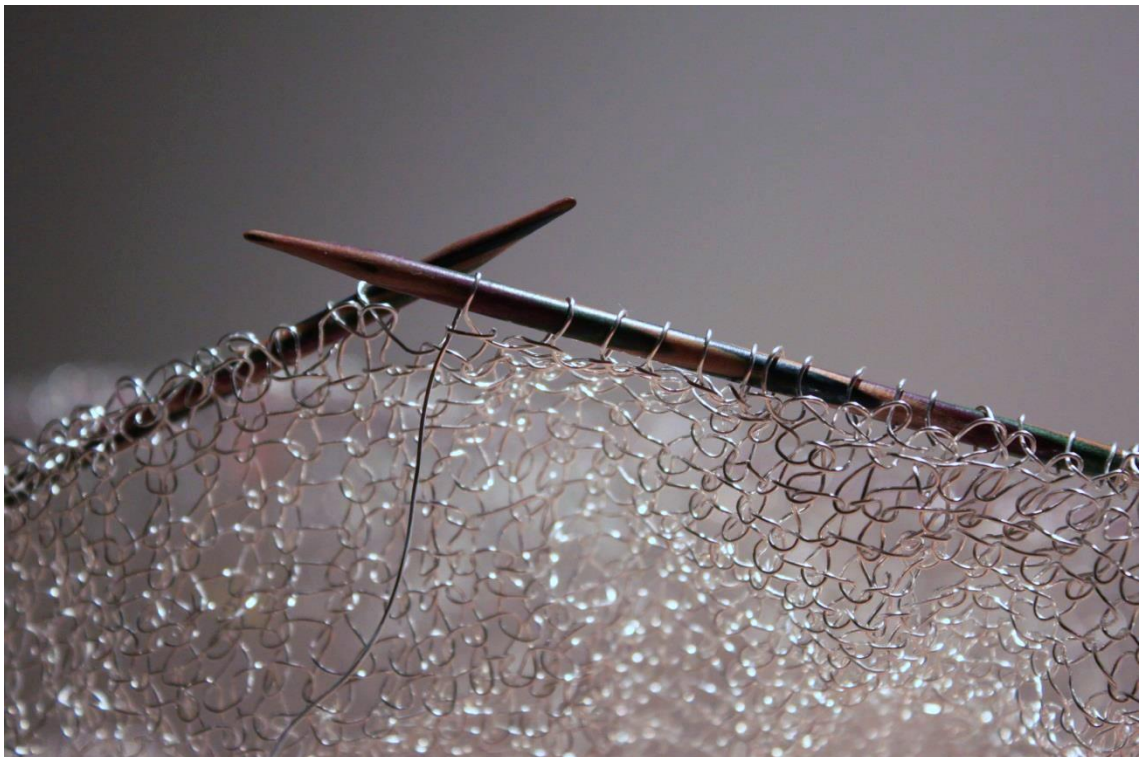


Figure 43. Sue Girak, 2014, *Silver Linings II* [Silver-coated Copper Wire (Sourced from REmida WA), Dimensions Variable (detail)].



Figure 44. The 'language' of wire determined the outcome of *Silver Linings II*.

In summary, the /a/ in a/r/tography traced the provocations that led to this research. Through Materials-led Inquiry, I have examined my environmental footprint and attempted to reconcile my principles with the appropriate action. In this case, it was to source REmida materials as resources. Reuse is a common practice in folk art and was appropriated in the early 20<sup>th</sup> century by Duchamp and others. This practice introduced creative reuse into the Visual Arts through such techniques as *assemblage*, *bricolage* and *collage* and the literature pertaining to creative reuse centres predominantly on the reuse of trash rather than unused by-products of manufacturing. Material choices are an individual decision and artists' ideology, which include aesthetic, conceptual, political and ecological considerations, within their historical contexts. In this research, aesthetic and ecological factors are equally important. Consequently, I have had to re-examine and change how I reuse materials because as I developed a meaningful dialogue with REmida materials, I started to appreciate that ecological considerations need to go beyond simple reuse. In the early stages of this research, bodiless dresses were a metaphor of conspicuous consumption, leading to unsustainable lifestyles; however, as I progressed, a number of teenage deaths changed the direction of my artmaking. At that point, I became more accepting of tangents and the subject matter of my new Materials-led Inquiries became very personal, relating to motherhood, grief and death.

## /r/

The purpose of /r/ is to deconstruct the research process, with the aim to provide teachers with an example of how a/r/tography can be used to improve pedagogical practices. In a non-academic context, in many cases, the exhibition space will not allude to the artist's process. Instead, the culmination of the creative process is celebrated in the form of objects, artworks or artefacts. Exegetical writing makes the invisible visible. In Chapter 3, I discussed the term bricolage, used as a metaphor to frame my methods in this transdisciplinary research. In this section, I narrow the discussion to the APLR research design of Phase Two. In particular, /r/ presents the factors that influenced my decision to exhibit at Spectrum Project Space and how *new materialism* and *material thinking* directed my Materials-led Inquiry. In addition, I describe the reflective methods I followed in order to track and identify critical moments in my creative process, which included action research, having regular conversations with a critical friend and employing the *Creative River Journey* tool.

In Phase Two, I adhered to the same environmental theme the Fairview students explored during Phase One but approached this component of the research from the position of a contemporary artist. I documented my materials-led thinking, materials-led process (Barrett, 2013) and Materials-led Inquiry. At the beginning of this phase, I envisaged I would easily develop a dialogue with REmida materials. In a sense, the dialogue I refer to is akin to Dewey's (1934) description of the artistic experience, where "the artist does his thinking in the very qualitative media he works in, and in the terms lie so close to the objects that he is producing that they merge directly into it" (p. 16). In the context of this research, I reassessed the environmental sustainability of my creative practice during artmaking with discarded materials.

Originally, I planned to exhibit my artworks in a small gallery space on campus. I assumed the role of the Visual Arts teacher, at the expense of the artist. My intention was to connect APLR with Visual Arts pedagogy. I envisioned groups of schoolchildren would visit my exhibition so that I could demystify my artmaking process. I understand that the art gallery plays an important role in Visual Arts education so I assumed my artworks could be a series of pedagogical tools, given that when students participate in authentic gallery experiences and have access to original artworks, they gain opportunities to think and respond to the materiality of art that is absent in a reproduction. In addition, the gallery setting reinforces the relationship between seemingly unrelated objects and space through the curatorial process (Al-Radaideh, 2012; Unrath & Luehrman, 2009). Existing literature that links Visual Arts pedagogy to the exhibition space largely ignores contemporary and/or ephemeral exhibitions

or spaces beyond established museums. Instead, it focuses on providing pedagogical support for teachers through explicit teaching (Chung, 2009; Matthewson-Mitchell, 2008; O'Doherty, 1986; Shaffer, 2011; Stone, 2001).

## Materials-led Inquiry

Discovering REmida would have to be described as a turning point in my creative practice, one where I began to see materials in a new aesthetic light. Often, discarded materials are ignored; however, when displayed with respect, they give a hint of the potential dialogue they hold. REmida is not a place where one can expect to collect art supplies. Instead, it is a place that showcases recovered materials, with the purpose of extending their usefulness through creative transformation. I often walk into REmida without a specific project in mind, yet the selection process is not random. Although it may not be immediately apparent, everything I bring home I choose for its potential.

Grounded in feminist theory, new materialism rejects Western hegemony of disembodiment (see Chapter 3). In this research, the attention feminist epistemology gives to the unique contribution made by marginalised subjects to knowledge production has shifted to other marginal groups, including children, arts practice-led researchers and discarded materials (Barrett, 2013; Braidotti, 2011; Coole, 2013; Dolphijn & van der Tuin, 2011; van der Tuin & Dolphijn, 2010). In addition, knowledge production that includes tacit and experiential knowledge “derived from the impulse to handle objects and to think and *feel* through their handling’ (Barrett, 2013, p. 64 [original emphasis]) ties new materialism to aesthetic experience (Dewey, 1934) as an extension of a constructivist epistemology.

As part of my creative praxis, I agree with P. Carter (2004) that “one who thinks materially has to be a specialist in alloying. Some materials and behaviours disclose elective affinities; others repel one another” (p. 179). This corresponds with REmida’s philosophy of creative reuse visible in *The Hundred Languages of Children* metaphor (Edwards et al., 2012). REmida encourages a multisensory dialogue with discarded materials comparable to new materialism, which is “a very specific sort of knowing, a knowing that arises through handling materials in practice. This form of tacit knowledge provides a very specific way of understanding the world, one that is grounded in material practice” (Bolt, 2010, p. 29).

My approach to material thinking through Materials-led Inquiry parallels Glaser and Strauss’ original construct of Grounded Theory where, “the researcher must have patience and not force the data out of anxiety and impatience while waiting for the emergent. He must trust that emergence will occur and it does” (Glaser, 1992, p. 4). Even though this research is

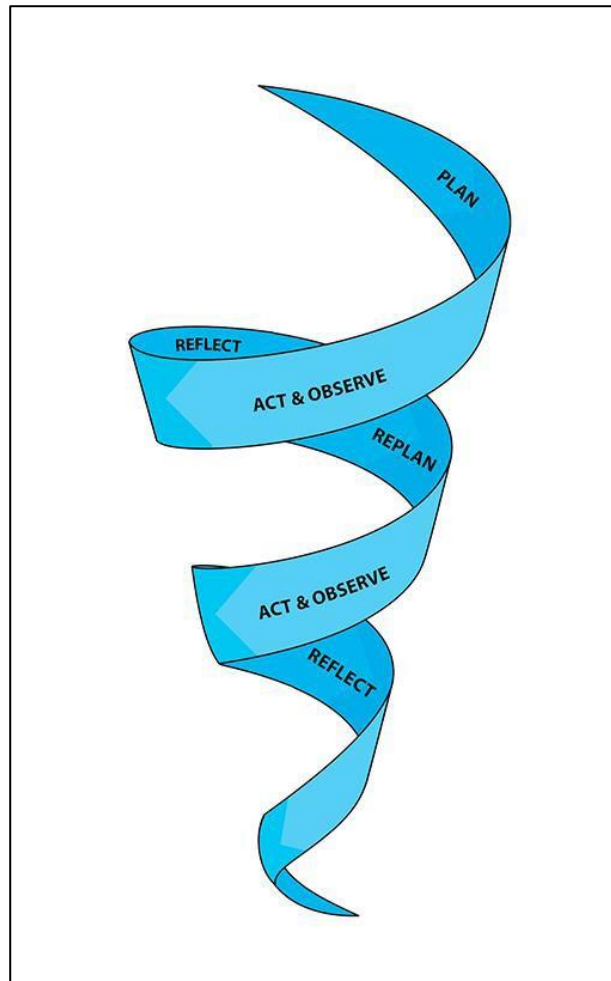
not Grounded Theory, there are some similarities between Grounded Theory and material thinking in that the maker must be patient, wait and listen before entering into a dialogue. For example, REmida materials became my muse as I strategically positioned materials in my studio so they were visible. Akin to Glaser (1992), I waited for 'something' to emerge even if it took years. Material dialogues are more than just 'talk'. Listening is crucial and I learned to be patient. Every so often, I played with my cache. The possibilities were not always apparent and it took numerous encounters before a conversation started.

In material thinking, reflection and reflexivity occur during and on account of engaging in a dialogue with materials. The reflective methods applied in Phase Two relate to my identity as a contemporary artist. "Artists in particular give themselves over to virtually continuous reflective time, placing reflection at the heart of the creative process" (Burnard, 2009, p. 3). Reflective practice tracks changes in values and perspectives over time and place; moreover, reflection and reflexivity are crucial elements for creative practice but serve different functions. Reflection is a method of self-analysis that reviews or relives an experience. A subjective act may replay past experiences from multiple perspectives. Alternatively, reflexivity enables practitioners to become agents of change by removing themselves from the immediacy of the experience by acknowledging social, political and cultural constructs (Bolton, 2010; Burnard, 2009; M. Griffiths, 2011).

## **Action Research**

According to Irwin (2013), a/r/tography is a hybrid of action research and therefore action research is well positioned within this methodology. Action research is a structured inquiry aimed at improving personal practice (May, 1993; Zeichner, 1993). Lewin (1946) first developed action research to improve inter-group relations in the US through effective action. The outcome was a method that is still applicable in today's context, which is to help practitioners enhance their practice within a diverse range of organisations and communities including schools. The Action Research Spiral (Kemmis & McTaggart, 1988) (see Figure 45) has evolved to meet the specific needs of individuals and organisations. As a result, action research can be classified into, but not limited to, the following approaches: traditional action research, action learning and educational action research (O'Brien, 1998). Since the 1960s, the pragmatic nature the methodology has provided teachers with a tangible way to enhance and develop pedagogy and student learning by linking practice and theory (Elliott, 1991; Hui & Grossman, 2008; Kemmis & McTaggart, 1988; May, 1993). Action research meets the explicit requirements of many researchers as a research tool encompassing a number of variations (Kemmis & McTaggart, 1988; Elliott, 1991). According to Kemmis and McTaggart (1988), true

action research is a collaborative process in order to bring about organisational change. However, since the 1980s, it has become acceptable practice to use action research as a method to improve an individual's practice. Over time, the traditional boundaries have been renegotiated and appropriated to support the practice of the individual artist (Räsänen, 2005).



*Figure 45. The Action Research Spiral. Adapted from The Action Research Planner by S. Kemmis and R. McTaggart, 1988, p. 11.*

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Designer: Phil de Glanville

### **Artistic Action Research Spiral**

The Artistic Action Research Spiral (see Figure 46) developed by Räsänen (2005) resembles the a/r/tographical interpretation of action research. It could easily be described as a/r/tography, empowering teachers to research their creative praxis as means to improve Visual Arts pedagogy and vice versa. "Teaching can be improved through comparison of one's own artistic processes with those of students" (para. 40). Räsänen's appropriation of traditional action research is consistent with APLR in that "different ways of knowing and seeing are fundamental to action research" (Percy-Smith & Carney, 2011, p. 26) and what

Leavy (2009) described as a “methodical hybridization” (2009, p. 253), which I have applied to my own research. Räsänen (2005) was able to adapt traditional action research to meet her needs as an artist. Bearing this in mind, as discussed in Chapter 3, my a/r/tographic practice is not a linear process, and the rhizome metaphor (Deleuze & Guattari, 1987) is a powerful illustration of my working method and my life. ‘Rhizomatic’ research occurs in the ‘real’ world of research, continually building on knowledge by making connections and spreading in a multitude of directions. For a/r/tographers, it does not matter where the provocations for new inquiries arise. Due to the multifaceted nature of my research, I have found it difficult to locate a model that links a/r/tography with action research that I could apply to my study. As a result, I have adapted both Kemmis and McTaggart’s (1988) and Räsänen’s (2005) models to develop an A/r/tographic Action Research Spiral.

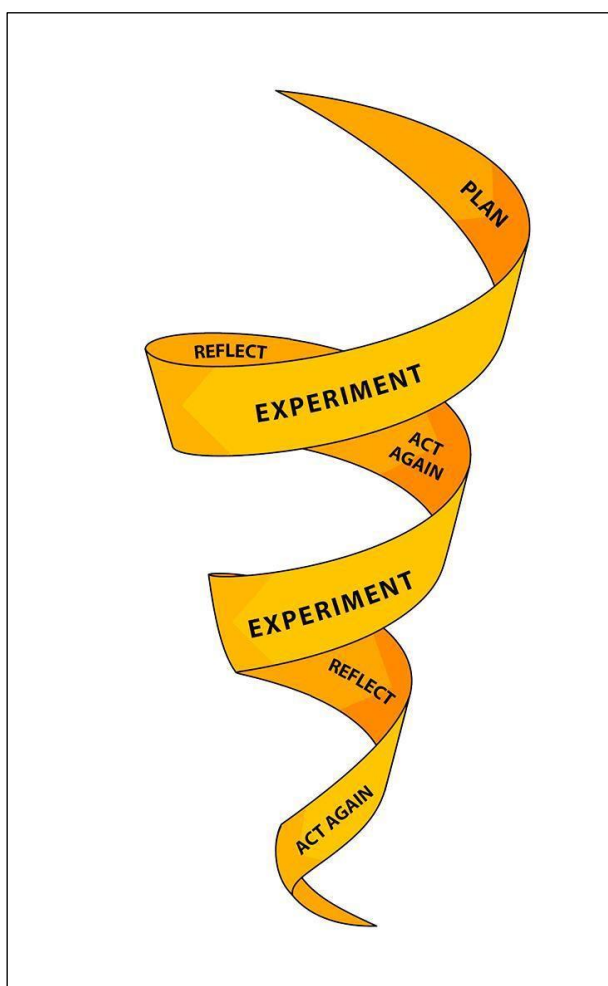


Figure 46. The Artistic Action Research Spiral. Adapted from “Multi-roled and Skilled Teachers of Art,” by M. Räsänen, 2005, *International Journal of Education through Art*. Designer: Phil de Glanville

## A/r/tographic Action Research Spiral

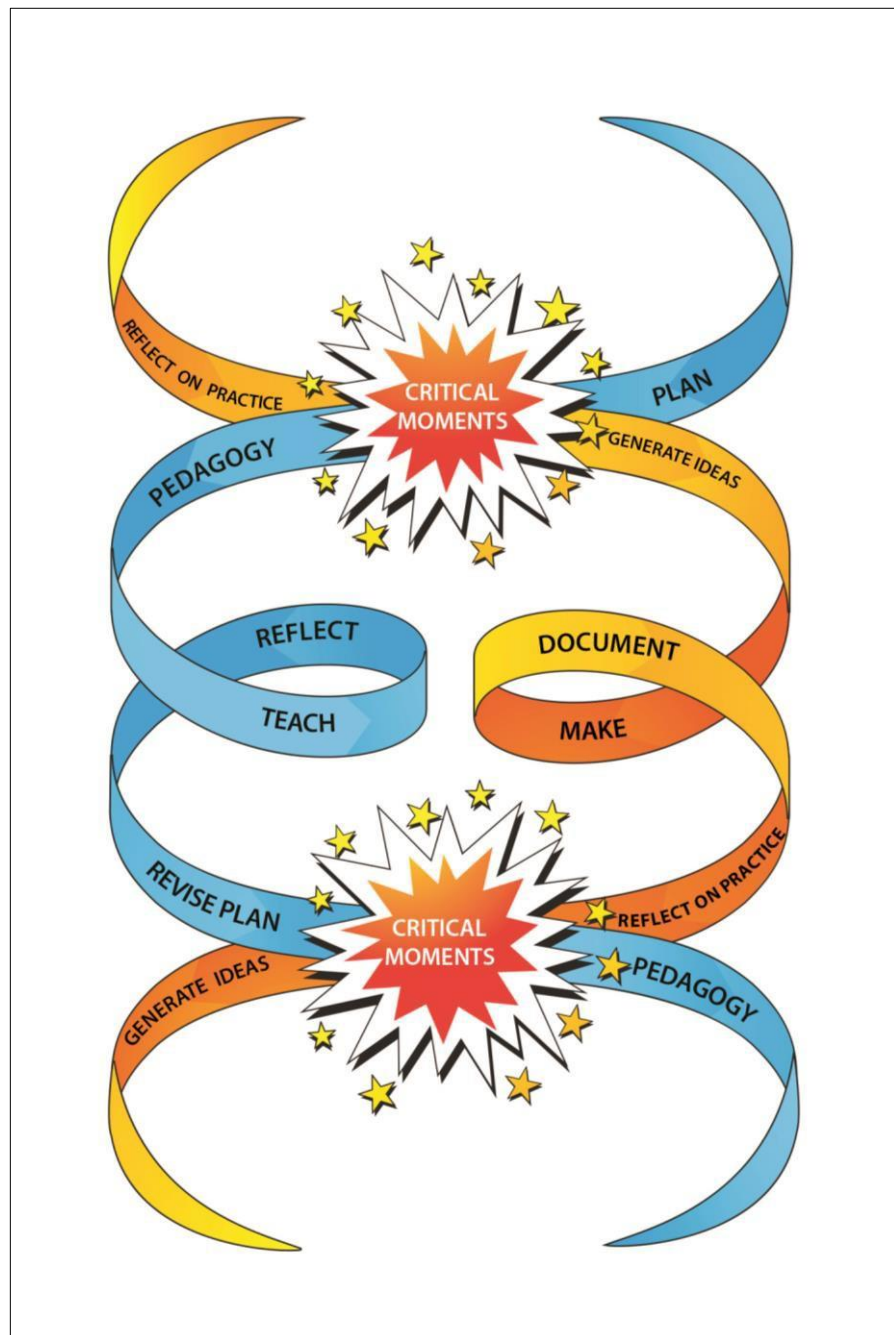


Figure 47. The A/r/tographic Action Research Spiral. Adapted from *The Action Research Planner*, by S. Kemmis and R. McTaggart, 1988, p. 11; "Multi-rolled and Skilled Teachers of Art," by M. Räsänen, 2005, *International Journal of Education through Art*.

Designer: Phil de Glanville

The A/r/tographic Action Research Spiral (see Figure 47) is a reflective process so that a sole practitioner may reflect on how the dual roles of artist and teacher influence one another and as such plan accordingly for each situation. Forasmuch as the A/r/tographic Action Research Spiral is a model that supports my individual praxis, the terminology used to describe the process for each spiral is reflective of the characteristics of each discipline. The

blue spiral represents action research in the classroom pertaining to Visual Arts pedagogy. The orange artistic spiral is reflective of Räsänen's (2005) model. The *experiment* stage in the orange spiral relates to material dialogues that occur through Materials-led Inquiry. In essence, the a/r/tographic action research is a reflexive process, where a critical moment may identify a need or is the catalyst for a new approach in both practices; one takes action and reflects on it, where once again the spiral repeats itself with a new course of action. Even though the two spirals operate simultaneously, more often than not the practitioner reflects on each practice independently until a critical moment connects them, which in turn informs and complements both practices. It does not matter how the critical moment happens or even if it directly relates to Visual Arts pedagogy and/or creative practice. What is important is that moment applies to both practices. The A/r/tographic Action Research Spiral adds an extra dimension to studio-based artmaking by aligning it with Visual Arts pedagogy. The practitioner reflects on two levels: on one level, s/he is primarily concerned with addressing challenges in the studio, whereas on another level, s/he is resolving to enhance Visual Arts pedagogy through APLR. In Figure 46, I have illustrated a simple cycle, but in reality, there may be a number of smaller reflective cycles in either the art or teaching cycle before the artist-teacher will arrive at a shared critical moment.

One example of how one critical moment altered the way I made my own art in the studio, and how I approached Visual Arts pedagogy, occurred in the classroom. In turn, this critical moment ultimately led to this research – with a limited budget, I found it frustrating that I could not fill my storeroom with supplies. Fortunately, my school had a REmida WA membership. When I visited REmida WA for the first time, it was if I had entered into Aladdin's cave. From the position of an artist, REmida materials forced me to explore my unsustainable creative practice, whereas in the classroom, REmida materials removed the pressure of rationing limited resources. By introducing REmida materials, the classroom culture changed as students unshackled themselves from a two-dimensional diet of white cartridge paper, paint and crayons to explore the aesthetic potential of an array of discarded materials.

## Critical Conversations

The reflective conversation is a fluid process; the dynamics of each conversation is very much dependent the roles the participants play (Schön, 1983; 1987). "Critical reflection often begins with autobiographical analysis, its full realization occurs only when others are involved" (Brookfield, 1995, p. 140). Reflecting on artmaking through critical conversations adds an extra dimension to the reflective process that facilitates embodied knowledge, which is knowing-in-action. When knowing-in-action shifts to knowledge-in-action, the

knowledge becomes tacit (Schön, 1983; 1987). In this research, conversations with colleagues and friends informed my action research. While many of my conversations occurred during my day-to-day activities, I also took a more structured approach. I had regular one-hour sessions with Kate (my critical friend). Our conversations became part of the planning and reflective process, where Kate took on the role of coach and supported me by employing a variety of techniques to stimulate reflexivity. Our telephone conversations became a verbal record of my visual process. We spoke on a conference call line so that I could record the conversations and transferred the files into Dragon NaturallySpeaking 12.0 to assist in the transcription process.

Conversations with Kate were not traditional, in the sense there was an expectation of reciprocity. Kate's role was that of a facilitator who claimed that she had no agenda other than to support me. When recalling completed artworks, Kate gave me opportunities for critical thinking and reflection by asking open-ended questions. Talking to Kate enabled me to reach a deeper level of reflection that I found difficult to achieve through journaling. Sometimes the conversations were the catalyst for new ideas. On those occasions, I found it especially helpful to close my eyes and visualise new works. I would try to envisage how new works would look, and with Kate's support I was able to sort through ideas to identify the ones that held the most potential. For my part, talking to another person made reflecting-on-action feel authentic, and because we only spoke on the telephone, it meant that I was unable to provide Kate with visual cues. Therefore, my descriptions had to be explicit to make myself understood. As a result, reflective conversations framed within a/r/tographic action research helped me identify and track critical moments during my *Creative River Journey* process (Stevenson, 2013a; 2013b; Stevenson & Girak, 2012).

## **Creative River Journey**

*The Creative Journey* (Stevenson, 2013a; 2013b) (see Figure 48) is an adaptation of a visual mapping tool used to acknowledge and identify critical moments that shape Creative Arts practice. Earlier *River Journey* models were developed to enhance pedagogical practice in music education (Burnard, 2012; Kerchner, 2009). The river is a visual metaphor, used as a means to go beyond a simple description of process to achieving transformation through knowledge construction. On a 'map' of a winding river, each bend pinpoints a critical moment influencing the creation of an artwork. Critical moments are turning points or tangents that lead to new paths of understanding. These moments may include positive or negative memories, people and/or events. The tool is flexible and can be used in various contexts (Burnard, 2012). One context is an independent method of reporting, where the participants

work independently to construct their own chart. Another method enables the researcher to construct a chart created from recorded interviews. Finally, a third alternative is a collaborative process with the interviewer and interviewee charting. In this context, the interviewer does have an influence in identifying critical moments and charting the creative process in co-constructing the chart.

Expanding on earlier models, Stevenson's (2013a) *Creative River Journey* has evolved into an a/r/tographic tool to help support Arts practitioners identify meaningful moments that influence and shape their Creative Arts praxis. Stevenson used the *Creative River Journey* to construct "a record of the critical moments experienced whilst developing one work of art or one contained aspect of their practice" (Stevenson & Girak, 2012, para. 9). As a participant in Stevenson's research (Stevenson & Girak, 2012), I had the opportunity to learn how to use the Creative River Journey and then apply it within my own context. Figure 48 is an example of how I worked in partnership with Stevenson to co-construct a map tracking the development of *The Empty Promise* from inspiration to finished artwork. After participating in Stevenson's research, I found that the Creative River Journey was a valuable tool that could support me in my own research through my conversations with Kate. Even though I found talking to Kate was extremely useful to plan and visualise new ideas, the tone of the conversations shifted as I began to reflect on my creative process. After our conversations, I would listen to the recordings to identify critical moments. The result became a personal construct of my creative praxis.

In Chapter 3, the term *bricolage* described my working methods and, in this section, I focused on the APLR methods that apply to my creative practice, where the key objective was to encourage reflexivity, in so much that I gravitated towards traditional methodologies and methods, which I modified to suit my needs. For example, Grounded Theory inspired an emergent approach to materiality, leading to Materials-led Inquiry. Materials-led Inquiry leans heavily on a new materialist epistemology, in that one's dialogue with materiality is embodied knowledge, and where a materials-led otology examines how our embodied knowledge is constructed through the sensory exploration of materials. Each material has its own language and the dialogue is the interplay between the materials and the senses. The methods I applied to this phase of the research were used to encourage reflective practice. The critical conversations, critical to my working process, were used to inform a revised Action Research Spiral in the form of the a/r/tographic Action Research Spiral, and by participating in *Creative River Journey* reflections I was able to identify the critical moments that shaped my practice.

# **Creative River Journey: A critical moment river journey chart**

(adapted from Kerchener. 2006, p. 128)

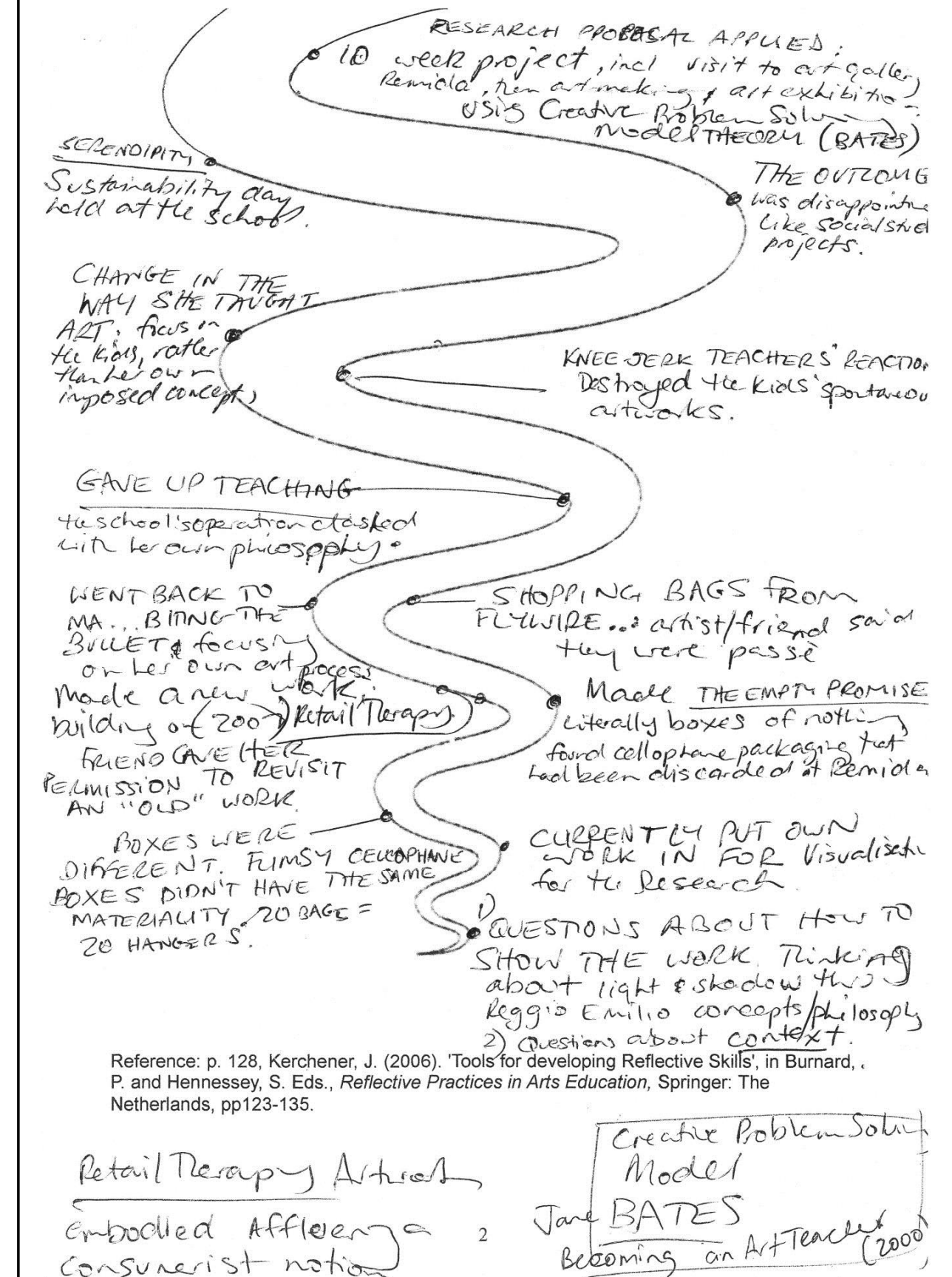
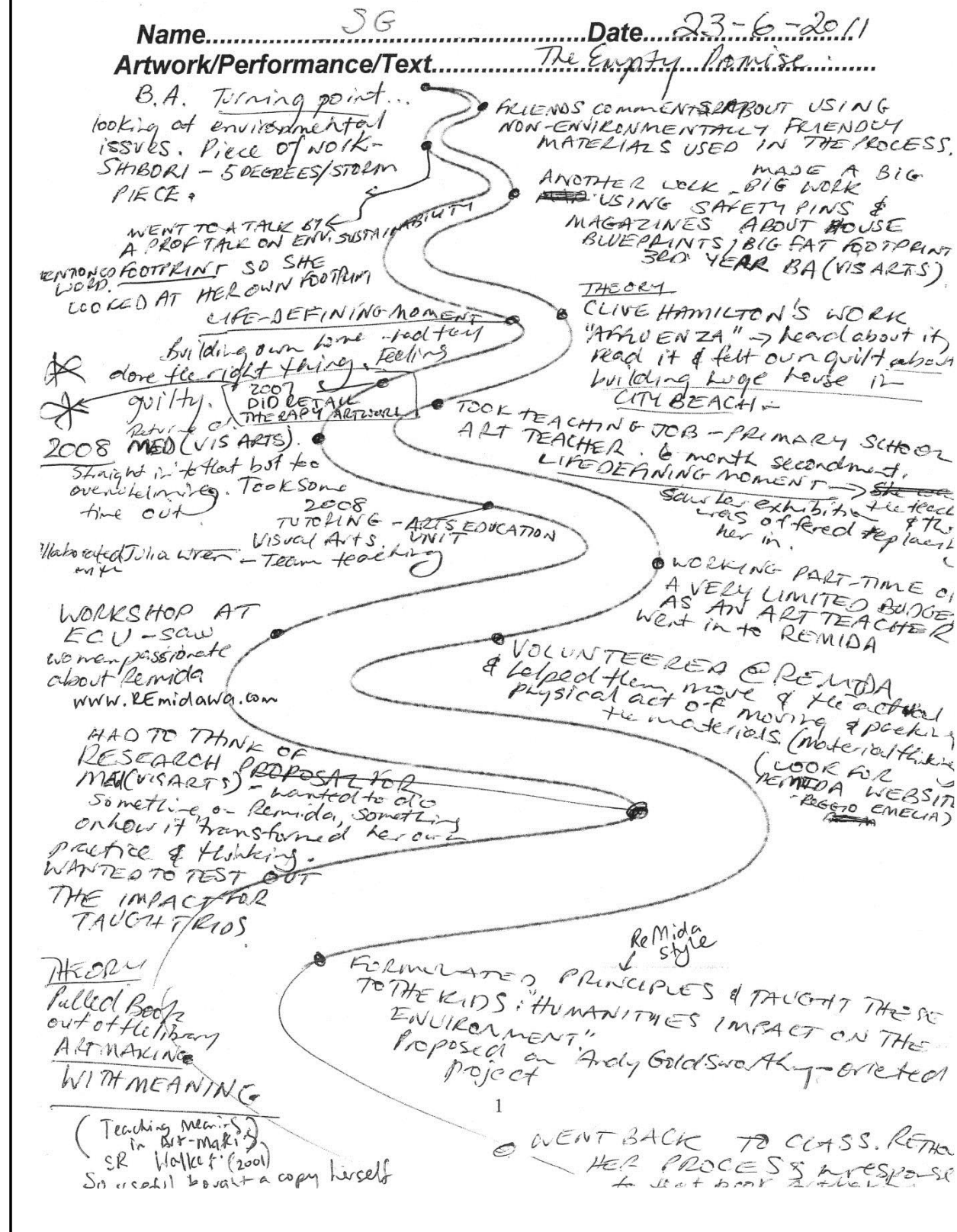


Figure 48. My Creative River Journey for *The Empty Promise*. Adapted from "Creative River Journeys: Using an A/R/Tographical Framework for a Multifaceted PhD Project," by K. J. Stevenson, 2013, UNESCO Observatory Multi- Disciplinary Journal in the Arts, pp. 5-6. (Exception to copyright. Section: ss40, 103C. Exception: Research or study.)

## /t/

There are two interwoven stories in /t/, a personal narrative of my teaching identity:

1. how I was challenged during Phase One; and 2. how I evolved as a result of this research (in its entirety). I recall the tensions I experienced at Fairview, trying to reconcile my teaching philosophy with the students' artistic outcomes (see transcript in Appendix I). In the second story, I reflect on how my teaching practice has evolved to promote sustainable art practices in the classroom through the creative reuse of natural and REmida materials, to use the Visual Arts as a starting point to explore social issues, and to allow students greater autonomy in their artmaking.

Not long after the Visual Arts program at Fairview ended, I interviewed the three teachers to establish what they thought the Year 7s had gained from the experience. In Chapter 4, I privileged my researcher identity, and discussed the teacher findings. As part of those findings, I found both the classroom and art teacher thought the students did not understand the purpose of the Visual Arts program. What the three teachers reported upset me – and I felt let down by the art teacher's comments. I expected the art teacher to recognise an alternative teaching approach, especially since she revealed to me how she lacked support from the classroom teachers at the school. My disappointment after the art teacher interview was nothing compared to how wretched I felt during and after the classroom teacher's interview. Even though I had many years of teaching experience, I thought her attitude towards my constructivist teaching style eroded my confidence. I began to second-guess myself and became frustrated with the students' lack of technical skills and aesthetic appreciation of the materials.

As a teacher, my confidence was shattered and I felt undermined. Part of me felt I had failed. When I looked at the students' artworks, I was disappointed. I had imagined the classroom would be transformed into an art gallery, filled with cutting-edge installations. Instead, the artworks reminded me of the S&E projects I often see in school libraries, papier-mâché models and assemblages made from painted boxes and cardboard tubes. I asked myself what went wrong but could not find the answer because at that stage I did not have the courage to look. Six months later, my confidence was undermined even further; I eagerly showed the Fairview artworks to the REMIDA RE representatives who were visiting Perth at the time. I thought they would appreciate the artworks since they were acquainted with REmida's social constructivist pedagogy, but this was not the case. The women were visibly disappointed with the artworks. They could not fathom why the students would choose to work with banal materials and commented on the students' lack of skills. Disappointed once

again, I managed to salvage a slither of confidence when the representatives saw what I was doing in my 'real' job as a teaching Visual Arts specialist at another Perth suburban primary school. After my Fairview experience, I knew that I wanted my own students to have the self- assurance to work autonomously while being supported by boundaries. It appeared to me that when the REMIDA RE representatives compared the quality of artwork from the students at my school compared to the Fairview students, they equated aesthetic outcomes with learning. I tried to explain how my data showed the Fairview students had made shifts; however, the representatives could not see beyond painted boxes, *papier-mâché* and cardboard tubes. After that meeting, I was in 'two minds': on the one hand, I agreed with the representatives, the artworks looked like 'rubbish'; on the other hand, I knew that through the process the Fairview students had made important conceptual shifts.

My reaction was to avoid dealing with my data and I threw myself back into my job at a school where I was their first Visual Arts specialist. With "they didn't understand" and "to be honest, Sue, I don't think they got it" echoing in my ears, I was determined that my own students would have my support to work autonomously. I prepared my programs to give students limited choices at first and then progressed to a constructivist teaching style. I could tell that the students had experienced little or no autonomy previously by the questions they were asking. The most common question was – *which way should the paper go?* My response was always the same – the students had to decide themselves. I asked the students to tell me what they were planning to do, as that would inform their decision. I noticed that once the students began to feel more comfortable with my teaching style, questions about what to do, how to do it and what colours to use had decreased. I also realised that maybe the students at Fairview did not have as much freedom as I had first thought. I accepted that the "I don't understand" complaints the teachers were conveying back to me had nothing to do with me or the students not understanding complex concepts. Instead, it was to do with their struggle to adapt to a different teaching style. The students were used to direct instruction and, initially, they found it unnerving to work autonomously. Eventually, with renewed enthusiasm, I returned to my data.

With my newfound confidence, I thought the emotion I felt earlier would diminish, but I was wrong. Reading the transcriptions was even more painful. Words on paper made the criticisms look even harsher and I felt worse. Determined to detach myself from my emotions, I began coding. Breaking down the data helped me understand that the emerging themes had little to do with my teaching style and were more to do with various pressures each teacher was experiencing in their school. The findings revealed that the teachers were

disengaged with the Visual Arts program and their perceptions did not correspond with the student findings. Student findings told a different story. I discovered the students became more aware of the environmental issues facing our planet: some students had made attitudinal shifts, and some were beginning to make behavioural changes. While the students may have made small shifts in their attitudes and behaviour, I had made a quantum leap that informed my teaching practice. The initial disappointment of the 'product' diminished as I allowed myself time to analyse the data and reflect on my teaching philosophy. I reminded myself that explicit teaching was one style of teaching and my implicit teaching style supported autonomous learning through modelling artmaking practices. In my classroom, I encouraged a culture of risk-taking in artmaking, where mistakes were seen as opportunities rather than disasters. I focused more on process than outcome and accepted that it would take more time for students to learn through Arts practice-led inquiry than direct instruction. While the final products were not always 'polished', more of the students' artworks transcended the school-art genre, conceptually and materially.

My research question – *What are the implications for an a/r/tographer's Arts-led practice for teacher education and the improvement of pedagogical practice in primary Visual Arts education?* – was answered in an unexpected way. Prior to commencing research at Fairview, I did not envisage the effects of my research would turn out as they did. I assumed I would gain a deeper understanding of Materials-led Inquiry within the classroom context and, indeed, I did. However, a significant shift occurred in my teaching practice, which transformed as I began to think in terms of pedagogy instead of lessons, and process instead of product. The following anecdote illustrates one example of how APLR crossed over into my teaching practice.

Ever mindful of the maker's connection with materials, I did not always limit my lessons to REmedia materials; I took advantage of the variety of eucalypts growing in natural bushland on the school grounds. All fired up one Monday morning, I walked into the Year 5 class, announcing that we were *doing* 'Andy Goldsworthy'. The objective was to make artworks that made a minimum impact on the environment. I then proceeded to teach 'Andy Goldsworthy' in the same way I would go about teaching the times tables. It took a week to realise I neglected to draw attention to Goldsworthy's intention for making site-specific installations because I was steering the students towards a *product*.

It never occurred to me that I was taking a product-orientated approach until I accidentally came across my lesson in a book. Thinking I was being original, I was surprised when I flicked through a Visual Arts teaching guide (Walker, 2001) and saw a detailed

description of my lesson. I praised myself, believing I had 'nailed' it. To my dismay, I was reading a critique of a lesson that had potential but fell woefully short of providing students with an authentic learning experience. The next week, I took a new approach; this time I focused on Goldsworthy the artist, and his connection with the land through materiality. The students watched a documentary, *Rivers and Tides*, featuring Goldsworthy (von Donop, 2004), and they were moved by a poignant moment in the film, where after the artist spending hours working on a fragile piece, it fell apart in a gust of wind. Goldsworthy shed a tear and I could see that the students felt his pain as they watched in silence. The Year 5s recognised Goldsworthy's creative process, his relationship to the materials he worked with, and his intimate knowledge of those materials. After this insight into the artist's world, the students were eager to go outside and make their own artwork.

This time, when I set the students their task, I gave them only one instruction: to make an artwork with a minimal impact on the environment. Cautiously, they negotiated the bush, careful to make as little impact as possible. The mood on this morning was quiet and contemplative. It was as if the students had channelled Goldsworthy into their inner beings. Crouching down, the Year 5s painstakingly looked at the smallest difference in every leaf, honky nut or stick they found. No one was tempted to pull leaves or sticks off trees. They made do with what they found on the ground. Under normal circumstances, I probably would have taken some token photographs and finished the lesson there and then.

Instead, I began to think more in terms of process and realised one activity did not produce an aesthetic experience (Dewey, 1916). I needed to provide time for reflection and Materials-led Inquiry. The next Monday, I strategically positioned the Year 5s in the playground just outside the Year 1 classrooms. The Year 5s made allowances for the new landscape. Some built sculptures in the sandpit, while others collected leaves and honkey nuts to make mandalas. One group used the negative space in a tree fork to build a ladder of sticks as far as they could reach. The 'stick group' considered every stick they used, developing their own criteria for what was suitable and what should be discarded. By the time recess came, all the Year 5s had developed their own dialogue with the materials in their own spaces.

The recess bell rang and the Year 1s came streaming out of their classrooms. The Year 5s refused to walk away from their creations. A perfect moment was unfolding as I stood in the background, just watching. Normally, the little ones would run, jump and play, occupying every skerrick of space, but not today. They carefully approached each artwork wide-eyed and in awe. During class, the Year 1s had been distracted, curious as to why the 'big kids' were in their playground. Meanwhile, the Year 5s were not going anywhere: filled with a sense of

pride and stewardship they stood by their handiwork like stallholders in a market place waiting for potential customers. Some even allowed the 'little kids' to interact with their installations. The 'stick group' stood back as two Year 1 girls delicately rearranged the sticks and added bark and nuts to make the work their own. When the bell rang to signal the end of recess, I thought this would be it but it was not. The installations remained on-site for days as the Year 1s added to them during recess and lunchtime. In Visual Arts, they insisted on making their own art just like the 'big kids'.

The following year, installations made of sticks spontaneously appeared throughout the playground; other children, who had not taken part in the project, were making their own site-specific installations (I came across them during playground duty). The children did not show me the artworks; they did not need to, since they had taken ownership. I noticed over the following days the children's stick installations turned into cubbies and the children collaborated on projects. In a sense, the children were making connections with their school environment through Materials-led Inquiry. On reflection, I noticed my role was transforming from Visual Arts teacher to Arts practice-led facilitator, and this was one example where I was able to implement what I had learned during the course of this research and to transfer it to the 'real-world' context of my classroom.

## /graphy/

The scholarly rhetoric in regard to a/r/tography is centred primarily on the multiple roles the artist-researcher-teacher plays in Arts-based or practice-led education methodology. Similarly, the role /graphy/ plays is important, since it is fundamental for disseminating new knowledge. According to Springgay et al. (2005), “a/r/tography is a coming together of art and graphy, or image and word. It is a doubling of visual and textual wherein the two complement, extend, refute, and/or subvert one another” (p. 900). Springgay et al. (2005) maintain that to partake in a/r/tographical research, the process of inquiry includes inquiry through artmaking and writing and, as such, the final representation of research is presented through multiple modalities, which include aesthetic and text-based renderings. The double imagining of process discussed by Springgay et al. corresponds with the exegetical model I have adapted for this exegesis, where Barrett’s (2010a) Exegesis as Meme has informed Milech’s (2006) Research Question exegetical model (see Figure 13).

In this research, the adapted research question exegetical model is congruent with a/r/tography. However, when the Visual Arts are being used to challenge current social constructions, through the Pragmatic Social-Reconstructionism (Efland, 1990), then the research needs to spread to a wider audience in order to reach a critical mass. Although an exhibition has the potential to go beyond academia, there are obvious limitations in that the exhibition experience is confined to a specific time and location. An alternative is an artist book, where imagery is supported by the written word. An artist book has the potential to reach a wider audience beyond the realms of academia or the transience of an exhibition. In keeping with the essence of a/r/tography, where the creative outcomes and text are a double articulation of research inquiry, in this research, the exhibition and artist book are the components of *transmediated* research outcomes. Each informs one another, yet neither is a substitute for the other.

An artist book is more easily defined by what it is not than by what it is. A book produced by an artist is not necessarily an artist book. It is not a portfolio of images nor is it an exhibition catalogue. Instead, an artist book is an original work of art that arises from an intersection of zones that considers: “a book’s bookness, its identity as a set of aesthetic functions, cultural operations, formal conceptions, and metaphysical spaces” (Drucker, 2004, p. 9). The artist book, an art form emanating in the 20th century, differs from mass-produced books in that conventional books privilege content over the book’s physical construction. The presence of the artist book featuring in 20th century modern and postmodern art movements is extensive. In each case, the artist has questioned and responded to the book’s ‘bookness’.

Hence, the artist book has gone through several incarnations, including postmodern interpretations where interpretations privileged form over content in so much as content was no longer relevant, for example, when the artist books are reconceptualised altered books as offered by Jánis Nedéla's *Codex No. 5* (2005) and *Stigmata* (2005) or sculptural objects Jánis Nedéla's *Typo No. 15* (2007) and Kylie Stillman's *Black pine* (2005). Importantly, the fluidity and the latitude of book-as-art-object depends on the artist's interpretation of how a book is defined – *form or content* (Drucker, 2004).

In the context of this research, my artist book, *Forget Me Not*, (pages 206–232 of this exegesis) sits within a Pragmatic Social-Reconstructionist framework (Efland, 1990) and falls under the category of artist books that are “agents of political persuasion and as vehicles to advocate a change in consciousness or policy in some area of contemporary life” (Drucker, 2004, p. 287). This edition of *Forget Me Not* is a book in the conventional sense of the term, where text and images provide the reading/viewing experience. In its current form, *Forget Me Not* is a limited edition artist book; however, I envision future editions will be adapted to target primary school-aged children, art educators and artists working with recovered materials. The small-scale format of 15cm x 15cm encourages an intimate one-on-one experience and image-heavy content encourages personal reflection regarding one's own relationship with discarded materials. I envision future editions will also be image heavy to engage young readers and the 15cm x 15cm format, suitable for small hands, will remain the same to indicate a sense of preciousness.

forget me not



# forget me not

sue girak

This publication accompanies the exhibition

# sue girak      forget me not

Spectrum Project Space  
31 October - 14 November 2014

Excerpts and images have been taken from the unpublished PhD exegesis:  
Sue Girak © 2014. *Creative Reuse: How Rescued Materials Transformed my A/r/tographic Practice*. (Doctoral dissertation). Edith Cowan University, Perth, Australia.

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## **photographs**

All photographs by Sue Girak unless otherwise stated.

## **model**

Pepa Saunders

## **copy editor**

Nyanda Smith, *ibid.* editing

## **printer**

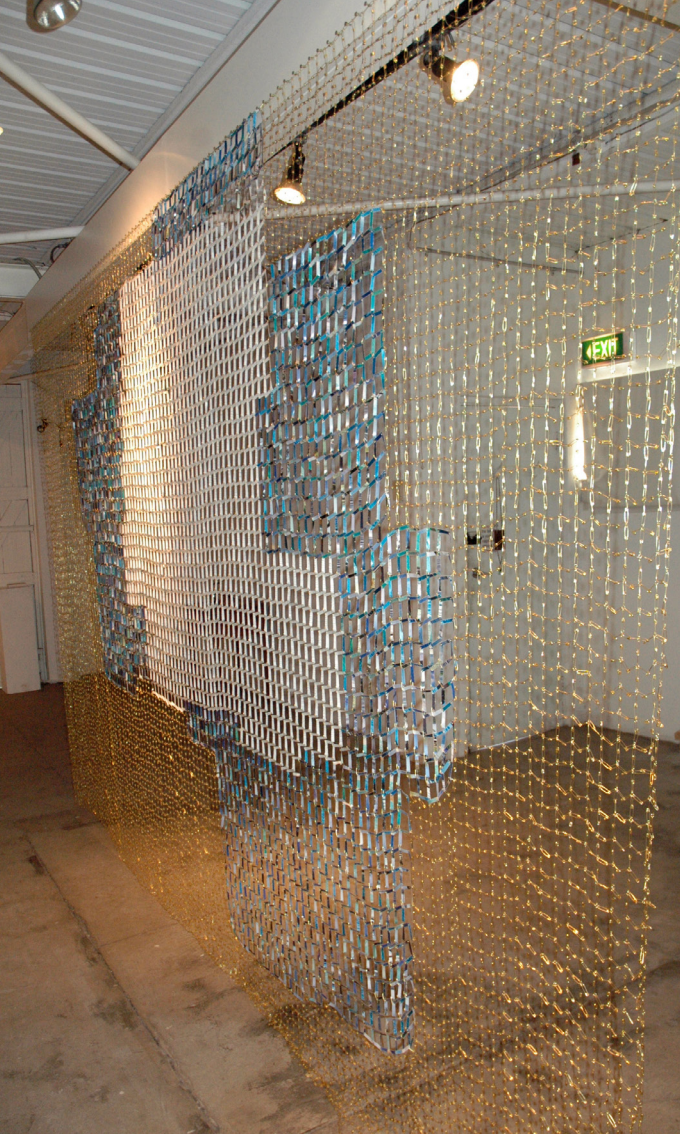
Quality Press

The first print run of this book has been produced as a limited edition of 200 copies.



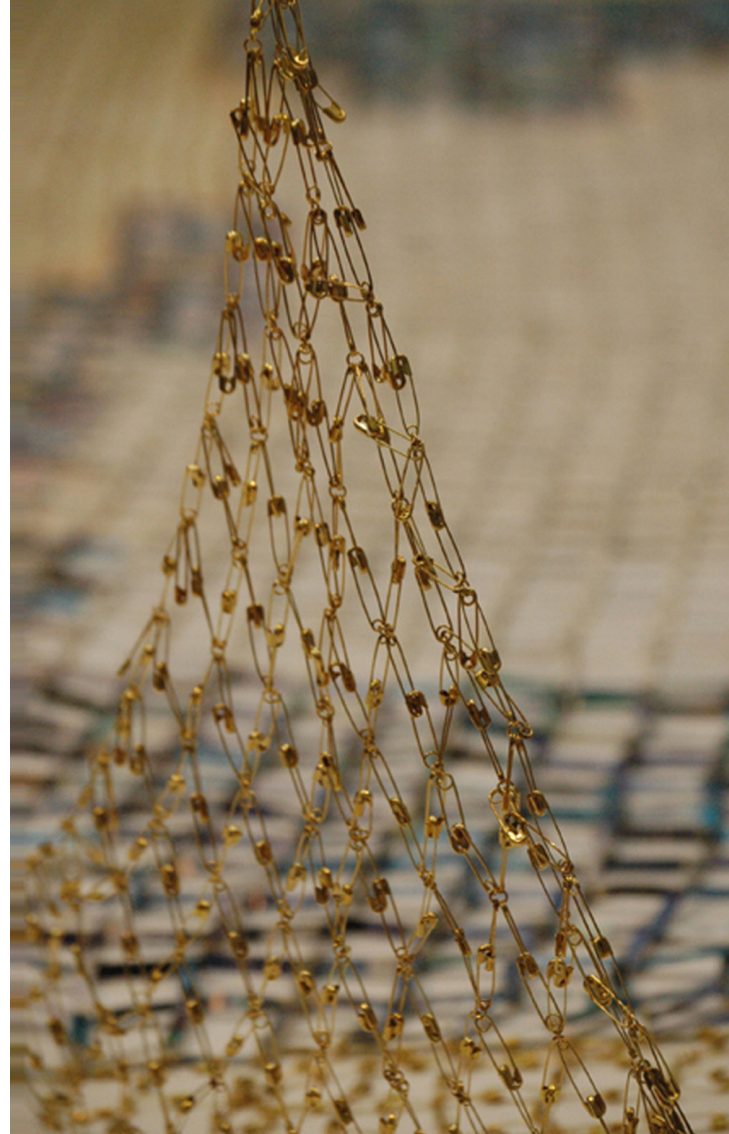
A simple question  
forced me to reassess  
my arts practice. I was  
challenged to justify  
how it was possible to  
talk about caring for the  
environment, when the  
process I used actually  
harmed it?





When I examined my carbon footprint, what I discovered horrified, shocked and embarrassed me. The size of my house was four times the size of an average 1950s house — there before me was tangible evidence of the mark I had made on this Earth.

first world cities leave large ecological footprints' ...



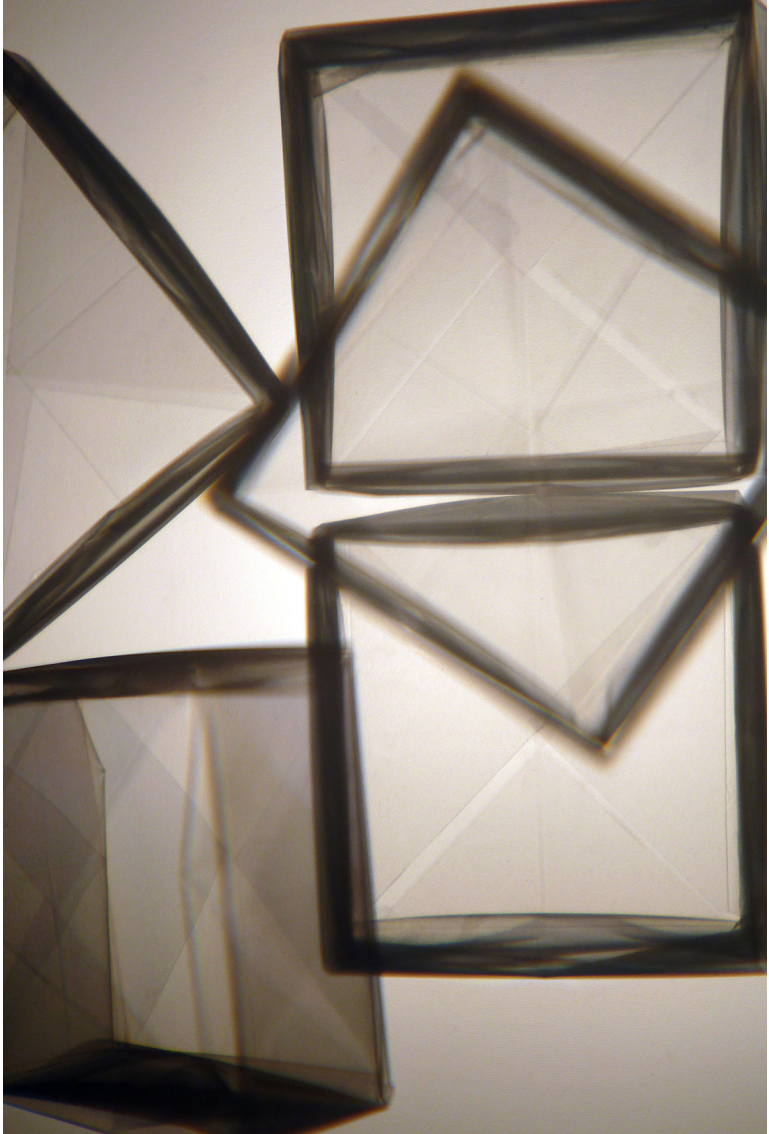


I was gripped by a bout of 'affluenza' — "an epidemic of stress, overwork, waste and indebtedness caused by the dogged pursuit of the Australian dream."<sup>2</sup> Up until now, I knew I still was not 'getting it' and I needed to make art in a different way. I was endeavouring to find a greater personal connection to what, and how, I was making. Deep down I knew I had to do something different. I needed a new set of lenses.

"As an artist you are not an expert on environmental problems, but you realize they exist . . . but it is not the work of the artist that is the solution. It is the results of the work and what kind of thoughts it inspires in people."<sup>3</sup>



fold and turn, fold and turn, fold and turn...



*The Empty Promise*, a collection of fragile bags made with clear thread and filled with clear boxes, changed the way I approached making. This time the materials I chose to work with would not allow me to work in a way I was used to. If I wanted to make boxes I had to adjust. Even so I, kept working on autopilot. When I stopped to let myself feel what the materials were asking of me, I easily found a rhythm to make one thousand origami boxes.

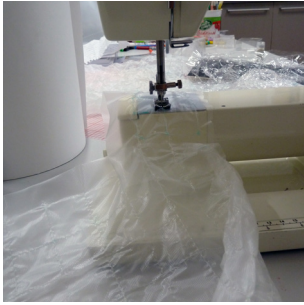
more questions were being asked than answered ...



Making the delicate bags made me realise that I could not make them in my own time. I had to fit in with the environment. The repetitive process of sewing gave me time to develop a dialogue with the materials.

While working in quiet solitude, I began to appreciate how making the bags for *The Empty Promise* was more than a mechanical process. Changing my workspace allowed me to reflect-in-action. Consequently, the way I approached the sewing process shifted. When I was at home alone in the early morning silence and solitude, the process became artmaking. In contrast, when my family were up and the television was on, the phone was ringing and the dog was barking there was no space in my head for reflection. Surrounded by the noise and chaos of everyday activities I was just 'sewing'.





REmida materials have become my muse...

Discarded materials could easily be 'invisible' in our everyday lives; however, when displayed with respect they give a hint to the potential they hold.



When artists use non-traditional materials, they add an extra layer of meaning to their work. By incorporating salvaged materials into artworks, artists take into account the memory and meaning those materials hold. Yet REmida materials have no memory. Being off-cuts and seconds, they have no perceived value. They become 'invisible' and are discarded without thought.





There is tension between materials and meaning when I transform discarded materials.

*Forget Me Not* is loaded with multiple meanings, which permeate through a seamless blend of white surgical masks that are cold, sterile and clinical — in contrast to the white ball dress that represents innocence, frivolity and beauty.

Conversations pull me from one inquiry to another. I had been struggling for weeks with a roll of transparent cellophane tape. I wanted to take advantage of the 'invisibleness' and 'weightlessness' of the material, yet the traditional techniques I explored produced solid heavy pieces.

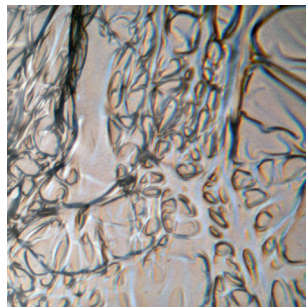


have you tried heat?



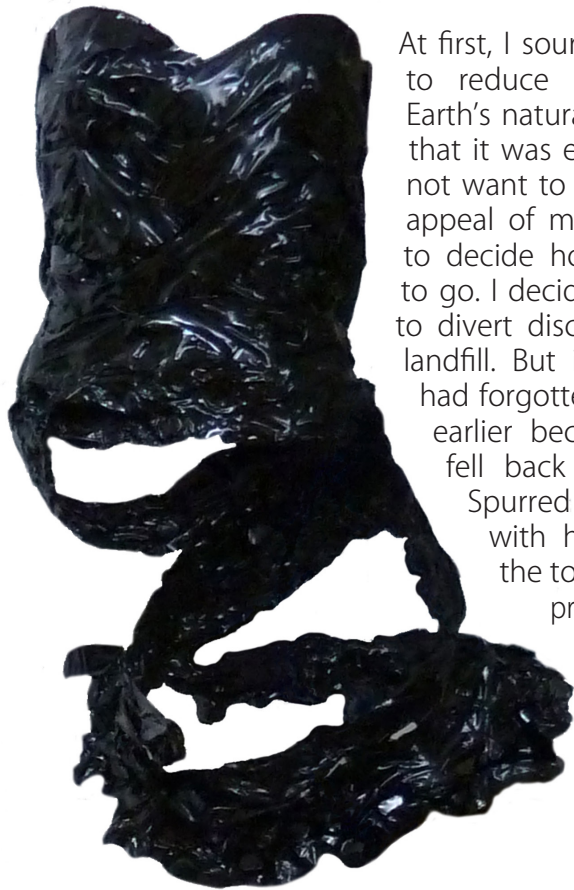
A casual conversation sent me racing to my studio. One word *heat* triggered new possibilities. I applied heat to some cellophane tape without success. Even so, heat seemed to be the answer I was searching for. My eyes darted around the studio until they rested on the plastic sheets I had used to make *The Empty Promise*. I wrapped a mannequin with plastic. As I heated it, the plastic took on the form of the mannequin. Excited by the prospect of making clear torsos I experimented further.









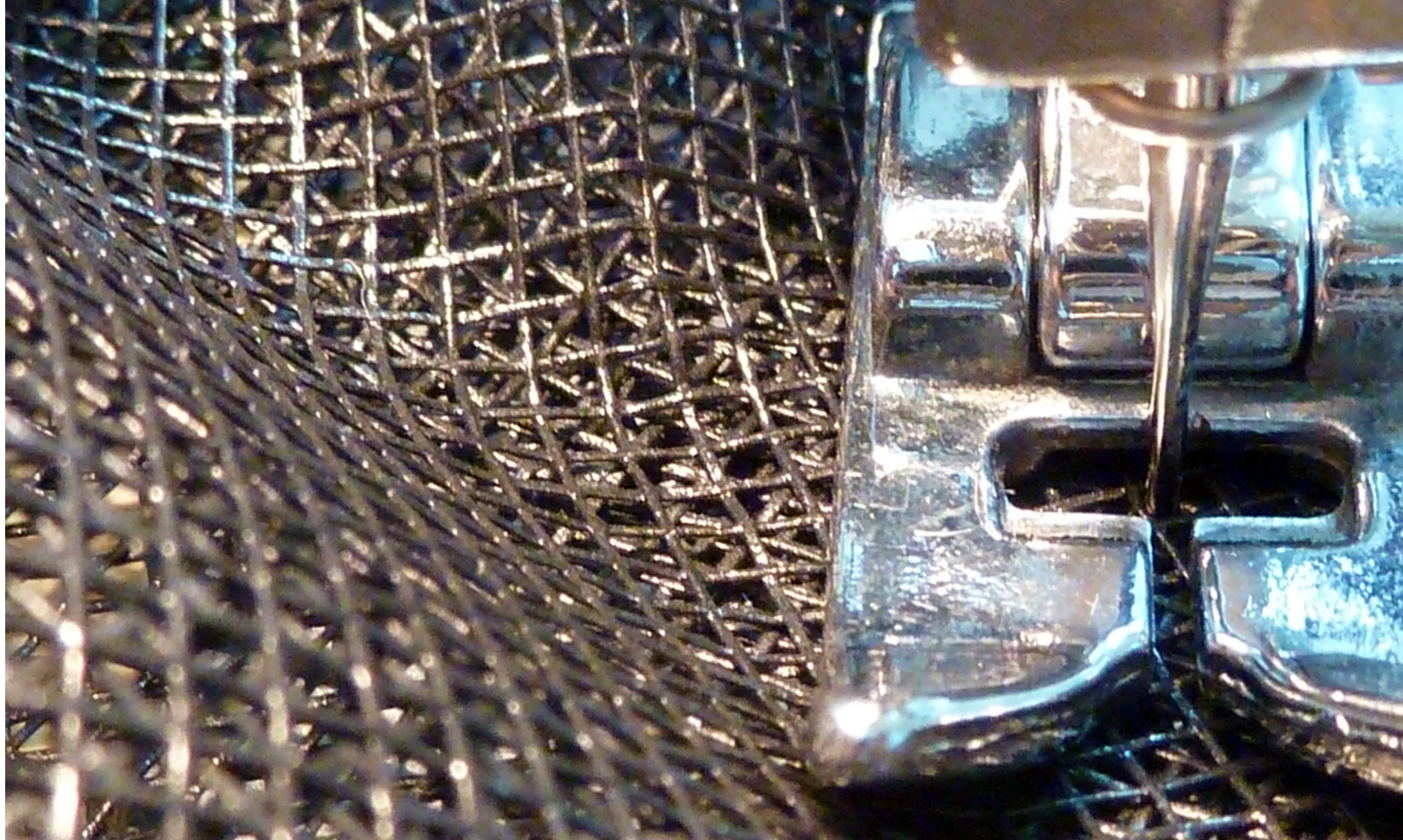


At first, I sourced REmida materials to reduce my burden on the Earth's natural resources, believing that it was enough. Even so, I did not want to sacrifice the aesthetic appeal of my artworks and I had to decide how far I was prepared to go. I decided I was comfortable to divert discarded materials from landfill. But it was not enough. I had forgotten what I had learned earlier because in the studio I fell back into my old habits. Spurred on by my experiments with heat I was oblivious to the toxins released by the process. I worked outside and smelt nothing so I did not think about the impact of my actions. It was 'out of sight, out of mind'.

The sea breeze blew my lapse in judgement away. That was until I brought the process into the studio. The smell the melting plastic emitted was acrid and toxic. In a state of denial, I opened doors and windows and reached for my safety mask. Then, as if struck by a bolt of lightning, I realised that I had learned nothing. I was spouting off an environmental message while toxic fumes were spilling into the atmosphere. In that moment my conscious would not allow me to carry on as I had been doing. I could not bring myself to complete the dress. As the unfinished dress hung in my studio, it was a stark reminder how I had much to learn.



I learnt the language of flywire ...





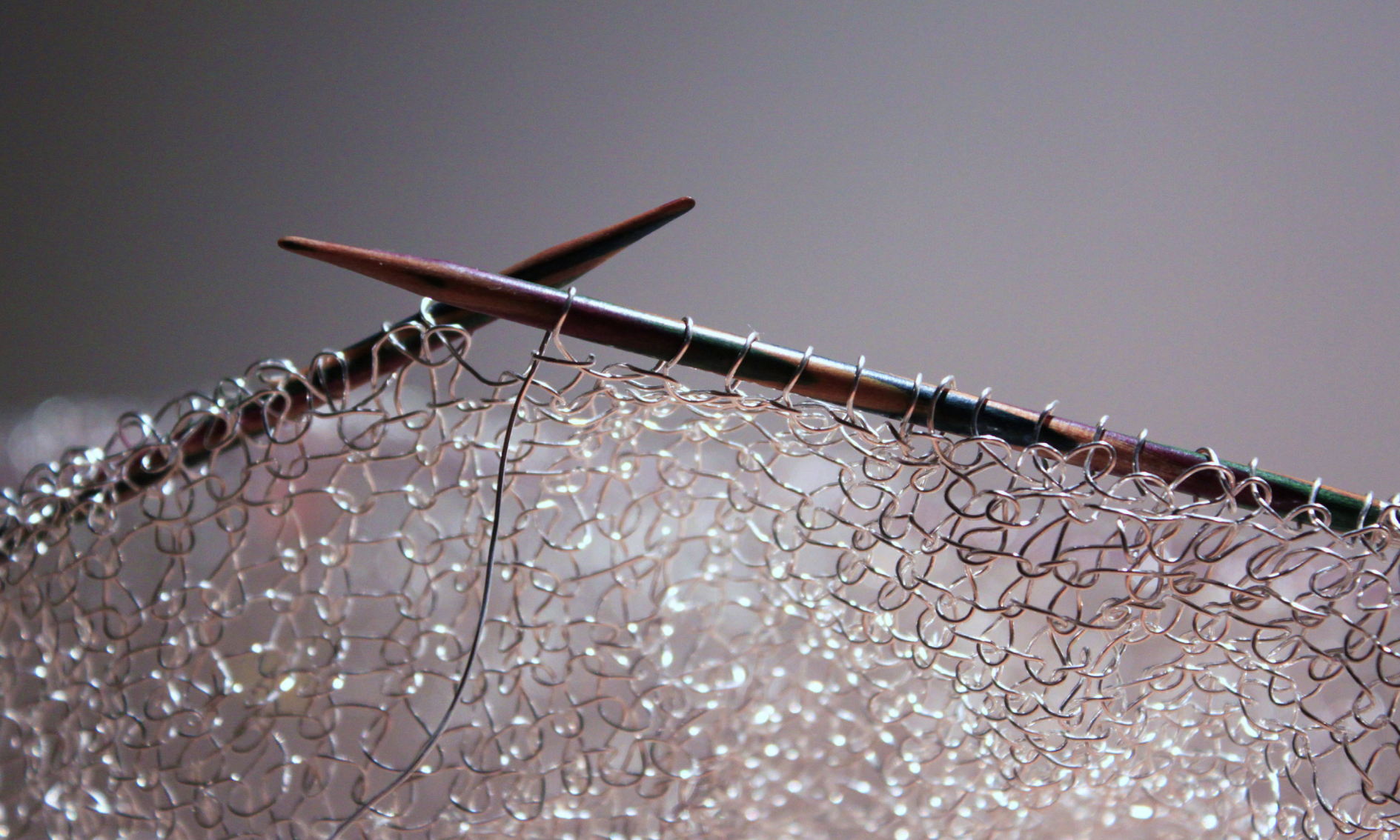


a young girl takes cues from her shadow ...



At the water's edge  
the dress began to  
take on a life of its own  
as the girl became its  
muse. They danced  
in the fading sunlight  
as the water ebbed  
and flowed beneath  
the girl's feet. The  
sun inched behind  
Rottneest Island until  
there were no more  
shadows.







A conversation  
between maker  
and materials took  
the form of a silver  
dress. Although the  
wire was malleable,  
it was not compliant.  
It directed my hands  
while I tried to resist.  
I experimented  
with complicated  
stitches, which in  
wool translated into  
delicate patterns but  
were ungainly in wire.  
I resolved to listen to  
the wire and to do as  
I was told. I was told  
to knit simple stitches.  
Yet while simple, they  
proved difficult to knit.  
At first, each stitch was

a battle for conformity  
as I pushed my  
needle through wire  
loops in an attempt  
to achieve uniform  
stitches. My residual  
knitter's memory  
expected the wire to  
perform like wool. I  
tried to force a familiar  
technique onto a new  
medium and in turn,  
I was punished. My  
fingertips were ripped  
to shreds and my  
hands were gnarled at  
the end of each day. I  
approached each new  
knitting session with  
hesitation. The wire  
remembered me and  
taunted me.



Every stitch was a record of my process and I came to accept that wire does not behave like wool. Each medium speaks its own language. When I began to understand how the length of silver-coated copper wire responded to the needles, the process became fluid.



REmida has helped me see materials in a new light. I do not go to REmida to pick up art supplies. Instead, I go there with an open mind, hoping to recognise the untapped potential of discarded materials. I rarely have a specific project in mind and yet the selection process is not random. I chose everything for its potential. At home, I strategically position materials in my studio so they are in reach and I wait for 'something' to emerge. Even if it takes years.

## photographs

pp. 3, 5

*Forget Me Not* (2014) (detail). 3 ply tie-on masks, foam shoulder pads, masks (sourced from REmida WA), polyester thread (new materials), dimensions variable.

p. 7

*5°C+* (2006) (detail). Silk, rayon thread (new materials). Landscape dyes (acid dyes for silk), 900cm x 30cm.

pp. 8–9

*Footprint* (2007). Brass and gilt safety pins, jump rings, magazine paper (new materials), 427cm x 235cm.

Photographer: Gunilla Brattström-Conqvist.

pp. 10–11

*Retail Therapy* (2007). Brass and gilt safety pins, jump rings, magazine paper and wooden hangers (new materials), dimensions variable.

Photographer: Gunilla Brattström-Conqvist.

pp. 12–13

*Here Comes the Bride* (2012). Plastic Lids (sourced from REmida WA), steel dressmaking pins (new materials), dimensions variable.

p. 15

Material explorations — folding. Clear polypropylene sheets (sourced from REmida WA).

pp. 16, 18–19

*The Empty Promise* (2011) (detail). Clear polypropylene sheets (sourced from REmida WA), clear nylon thread and wooden hangers (new materials), dimensions variable.

pp. 20–21

Material explorations — sewing. Water soluble stabiliser and clear nylon thread (new materials).

Photographer: Dianna Vitasovic p. 20, top row: left & right, middle row: middle, bottom row: right.

p. 21

Fabric off-cuts displayed at REmida WA.

p. 25

Paper off-cuts displayed at REmida WA.

p. 26

*Forget Me Not* (2014). 3 ply tie-on masks, foam shoulder pads, masks (sourced from REmida WA), polyester thread (new materials), dimensions variable.

p. 28–29

Material explorations — knitting. Clear polypropylene sheets (sourced from REmida WA).

pp. 30–33

Material explorations — heat. Clear polypropylene sheets, plastic lids (sourced from REmida WA).

pp. 34–37

*Here Comes the Bride* (2012) (detail). Plastic Lids (sourced from REmida WA), steel dressmaking pins (new materials), dimensions variable.

pp. 38–39

Material explorations — heat. Plastic fruit trays (sourced from REmida WA).

pp. 40–43

Material explorations — machine sewing. Fibreglass flywire (sourced from REmida WA).

pp. 44–49

Material explorations — light and shadow. Fibreglass flywire (sourced from REmida WA).

pp. 50–51

Material explorations — knitting. Silver-coated copper wire (sourced from REmida WA).

p. 52

Silver-coated copper wire (sourced from REmida WA) .

p. 54

*Silver Linings* (2014) (detail). Silver-coated copper wire (sourced from REmida WA), dimensions variable.

pp. 56–57

Mattress springs (sourced from REmida WA).

## footnotes

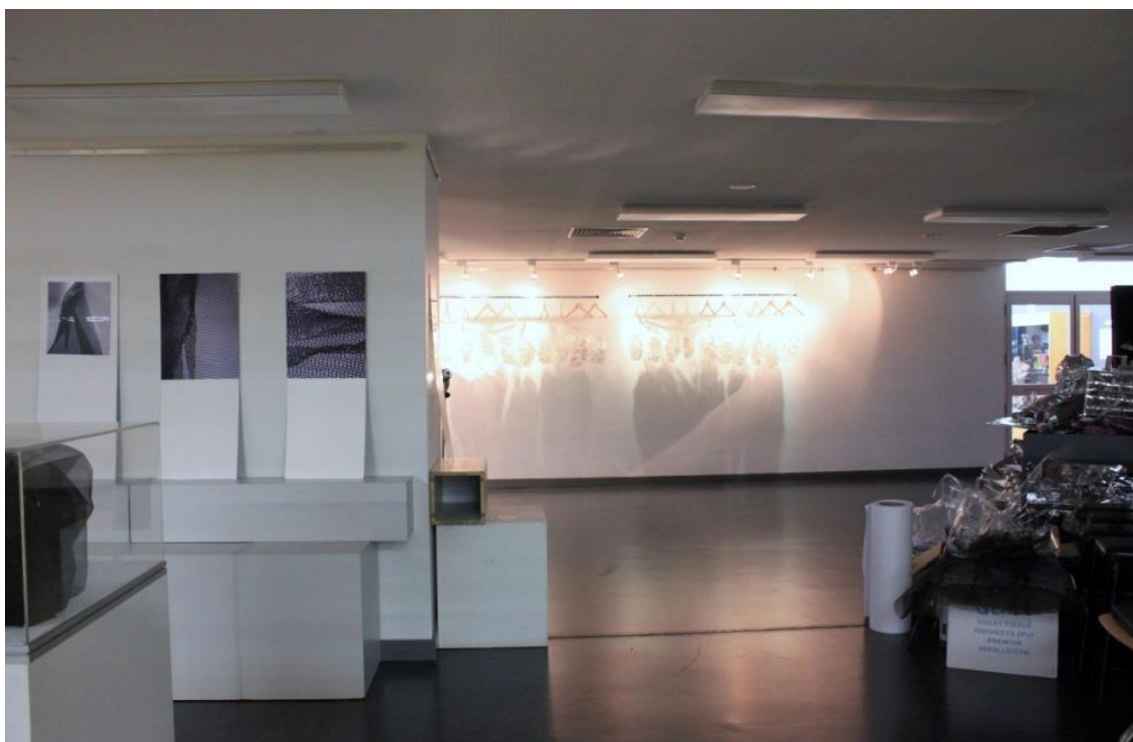
1. Coleman, J. (2007, March 21). *Environmental justice and green cities*. Paper presented at the University of Western Australia, Perth, Australia.
2. Hamilton, C., & Denniss, R. (2005). *Affluenza: When too much is never enough*. Crows Nest, Australia: Allen & Unwin.
3. Rama IX Art Museum. (2012). *Thai contemporary and modern art: Montien Boonma*. Retrieved from <http://www.rama9art.org/montien/>

## a/r/tography

This section is predominantly visual, presenting the culmination of the creative component at Spectrum Project Space. The exhibition represented the visual articulation of my studio inquiry further emphasising that qualitative and visual methodologies are not interchangeable. While written language can support the visual, it cannot replace it, since words are an inadequate medium to respond to embodied and ineffable aesthetic experience (Dewey, 1934). During Phase Two, aesthetic experiences informed the visual narrative, expressed through artworks, as well as by their connections to each other and the spaces they inhabited. I remained flexible and open to change, making decisions that took into account how the artworks interacted with each other and the space, which dictated a change of venue. Armed with floorplans and a scale model of the gallery, I carefully planned the exhibition. This discussion centres on what I originally envisioned, the final outcome dictated by the exhibition space, and the audience response to the artworks.

In the context of this research, the exhibition functions as a visual manifestation of Materials-led Inquiry and, in particular, a method to enhance pedagogical understanding. As part of the process, in 2012, I tested various hanging and lighting options within an education space at my university. During this trial, a critical moment occurred that changed the course of the research. I discovered that the space was unsuitable and I struggled as I tried to position the artworks. By exhibiting my art in an education space meant that I was privileging the role Visual Arts pedagogy: therefore, devaluing my role as an artist-curator in negotiating the interplay between artworks and their surroundings. Consequently, if I chose to remain in the education space, I felt that my exhibition would be no more than a didactic description of my artistic process.

With the advent of conceptual art, “the line between the creation of meaning and the creation of value has been effectively erased. While this permits artists to engage in purely conceptual work, it also allows for the reconsideration of the status of curatorial ideas” (Ventzislavov, 2014, p. 83). My creative process is enmeshed in academic research and takes on a further dimension whereby I have redrawn the line to include the curatorial role as an integral component of my APLR. As such, when I started to identify technical complications with the education gallery space, I re-evaluated the space through the lens of a contemporary artist and found that the space was ‘just wrong’ (see Figures 49, 50, 51, 52 and 53). I found that artwork was not permitted to be suspended from the ceiling, the lighting was fixed, the wall space was limited and glass doors allowed visual clutter from adjoining studios to spill into the gallery space.



*Figure 49.* Trial Exhibition, April 2012, Edith Cowan University. Completed pre-service teachers' art assignments ready for collection encroached upon my exhibition.



*Figure 50.* Trial Exhibition, April 2012, Edith Cowan University. Visual clutter from studios spilled into the gallery.



*Figure 51.* Trial Exhibition, April 2012, Edith Cowan University. Brightly coloured walls and fluorescent lighting were unsuitable to showcase the artworks. Photographer: Lyndall Adams



*Figure 52.* Trial Exhibition, April 2012, Edith Cowan University. A limited number of plinths and display boxes available restricted display options.



*Figure 53. Trial Exhibition, April 2012, Edith Cowan University. Lyndall Adams (pictured) and I explored the space with unsatisfactory results.*

In searching for a different location, I accepted the discourse that pertains to gallery spaces. I recognised that my art was not made nor exists in a cultural vacuum. I needed to take into consideration how an exhibition space would influence viewers' responses to my artwork; for example, the gallery space could be a modernist construct that persists with the 'white cube' aesthetic of spacious windowless galleries with white walls and ceilings, sealed off from the outside world. Echoing the Cartesian paradigm, the white cube is regarded as being neutral, thereby freeing exhibited artworks from any cultural and/or historical context. The postmodern counterclaim is that these spaces are anything but neutral. Paradoxically, the white cube has become a modernist remnant loaded with cultural references. The postmodern argument maintains that art museums and galleries are culturally, historically and socially constructed spaces. In the Western tradition, from the Renaissance onwards, public art spaces are considered dynamic entities as they reflect, respond and reposition themselves within their cultural and historical contexts (Lee, 1975; Marstine, 2006; Smith, 2009; Sherman & Rogoff, 1994).

“Museums are not neutral spaces that speak with one institutional, authoritative voice. Museums are about individuals making subjective choices” (Marstine, 2006, p. 2). Postmodern literature pertaining to art exhibitions and art museums overlaps. Differences exist in the interpretation of museum space and the narrative accompanying permanent exhibits (Greenberg, Ferguson, & Nairne, 1996; Sherman & Rogoff, 1994), with some discourses neglecting the “growing diversity of temporary exhibitions and the structural and historical relationships of these more ephemeral events” (Greenberg et al., 1996, p. 2). Beyond postmodernism, contemporary discourse shows that the interrelationship between the architectural space and artworks to strengthen meaning-making is still relevant (Nimkulrat, 2009), yet the paucity in the literature overlooks the three-way relationship between the architectural space, artworks and the visitor experience (Schorch, 2013).

With this in mind, I found an alternative location, Edith Cowan University’s Spectrum Project Space, that I considered would privilege my creative process, a space where I could construct a narrative that might add to the visitor experience. Spectrum Project Space is one of a number of contemporary exhibition spaces located on the grounds of Edith Cowan University, promoting creative research and practice-led research across a number of Arts-based disciplines (Edith Cowan University, 2013a). Nevertheless, the option to exhibit there is not guaranteed, opportunities are limited and the selection process is competitive. I submitted a proposal (see Appendix J) 18 months prior to the exhibition and, once accepted, I was required to completely reassess how I would exhibit my artworks. It was not simply a matter of relocating the exhibition to a new space, in some ways, I was starting again; for example, at the time of the proposal, I had several artworks at various stages of completion. The consequence of moving to Spectrum Project Space meant that I had to reconsider how artworks would interact with each other in the new space. For the purposes of this research, I chose a site with limited visual cues such as open spaces with white walls – to encourage an audience to draw on their personal constructs when viewing my artworks (see Figures 54 and 55).

Following page

*Figure 54. Here Comes the Bride, Party Dress, Silver Linings I* and other material explorations hung in my studio.





Figure 55. I tested other hanging options for *Forget Me Not*, *Party Dress* and *Silver Linings I* in preparation for the exhibition.

On the 13<sup>th</sup> February, 2013, I submitted my proposal to Spectrum Project Space (see Appendix J) in order to give myself adequate time to prepare for my daughter's Year 12 'Before's', unaware that life would change in just three days. I proposed that I would source my materials from REmida WA to minimise my creative footprint, and would deconstruct and reconstruct these materials to extend their life by physically and aesthetically transforming them. By choosing to reuse discards creatively, I wrote that I was eager to delve into what REmida materials might have to offer. I envisioned that my artworks would express my respect and value towards the environment.

In the proposal, I indicated that the exhibition would comprise of a selection of digital photographs (including large format digital prints, acrylic panels and smaller digital prints on paper), installations, audio-visuals and an artist book. I visited Spectrum Project Space several times in order to familiarise myself with the space. As I walked through the gallery, I tried to imagine where I would position the photographs and installations, which were at various stages of completion. I tried to visualise new artworks in relation to the space and to with what I already had. I fully expected that unforeseen external elements would mean that during bump-in I would have to make the space work, which meant that it was highly likely I would have to reposition some of the artworks or possibly sacrifice them for the exhibition to work as a whole. What I did not expect was that it would real life events that would change the direction of my exhibition.

Three days later, my original proposal was in tatters. It began with the death of a friend of my daughters. Then, over the course of 2013 and 2014, my daughters had to come to terms with the loss of further friends. The *annus horribilis* experienced by my family, meant I would have to make a decision that would have repercussions for the remainder of my candidature. I had to ask myself if I should carry on 'business as usual' and follow my original proposal or should I respond to this critical moment, and move my research into a different direction. Obviously my research would have been much simpler if I chose the first option: to continue material explorations of REmida materials. In the context of my teaching role, I likened this situation to the Fairview project. I recalled how the Fairview students struggled yet persevered through an unknown process before they could reach a deeper understanding of their environmental impact. I knew that I could follow the safe path and be relatively certain of the outcome, or I could jump into the abyss. I was not very keen to jump, but there was nowhere to hide as my supervisor challenged me to explore my current emotional landscape through my artmaking. I was not sure if I had the strength to do so; our household seemed to be engulfed in sadness. I chose not to jump. Rather, I took a leap of faith.

The following images and diagrams (Figures 56–75) in this section chart what came to be my *leap of faith*: “an ontological journey of discovery” (Ravenswood & Wearne, 2003, p. 59 and as I immersed myself in the artmaking process and allowed the materials take the lead. In hindsight, the changes that resulted following the original proposal mirrored my experience of grief and sadness about lost potential. By mid-2014, my vision for the exhibition retained some elements of the original proposal; however, as the exhibition loomed closer, I began to consider which artworks would best illustrate the results of my Materials-led Inquiry.

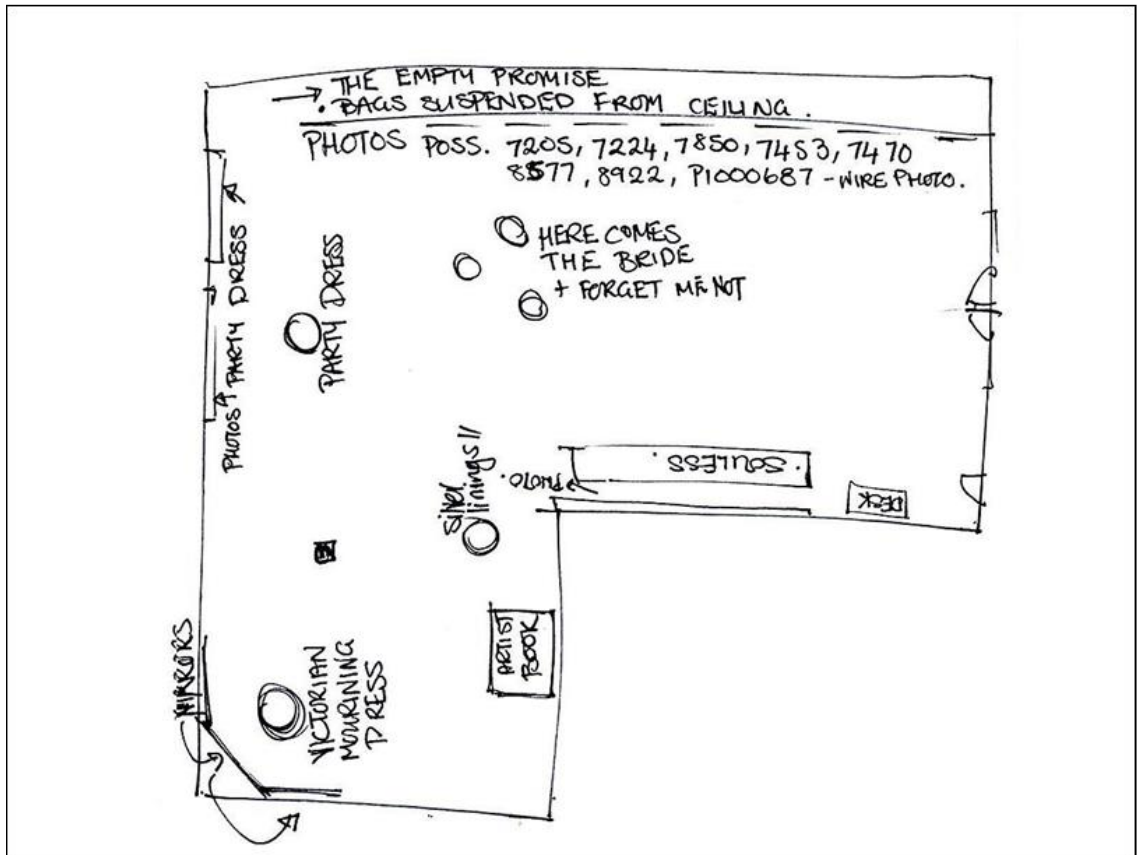


Figure 56. August, 2014 Floorplan, Spectrum Project Space – not to scale.

Originally I planned to suspend *The Empty Promise* in the Window Space, a separate gallery space behind the North Wall; however, the space was inappropriate. Barely one metre wide, it was supported by three columns, which encroached into the space. The fluorescent lighting was fixed and there was no provision to suspend artworks from the ceiling. Even though making *The Empty Promise* initiated important shifts in my creative process, this transitional piece (see /a/) did not support subsequent works.

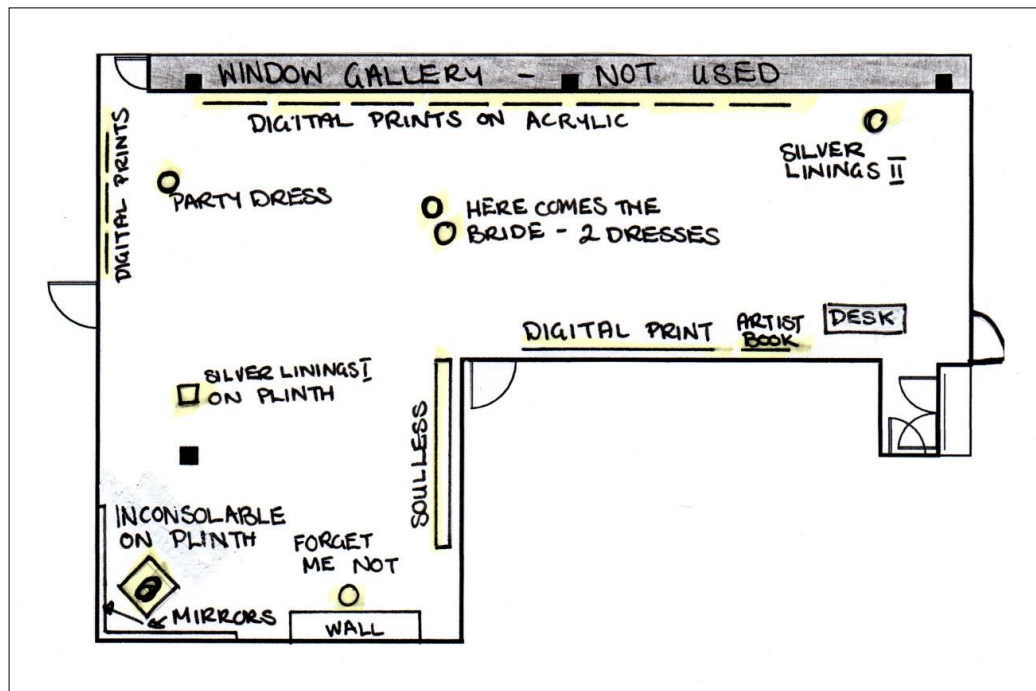


Figure 57. October, 2014 Floorplan, Spectrum Project Space – not to scale.

In October 2014, I took up the opportunity to help bump-in an exhibition immediately preceding *forget me not*.



Figure 58. Sue Girak (2014). Installation view, *forget me not* Exhibition: north wall. Spectrum Project Space. Photographer: Marziya Mohammedali

A working knowledge of the space gave me the opportunity to re-examine my floorplan. For example, in August I planned to include a series of smaller prints: however, I found that I was able to take advantage of the length and height of the north wall to print a series of large-scale acrylic prints (244.5cm x 125cm).

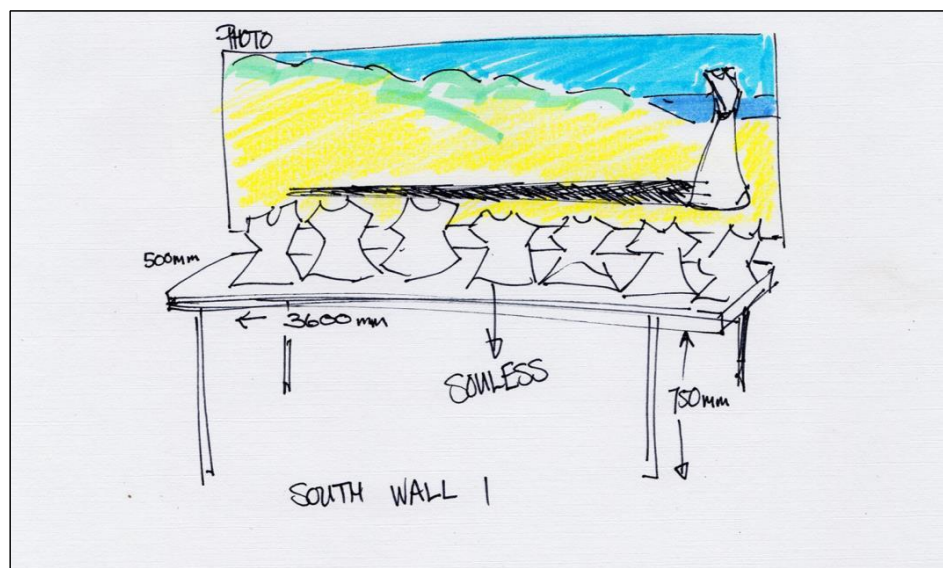


Figure 59. Proposed plan for the south wall – not to scale.



Figure 60. Sue Girak (2014). Installation view, *forget me not* Exhibition: south wall. Spectrum Project Space.

I planned to crop *Here Comes the Bride* so that the plastic torsos (*Soulless*) would sit just underneath the shadow of the dress. After discussions with the printer I chose not to crop the photograph. Consequently, the intended tension that I hoped to create between the two artworks did not occur, so I decided to separate them. *Here Comes the Bride* remained in place and *Soulless* was moved to the east wall.



Figure 61. Sue Girak (2014). *Soulless* [Plastic trays (Original Source Unknown), Steel Dressmaking Pins (New), Dimensions Variable]. Spectrum Project Space. Photographer: Marziya Mohammedali

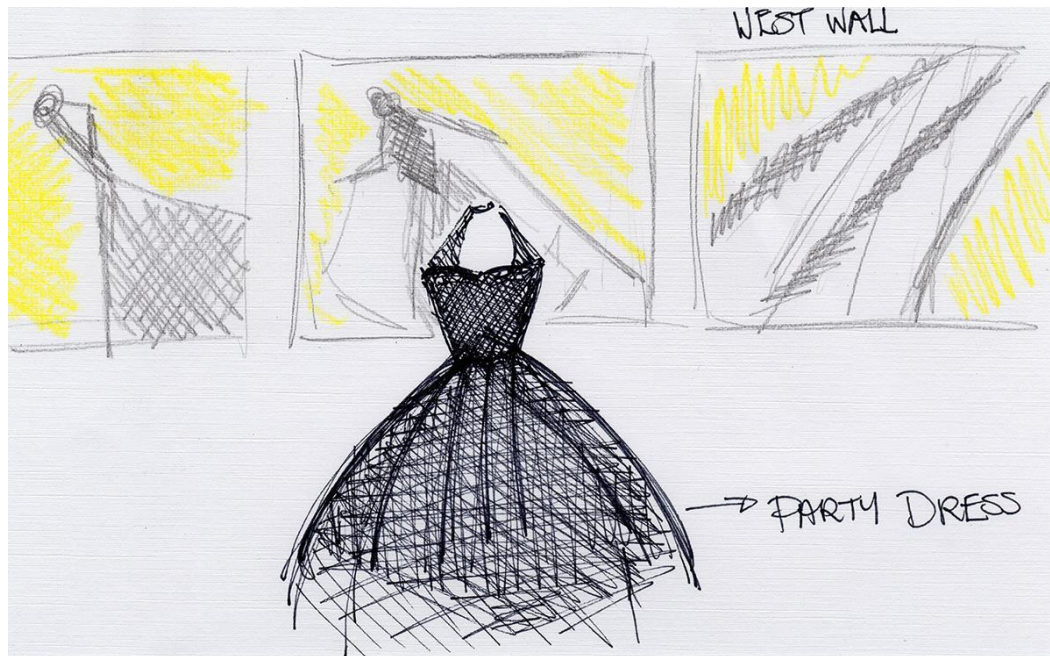


Figure 62. Initial sketch for *Party Dress* installation.

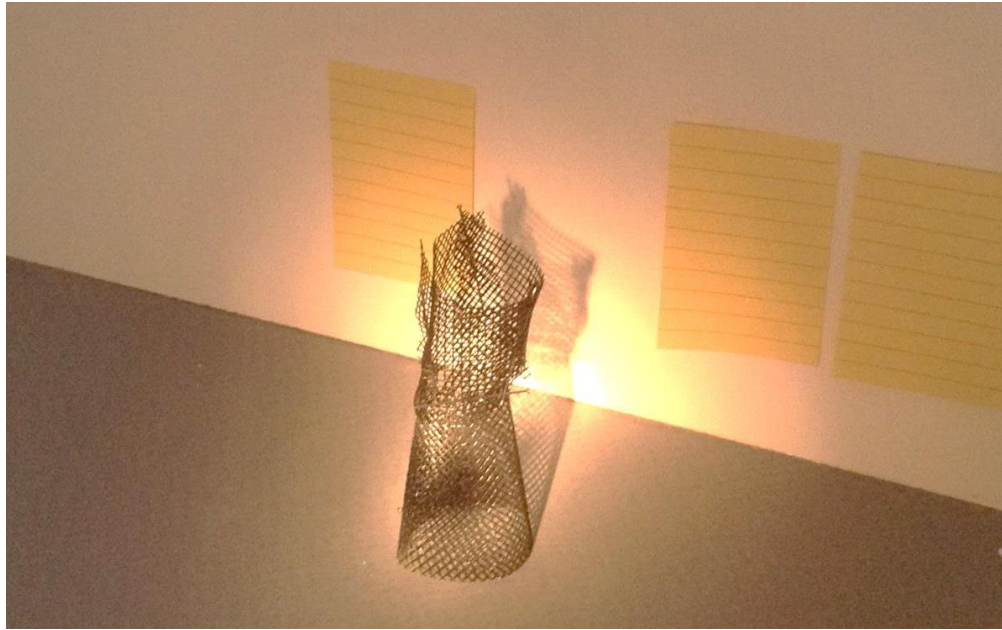


Figure 63. Playing with shadows for *Party Dress* installation.

I used a scale model of Spectrum Project Space to test lighting effects.

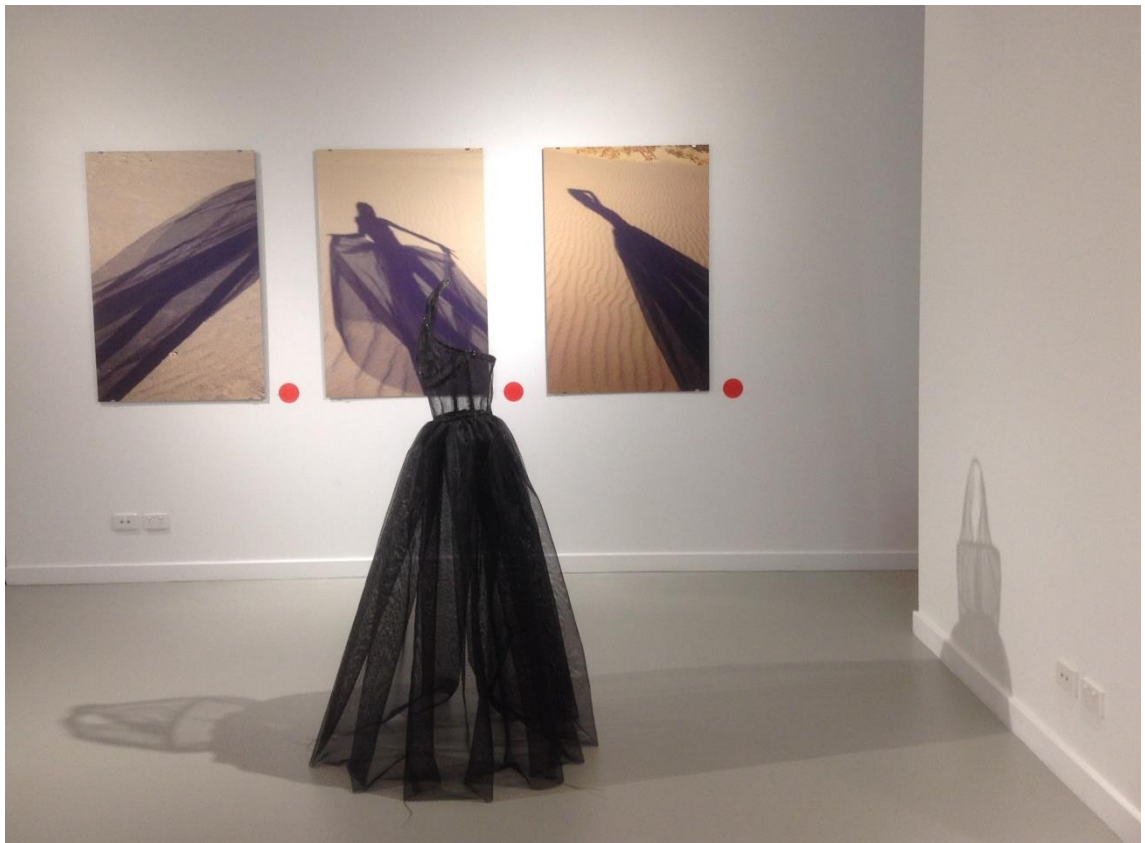


Figure 64. Sue Girak, 2012, *Party Dress* [Black Fibreglass Flywire (Sourced from REmida WA), Steel Dressmaking Pins, Boning, Polyester Thread (New Materials) Dimensions Variable]. Installation view: *forget me not* Exhibition: west wall. Spectrum Project Space.

During installation I found that I had to readjust my plans. I intended to use light from a projector, fixed to the ceiling, to throw a shadow onto the west wall to interact with the digital prints (see Figure 63). However, I found that the light source was inappropriate and instead used spotlights to throw shadows on the floor.



Figure 65. Proposed plan for *Inconsolable* – not to scale.

I intended to enclose the space by installing three mirrors; however, after discussions with the installation crew it became apparent that this plan was unpractical. There was no way to safely support the central mirror. The compromise was that vinyl backed mirrors were attached to the south-west corner using a tracking system.



Figure 66. Sue Girak, 2014, *Inconsolable* [Black Fibreglass Flywire (Sourced from REmida WA), Non-reflective Black Mourning Pins, Steel Wire, Plastic Tubing, Polyester Thread (New Materials) Dimensions Variable]. Installation view: *forget me not* Exhibition: south-west corner. Spectrum Project Space.



*Figure 67. Sue Girak, 2014, Silver Linings I [Silver-coated Copper Wire (Sourced from REmida WA), Dimensions Variable]. Spectrum Project Space.  
Photographer: Marziya Mohammedali*

Lighting and attention to hanging brought imbued *Silver Linings I* with a dynamic quality. In the context of the gallery this piece was particularly successful. I noticed that many viewers were drawn to this piece to delicately explore its materiality through touch.



*Figure 68. Sue Girak (2014). Installation view, forget me not Exhibition: north-west corner. Spectrum Project Space. Photographer: Marziya Mohammedali*

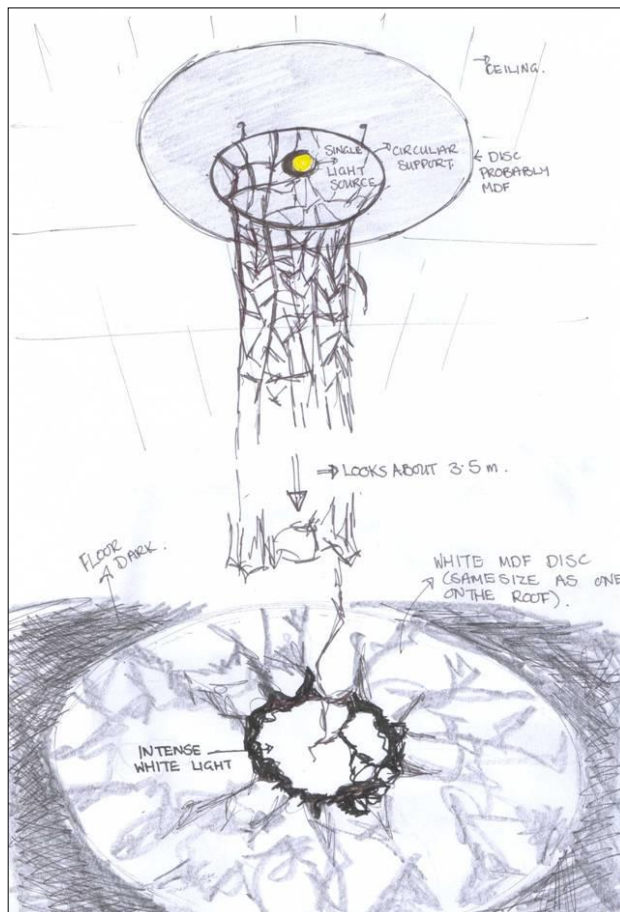


Figure 69. Visual dairy sketch of how I envisioned *Silver Linings II* to be exhibited.

This second wire dress exists as a sculptural piece rather than a replica of a dress, a decision made during the process of knitting the work. It forms a long tube that is reminiscent of Vicki West's installation *Material Memory* (2009) made from kelp, which I saw in Tasmania in 2009.



Figure 70. Sue Girak, 2014, *Silver Linings II* [Silver-coated Copper Wire (Sourced from REmida WA), Dimensions Variable (Detail)]. Spectrum Project Space. Photographer: Marziya Mohammedali



Figure 71. Sue Girak, 2014, *Silver Linings II* [Silver-coated Copper Wire (Sourced from REMIDA WA), Dimensions Variable]. Spectrum Project Space.

The knitted piece was suspended from the ceiling; however, there was no provision for a light source to shine from above. The alternative was to shine a light against the piece from a spotlight, fixed to the ceiling. The spotlight was positioned so that the shadow would fall on the floor towards the gallery entrance.

Over the two week period of the exhibition approximately 580 people passed through the gallery doors. I spent several days gallery sitting and was able to observe the reactions of many visitors including high school students, curious passers-by, textile artists, photographers and educators. While planning the exhibition layout, I could only envision the viewers' response. I hoped that the transformation of REmida materials would encourage each viewer to reconsider the value of discards; however, at planning stage it was still conjecture. When I sat in the gallery during the exhibition, I listened and watched: I was able to assess just how viewers were reacting to, and interacting with, the artworks. I repeatedly heard the word 'beautiful' to describe the objects. This gave me a strong sense of satisfaction that I could have possibly communicated REmida's philosophy, to create respect for discarded objects (Gandini & Kaminsky, 2005), without the aid of didactic panels. On one occasion, a man was looking intently at the plastic dresses. Trying to observe gallery etiquette he inquisitively leaned closer and closer to the dresses trying to guess how the materials felt. I could sense his overwhelming urge to touch the plastic and invited him to do so, explaining that visitors were permitted to touch the artworks. He exhaled a long breath of relief then carefully traced over the two dresses with his fingers to compare the different textures. I found that the man's behaviour was common as many of the other viewers also wanted to feel the materials. I noticed that they would delicately touch the plastic with their thumb and index finger or hesitantly stroke the knitted wire. From their reactions, touch seemed to play an important part in informing them of materiality that could not be ascertained from sight alone. On reflection, I knew that initiating material dialogues was central to my artmaking process, yet I was surprised that materiality played a far greater role for the viewers than I expected.

From my perspective, I achieved far more than I imagined in the early stages of this research. I felt that I had moved on from being didactic or using clichés, and could inform my viewers without preaching to them. A/r/tography is a methodology where the curatorial experience adds another dimension to my research practice and pedagogical understandings. As a researcher, I found it challenging to be selective and constantly needed to remind myself that the exhibition represented my findings, which was the culmination of my research (Figures 72-75). It was not meant to be a showcase for my artistic process yet I was devastated when I had to cull artworks. I spent hundreds of hours making many pieces that were not appropriate for exhibition, in this context, including *The Empty Promise* (Figures 21 and 22) a transitional piece representing a change of direction (see /a/). This helped me to evaluate my teaching practice. I began to appreciate that a pin-up board at the back of the classroom may not be the most appropriate place to showcase artworks by students or to contextualise Arts-led learning. In hindsight, the curatorial experience enriched my artistic,

research and teaching practices in a far greater way than if I were to critically reflect on each artwork individually instead of examining them in their entirety as a body of Materials-led Inquiry.



Figure 72. Sue Girak (2014). Installation view, *forget me not* exhibited at Spectrum Project Space in Perth, Western Australia from 30 October to 14 November, 2014.



Figure 73. Sue Girak (2014). 360° view № 1, *forget me not* Exhibition [Panoramic stitched images]. Spectrum Project Space. Photographer: Khadeeja Ibrahim-Didi

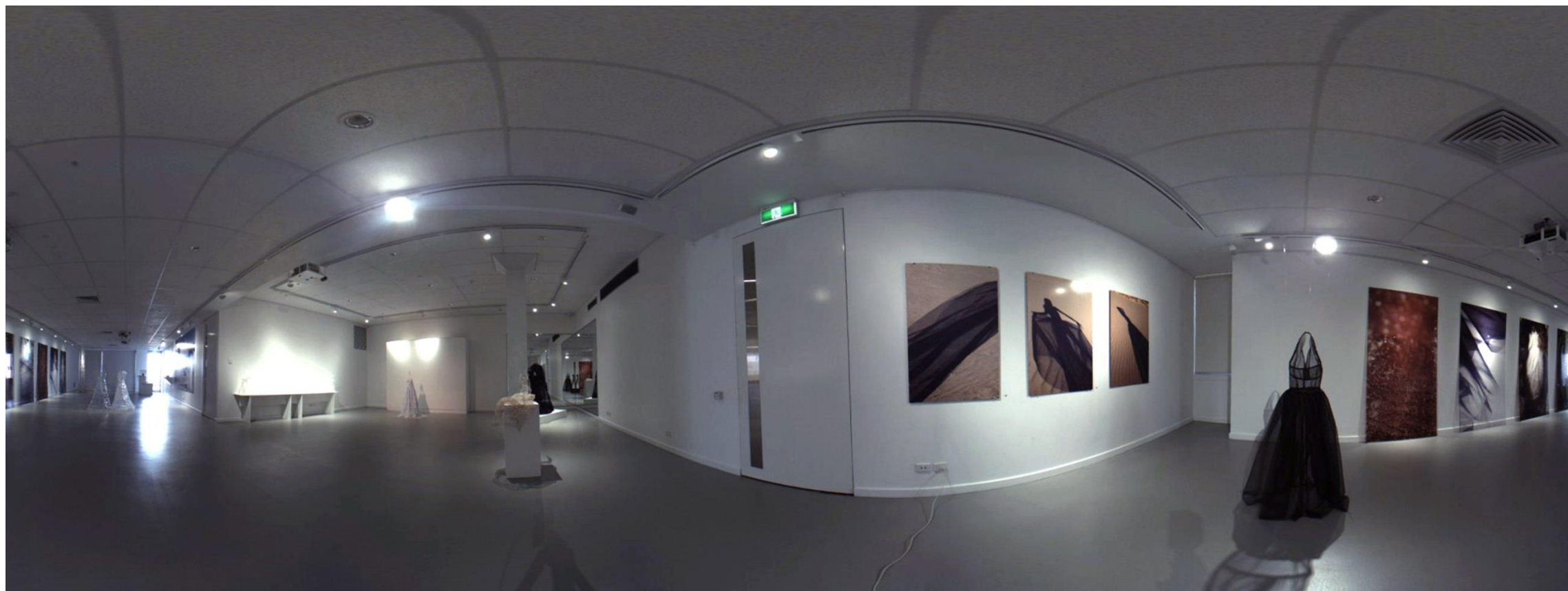


Figure 74. Sue Girak (2014). 360° view № 2, *forget me not* Exhibition [Panoramic stitched images]. Spectrum Project Space. Photographer: Khadeeja Ibrahim-Didi



Figure 75. Sue Girak (2014). 360° view N° 3, *forget me not* Exhibition [Panoramic stitched images]. Spectrum Project Space. Photographer: Khadeeja Ibrahim-Didi

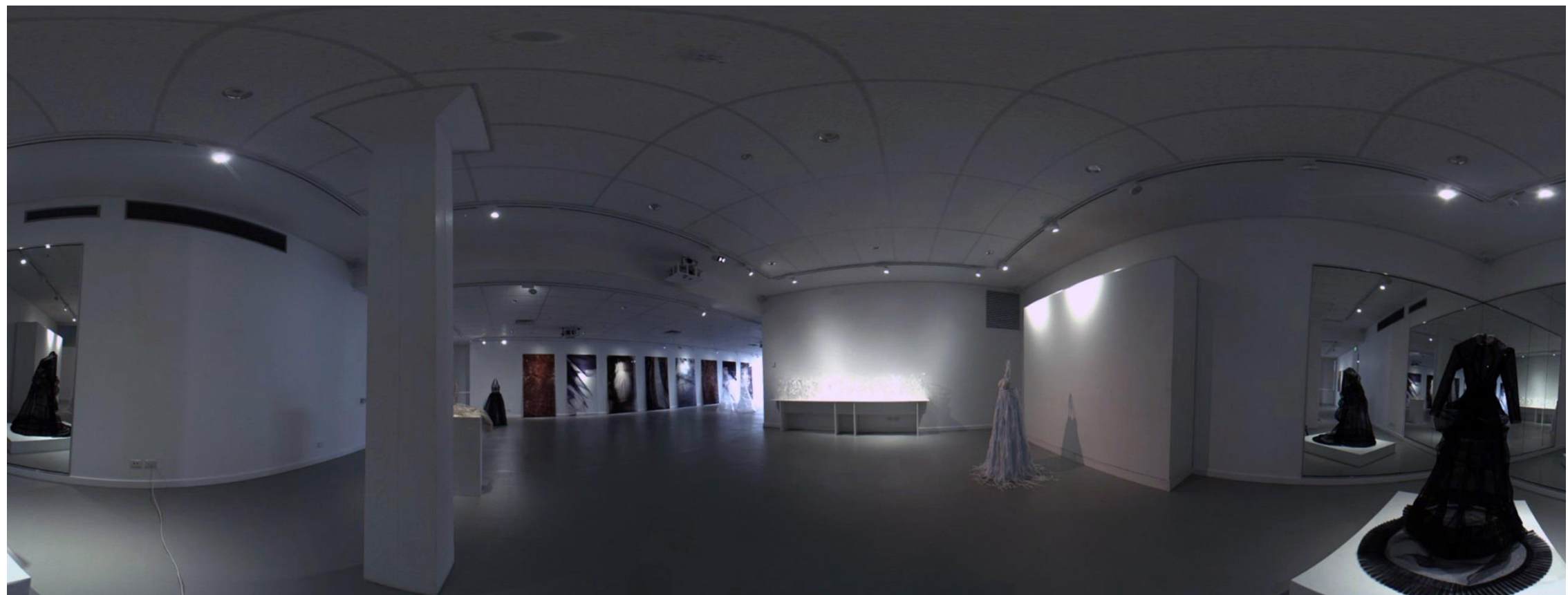


Figure 76. Sue Girak (2014). 360° view N° 4, *forget me not* Exhibition [Panoramic stitched images]. Spectrum Project Space. Photographer: Khadeeja Ibrahim-Didi

6

conclusion



With the author operating in the role of artist-researcher-teacher, this research's purpose was to determine what influence creative reuse had on facilitating environmentally sustainable shifts in a Visual Arts education context. A/r/tography was the methodology underpinning this study. It is an Arts-led methodology specifically designed to assist Arts educators to become reflexive practitioners, and to enhance their understanding of Arts pedagogy, through Arts practice. Coming from a background in primary Visual Arts education and Contemporary Arts, I concentrated on Visual Arts and visual methodologies through a bricolage of research methods that included qualitative and APLR methods. A/r/tography is respectful and mindful of established qualitative research practices and traditions, while simultaneously playing a role in emancipating Arts practice-led researchers to explore non-traditional ways of conducting and presenting research. Hence, this thesis is presented via exegetical writing, a solo exhibition presenting outcomes of APLR and an artist book that chronicles my creative process.

This research is positioned within Sustainability, a cross-curriculum priority in the Australian Curriculum, during the UN DESD (2005–2014). In the context of this research, the concept *sustainability* refers to ways of preserving and protecting the Earth's environment beyond this current generation. Initiatives were undertaken at a national level, including in the education sector, to ensure the participation of all Australians to adopt more sustainable lifestyles. ACARA responded with a commitment to embed Sustainability across all learning areas in all year levels. In a two-phase study, I explored how the artmaking process can be instrumental in supporting Sustainability across the curriculum, to increase environmental awareness and facilitate attitudinal and behavioural shifts towards sustainability. The setting for Phase One was a government primary school, located in the Perth, WA, metropolitan area. Twenty Year 7 students participated in a Visual Arts program extending over 10 sessions. Phase Two centred on my Creative Arts practice and how that influenced my Arts, research and teaching practices. Three themes emerged – *materiality*, *reflexivity* and *shifts* – where materiality is discussed in the context of creative reuse in relation to the participating primary students, and as new materialism (Barrett & Bolt, 2013; P. Carter, 2004) in regard to my creative practice.

This concluding chapter is a summary of the research carried out and is presented in the following order. First, an overview of the research reiterates the discussion from the previous chapters; next, the four research questions directing this inquiry are addressed; followed by contributions and innovations to knowledge in Visual Arts pedagogy and how a/r/tography can be used as a research methodology to support artist-teachers. Then, I

identify the limitations of this study; followed by implications for Visual Arts education and the importance of incorporating visual modalities into the curriculum. Finally, I identify further research directions, which lead on to a set of key recommendations that support Visual Arts pedagogy in primary schools, pre-service teacher education and REMida WA.

## Overview of the Research

The introductory chapter was an overview of the research identifying the purpose for this research. In this chapter, I outlined the writing style followed in this document. Decisions regarding academic writing conventions and the aesthetic choices reflected the transdisciplinary nature of my research process. As a polyvocal exegetical text (J. Hamilton, 2011), I articulated the complexities of multifaceted research by merging disparate writing traditions that connect Visual Arts pedagogy and APLR. The polyvocal text was an appropriate strategy to disseminate knowledge from multimodal inquiries that are characteristic of a/r/tography. The outcomes of my transmediated research meant that diverse modalities provided added layers of depth to research, which was treated as a whole in that the exegetical writing cannot be separated from the exhibition experience.

This study explored the role and the value Visual Arts and discarded materials play in embedding Sustainability in the Australian Curriculum. The literature review (see Chapter 2) provides the context for conducting research during the DESD (2005–2014), which included a historical review of the modern-day environmental movement, the UN's role in EfS, and Australian political and pedagogical ideology that has shaped Sustainability and Visual Arts in the Australian Curriculum. The discussion in Chapter 3 presented a rationale for undertaking an interpretative inquiry, situated within a constructivist epistemology as the theoretical framework that informed research in Visual Arts education. I discussed how Pragmatic-Social Reconstructionism (Efland, 1990) provided the ontological context and a/r/tography the methodological context, and how the symbiotic roles of the artist, the researcher and the teacher interplay to inform Arts educators. In this context, a/r/tography was reframed to act as an APLR methodology that included a bricolage of methods to support research in two settings, first in the classroom, then in the studio.

Chapter 4 discussed Phase One, which took place in the Year 7 class at Fairview Primary School. The students participated in a Visual Arts program, delivered over one full-day excursion and nine two-hour sessions. REMida's philosophy of creative reuse was the basis of the project. I investigated if the artmaking process could enable students to make connections concerning how their lifestyle choices could impact the environment. Phase One

findings established that during the course of the project, the students had a broad understanding of humanity's impact on the environment. However, it was only during the four artmaking sessions that the students reported that they started to make internal shifts. In the context of this research, *dialogue* is an embodied response that comes through material practice, material process and material thinking (Bolt, 2010; P. Carter, 2004). By developing a dialogue with discarded materials, over a number of weeks, the students had time to reflect during the course of the project. Student responses suggest that some shifts were embodied responses triggered from information gathered through scaffolding activities incorporated in the program. During the artmaking stage, the students questioned personal behaviours and Western values that have negative impacts on the Earth.

By the program's conclusion, most of the students reported positive attitudinal shifts towards the environment. An unanticipated finding was that some students began to accept personal responsibility for their behaviours and, in response, changed their behaviours. This finding supports discussion of new materialism (Barrett & Bolt, 2013; Bolt, 2010) and P. Carter's (2004) premise that "the process of material thinking enables us to think differently about our human situation" (p. xii). The implication for a Visual Arts teacher is the purpose of artmaking, which encompasses more than producing a finished product. The findings indicate the importance of providing students with ample time to make connections through artmaking, and to allow time for reflections between lessons. All of this can be achieved through an open-ended Visual Arts program embedded in Pragmatic Social-Reconstructionism (Efland, 1990). Grounded in constructivist pedagogy, the program invited "thinking about knowledge and the act of knowing" (von Glasersfeld, 1995, p. 14), in other words, metacognition. The constructivist approach supports EfS in that it is a multidisciplinary, inquiry-based pedagogy that is accepted practice in Australia and overseas (ACARA, 2013a; ARIES, 2004-2012; Brundtland, 1987; Te Kete Ipurangi, n.d.; Tilbury, 2011; UNESCO, 2002). In addition, the student exhibition experience added an extra dimension to the artmaking process. The students were able to recognise that part of an artist's agenda was to make artworks to inform and persuade others. By exhibiting their works to a wider audience, the students found that viewers could enter into their own dialogues with the artworks. In addition, the students recognised the power aesthetic transformation had in increasing the perceived value of discarded materials. They noted aesthetic appeal triggers a change in perception in that people reconsider the value of discarded materials.

Unexpectedly, the perceptions of the three Fairview teachers interviewed did not match the students' learning. One reason why teachers did not observe the students'

behavioural changes was that the shifts were self-initiated changes that occurred outside of the Fairview Primary School context. Another reason may be that the Fairview teachers had to contend with a crowded curriculum. A crowded curriculum limits opportunities for students to revisit themes over time and through multimodalities. Therefore, the Fairview teachers' perceived lack of time did not provide opportunities for student reflection and retrospection in programs. The inconsistencies found between the teacher and student interviews have additional implications for Visual Arts pedagogy: they indicate that when teachers have time constraints, it limits teaching methods to direct instruction. Constructivist pedagogy needs time for students to learn experientially over a number of lessons. As a time-saving measure, teachers may have resorted to programs that predominantly involved explicit instruction.

In Chapter 5, I discuss Phase Two, where I used a *bricolage* of research methods to examine my creative practice. I chose to follow the same exhibition brief presented to the students and the resulting artworks encompassed a solo exhibition. For the most part, the creative phase of my research was a means to gain a deeper understanding of artistic processes. I used a *bricolage* of artmaking techniques to 'make do' with materials sourced from REmida WA, and had to decide on techniques that could work with, not against, the qualities of each material. For example, not only did the plastics behave differently from each other, they also behaved differently compared to surgical masks, flywire and wire. I was learning to understand materiality through the senses (Bolt, 2010), which helped to determine appropriate methods and techniques. The material conversations I had in the studio enabled me to reflect in, on and through action (Schön, 1983; 1987), which then spilled into my teaching practice. The symbiotic nature of a/r/tography meant that new knowledge gained in the studio could be transferred to the classroom. Through a/r/tography, I was able to recognise the importance of teacher immersion in the artistic process. In my case, the ensuing experience helped shift the conversation to incorporate APLR into Visual Arts pedagogy and to recognise the value of Arts-led education in an upper primary context. I was able to implement theory into the real-world setting of the classroom, where my role transformed from Visual Arts specialist to Visual Arts practice-led facilitator.

## Research Questions

The aim of the research questions was to discover if creative reuse could change the way a maker (child or adult) might think and act towards the environment. The study demonstrated that creative reuse is the catalyst for positive shifts towards sustainability through awareness, attitudes and behaviour. Four questions were posed: two questions

related to Phase One, one question was related to Phase Two and one final question was an overarching question that related to the entire study.

## **Phase One, Question One**

*How does the act of engaging with discarded materials in a Year 7 Visual Arts program facilitate environmentally sustainable awareness?*

After the Year 7 students participated in the Visual Arts program, the students experienced varying degrees of some, if not all, of the 10 changes listed in hierarchal order:

1. The Fairview students had increased their awareness of the environment.
2. The students became more aware of environmentally sustainable issues that are affecting the Earth.
3. The program facilitated positive attitudinal shifts towards the environment.
4. The program inspired some students to make self-initiated behavioural shifts.
5. Most changes occurred because of the artmaking process. The open-ended and process-led nature of the Visual Arts program invited reflection and contemplation. Thinking through action – namely, artmaking – consolidated shifts towards sustainability.
6. The most significant facet of the program was that students could engage with discarded materials over a number of weeks. The extended experience enabled the students to develop a dialogue with those materials. The time in-between lessons provided some space to ponder on and embody their new knowledge. In other words, the Visual Arts program provided a platform for the students to develop dialogue with each material they worked with. A one-time experience is not enough time to develop such a dialogue. The reason for this is that the first experience is usually a fact-finding mission where the students are constructing knowledge in relation to the physical properties of each material, learning whether the materials will perform in a way the students envision. Inviting deeper reflection takes time and repeated exposure. Reflection becomes an iterative process by building meaningful connections each time.
7. Discarded materials played a significant role in facilitating shifts towards sustainability. Using REMida materials in place of new materials to make art helped the students to recognise the consequences of their behaviour. Students recalled the volume of waste collected by REMida WA and compared industries' wasteful practices to their own. Considering REMida materials are unused only served to emphasise the waste, and the associated burden consumption has on the Earth's resources.

8. The students recognised potential in discarded materials other than REmida materials. They did not rely exclusively on REmida materials and started to source discarded materials from home and their neighbourhood.
9. Students began to think in terms of creative reuse. Some students recognised the ephemeral nature of their artworks so were prepared to incorporate personal belonging artworks, knowing they could be reused after the classroom exhibition.
10. The students recognised that artworks could be used to inform and persuade viewers to think differently. They acknowledged that simply assembling pieces of junk together could not facilitate the same shifts that the aesthetic transformation of those materials may. Creative reuse challenged students' preconceived perceptions about waste and helped them to reconsider the value and potential of discarded materials.

## **Phase One, Question Two**

*What are the implications for an a/r/tographer's Arts-led practice for teacher education and the improvement of pedagogical practices in primary Visual Arts education?*

The implications for an a/r/tographer are significant and can be answered in relation to EfS through the Visual Arts and how a/r/tography can support pre-service teacher education.

### **Educating for Sustainability through the Visual Arts**

Although Phase One findings show there is value in participating in a Visual Arts-led Sustainability program, the classroom teacher and the two specialist teachers could not recognise the value. Teachers need to be aware of how and what they teach in Visual Arts is based on their pedagogical and ideological beliefs (Efland, 1990), as this has implications for students' learning. When explicit teaching methods and quantifiable assessment criteria are taught exclusively, then valuable learning opportunities are missed. Further, the growing trend towards standardised testing – through measures including the international ranking system (the PISA), Australian standardised tests for students in years 3, 5, 7 and 9 through NAPLAN and the *No Child Left Behind Act* in the US – has diverted attention from the Arts and other subject areas to a narrow focus centred on literacy and numeracy (Collard, 2012; Groen, 2012; L. S. Hamilton, et al., 2013; Klenowski, 2013; Kostogriz & Doecke, 2011; St. Pierre, 2013). As part of a well-rounded education, Visual Arts-led learning is a method that can be included into a teacher's repertoire and embed Sustainability into the curriculum. That is not to say that the Visual Arts should replace EfS in other subject areas. Instead, as part of an integrated

program, Visual Arts can consolidate learning to allow students to make their own connections.

Likewise, this research demonstrates that the role of the Visual Arts specialist was underutilised at Fairview, as her role was relegated to providing relief from the perceived 'real' learning that took place. A Visual Arts specialist need not stay in the background. It is possible to adapt the role of DOTT provider to the Reggio model, where the atelierista collaborates with the classroom teacher to design Arts-led programs. However, that is dependent on how the generalist teachers at a school perceive the value of Visual Arts education. If other teachers believe that Visual Arts is a 'soft' subject, they are less likely to collaborate with a Visual Arts specialist to explore social issues such as Sustainability through Arts-led learning (ACARA, 2013a). This could shift the research conversation to broaden the conventional understandings of what Visual APLR will add to Visual Arts pedagogy in primary schools. Therefore, by adding a/r/tography and multimodal methods to the research table, educators become equipped to incorporate multimodal learning tools into their teaching repertoire and thus place Visual Arts at the forefront of integrated curriculum design.

### **A/r/tography**

A/r/tography has demonstrated a capacity to improve this researcher-teacher's skill, knowledge and self-efficacy in Visual Arts. By becoming immersed in my own art process, I experienced enhanced empathy for the problems my students encountered during the highs and lows of Arts practice-led learning. The outcomes from this research anticipate that other teachers could also frame creative opportunities to increase their theoretical knowledge in the Arts and pedagogy to extend the Visual Arts learning and teaching beyond a subject area that predominantly targets skills and techniques. With grounding in practice and theory, teachers could be much better equipped to support student learning by incorporating scaffolding activities (Wood et al., 2006) to assist students to extend their learning in the ZPD (Vygotsky, 1978). Contrary to the classroom teacher's opinion, the teacher is very much present when implicitly teaching Sustainability through Visual Arts. With high self-efficacy in the subject area, the teacher can judge when to step in or slip into the background, a position that is reinforced in constructivist literature (Dewey, 1956; Kozulin et al., 2003; von Glasersfeld cited in Lombardi, 2005; Takaya, 2008; Vygotsky, 1978) and the Reggio pedagogy (Rinaldi, 2006).

Further, Visual Arts education needs to be given more time in pre-service teacher education, rather than being watered down and taught as part of the Arts (Lummis et al., 2014). The Arts encompasses five unique learning areas and considering it is unlikely that schools will have access to specialist teachers in all five Arts learning areas, provisions ought to

be made to give a pre-service teacher a thorough grounding in each learning area. From an a/r/tographer's perspective, Arts-led practice can support pre-service teacher education. Instead of arming pre-service teachers with a 'recipe book' of art lessons, skills and techniques, a/r/tography trains one how to think through the Arts. A transdisciplinary approach, across the curriculum, will give pre-service teachers first-hand experience of the artmaking process (ACARA, 2013a) to gain greater insights into Visual Arts pedagogy. The implication for pre-service teacher education is that if they immerse themselves in the artmaking process wearing an a/r/tographer's hat, then graduates will enter the classroom armed with a greater empathy and understanding of students' learning processes. By investigating Visual Arts pedagogy through aesthetic means, based on a comprehensive understanding of knowledge and practice, the pre-service teacher may be better equipped to teach all components outlined in the Visual Arts Curriculum (ACARA, 2013d).

## **Phase Two**

*How and to what extent does engaging with discarded materials inform my a/r/tographic practice?*

Engaging with discarded materials has transformed my a/r/tographic practice as an artist, as a researcher and as a teacher.

### **As an artist**

I found I could not depend exclusively on the written word to describe my dialogue with REMIDA materials. It was an aesthetic experience (Dewey, 1934) that informed my creative practice. The embodied knowledge that comes from material practice, material process and materials thinking (Barrett & Bolt, 2013; Bolt, 2010; P. Carter, 2004) demanded a multimodal expression of my learning. Contributions to knowledge and innovation are rearticulated through the exhibition, the artist book (see Chapter 5), photography and a digital video, and through exegetical writing in Chapter 5. In particular, the exhibition is non-numeric, non-linguistic research output where new knowledge is articulated through the materiality of REMIDA materials. Since materiality and the knowledge emerging from the process of artmaking is fundamental to this research, "it also means that people who wish to evaluate the research outcomes also need to experience them in direct (co- presence) or indirect (asynchronous, recorded) form" (Haseman B., 2006, p. 101). The direct experience is viewing the artworks in situ at Spectrum Project Space and the indirect experience is a record of the exhibition in the form of a fly-through film of the installation (see Figure 76).

In brief, the outcomes of the Phase Two research question showed that engaging with REmida materials has significantly transformed my practice (see Figure 77). I am now more open to exploring materials through *bricolage* and reusing REmida materials. Bricolage opens up possibilities that I wish to explore further. Consequently, I will revisit REmida's philosophy to inform future works. By 'making do' with what was available, I learned patience and not to be dismissive of the plain and ordinary. I learned to look for the potential all materials had to offer and thereby developed a more nuanced dialogue with materials. In a hierarchy of learning, what I have learned is that making art, which corresponds with a value system, is an iterative process, as I learn to negotiate between aesthetic and ecological values. More importantly, simply reusing materials is not enough; I needed to ensure that my values and actions were congruent so that my art practice does not add to the Earth's burden. As such, I have reassessed the materials I use and the techniques I use to make my artworks. Thus, I am returning to making by hand to limit my impact on the environment.



*Figure 77.* Sue Girak (2014). Video footage, *forget me not* exhibited at Spectrum Project Space in Perth, Western Australia from 30 October to 14 November, 2014.

Video footage: Lyndall Adams

Editor: Alistair Campbell

Click to start.



### **As a researcher**

I learned that I needed to enter Materials-led Inquiry with an open mind to develop a dialogue with materials and to take their lead (Barrett & Bolt, 2013; Bolt, 2010; P. Carter, 2004; Glaser, 1992). Research encompassed all aspects of this study, as I often stepped back to reflect-on-action. As a researcher, I learned that age is not relevant when it comes to learning through materials. Engaging with discarded materials generated similar feelings and responses towards the environment between the 12-year-old students and me; however, immersing oneself in the process is what counted. As a researcher, I learned to embrace the rhizomatic nature of a/r/t/tography and accept that a finished product does not always demonstrate learning. Learning does not have to be immediately measured or instantly visible. Embodied learning and tacit knowledge are equally as important. For example, Figure 77 is visual documentation of the rhizomatic nature of my research. Some images are exemplars of ideas followed through to completion, while others represent material practice, process and thinking (Bolt, 2010; P. Carter, 2004). Developing the A/r/tographic Action Research Spiral helped reinforce my new understandings, identify critical moments in my praxis and value all aspects of my 'a/r/tographical self' – through a repetitive cycle of reflecting, planning and doing.

### **As a teacher**

Following Phase One, the impact this research had on my teaching practice was not immediate. Instead, the changes were gradual and hardly noticeable until I began to reflect-on-action. On a practical level, I became more conscious of the amount of waste my students produced at the end of each lesson. Reflexively, I transformed my pedagogical practice with one seemingly small action: changing the way I distributed materials. The art room became less of a classroom and more like an atelier where accessibility to materials was unrestricted, not unregulated. Although my students could use whatever materials they required, I asked them to be more mindful and to take only as much as they needed. The students responded positively and took heed of my message. However, reducing waste did not mean that I limited experimentation and material exploration: the students were released from the "burden of preciousness" (S. Chant, personal communication, June 4, 2014), as I regularly replenished stocks with REMida materials. Further, I transferred what I had learned about creative reuse to incorporate a variety of materials into new Materials-led Inquiries. For example, the students worked with natural materials found on the school grounds, such as eucalyptus leaves and gum nuts. The school culture where I worked meant that creative reuse was a foreign concept to the students and their parents, who expected a regular supply of drawings,

paintings or crafts to emerge from the art room. One strategy I used to address the issue was to make students' learning visible by documenting learning through digital photography. By introducing photography into the classroom, the students were less attached to their creations and more open to experimentation and risk-taking, which promoted resilience through artmaking. Photography became an integral part of their Materials-led Inquiries. However, the students and parents were not the only ones who had to readjust: I had to accept that when I changed my teaching style, open-ended activities may take longer to complete, and students' artworks may not look as 'polished' if I kept my hands to myself. In lieu of physically 'correcting' students' 'mistakes', I spent more time scaffolding their learning (Wood et al., 2006).

## **Phases One and Two, Overarching Question**

*What is revealed through Materials-led Inquiry in regard to a student and/or a/r/tographer's impact on the environment?*

What I discovered during my research was that the age of the maker was irrelevant when it came to experiencing shifts. I found I had more in common with 12-year-old children than I did with their teachers. The common denominator was what the Fairview students and I learned through our dialogue with discarded materials. New sensibilities that emerged through artmaking triggered our shifts. The students and I were able to confirm McNiff's (1998) assertion that "artistic knowing is different than intellectual knowing" (p. 36); therefore, providing greater links to aesthetic experience (Dewey, 1934) and material thinking (Barrett & Bolt, 2013; Bolt, 2010; P. Carter, 2004). In chapters 4 and 5, there are numerous examples that illustrate how Materials-led Inquiry supported the artist (child or adult) to reversion intellectual knowledge into artistic knowledge. The evidence suggests the artmaking process was the catalyst for change. The students and I reported shifts; however, the classroom teacher was not able to see the purpose or value of the Visual Arts program, despite being present for the duration of the program, observing what was occurring during lessons, attending every excursion and timetabling additional time for students to plan and complete their artworks. The difference was that the classroom teacher spent no time physically engaging with discarded materials.

In addition, I discovered that the Fairview students and I questioned our values and beliefs systems during our dialogues with discarded materials. Difficult conversations, at times, were personally confronting as the students and I had to admit that our behaviours did not always match our values. Those realisations did not occur during our first conversation

with discarded materials. They were initiated after repeated conversations. Reflection during and in-between artmaking sessions invited reflexivity and using discarded materials invited introspection that could not occur with new materials. By engaging with discarded materials, the students were provoked by the materials' memory or history and often the students questioned why useful materials were being thrown away. The Fairview students began to question Western values and lifestyles that had a negative impact on the Earth and its natural resources. Working in small groups, using discarded materials provoked the students to think about, report on and visually respond to complex environmental issues, such as conspicuous consumption, climate change, consumerism, the degradation of natural resources and pollution. Each group also questioned the motivation behind these practices and others, such as planned obsolescence and the golden arrow (L. Fox, 2009). They also cited reasons for inaction including laziness, apathy and resistance to change. Though each group responded to their class task to produce an artwork that represented humanity's impact on the environment, in general, through participating in the Visual Arts program, the Fairview students regarded discarded materials as valuable resources. Creatively reusing those materials evoked a sense of stewardship for the Earth. The sustainable shifts that occurred in the students, during the artmaking stage of the Visual Arts program, occurred because of their dialogue with discarded materials. The Visual Arts program might not have been as effective if the Fairview students were given new materials to fulfil their exhibition brief. As their projects progressed, the students felt no need to buy new materials. If they were not able to access materials from classroom supplies, they brought in their own cache from home.

In my case, I decided to work with REMIDA materials to interrupt their flow from the conveyor belt to land fill. The planned obsolescence of virgin materials only served to highlight wasteful practices and lost potential; however, that was not enough. I deliberately chose to work with virgin discarded materials because they had no material memory or history. Through Materials-led Inquiry, I was able to explore the untapped potential of virgin discards as a metaphor to explore the untapped potential of lost teenagers. Although, in doing so, I once again came to the realisation that my creative practice was adding to a problem I wished to address. I found that some of the processes I was experimenting were more detrimental than if I had just allowed the REMIDA materials go to landfill. What I learned through Materials-led Inquiry was that embodied knowledge occurs after a number of experiences. After each cycle of the A/r/tographic Action Research Spiral, I reflected on new knowledge and have new leads for future research to reduce my artistic footprint.

Further, the Fairview students and I agreed that the aesthetic transformation of discarded materials is integral for instilling respect and value for the discard, which leads to respect and value towards the environment. First, one student reported how he had previously worked with discarded materials for another activity, yet did not recognise their potential. He reported that it was the aesthetic transformation of discarded materials facilitated a new attitude towards them in that he was able to see the value in creative reuse and that creative reuse may allow others to see discarded materials as more than just rubbish or waste. Other students agreed that creative reuse and aesthetic transformation was integral to persuade others to value discard. Presenting artworks made by discarded materials as beautiful objects supports REmida's philosophy of creative reuse, which implicitly promotes environmental sustainability through the creative reuse of discarded materials and the raising of awareness of others that discarded materials are valuable resources.

## **Contribution to Knowledge and Innovation**

This research has added to existing knowledge in the field of Visual Arts pedagogy as follows. First, the findings reveal that as a consequence of exploring an environmental theme through an Arts practice-led approach, artists (children or adults) become more aware of their individual environmental footprint. The trigger for the Year 7 students' and my increased awareness, positive attitudinal shifts and behavioural shifts towards sustainability was attributed to the artmaking process. In particular, developing a dialogue with discarded materials bound for landfill came about from physically handling materials (Bolt, 2010) and reflecting in, on and through action (Schön, 1983; 1987). In the classroom context, the Year 7 students showed that they did not learn new knowledge in regard to the environment; instead, they changed their perspective and response to what they had already learned prior to the artmaking stage. For example, during the scaffolding stage of the Visual Arts program, S&E lessons and Visual Arts lessons were taken with the art specialist. The students began to make self-initiated behavioural changes including creatively reusing materials, reducing water and electricity consumption and choosing to ride or walk short distances rather than being driven by their parents. For my part, I examined and reflected on my creative practice iteratively throughout this research and found that by choosing to work with REmida materials, they became the catalyst for a move towards an environmentally sustainable art practice.

I generated an innovative model to illustrate the dual process of reflective practice that an artist-teacher undertakes. The A/r/tographic Action Research Spiral is an amalgamation of Kemmis and McTaggart's (1988) Action Research Spiral and Räsänen's (2005)

Artistic Action Research Spiral and frames a Materials-led Inquiry framework within Räsänen's model. The new conceptual model acknowledges that Visual Art teachers are whole beings and reflexivity enables teachers to research their creative praxis as a means to improve Visual Arts pedagogy and *vice versa*. Finally, the current research adds to the academic research and literature relating to Visual Arts-led EfS; it addresses a problem, identified in the literature, regarding the role REmida materials play as agents of change to increase sustainable awareness and facilitate positive shifts towards sustainability. This research does show that creatively reusing discarded materials (Phase One) initiates shifts. In Phase Two, I narrowed my focus to REmida materials. My complex relationship with REmida materials became a dialogue that stretched over a number of years and, in my case, REmida materials were an agent of change. In regard to my dialogue with REmida materials, a new term, *Materials-led Inquiry*, describes practice-led research through materiality where the materials determine the direction of research through the creative praxis.

## Limitations

The limitations I identified in this research can be attributed to the research design, unforeseen circumstances, or findings that emerged from the data.

### Research Design

1. Small sample size – I restricted the sample size to one primary Visual Arts specialist and to one Year 7 class, from a government school that was located in an area of high socio-economic advantage. Therefore the findings cannot be generalised to represent all students and teachers, nor can they be replicated if this study was to be transferred to another context and setting.
2. The research design made it impossible to track the students as individuals. Students were purposely placed into small groups (see Chapter 4) and consequently they were interviewed in small groups.
3. My contact with the participants was restricted to timetabled sessions and an extra session for the final interview.
4. Accessibility to the research site was fixed for the duration of the Visual Arts program; signifying long-term outcomes resulting from this research could not be measured.

## **Unforeseen Circumstances**

1. Student absenteeism and extra-curricular commitments encroached on the sessions, which meant not all children were interviewed three times, indicating the children could not be tracked individually.
2. The classroom teacher told me she allowed additional time in-between sessions for students to plan and complete artworks, meaning I was unable to ascertain how much influence the classroom teacher had over the students' artworks and designs.

## **Limitations Identified from Findings**

1. Student and teacher interviews – the interviews required some reflection and were based on the interviewees' individual perceptions of a program and a teaching style they were not familiar with and, for that reason, the student and teacher findings ought to be approached with some caution.

## **Implications for Visual Arts Education**

Explicit teaching through the Visual Arts has several implications for EfS. First, teachers may rely on direct instruction if they feel vulnerable in a subject area where they have limited skills and knowledge or low self-efficacy (von Glasersfeld, 1995). In regard to this research, the classroom teacher's limited expertise in the Visual Arts accounts for her attitude to the subject. In contrast, the findings revealed that the Visual Arts is more than just a 'soft' subject that is 'fun', only included in the curriculum to provide some relief from 'real' learning. I am not suggesting that Visual Arts in the classroom should not be fun; instead, I am advocating for educators to reassess the value of incorporating visual modes of thinking and learning into the classroom as additional tools to add to students' range of learning strategies. As this research shows, through the artmaking process, students were able to make sense of their world and to embody the information they had learned during other lessons, which brought about attitudinal and behavioural shifts. By adopting a Pragmatic Social-Reconstructionist approach (Efland, 1990) to Sustainability, teachers are able to support their students as they challenge their underlying beliefs and assumptions regarding environmental sustainability. The objective is for the students to make positive changes towards sustainability. Educating for Sustainability through the Visual Arts reflects the UN's commitment to educate children through an interdisciplinary approach so that they may adopt environmentally ethical behaviours consistent with sustainable development (Brundtland, 1987; Tilbury, 2011; UNESCO, 2002) in the UN DESD (2005–2014).

An important consideration that needs to be addressed is that the shifts discussed in Phase One did not occur during a single lesson. The implication this has on a generalist classroom teacher, in regard to curriculum planning and timetabling, is that making time for students to reflect during and between lessons is fundamental for students to make shifts. Open-ended activities grounded in constructivist pedagogy give students an opportunity to think and learn through doing (Australian Academy of Science, 2014). Allowing time between lessons allows students to process their thoughts, in other words, to engage in metacognition. Sustainability is a complex issue that deserves to be revisited a number of times through different modalities. In regard to Visual Arts pedagogy, Visual Arts specialists and generalist teachers alike may benefit if they immersed themselves in the artmaking process. The experience of artmaking and learning as an adult is very different from planning a series of lessons for children. Being able to understand artmaking from a maker's perspective can only enrich curriculum planning and development in order to integrate Sustainability into the curriculum (ACARA, 2013b; Tilbury, 2011).

## **Recommendations for Future Research**

The aim of this study was to investigate what effect creative reuse may have on sustainable awareness. The findings from this small-scale study indicate that creative reuse is a trigger for positive attitudinal and behavioural shifts. The following recommendations address the limitations identified in this chapter, to pave the way for future research.

1. The findings only relate to a small sample with limited access to the student participants. My dual role of artist-researcher meant my contact with the students was limited to my teaching time. Consequently, data collection was impacted by my teaching role during the project. Considering this limitation, I recommend a modified research design that incorporates a variety of data collection methods that do not interfere with the students' learning as an area for future research. For example, mounting cameras into positions that will capture small group work and discussions and appointing an additional researcher whose sole purpose is to collect data.
2. The findings indicate students were making shifts during the artmaking stage. There were a number of absences during the three interviews and, since the final interview was reflective, my interview questions did not fully explore at what point of the artmaking stage those shifts began to take place. In order to identify when shifts occur and to provide greater insights into the role artmaking plays in facilitating those shifts, new research to address this limitation may design methods to track individual students more closely during the research period.

3. By commencing research in a Year 7 class during Term 3, I did not have access to the participants beyond that school year. The limitation of this research meant that there was no way for me to assess if the changes occurred in the short term or led to permanent ongoing changes. Even so, during the final interview, some students revealed they had made some self-initiated shifts beyond the school context. I recommend a long-term study to assess the efficacy of Visual Arts to facilitate positive shifts towards sustainability. I also recommend widening data sources to include parents or other family members who may be able to observe tangible shifts away from school.
4. In 2015, Year 7 will no longer be the final year of primary school in WA due to the introduction of a middle-school system where Year 7s will be the first year of secondary school. Some transferability was built into this research design in that the research questions were applied to two different contexts (classroom and studio). To test the likelihood that the findings of this study can be applied to other contexts, I recommend that this research be shared for the potential *recontextualisation* of other circumstances and conditions; for example, a different year grouping, socio-economic advantage and/or alternative schooling systems across WA or Australia.
5. Phase Two encompassed a self-imposed limitation to work with REMida materials, in contrast to Phase One where the students sourced a variety of domestic discards from home. If REMida materials are to be considered an agent of change, then I recommend the research design be modified to source discarded materials exclusively from a REMida centre.
6. I recommend further research to investigate if a/r/tography is an effective methodology to prepare pre-service generalist teachers for teaching Visual Arts in the primary school setting.
7. In regard to how Materials-led Inquiry may give an overview of artistic practice to inform Visual Arts pedagogy, I suggest a future direction of research applies to Visual Artists working in their own contexts. The aim of new research is to support best practice in Visual Arts pedagogy. I recommend artists' processes and theoretical underpinnings be made visible through visual and written documentation as a means to give teachers an overview of APLR to support the Visual Arts Curriculum development.

# Key Recommendations

The following recommendations arise from the research.

1. *To incorporate constructivist pedagogy to Visual Arts teaching*
  - The recommendation is that teachers deliver a range of multimodal activities to support students' creative process, artistic expression and aesthetic understanding, and to allow their students to participate in process-led learning, which requires risk-taking and repeated experimentation for problem solving.
  - To apply the Pragmatic Social-Reconstruction Model (Efland, 1990) to explore social issues in an integrated curriculum and wherever possible coordinate an arts-led approach to classroom learning and research.
  - To take into account that students are individuals and to make allowance for those differences where the students construct new awareness and understandings by making personal connections in their artmaking.
  - To take into account that adult artists have different creative practices for self-expression and aesthetic understandings, and to explore those practices to promote student inquiry.
2. *Provide support mechanisms to assist teachers to implement Visual Arts-led Sustainability programs in primary schools.*
  - In a school where there is a Visual Arts specialist, the school administration provides support mechanisms to encourage greater collaboration between generalist teachers and Visual Arts specialists. That is, they arrange the school timetable to allow for collaboration between generalist teachers and the Visual Arts specialist to develop programs where Visual Arts creates a platform to embed Sustainability across the curriculum (ACARA, 2013a). Three options to consider are: 1. Synchronise DOTT so that Visual Arts specialists and teachers co-design junior-, middle- and upper-school programs; 2. Synchronise specialist teachers' DOTT to co-design integrated specialist programs; 3. Allocate specific times during Professional Development days to coordinate a whole-school approach to Sustainability.
  - In a school where there is a Visual Arts specialist, schools adopt an atelierista model (Parnell, 2005; Vecchi, 2010) inspired by the Reggio Approach. Modify and contextualise the Reggio atelierista model for the primary school context so that Visual Arts specialists work alongside the generalist teachers, instead of being DOTT providers. Presently, Visual Arts specialists provide DOTT and as such their

programs, at times, are unrelated to the curriculum. Using a collaborative approach, teachers create opportunities to enhance student learning through visual modalities so that students are better equipped to make sense of the world around them through artmaking. The role of the atelierista is a facilitator, to transform the conventional model of teacher-led Visual Arts lessons to child-centred Visual Arts practice-led research.

- In a school where this is no Visual Arts specialist, the recommendation is to commit to a series of Professional Development training sessions from Arts-based EfS service providers (e.g. REmida WA) to embed Sustainability into the curriculum. The findings show one-off experiences are inadequate to support deeper learning. For consistency of practice, a series of workshops (in-house and external) conducted over three years may establish a sustainable program, with the provision for new staff to be inducted into the program. In addition, the school develops and retains visual documentation as an orientation resource.
3. *Introduce A/r/tography to pre-service teacher training.*
- This research highlighted the importance of teachers immersing themselves fully in the creative process as a means to apply that knowledge to the classroom. Not all schools employ a Visual Arts specialist, which means generalist teachers are expected to teach Visual Arts. By experiencing the artmaking process first-hand from the perspective of an artist-researcher-teacher, pre-service teachers learn how to teach, not what to teach. The recommendation is for teacher training courses to reframe their current Visual Arts units to implement a/r/tography. That is, to increase the number of core Visual Arts units to provide relevant Arts training and Arts and pedagogy theory so that pre-service teachers become cognisant of how the roles of artist and researcher and teacher work together to inform Visual Arts pedagogy. So much so that pre-service teachers may begin to consider Visual Arts education as an authentic artmaking process for primary students and are able to link practice, theory and pedagogy, rather than taking a recipe book approach to lesson planning.
  - According Lummis et al. (2014), compared to the 1980s, current Visual Arts training for primary teacher education is significantly diluted. In addition, criticisms regarding the 2010 draft document of the Visual Arts Curriculum (D. Davis, 2008) suggest there is insufficient pre-service training for generalist teachers, which in turn impacts student learning. The recommendation is for teacher education courses to increase the number of core Visual Arts units

offered and to offer at least four skills-based Visual Arts electives to improve self-efficacy.

4. *REmida WA could develop Professional Development packages to train in-service teachers to teach Visual Arts-led Sustainability programs.*
  - REmida WA could develop a series of EfS Professional Development programs that are easily accessed and affordable to schools, provide ongoing support and comply with ACARA.
  - To challenge the current collection and display of materials and to reinforce REmida's philosophy, the recommendation is that REmida WA re-examines their philosophical underpinnings to reinforce their original premise for collecting and distributing industrial discarded materials.

## Coda

In this research, I made no provision for a long-term follow-up to determine how effective my Visual Arts program was in facilitating sustainable awareness, attitudes and/or behaviours. Nevertheless, I have two anecdotes that suggest the program did make some difference to those who were at Fairview in 2009. The first incident was in 2012, three years after the research was conducted at Fairview. At a function, I met some Fairview teachers who were not involved in the Visual Arts program. One recalled, at a staff meeting she attended, the discussion centred on incorporating Sustainability throughout the school. I was told that the classroom teacher had told the Fairview staff that the program I had taught her students had been worthwhile. The second teacher, who I had no contact with when I was at Fairview, had remembered what was happening in the Year 7 class. In 2009, she was teaching Year 2 and had since moved to teaching Year 6 when she asked me about the program. She was considering whether teaching Sustainability through the Arts could be an option for her.

The second incident occurred in May 2014, at another function. I was speaking to the father of one of the Fairview student participants. He asked me how I was progressing with my PhD and I inquired about his son, who was at that time in Year 12. During the conversation, the father told me about a recent walk he and his son had taken through the neighbourhood. On that walk, the father told me, his son gave him a local history 'lesson' about the neighbourhood. When the father asked him how he knew so much local history, the son told his father that he had learned it on the day the local history librarian took his Year 7 class on a neighbourhood walk.

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## Appendix A

### The Impact of Climate Change on the Earth

Stern has identified some possible scenarios that may occur with the increase of the Earth's average temperature.

Temp rise °C	Water	Food	Health	Land	Environment	Abrupt Large-scale Impacts
1°C	Small glaciers in the Andes disappear completely, threatening water supplies for 50 million people	Modest increases in cereal in temperate regions	At least 300 000 people each year die from climate-related diseases (predominately diarrhoea , malaria and malnutrition)  Reduction in winter mortality in higher latitudes (Northern Europe, USA)	Permafrost thawing damages buildings and roads in parts of Canada and Russia	At least 10% of land species facing extinction (according to one estimate)  80% bleaching of coral reefs, including Great Barrier Reef	Atlantic Thermohaline Circulation starts to weaken
2°C	Potentially 20–30% decreases in water availability in some vulnerable regions e.g. Southern Africa and Mediterranean	Sharp declines in crop yield in tropical regions (5–10% in Africa)	40–60 million more people exposed to malaria in Africa	Up to 10 million more people affected by coastal flooding each year	15–40% of species facing extinction (according to one estimate)  High risk of extinction of Arctic species including polar bear and caribou	Potential for Greenland ice sheet to begin melting irreversibly, accelerating sea level rise and committing world to an eventual 7m sea level rise
3°C	In Southern Europe, serious droughts occur once every 10 years  1–4 billion people suffer water shortages, while 1–5 billion gain water which may increase flood risk	150–550 additional millions at risk of hunger (if carbon fertilisation weak)  Agricultural yields in higher latitudes likely to peak	1–3 million more people die from malnutrition (if carbon fertilisation weak)	1–120 million more people affected by coastal flooding each year	20–50% of species facing extinction (according to one estimate), including 25–60% mammals, 30–40% birds and 15–75% butterflies in South Africa  Collapse of Amazon rainforest (according to some models)	Rising risk of abrupt changes to atmospheric circulations, e.g. the monsoon  Rising risk of collapse of West Atlantic Ice Sheet
4°C	Potentially 30–50% decrease in water availability in Southern Africa and Mediterranean	Agricultural yields decline by 15–35% in Africa, and entire regions out of production (e.g. parts of Australia)	Up to 80 million more people exposed to malaria in Africa	7–300 million more people affected by coastal flooding each year	Loss of around half of Arctic tundra Around half of all the world’s nature reserves cannot fulfil objectives	Rising risk of collapse of Atlantic Thermohaline Circulation
5°C	Possible disappearance of large glaciers in Himalayas, affecting one-quarter of China’s population and hundreds of millions in India	Continued increase in ocean acidity seriously disrupting marine ecosystems and possibly fish stocks		Sea level rise threatens small islands, low lying coastal areas (Florida) and major world cities such as New York, London and Tokyo		
More than 5°C	The latest science suggests that the Earth’s average temperature will rise by even more than 5 or 6 °C. if emissions continue to grow and positive feedbacks amplify the warming effect of greenhouse gases (e.g. release of carbon dioxide from soils of methane from permafrost). This level of global temperature rise would be equivalent to the amount of warming that occurred between the last age and today – and is likely to lead to major disruption and large scale movement of population. Such “socially contingent” effects could be catastrophic, but are currently very hard to capture with current models as temperature would be so far outside human experience.					
Note: This table shows illustrative impacts at different degrees of warming. Some of the uncertainty is captured in the ranges shown, but there will be additional uncertainties about the exact size of impacts . . . Temperatures represent increases relative to pre-industrial levels. At each temperature, the impacts are expressed for a 1°C band around the central temperature, e.g. 1°C represents the range 0.5 – 1.5°C etc. Numbers of people affected at different temperatures assume population and GDP scenarios for the 2080s from the Intergovernmental Panel on climate Change (IPCC). Figures generally assume adaptation at the level of an individual or firm, but not economy-wide adaptations due to policy intervention.						

Source: *The Economics of Climate Change: The Stern Review*, by N. H. Stern, 2007, p. 57. (Exception to copyright. Section: ss40, 103C. Exception: Research or study.)

## Appendix B

### Environmental Archetypes

O’Riordan identified a number of environmental archetypes adhering to different environmental viewpoints. The red text highlights REmida’s viewpoint at present.

<p style="text-align: center;"><u>Environmentalism</u></p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p><u>Ecocentrism</u></p> <p>↓</p> </div> <div style="text-align: center;"> <p>← →</p> </div> <div style="text-align: center;"> <p><u>Technocentrism</u></p> <p>↓</p> </div> </div>			
Deep ecologists Self-reliance	Soft technologists	Environmental managers	Cornucopians
Intrinsic importance of nature for the humanity of [humankind]	(1) <b>Emphasis on smallness of scale and hence community identity in settlement, work and leisure</b>	(1) Belief that economic growth and resource exploitation can continue assuming:	Belief that [humankind] can always find a way out of any difficulties either political, scientific or technological
Ecological (and other natural) laws dictate human morality	(2) <b>Integration of concepts of work and leisure through a process of personal and communal improvement</b>	(a) suitable economic adjustments to taxes, fees, etc. (b) improvements in the legal rights to a minimum level of environmental quality	Acceptance that pro-growth goals define the rationality of project appraisal and policy
Biorights – the right of endangered species or unique landscapes to remain unmolested	(3) <b>Importance of participation in community affairs, and of guarantees of the rights of minority interests. Participation seen both as a continuing education and political</b>	(c) compensation arrangements satisfactory to those who experience adverse environmental and/or social effects	<b>Optimism about the ability of [humankind] to improve the lot of the world’s people</b>
4) Lack of faith in modern large-scale technology and its associated demands on elitist expertise, central state authority and inherently anti-democratic institutions	(2) <b>Acceptance of new project appraisal techniques and decision review arrangements to allow for wider discussion or genuine search for consensus among representative groups of interested parties</b>		Faith that scientific and technological expertise provides for the basic foundation for advice for matters pertaining to economic growth, public health and safety
(5) Implication that materialism for its own sake is wrong and that economic growth can be geared to providing for the basic needs of those below subsistence levels			Suspicion of attempts to widen basis for participation and lengthy discussion in project appraisal and policy review Belief that all impediments can be overcome given will, ingenuity and sufficient resources arising out of growth

Adapted from *Environmentalism*, by T. O’Riordan (1976). Cited in *Ecology, Community and Lifestyle*, by A. Naess (1990), p. 16. (Exception to copyright. Section: ss40, 103C. Exception: Research or study.)

## Appendix C

### Year 7 Visual Arts Program

WEEK	DATE	VALUES AND ARTS OUTCOMES	ACTIVITIES
1	30.7.09	<p><b>VALUES</b></p> <p><b>ENVIRONMENTAL RESPONSIBILITY</b></p> <p>The commitment to developing an appreciative awareness of the interdependence of all elements of the environment, including humans and human systems, and encouraging a respect and concern for Australia's natural and cultural heritage and for forms of resource use that are regenerative and sustainable.</p> <p><b>5.2 Conservation of the environment:</b> The management of the environment should take into account the need to preserve its diversity and balance for the future. Critically review contemporary artistic and photographic portraits of damage to the environment.</p>	<p><b>WORKSTATIONS</b></p> <p>Students rotate through activities aimed at: exposing students to different materials, exploring their properties, developing visual literacy skills and generating ideas.</p> <p>15 minutes per station</p> <ol style="list-style-type: none"> <li>1. Interview – (data collection for research)</li> <li>2. Overhead Projector – transparency and opacity</li> <li>3. Creativity test – generating ideas</li> <li>4. Clay dragon – texture</li> <li>5. Eye clops – magnification</li> <li>6. WordArt – visual literacy</li> <li>7. Joining – determining appropriate techniques for joining materials</li> </ol>
2	6.8.09	<p><b>5.3 Sustainable development:</b> There is a need to continue to develop natural resources to sustain human life. This should be done in a way consistent with long-term ecological sustainability and rehabilitation practices. Study how recycled materials have been used in contemporary art including installation art and sculpture. Study contemporary art works exploring environmental themes including expressing concern for the environment and its sustainability. Make artworks that express concern for the environment and its sustainability</p> <p>Adapted from <i>Teaching Values Across the Curriculum: A Resource for Primary Teachers</i>, by S. Godden (2004), pp. 4, 267, 275.</p>	<p><b>EXCURSION AGWA</b></p> <p><b><i>White Boat</i></b> by Akio Hamatani (1987)</p> <p>Objectives:</p> <p>Students recognise what an installation is</p> <p>Students appreciate the artist's intention in using certain materials in a particular way</p> <p>Students are encouraged to consider how they would manipulate the following if producing an installation artwork: site, lighting, display, materials, audience</p> <p>Arts Analysis – Marsh's Approach on <i>White Boat</i> by Akio Hamatani (1987).</p> <p>Visual exploration – Installation Art – tour of gallery</p>

WEEK	DATE	VALUES AND ARTS OUTCOMES	ACTIVITIES
		<p><b>ARTS OUTCOMES</b></p> <p><b>ARTSIDEAS</b> – Students generate arts works that communicate ideas.</p> <p><b>A13</b> Students explore concepts and use ideas, experiences and observations to make installation artworks with in the structure of a given framework, a limited range of materials and a clear sense of purpose.</p> <p><b>Exploring:</b> Students explore and experiment within structured activities to visually express their understanding of current environmental issues. They experiment purposefully with a variety of industrial discards.</p> <p><b>Developing:</b> Students work in teams to plan, refine and produce an installation artwork. They make selections from a limited range of choices and use problem – solving processes.</p>	<p><b>REmida WA</b></p> <p>Purpose:</p> <p>Students work in new groups (for session) to bring different experiences and understandings back to group</p> <p>Give students the opportunity to explore the theme ‘Humanity’s Impact on the Environment’ prior to commencing the making stage in Week 6</p> <p>Students to work within artist brief limits – to work with a preselected material, technique or concept:</p> <ul style="list-style-type: none"> <li>• Cities - concept</li> <li>• Multiples - materials</li> <li>• Overhead Projector – materials</li> <li>• E-waste – materials</li> <li>• Wrapping – technique</li> </ul>
3	13.8.09	<p><b>Presenting:</b> Students work collaboratively to Present their artworks in a class exhibition. They are guided to use specific skills and knowledge that will make presentations work smoothly and look authentic.</p>	<p><b>EXCURSION</b></p> <p>Local area walking tour conducted by the local history librarian and a PowerPoint presentation of local history</p>
4	20.8.09	<p>Adapted from <i>Curriculum Framework Progress maps – The Arts</i>, by Curriculum Council (2005), pp.14, 21, 23.</p>	<p><b>PLANNING AND SCAFFOLDING SESSION</b></p> <p>Students begin to decide on a theme for their artwork.</p> <p>Supporting presentations:</p> <p><b>ENVIRONMENT</b></p> <p><i>The Story of Stuff</i> (Fox L., The story of stuff, 2009)</p> <p><i>Bottled Water Disaster</i> (Janine @ Wai Not Go Green, 2009)</p> <p><b>ART</b></p> <p>Artists in focus – David Mach and Andy Goldsworthy</p> <p>These artists work with different materials but share similar philosophies when working with everyday materials. They invite viewers to look at materials in an alternative light through their sculptural transformations.</p> <ul style="list-style-type: none"> <li>• <i>Matchstick art meets its destiny</i> (NTDTV, 2008)</li> <li>• <i>Rivers and Tides</i> (Donop, 2004)</li> </ul> <p>Images of Andy Goldsworthy inspired student artworks –Years 1 and 5, Forrestloop PS</p>

Extra session	28.8.09		Year 7 Sustainability Day organised by the local Town Council
5	3.9.09		WORKSTATIONS – repeated from Week 1
6	10.9.09		1 <sup>st</sup> MAKING SESSION  EXHIBITION BRIEF: To produce an installation artwork that demonstrates a message of environmental awareness with the creative reuse of materials. <div><div>1.</div><div>Work in groups of 3</div></div> <div><div>2.</div><div>Produce and installation artwork where at least 75% of the materials used are not new</div></div> <div><div>3.</div><div>The use of glue, sticky tape or staples is not be permitted for joining materials</div></div> <div><div>4.</div><div>Produce a catalogue, including an artists’ statement from each group and a photograph of work in progress</div></div> <div><div>5.</div><div>As a class, plan and curate an exhibition</div></div>
7	17.9.09		2 <sup>nd</sup> MAKING SESSION
8	24.9.09		3 <sup>rd</sup> MAKING SESSION
			Program interrupted due to School Holidays and Year 7 Camp
9	22.10.09		4 <sup>th</sup> MAKING SESSION
10	29.10.09		CLASSEXHIBITION
10	30.10.09		FINAL INTERVIEW

## **Appendix D**

### **Student Workbook**

In Week 6, the classroom teacher suggested that I should provide the students with a workbook to complete during the course of the project. The students were presented with the workbook in Week 7. The workbook included:

1. Title Page
2. Task
3. Strategic Plan
4. Visual Analysis
5. REmida Excursion Activity
6. Artmap Compass
7. Planning Guidelines
8. Vocabulary Worksheet
9. Artist Statement Worksheet
10. Self-Evaluation Worksheet
11. Project Checklist

NB – The format of the Student Workbook has been modified for the appendix.

yr 7

# art exhibition

semester 2

2009

**big picture:** environment

**theme:** humanity's impact on  
the environment

**subject matter:**

---

**title:**

---

name:

group:

pseudonym:

## TASK: YEAR 7 EXHIBITION

**Exhibition Brief:** To produce an installation artwork that demonstrates a message of environmental awareness with the creative reuse of materials.

### Stipulations:

1. Work in groups of 3 (the classroom teacher will decide the groups).
2. Produce an installation artwork where at least 75% of the materials you use are **NOT** new.
3. You will not be permitted to use glue, sticky tape or staples to join any of your materials (be creative and find an alternative).
4. Produce a catalogue, which includes an artists' statement from each group and a photograph of your work in progress.
5. As a class plan an exhibition site and help curate your exhibition.

### Guidelines:

Each week you will be given examples and opportunities to learn and think like an artist. Be prepared to take risks and think outside the box.

### Procedure:

#### Clarify the task

- define what installation art is
- select a theme for your installation
- decide on the form your installation will take

#### Locate

- and begin collecting suitable materials for your installation
- at least 3 (1 each) installation artists to research and report on, a guideline will be provided
- as a class locate a suitable exhibition space e.g. classroom, library, outdoors etc. while taking into consideration everyone's installation

#### Organise

- select a suitable way of using the materials you have chosen
- the exhibition catalogue
- exhibition space
- 'opening night'

#### Share

- your ideas by writing a group statement explaining your work to the viewer
- producing a catalogue
- your artworks in a class exhibition

#### Evaluate

- your project and how well you did through self-assessment, a guideline will be provided
- Ask yourselves
  - Did we choose suitable materials?
  - Did we fulfil our intention?
  - Would a viewer interpret our piece the way it was intended?

### Documentation:

You will be given a visual diary to record any notes, ideas and sketches.  
Collect articles and images relating to the environment such as climate change, images of other artists' work, take your own photos etc.

GROUP:

## STRATEGIC PLAN FOR YEAR 7 EXHIBITION

STRATEGY	ACTIONS	TIMING *			RESPONSIBILITY	RESOURCES	MEASURES OF ACHIEVEMENT
		now	soon	later			
Research current global environmental issues and concerns.	1.1 Locate relevant articles in newspapers or magazines 1.2 Talk to friends and family for their opinions 1.3 Locate relevant sites on the internet						
As a group identify the major environmental issue or concern you have for the theme of your artwork.	1.1 Use a strategy to identify your concerns e.g. brainstorm, mind map, list, KWL chart etc. 1.2 List your ideas in order of importance 1.3 Decide on your theme						

**\*TIMING:** **now** = during this lesson; **soon** = before the next lesson; **later** = within the next 2–4 weeks

# Visual Analysis: Marsh's Approach

Title

Date

Artist

Medium

First Impression

Style

Subject Matter

Form/Composition

Technique

Mood or Feeling

Influences

Source: Visual Analysis: Marsh's Approach [Handout], by The Art Gallery of Western Australia, n.d.  
(Exception to copyright. *Section:* ss40,103C. *Exception:* Research or study.)

# REmida

## Making Installation Artworks

Today we will be working in groups of three to make a small installation artwork. This session will help you experiment with materials and explore ideas that you may like to use for your exhibition.

The groups will be mixed up so that each of you will have different experiences you can share.

Make this session worthwhile. It will be a great chance to practice working like an artist.

### THEME

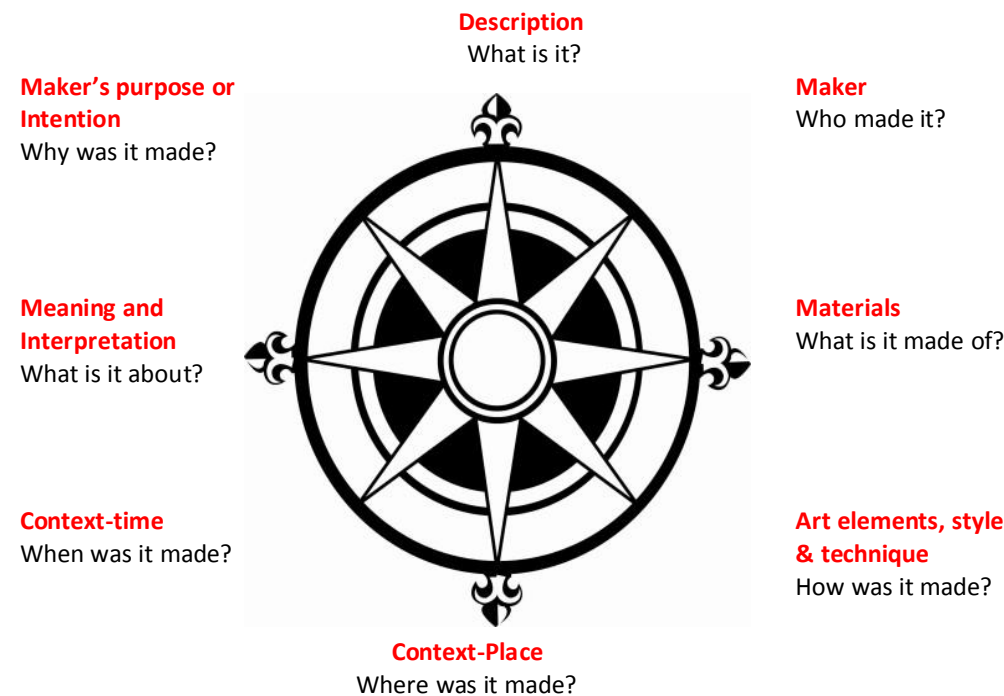
## Humanity's Impact on the Environment

You will be using REmida materials to develop your ideas and produce an installation artwork.

Today's process will help you think about your exhibition piece. Use it as an opportunity to explore the properties of materials as well as your ideas. Ask yourself the following questions:

- How do the materials or the concept **“humanity's impact on the environment”** relate to your given task?
- What **images** come to mind? Discuss this with your group.
- Consider the space you are working in:
  - How can you use the **space** for your installation?
  - Will the space be part of your installation?
  - Your installation will be viewed by an audience. How will that affect the way you place your work?
- If you haven't been given a material to work with, then choose **materials** which best represent your ideas. Ensure you have enough materials for your work.
- **PLAY** so that you can understand and explore the potential of the materials.
- **Discuss** your ideas on how you will use your materials.
- **MAKE** your installation.
- Art is a way of **communicating** your ideas visually. When you have finished, you will explain to an audience what you are trying to say with your installation artwork. Consider your ideas and whether your audience can understand what you are trying to say through your choice of metaphors and materials.

## Artmap Compass\* Focus Questions



### Task

You are required to research a contemporary installation artist and discuss one of their works.

<b>Framework:</b>	ArtMap Compass
<b>Word length:</b>	1 paragraph - parts 1–6 2–3 paragraphs parts 7–8.
<b>Include:</b>	Good quality colour pictures – artwork and artist References
<b>Presentation:</b>	Typed 12 font A4 paper Pictures – minimum size 8cm x 10cm

Answer the relevant questions and include any other interesting information specific to the artwork. Here are some guide questions to help you with your research.

#### 1. Description

- Title
- Dimensions (size)
- Is it an original work of art or a reproduction?
- 2D or 3D

#### 2. Maker

- Was it made by an individual or a group?
- Include details of the artist e.g. time and place of birth.
- Did other artists inspire the artist?

#### 3. Materials

- What materials were used in the artwork?
- Are those materials available today?
- What changes occurred to the materials when they were used?

#### 4. Art elements, styles & technique

- What is the genre of the artwork?
- What are the main elements of design included in the artwork?
- How are the principles of design used in this artwork?
- What tools did the artist use?
- Did the artist make any preliminary plans, sketches or models?

#### 5. Context-Place

- Does the artwork represent a real place or one the artist made up?
- Where is the artwork now?

#### 6. Context-time

- What clues tell you when the artwork was made?
- Was the artwork meant to last a long time?

#### 7. Maker's purpose or intention

- Was the work commissioned? If so, who by and for what purpose?
- Did the artist try to show how something looks, show how s/he felt about something, or make the viewer feel something?

#### 8. Meaning and interpretation

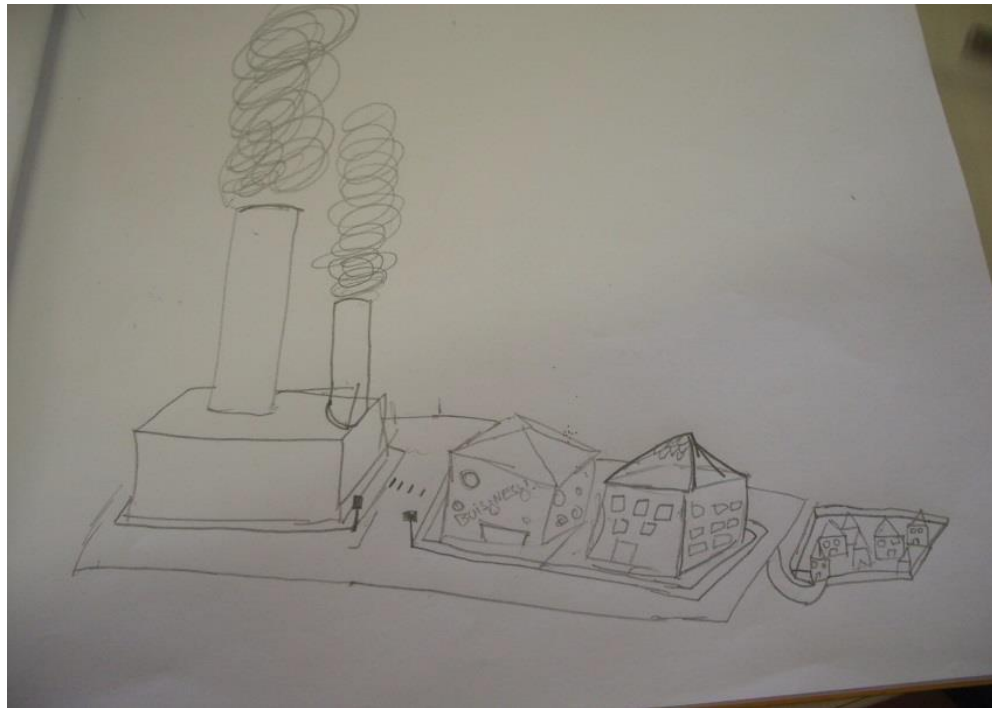
- What is the artwork about?
- Does it tell a story?
- Has the artist used symbols in the work?
- What would you feel if you were the person or in this place or situation shown in the artwork?

\* Adapted from: Artmaps: *Art explorations for children*, by H. Dover (1986).  
(Exception to copyright. Section: ss40, 103. Exception: Research or study.)

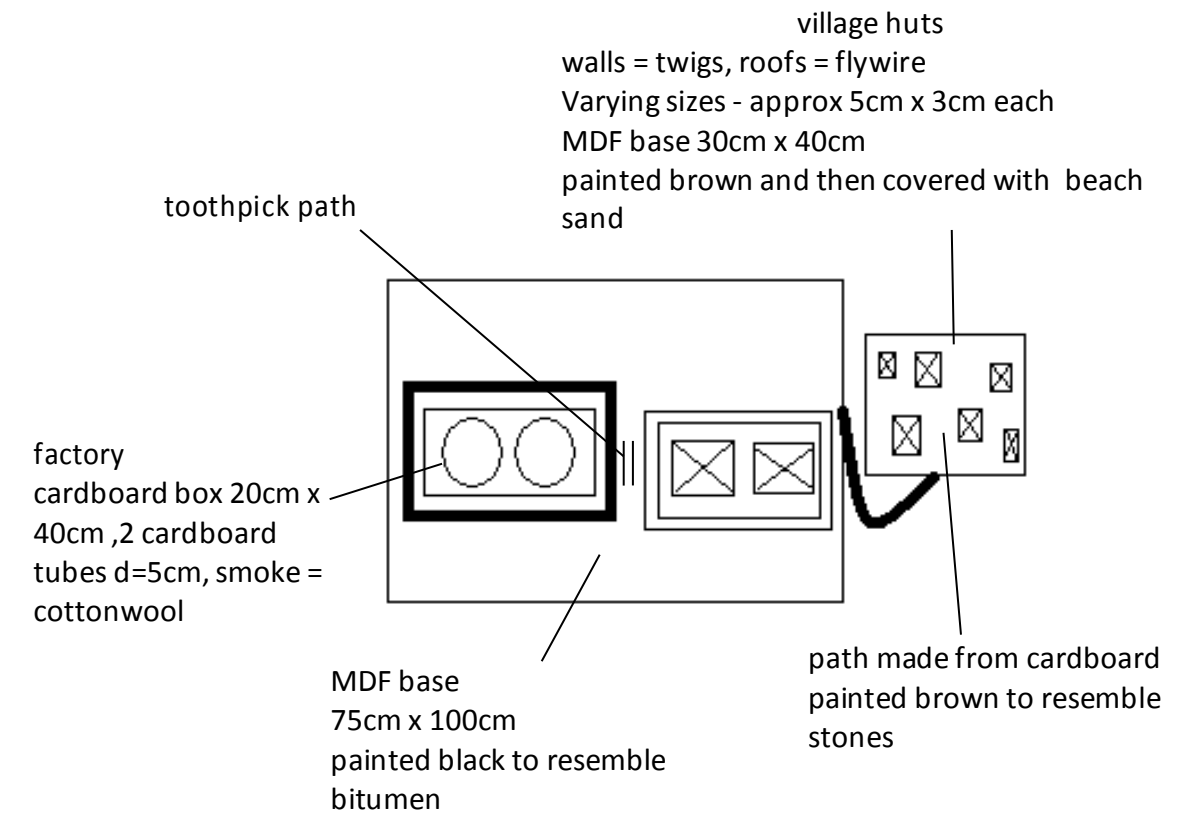
# Planning Your Installation

Planning is a very important part of the design process. It allows your group to explore a number of potential possibilities. Each plan you will be asked to produce will need to be at least A5 in size. Think of these plans as working drawings. That means that your plans can be followed by anyone, so you will have to include as much detail as possible.

Here is an example of 2 plans for the same model.



initial sketch



plan – bird's eye view

## Minimum requirements:

- an initial sketch
- 1 bird's eye view
- 1 front view
- 1 side view

All plans should be at least A5 in size

Plans must be detailed and your bird's eye view must be drawn to scale (use graph paper).

Label all parts and include dimensions on your bird's eye view.

Colour your front view plan using the same colours you are planning to use for your installation work.

List all materials and equipment required.

**You may work in groups but please make sure each person has copy of all plans.**

**Glue all plans into Visual Diary.**

# Vocabulary

Find the definitions for the following:

carbon

footprint

climate

change

environment

global

warming

greenhouse

gases

humanity

installation

art nature

metaphor

site-specific

symbol

sustainability

# Artist Statement

An artist statement is used to explain an artwork to the viewer.

Artist statements can be short (50–100 words) or longer (500–1000 words).

An artist statement is written in the first person i.e. use “I”, “me”, “my”.

## Task

- Write a short artist statement (50–100 words) about your artwork.
- Include a photo of your artwork. It doesn't have to be the finished piece.
- Use your artist statement to help you produce a group statement (50–100 words) for your exhibition catalogue.
- **Submit your group statement by Thursday, September 24<sup>th</sup>.**

## Include:

- Title
- The message you want your artwork to communicate to the viewer
- Explain your choice of
  - art style
  - subject
  - materials
  - symbols and metaphors

## Hint:

- Think about how you would describe your work to someone who doesn't know you or anything about your subject matter.
- Read artist statements from practicing artists. You can find examples on the internet, just type in “artist statement”.
- Remember, ‘a picture says 1000 words’ but try to explain yours with only 100.


# Self-Evaluation

Once your exhibition is over answer the following questions, be sure to include a photo of your finished artwork.

Your answers should be at least 1–2 sentences in length per question.

## ARTWORK

- What are the main ideas in your work?
- How did you develop the ideas for your artwork?
- Tell me about the materials you used. How and why did you use them?
- How have you arranged space, form and colour to communicate ideas?
- Are you pleased with your artwork? Why?
- What problems did you face?
- What were your other options?
- If you were making this artwork again what would you change?

## ENVIRONMENT

- Tell me 3 new things you have discovered about 'humanity's impact on the environment' while working on this project.
- What are 3 things YOU can do to reduce humanity's impact on the environment? How will you achieve this?

# PROJECT CHECKLIST

Strategic Plan Worksheet		
Artmap Compass <ul style="list-style-type: none"> <li>research artist and artwork</li> <li>include photo and artwork</li> </ul>		
Plans	all plans – minimum size A5	
	materials and equipment list	
	initial sketch	
	bird's eye view <ul style="list-style-type: none"> <li>labelled</li> <li>drawn to scale</li> <li>dimensions included</li> </ul>	
	front view - coloured	
	side view	
Definitions – vocabulary worksheet		
Artist statement (individual)		
Catalogue entry <ul style="list-style-type: none"> <li>group statement</li> <li>photo</li> </ul>		
Locate exhibition space		
Produce installation artwork		
Self-Evaluation <ul style="list-style-type: none"> <li>written response</li> <li>photo</li> </ul>		

## **Appendix E**

### **Interview Guides**

#### **Interview Guide for Student Interviews 1 and 2**

1. What does the term environment mean to you?
2. Is the environment important to you? Why?
3. Do you have any impact on the environment? Explain
4. How would you show your understanding of environment visually?
5. Is there anything else you would like to tell me that you think is relevant to the discussion?

#### **Interview Guide for Student Interview 3**

1. Could you remind me what you did in this project?
2. What do you think you now know about the environment?
3. Do you have any impact on the environment?
4. What have you learned by participating in the Visual Arts project?
5. What have you learned about reusing materials in this Visual Arts project?
6. What challenges did you face during the project?
7. Tell me about your art piece and what would you like a viewer to understand from it.
8. After participating in this project, do you think you have an increased awareness of environmental factors that affect our world? Explain.
9. If so, have you changed your behaviour? What steps have you actively taken to influence the environment
10. Tell me about the exhibition.

#### **Interview Guide for classroom and S&E teachers**

- What changes, if any, have you noticed in the children's awareness in environmental issues since the program?
- Can you give me any examples?
- In what context did they occur?
- Is there anything else you would like to tell me that you think is relevant to this interview?

#### **Interview Guide for art teacher**

1. What have you taught the Year 7 class in art this year?
2. Does the Year 7 group have any particular strengths or weaknesses in art that you have had to accommodate?
3. Can you give me any examples?
4. Tell me about your teaching style and your main areas of focus when teaching Art.
5. Is there anything else you would like to tell me that you think is relevant to this interview?

## **Appendix F**

### **Information Letters and Letters of Consent**

During Phase One, 2009, and early in 2012, I was a Masters by Research student at Edith Cowan University. In late 2012, I upgraded to a PhD. As such, in some of the information letters I have identified myself as an M.Ed. research student.

### **Appendix F includes:**

#### **Phase One**

1. Student Information Sheet and Consent Form
2. Parent Information Letter and Consent Form
3. Staff Information Letter and Consent Form

#### **Phase Two**

4. Model – Parent/participant Information Letter, Consent Form, Photographic Release From, Deed of Release by Performer Form
5. Critical Conversations – Participant Information Letter and Consent Form

## Student Information Sheet



Dear Student

My name is Sue Girak and I am a research student from Edith Cowan University. I would like to invite you to take part in a research project that I am doing. It is to find out whether using recyclable materials in art will make you think more about saving the environment. Your involvement in the project will help me understand whether or not art helps children better understand issues such as recycling and climate change.

I am asking for your help with the project because I have asked [your principal] and [classroom teacher] if I can do my research in your class. I will only be asking students from your class to be involved in this project.

### **What would I be asked to do?**

If you agree to take part, you would be asked to participate in a 10 week art programme based on the theme 'Environment'. I would like you to work in small groups to produce an artwork that will be part of a class exhibition at the end of the programme. While you are making your artworks I would like to make notes on how you make your art work and interview you about how you make your artwork and what you think about the environmental issues such as recycling and climate change. You will also be going on two excursions. One will be a visit to the Art Gallery of WA and the REMida Creative Reuse Centre and the other will be a walk through our local area.

Your opinions and ideas are very important to me and I would like to take photos of you making art and record your thoughts during class. These photos and interviews may be seen by your parents and friends during the exhibition but once that is over I will be the only person to have access to that information. I may put photos of your artwork in my report but no one will be able to see your face in any photos or know what you have said. Any hard copies of photographs, reflections or artworks that will be exhibited during the class exhibition will belong to you and you will be able to keep or dispose of them if you wish.

Remember anything you say will be anonymous and if for any reason you don't feel comfortable about participating in any part of the project you can tell your teacher and I will not interview or take any photos of you.

### **Do I have to take part?**

No. You are completely free to say yes or no. I will respect your decision whichever choice you make.

### **What if I wanted to change my mind?**

If you say no, but then change your mind and want to take part, please let your teacher know. You can stop at any time, even if you have said yes. Just let your teacher or mum (or dad, or the person who looks after you) know, and they will tell me. However, any information I collect from you can't be given back because it will be anonymous and so I won't be able to tell what you have said.

### **What if I say something during the project that I don't want anyone else to know?**

I may have to tell someone, like your teacher, if you tell me that you have been hurt by someone lately. But for all other things you tell me, I won't repeat them to anyone else.

### **What will you do with the information I give you?**

I collect what each student has given to the project, and then I will write it up in a thesis, which is like a really long essay, for my studies at uni. When I do this, I won't write or tell anyone your name, or the names of any other students or your school.

### **How do I get involved?**

You have already talked with your mum, or dad, or the person who looks after you, about what it means to take part in the project. Now you get to say for yourself. If you do want to be a part of the project, please read the next page and write your name in the space provided.

This letter is for you to keep.

Sue Girak  
Research student (ECU)  
sgirak@student.ecu.edu.au

## **Student Consent Form**

- I know that I don't have to be involved in this project, but I would like to.
- I know that I will be giving my opinions about the environment and talking about my art and possibly having my photo taken of me making art as part of the project.
- I know that I can stop when I want to, whenever I want to, but whatever I have said before that time can't be given back.
- I understand that I need to write my name in the space below before I can be a part of the project.

Your name:

Today's Date:

## Information Letter for Parents – Child Participation



### **Research Project: Can using Remida Principles within a Visual Arts Context Increase Awareness of Environmental Sustainability?**

Dear Parent/Carer

My name is Sue Girak and I am writing to you as a student researcher at Edith Cowan University. I am conducting research that aims to raise children's awareness of environmental sustainability using Remida materials in a visual arts programme. I will be conducting the research myself as part of my Masters in Education degree at Edith Cowan University. The benefits of the research will show how teachers can find (free) alternative materials from REMida and use them creatively in a visual arts programme. This will help schools save money and reduce waste. It will also show how the visual arts can be used to promote the value of Environmental Responsibility as outlined in the *Curriculum Framework*.

I would like to invite your child to take part in the project. This is because I will be conducting a research project in your child's class. [Your] Primary School is the only school in Western Australia that has been approached to participate.

#### **What does participation in the research project involve?**

As part of my research I am planning to teach a visual arts programme (10 weeks long) to the Year 7 students at your school, beginning in Term 3, 2009. The theme will be 'Environment' and the students will use industrial off cuts and other recyclable materials from Remida WA, a creative reuse centre. The purposes of the research are: i) to find out whether using REMida materials during the project will make children more aware of the way waste and pollution are contributing to climate change and ii) whether the students will gain greater environmental awareness as a result of participating in the project. The industrial off cuts used for the project will be safe, clean, unused and appropriate for primary school to handle.

Experiential learning is also very important, so the students will go on 2 excursions, week 2 – the Art Gallery of WA and REMida WA and week 3 – a class walk around the local community.

#### **Does my child have to take part?**

No. Participation in this research project is entirely voluntary. This decision should always be made completely freely. All decisions made will be respected by members of the research team without question. Since the project will take part during normal class time, another activity will be arranged for children not taking part, in conjunction with their teacher. Your child has also been provided with a letter from us that we encourage you to discuss with him/her.

#### **What if either of us was to change our mind?**

If a decision is made to participate, it will need to be made by 30th July, 2009 for your child to be included in the project. Once a decision is made to participate, either you or your child can change your mind at any time. Participation in this research project is entirely voluntary. If your child decides to participate and then later changes his/her mind, s/he is free to withdraw from the project at any stage, without explanation or penalty. There will be no consequences relating to any decision by you and your child regarding participation, other than those already described in this letter. These decisions will not affect your family's relationship with your child's teacher or your child's school. However, because of the nature of the research project it may not be possible to withdraw data that has already been collected.

#### **What will happen to the information collected, and is privacy and confidentiality assured?**

Photographs of your child's artworks and/or your child participating in the programme may be included in my thesis but your child's face will not be shown in any image. Photographs will either be taken from behind or of children's hands making artworks. Information that identifies anyone will be removed from the data collected. All data will be digitised; photographs and voice recordings will be stored securely on a computer that can only be accessed by password. The password is only available to the researcher. The data will be kept for a minimum of 5 years, after which it will be destroyed. This will be achieved by deleting the data files from the computer. Any hard copies of photographs, reflections or artworks that

will be exhibited during the class exhibition will belong to the participants and they will be able to keep or dispose of them as they wish.

Participant privacy, and the confidentiality of information disclosed by participants, is assured at all times, except in circumstances that require reporting under the Department of Education and Training *Child Protection* policy, or where the researcher is legally required to disclose that information. The data will be used only for this project, and will not be used in any extended or future research without first obtaining explicit written consent from you and your child.

**Is the research approved?**

The research has been approved by Edith Cowan University and has met the policy requirements of the Department of Education and Training.

**How do I know that the people involved in this research have all the appropriate documentation to be working with children?**

All persons undertaking research activities on Department sites must complete a Declaration of Confidentiality. Also, under the *Working with Children (Criminal Record Checking) Act 2004*, people undertaking research that involves contact with children must undergo a Working with Children Check. Evidence that these checks are current for the researcher has been provided to the Principal of your school.

**Who do I contact if I wish to discuss the project further?**

If you would like to discuss any aspect of this study please don't hesitate to contact me via email [sgirak@studetn.ecu.edu.au](mailto:sgirak@studetn.ecu.edu.au) or you may wish to contact my supervisor Dr Geoffrey Lummis (tel. 9370 6940, email: [g.lummis@ecu.edu.au](mailto:g.lummis@ecu.edu.au)). If you wish to speak with an independent person about how the project is being conducted or was conducted, please contact Kim Gifkins, Research Ethics Officer (tel. 6304 2170, email: [research.ethics@ecu.edu.au](mailto:research.ethics@ecu.edu.au)).

**How does my child become involved?**

Please ensure that you:

- discuss what it means to take part in the project with your child before you both make a decision;
- and
- take up my invitation to ask any questions you may have about the project.

Once all questions have been answered to your satisfaction, and you and your child are both willing for him/her to become involved, please complete the **Consent Form** on the following page. (Your child is also asked to complete the Consent Form attached to his/her letter.)

This project information letter is for you to keep. Yours sincerely,

Sue Girak  
Research student  
Edith Cowan University

## CONSENT FORM FOR PARENTS – CHILD PARTICIPATION

(Please return to your classroom teacher)

### Consent Form

- I have read this document, or have had this document explained to me in a language I understand. I understand the aims, procedures, and any identified risks of this project, as described within it.
- I have taken up the invitation to ask any questions I may have had and am satisfied with the answers I received.
- I understand that participation in the project is entirely voluntarily.
- I am willing for my child to become involved in the project, as described.
- I have discussed with my child what it means to participate in this project. He/she has explicitly indicated a willingness to take part, as indicated by his/her completion of the child consent form.
- I understand that both my child and I are free to withdraw that participation at any time without affecting the family's relationship with my child's teacher or my child's school. However, because of the nature of the research project it may not be possible to withdraw data that has already been collected.
- I give permission for the contribution my child makes to this research to be published in a Masters of Education thesis provided that my child or the school is not identified in any way.
- I understand that I can request a summary of findings after the research has been completed.

Name of Child (printed):

Name of Parent/Carer (printed):

Signature of Parent:

Date:

## Letter of Information to Staff

### **Research Project: Can using Remida Principles within a Visual Arts Context Increase Awareness of Environmental Sustainability?**

Dear

My name is Sue Girak and I am writing to you as a student researcher at Edith Cowan University. I am conducting research that aims to raise children's awareness of environmental sustainability using Remida materials in a visual arts programme. I will be conducting the research myself as part of my Masters in Education degree at Edith Cowan University. The benefits of the research will show how teachers can find (free) alternative materials from Remida and use them creatively in a visual arts programme. This will help schools save money and reduce waste. It will also show how the visual arts can be used to promote the value of Environmental Responsibility as outlined in the *Curriculum Framework*.

I would like to invite [your] Primary School to participate in the project because I am currently a visual arts teacher at another department school and work in the government system, so I would like to conduct my research in a government school. [Your] Primary School is the only school in Western Australia to be approached for their participation.

I seek access for all Year 7 students and their teachers. The Year 7 class will be invited to participate in a 10 week visual arts programme beginning in Term 3, 2009. The programme will run once a week for a two-hour session. The programme will be adapted from the Reggio Emilia approach in which the reflective process is very important aspect of learning. As a result I am asking permission to record aspects of the learning process throughout the project and to then exhibit artworks and the children's reflections of the work in a school exhibition to be held during Week 10 of the project. I would like to take photographs of the children's artworks, the children making artworks and talk to them about their opinions about environmental issues – this will be done during art classes. Photographs of the children's artworks and/or the children participating in the programme may be included in my thesis but the children's face will not be shown in any image. Photographs will either be taken from behind or of children's hands making artworks. Any hard copies of photographs, reflections or artworks that will be exhibited during the class exhibition will belong to the participants and they will be able to keep or dispose of them as they wish.

As a means of determining whether the children's participation in the programme has contributed to their awareness of environmental issues I will be conducting a series of focus groups in which the children will be asked to discuss their understanding of the environment. The focus groups will occur during Week 1 and Week 5. These questions will be made available before the programme begins.

Experiential learning is also very important, so the students will go on 2 excursions, week 2 – the Art Gallery of WA and Remida WA and week 3 – a class walk around the local community.

There are no foreseeable risks involved in participating in this research project. The theme will be 'Environment' and the students will use industrial off cuts and other recyclable materials from Remida WA, a creative reuse centre. The purposes of the research are i) to find out whether using Remida materials during the project will make children more aware of the way waste and pollution are contributing to climate change and ii) whether the students will gain greater environmental awareness as a result of participating in the project. The industrial off cuts used for the project will be safe, clean, unused and appropriate for primary school children to handle.

I will keep [your] Primary School's involvement in the administration of research procedures to a minimum. However, it will be necessary for the school to send home letters of information and consent forms for students and their parents and to collect signed consent forms. The classroom teacher will be present during the research and during excursions. Normal Department of Education and Training protocols will be followed throughout the research.

Participation in this research project is entirely voluntary. If any member of a participant group decides to participate and then later change their mind, they are free to withdraw from the project at any stage, without explanation or penalty. There will be no consequences relating to any decision by an individual or [your] Primary School regarding participation, other than those already described in this letter. Decisions made will not affect the relationship with the researcher or Edith Cowan University. However, because of the nature of the research project it may not be possible to withdraw data that has already been collected.

Information that identifies anyone will be removed from the data collected. All data will be digitised; photographs and voice recordings will be stored securely on a computer that can only be accessed by password. The password is only available to the researcher. The data will be kept for a minimum of 5 years, after which it will be destroyed. This will be achieved by deleting the data files from the computer.

The identity of the participants and the school will not be disclosed at any time, except in circumstances that require reporting under the Department of Education and Training *Child protection* policy, or where the researcher is legally required to disclose information. Participant privacy, and the confidentiality of information disclosed by participants, is assured at all other times.

The data will only be used for my Masters in Education Thesis, and will not be used in any extended or future research without first obtaining written consent from participants. Consistent with Department of Education and Training policy, a summary of the research findings will be made available to the participating site and the Department. You can expect this to be available July 2011.

The research has been approved by the Edith Cowan Ethics Committee, and has met the policy requirements of the Department of Education and Training as indicated in the attached letter.

The researcher has a Working with Children Check. The documents attached to this letter include a list of the research team who will be having contact with children through [your] Primary School, along with current evidence of their checks.

If you have any queries about the project please don't hesitate to contact me via email: [sgirak@student.ecu.edu.au](mailto:sgirak@student.ecu.edu.au) or you may wish to contact my supervisor Dr Geoffrey Lummis (tel. 9370 6940, email: [g.lummis@ecu.edu.au](mailto:g.lummis@ecu.edu.au)). If you wish to speak to an independent person about the conduct of the project, please contact Kim Gifkins, Research Ethics Officer (tel. 6304 2170, email: [research.ethics@ecu.edu.au](mailto:research.ethics@ecu.edu.au))

If you have had all questions about the project answered to your satisfaction, and are willing for [your] Primary School to participate, please complete the consent form on the following page.

This letter is for you to keep.

Yours sincerely,

Sue Girak  
Research student  
Edith Cowan University [sgirak@student.ecu.edu.au](mailto:sgirak@student.ecu.edu.au)

## Consent Form for Department of Education and Training Site Managers

### Consent Form

- I have read this document and understand the aims, procedures, and risks of this project, as described within it.
- For any questions I may have had, I have taken up the invitation to ask those questions, and I am satisfied with the answers I received.
- I am willing for this [your] Primary School to become involved in the research project, as described.
- I understand that participation in the project is entirely voluntarily.
- I understand that [your] Primary School is free to withdraw its participation at any time, without affecting the relationship with the research team or Edith Cowan University. However, because of the nature of the research project it may not be possible to withdraw data that has already been collected.
- I understand that this research may be published in a Masters of Education thesis provided that the participants or the school are not identified in any way.
- I understand that [your] Primary School will be provided with a copy of the findings from this research upon its completion.

Name (printed):

---

Signature:

---

Date:

---

### **INFORMATION LETTER TO PARTICIPANTS**

#### **Title of Project: Developing Environmental Sustainability Awareness through REMIDA Principles as an Artist-Teacher**

My name is Sue Girak and I am a student of a Master of Education by research degree at Edith Cowan University in Perth, Western Australia. You are invited to take part in this research project, which I am conducting as part of the requirements of my degree. The research project has ethics approval from the ECU Human Research Ethics Committee.

This project aims to raise awareness of environmental sustainability by substituting industrial discards for new materials as art resources for use by art students and artists. If you choose to take part in the project you will be asked to be photographed and/or filmed (with a digital recorder) wearing some of the outfits I have made during my research. I anticipate your commitment will not be more than 3 x 90 minute sessions. The photographic sessions will take place in two locations and I will be providing transport to them. They are the backyard of a private residence (researcher's home) and a public beach in the metropolitan area.

Some images of you may be identifiable and will be used as a part of a public exhibition and an artist's book as part of the research. You or your legal guardian will be asked to sign two forms, which will give me the rights to all the images from the sessions, including copyright.

I do not anticipate any risks associated with participating in this project.

Remember, you are completely free to take part in this research and I will not be asking you to do anything that will make you feel uncomfortable. However, if you change your mind and don't want participate in the project any longer please tell me because you are free to withdraw and there will be no penalty for doing so. You will have two weeks to tell me if you don't want me to use any images of you, otherwise I will be free to use them. Before exhibiting any images of you, I will show them to you and if there are any that you don't want exhibited I agree not to display them. If you would like to take part in the project, please read and sign the letter of consent and return it to me.

If you have any questions about the research project or require further information you may contact the following:

Student Researcher:	Sue Girak
Telephone number:	0409 685247
Email:	sgirak@our.ecu.edu.au
Supervisor:	Dr Geoffrey Lummis
Telephone:	9370 6847
Email:	g.lummis@ecu.edu.au

If you have any concerns or complaints and wish to contact an independent person about this research, you may contact:

Research Ethics Officer  
Edith Cowan University  
Telephone: 6304 2170  
Email: research.ethics@ecu.edu.au

Thank you for your time,

Yours sincerely,

Sue Girak

## **CONSENT FORM**

Title of Project: Developing Environmental Sustainability Awareness through REMIDA Principles as an Artist-Teacher

- I have been provided with a letter explaining the research project and I understand the letter.
- I have been given the opportunity to ask questions and all my questions have been answered satisfactorily.
- I am aware I that I can contact Dr Geoffrey Lummis or the Research Ethics Officer if I have any further queries, or if I have concerns or complaints. I have been given their contact details in the Information Letter.
- I understand that participating in this project will involve taking photographs/videos of me and my shadow while in the researcher's yard or at a public beach.
- I consent to having photographs/videos taken during this research.
- I understand I will have to also sign Photographic Release and Deed of Release by Performer forms.
- I understand that I may be identifiable in some photographs and that these photographs may be exhibited publically.
- I understand that I can withdraw from the research within 2 weeks of taking my photographs/videos without penalty.
- I understand I can use copies of photographs of me for my personal use after the research project has been completed.
- I freely agree to participate in this project.

SIGNATURE OF  
PARTICIPANT

DATE

NAME OF  
PARTICIPANT

POST  
CODE

ADDRESS

(If the participant is under the age of 18 years at the date of signing the consent of the legal guardian – i.e. a parent – is required.)

In my capacity as the Legal Guardian of the Participant, I hereby consent to the above terms of the deed of release on behalf of the Participant.

SIGNATURE OF  
PARTICIPANT

DATE

NAME OF  
PARTICIPANT

POST  
CODE

ADDRESS

# PHOTOGRAPH RELEASE FORM

(FOR USE BY ECU STUDENTS)



NAME OF THE PHOTOGRAPHED PERSON		("the Subject")
PERSON TAKING THE PHOTOGRAPHS		("the Student")
LOCATION		("the Location")
PURPOSE		("Purpose")

I, the Subject, hereby consent to and authorise Edith Cowan University ("ECU") and / or the Student and persons authorised through them to photograph me at the Location and to reproduce, publish and communicate the photographs in any medium for the Purpose.

I acknowledge that the negatives and / or any other storage device or medium in which the image is held and all rights in the photographs, including copyright, will remain the property of the Student.

I hereby absolutely and irrevocably release and forever discharge, and agree to save harmless ECU and / or the Student and all persons acting under their permission or authority from any claims, liability or injury that may occur arising from the use of the photographs which but for the execution of this Deed I may have had against ECU and / or the Student.

Claims includes all claims, actions, suits, causes of actions, debts, dues, costs, claims, liabilities, demands, damages, losses, costs and expenses of any description, decisions, awards, judgment and orders whether at law or in equity or arising under statute arising out, during or in connection with the Project.

SIGNATURE OF SUBJECT		DATE	
ADDRESS		POST CODE	

(If the participant is under the age of 18 years at the date of signing the consent of the legal guardian – i.e. a parent – is required.)

In my capacity as the Legal Guardian of the Participant, I hereby consent to the above terms of the deed of release on behalf of the Performer.

SIGNATURE OF GUARDIAN		DATE	
NAME OF GUARDIAN			
ADDRESS		POST CODE	

NOTE: This release form authorises the use of photographs only for the purposes specified. The use of the photographs in any other circumstances is prohibited unless authorised by the signing of a further release.

# Deed of Release by Performer

(FOR USE BY ECU STUDENTS)



NAME OF PERFORMER	
-------------------	--

PROJECT TITLE	(the Project)
---------------	---------------

ON	(Month) (Day) (Year)
----	----------------------

LOCATION	
----------	--

PERSON MAKING THE RECORDING	(the Student)
-----------------------------	---------------

I hereby consent to and authorise Edith Cowan University ("ECU") and / or the Student to use, reproduce, copy, exhibit, broadcast, screen and distribute (in full or in part) for any purpose whatsoever any photographs or videos or recordings in any other format whatsoever of my image and movements and/or recordings of my voice made in connection with the Project and/or written extraction (in full or in part) of such recordings, or computer files in which I may be included.

I hereby absolutely and irrevocably release and forever discharge, and agree to save harmless ECU and / or the Student and all persons acting under their permission or authority from any claims, liability or injury that may occur while performing or appearing in such video, audio, photographic Or computer-based production or other recording which but for the execution of this Deed I may have had against ECU and / or the Student.

Claims includes all claims, actions, suits, causes of actions, debts, dues, costs, claims, liabilities, demands, damages, losses, costs and expenses of any description, decisions, awards, judgment and orders whether at law or in equity or arising under statute arising out, during or in connection with the Project.

SIGNATURE OF PERFORMER		DATE	
------------------------	--	------	--

ADDRESS		POST CODE	
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(If the participant is under the age of 18 years at the date of signing the consent of the legal guardian – i.e. a parent – is required.)

In my capacity as the Legal Guardian of the Participant, I hereby consent to the above terms of the deed of release on behalf of the Performer.

SIGNATURE OF GUARDIAN		DATE	
-----------------------	--	------	--

NAME OF GUARDIAN	
------------------	--

ADDRESS		POST CODE	
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## INFORMATION LETTER TO PARTICIPANT



### **Title of Project**

### **Creative Reuse: Developing Sustainability Awareness through Visual Arts**

Dear

My name is Sue Girak and I am a PhD candidate at Edith Cowan University in Perth, Western Australia. You are invited to take part in this research project, which I am conducting as part of the requirements of my degree. The project aims to raise awareness of environmental sustainability by substituting industrial discards for new materials as art resources for use by art students and artists.

Reflection is an integral part of my process and on way I achieve this is through conversation. As you are aware we have had many taped conversations and after reviewing them, I have come to realize that they are a valuable source of information for me. I have been able to track my progress and noted that through conversation I am able to develop and clarify my ideas.

I am seeking your permission to use our conversations, beginning May 2009 and any new conversations from this point on. If you choose to take part in this project there will be no change to our current arrangement where each conversation will be approximately 60 minutes long. I expect the commitment will be anything from a weekly to a monthly conversation for the duration of my PhD project.

Participation in this research project is entirely voluntary. This decision should always be made completely freely. All decisions should always be respected by members of the research team without question. I will need your permission to use your first name in any published material that will come out of this research but if you wish to remain anonymous please let me know and I will use a pseudonym. If you decide to participate and then later change your mind you are free to withdraw from the project at any stage, without explanation or penalty. However, because of the nature of the research project it will not be possible to withdraw data that has already been collected.

The Edith Cowan University Human Research Ethics Committee has approved this project.

If you would like to discuss any aspect of this study please don't hesitate to contact me via email [sgirak@our.ecu.edu.au](mailto:sgirak@our.ecu.edu.au) or you may wish to contact my supervisors:

Assoc. Prof Jan Gray  
tel: 9370 6320  
email: [jan.gray@ecu.edu.au](mailto:jan.gray@ecu.edu.au)

Dr Geoffrey Lummis  
tel: 9370 6847  
email: [g.lummis@ecu.edu.au](mailto:g.lummis@ecu.edu.au)

Dr Lyndall Adams  
tel: 93706769  
email: [l.adams@ecu.edu.au](mailto:l.adams@ecu.edu.au)

If you wish to speak with an independent persona about the project, please contact the Research Ethics Officers at ECU via telephone 6304 2170 or email [research.ethics@ecu.edu.au](mailto:research.ethics@ecu.edu.au).

Once all questions have been answered to your satisfaction, and you are willing to participate, please complete the **Consent Form** on the following page.

This project information letter is for you to keep. Yours sincerely,

Sue Girak  
Research student  
Edith Cowan University  
[sgirak@our.ecu.edu.au](mailto:sgirak@our.ecu.edu.au)

## CONSENT FORM

(Please return to the researcher)

- I have read this document, or have had this document explained to me in a language I understand. I understand the aims and procedures, as described within it.
- I have taken up the invitation to ask any questions I may have had and am satisfied with the answers I received.
- I understand that participation in the project is entirely voluntary.
- I understand that if I wish to remain anonymous the researcher will use a pseudonym.
- I understand that I am free to withdraw that participation at any time without affecting my relationship with the researcher. However, because of the nature of the research project it will not be possible to withdraw data that has already been collected.
- I understand that I can request a summary of findings after the research has been completed.

I wish to remain anonymous.                      YES      NO

Name (printed):

---

Signature:

Date: (day/month/year)

---

---

## Appendix G

### Coding and Data Analysis examples

Appendix G includes examples of coding and data analysis. Tables 12 and 13 are examples of In Vivo coding that took place during the first cycle of coding. Next, Figure 48 is an example of the first cycle of coding, repeated for the fourth time. In this example, I have used Colour Coding to identify shifts in environmental values, attitudes, beliefs, awareness and behaviour. Finally, Table 14 is an example of how I arrived at constructs.

Table G1

*Phase One Coding – Year 7's positive behaviours*

First cycle of coding In Vivo coding

Interview 1	Interview 2	Interview 3
16 participants answered	16 participants answered	19 participants answered
<b>TRANSPORT</b>	<b>TRANSPORT</b>	<b>TRANSPORT</b>
riding <i>////</i>	riding <i>///</i>	Riding <i>## //</i>
walking <i>////</i>	walking <i>////</i>	Walking <i>##</i>
avoid using cars <i>/</i>		avoid using car <i>//</i>
		public transport <i>/</i>
<b>CONSERVING ENERGY</b>	<b>CONSERVING ENERGY</b>	<b>CONSERVING ENERGY</b>
turning off appliances <i>//</i>	turning off appliances <i>//</i> turn off	turn off appliances at wall <i>/</i>
dressing warmly <i>/</i>	appliances at wall <i>/</i>	switch off lights <i>/</i>
	switch off lights <i>/</i>	less time using electricity e.g.
	energy efficient globes <i>/</i>	games, DVDs, TV, lights <i>////</i>
		<b>REDUCING CONSUMPTION</b>
		Reuse <i>## /</i>
		recycling <i>//</i>
		wasting less <i>///</i>
		avoid waste <i>/</i>
		shopping less <i>///</i>
		saving water <i>///</i>
		avoid bottled water <i>//</i>
<b>OTHER</b>	<b>OTHER</b>	<b>OTHER</b>
growing fruit & vegies <i>////</i>	growing fruit & vegies <i>////</i>	growing fruit & vegies <i>//</i>
save water <i>//</i>	save water <i>//</i>	water tank <i>//</i>
putting rubbish in bin <i>///</i>		

Table G2

*Phase One Coding – Reducing Humanity's Environmental Impact*

Positive steps humanity could take to reduce their environmental impact

First cycle of coding In Vivo coding

Interview 1	Interview 2	Interview 3
16 participants answered	16 participants answered	19 participants answered
<b>TRANSPORT</b>	<b>TRANSPORT</b>	<b>TRANSPORT</b>
walk //	walk /	walk /
ride /		ride /
avoid using cars /		drive less /
using public transport /		
bus /		
<b>ENERGY</b>	<b>ENERGY</b>	<b>ENERGY</b>
	solar panels //	solar panels //
	solar power /	solar power //
	solar heating /	wind ///
		hydrogen /
		energy efficient //
		energy alternatives /
		alternatives /
<b>REDUCING CONSUMPTION</b>	<b>REDUCING CONSUMPTION</b>	<b>REDUCING CONSUMPTION</b>
	not use TV as much /	reduce consumption ///
	using local resources /	
<b>SUSTAINABLE BEHAVIOURS</b>	<b>SUSTAINABLE BEHAVIOURS</b>	<b>SUSTAINABLE BEHAVIOURS</b>
recycle /	rain water tanks //	recycle ///
putting rubbish in bin /	vegie gardens /	reuse ////
everyone helping the environment /		spread the message //
planting trees /		make an effort //
		take action /
		work as a whole /
		take responsibility /
		change habits /
		do more /
		reflect on behaviour /

Values  
Attitudes  
Beliefs

Awareness  
Behaviours

RAW DATA	CODES	CATEGORIES
<p><b>G1S1</b></p> <p>Our group made an artwork that was comparing the amount of space you used for houses in Australia and Bangladesh and we showed that there's a lot less space used in the Bangladesh than there is in Australia and <u>do we really need that much space?</u></p> <p>I think I've learnt quite a bit about <u>how much of what we do affects the environment</u> and recycling and just little things can make a big difference. Me as individual I definitely try and <u>use as little water as possible</u>. I always see my brother who is brushing his teeth and he leaves the tap on. <u>I always turn it off. More recycling</u> as much as possible and just the little things really. We're getting a <u>bigger recycling bin</u> so we can do <u>more recycling</u> and we've always got a lot of things to <u>recycle</u> so <u>we're doing as much as we can</u>.</p> <p>I think if people make the effort to do something about it then it would definitely have an impact. <u>Just doing everything you can to save and help the environment to stay healthy</u>.</p> <p>Um yes there's (pause) yes (giggles) Umm (long pause) (giggles). Well (pause) don't know. I'd probably have one or a couple but I can't think of any. Doing things for the environment that wouldn't be good for it. <u>Littering and cutting trees down</u>. Well it's [so] <u>you don't get too much carbon dioxide in the atmosphere</u>. I think that's not very good for anything.</p> <p>What I've learnt? An artwork <u>can actually or actually does mean something</u>. It can have a message behind it that can be well about the environment or have a really special message.</p> <p><u>We didn't buy any new materials. We used everything that we could find</u> to join things we didn't use sticky tape or glue or anything. It was mostly wire I think. <u>I found it was it was hard at first but then when you kind of got into the hang of using it then it got better</u>. You don't really have to buy new things all the time because at REMida there was lots of different things that <u>I recycled</u> and that you could use for lots of things and when you see there's a place like that you could get those things then <u>there's really no point in buying new things</u>.</p> <p>There was a couple of things, when materials weren't working with us or (giggles) if something went wrong then it was always <u>frustration and trying to find another way to do it</u>. I think that took quite a while but then eventually we found a topic. <u>We spent a while brainstorming</u> all the different things we could have done and yeh, just to decide which one <u>took a while</u>.</p> <p>I'd like people to understand what we were trying to show was like <u>Australia</u> there is so much space for our houses and <u>if we really need that much space</u>. On our art we've fenced off and shown that almost a third of the space we've got 2 Bangladesh houses in the</p>	<p>space.</p> <p>action = impact</p> <p>- save water.</p> <p>recycling</p> <p>recycling</p> <p>recycling</p> <p>doing as much</p> <p>- effort =</p> <p>pos. impact</p> <p>pulling weight</p> <p>cutting trees</p> <p>tree = more CO<sub>2</sub></p> <p>not good.</p> <p>- communicated</p> <p>- message.</p> <p>- reused.</p> <p>- sourced mat.</p> <p>- process</p> <p>- no need to buy new.</p> <p>frustration with process.</p> <p>Australian values</p>	<p>✓.</p> <p>space.</p> <p>quest Aust values.</p> <p>A.</p> <p>make an.</p> <p>effort.</p> <p>(env).</p> <p>process.</p> <p>hard take time.</p> <p>frustrating</p> <p>alternatives</p> <p>better.</p> <p>• no need</p> <p>for new things</p> <p>Belief</p> <p>doing share.</p> <p>behaviour</p> <p>Pos Ind.</p> <p>recycling</p> <p>saving water.</p> <p>Awareness</p> <p>- thinks none.</p> <p>Behaviour</p> <p>Neg Hum.</p> <p>Beliefs</p> <p>- Littering</p> <p>deforestation</p> <p>chopping trees.</p>

\* questioning Australian values.  
→ do we need as much as we have.

<p>space of one half of Australian.</p> <p>I agree with that and like from the sustainability convention we went to. All the information and slide shows and talks that we've had have informed us all.</p> <p>I thought that first but then they actually really helped to find how to or what to do our art about. They really helped us to find something to do about. I think that if you did it yourself you get to learn more cos then everyone would have different topics and then you'd learn more about lots of different things, instead of just one thing.</p> <p>I'm more aware now <u>just thinking about it when I'm using resources</u> and <u>try not to waste things and stuff</u>.</p> <p>I thought it went really well and I got lots of feedback from all of the people who were there about all the artworks and they seemed to really enjoy them and understand the messages. <u>I think it's really nice to have your artwork on display so people see it and acknowledge it and know that it was you that made it. That's good.</u></p>	<p>scaffolding acts</p> <p>builds awareness.</p> <p>- self-directed</p> <p>thinking about not wasting</p> <p>pos. Attitude to exhibition</p>
--	--

G1 S1.

Values questioning Australian values.

Attitudes. Env. actions have consequences.

Art process. — beginning — neg. frustrating hard — finding alternative way — gets better.

Beliefs. — she is doing her share.

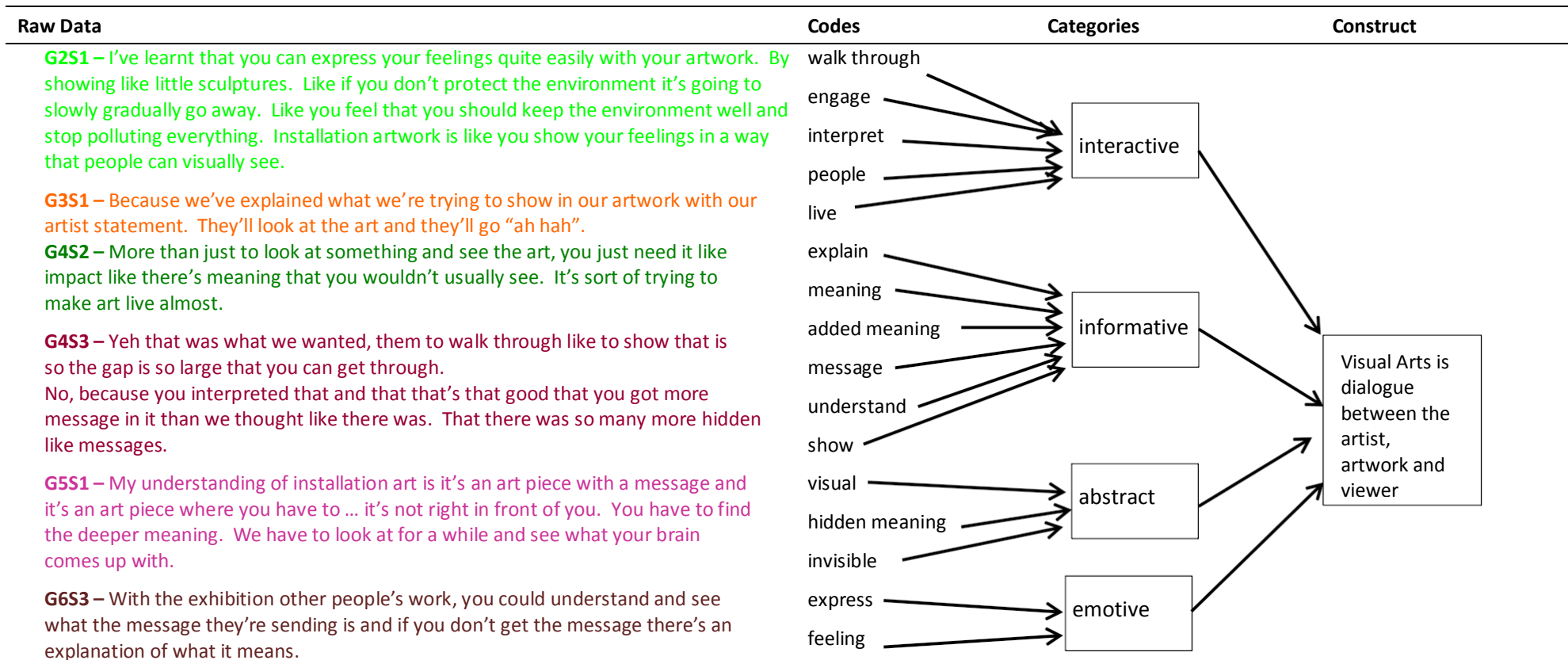
Awareness — Scaffolding ideas helped — gave base for idea. — sensitive to her behaviour. — thinking when doing consequences.

Behaviours — saving water — turning off taps. — recycling.

Table G3

*Phase One Constructs*

Processing Raw Data to arrive at constructs



Note: The raw data are small excerpts of Interview 3 (transcribe verbatim). In this sample, each colour represents an individual participant.

Appendix H

Education for Sustainability Service Providers

The information in this table shows examples of programs offered by EfS service providers in the Perth metropolitan area. Although this is not an exhaustive sample, it does compare the services available to schools in regard to their theoretical underpinnings. The information, sourced directly from each organisation’s website, shows that teachers can incorporate Sustainability into their classrooms from programs established from federal, state or local government NFP initiatives. While there is some collaboration between organisations, through links to websites or specific projects, the programs tend to be developed in isolation. The programs developed by the federal and state government and NFP services extend beyond local council boundaries, where as local council initiatives are only available to schools within their boundaries.

Table H  
*EfS Service Providers – Perth Metropolitan Area*  
A sample of EfS service providers available to students in the Perth, WA, metropolitan area

<p><b>ARIES</b></p> <p>Established by the Australian Government in 2003, and operating independently of government funding since 2010. ARIES is involved in action research to work with a range of stakeholders in government, business and communities to improve sustainability. Some of the projects relevant to this research include the Australian Sustainable Schools Initiative (AuSSI).</p> <p>ARIES EfS principles are informed by:</p> <ul style="list-style-type: none"><li>• The UN DESD</li><li>• <i>Educating for a Sustainable Future: A National Environmental Education Statement for Australian Schools</i></li><li>• <i>Caring for Our Future: The Australian Government Strategy for the United Nations Decade of Education for Sustainable Development, 2005–2014</i></li><li>• <i>Living Sustainably: The Australian Government's National Action Plan for Education for Sustainability</i></li></ul> <p>(<a href="http://aries.mq.edu.au">http://aries.mq.edu.au</a>)</p>
<p><b>Australian Sustainable Schools Initiative (AuSSI)</b></p> <p>AuSSi is a federal government initiative that provides support to schools to integrate a whole-school approach to Sustainability. It takes a participatory approach, and aims to develop an action plan for school communities to develop partnerships with the local community to reduce waste collection, water consumption and energy consumption. AuSSI’s foundations are described in:</p> <ul style="list-style-type: none"><li>• <i>Educating for a Sustainable Future: A National Environmental Education Statement for Australian Schools</i></li><li>• <i>Caring for Our Future: The Australian Government Strategy for the United Nations Decade of Education for Sustainable Development, 2005–2014</i></li><li>• <i>The Melbourne Declaration on Educational Goals for Young Australians</i></li><li>• <i>Australian Sustainable Schools Initiative: A Partnership Statement for the Australian Government and the states and territories</i></li><li>• <i>Living Sustainably: The Australian Government's National Action Plan for Education for Sustainability</i></li><li>• <i>The Sustainability Curriculum Framework</i></li></ul> <p>(<a href="http://www.environment.gov.au/topics/sustainable-communities/sustainability-education/aussi">http://www.environment.gov.au/topics/sustainable-communities/sustainability-education/aussi</a>)</p>
<p><b>Local Council Initiatives</b></p> <p>Local council education programs are attached to their local landfill site and are available exclusively to students in their regions. Programs focus on waste reduction in within the local area and each regional council works independently. The council websites are not extensive and display limited evidence of the EfS principles that inform their programs.</p> <p><b>Cleanaway</b> A free two-session (45–60 minutes) program offered to students in years 1–7 in the Rivers Regional Council, which includes curriculum links. The Regional Council also provides small grants for schools to set up waste minimising initiatives. (<a href="http://www.rrc.wa.gov.au/Waste-Education/Schools/Cleanaway">http://www.rrc.wa.gov.au/Waste-Education/Schools/Cleanaway</a>)</p> <p><b>Earth Carers</b> The Mindarie Regional Council and the Western Regional Council offer the Earth Carers Program, which looks at the ‘big picture’ of waste disposal and management to support communities to rethink their waste and to increase recycling efforts. The free program includes a variety of activities including tours of waste management, recycling facilities, REmida WA and community gardens, demonstrations and workshops. (<a href="http://www.earthcarers.org.au/">http://www.earthcarers.org.au/</a>) (<a href="http://www.mrc.wa.gov.au/">http://www.mrc.wa.gov.au/</a>) (<a href="http://www.wmrc.wa.gov.au/">http://www.wmrc.wa.gov.au/</a>)</p> <p><b>R-Gang</b> Developed for students living within the boundaries of the Eastern Metropolitan Regional Council, the message is to promote practical ways students can reduce, reuse, recycle and recover waste in their home and local community. The Eastern Metropolitan Regional Council provides additional support for teachers by providing links on their website to additional EfS programs. (<a href="http://www.rgang.org.au/">http://www.rgang.org.au/</a>)</p>

<p><b>Recycle Right</b></p> <p>Recycle Right is an education program aimed educating students about the recycling process and includes a free tour of the Regional Resource Recovery Centre in Canning Vale to promote the 3Rs – reduce, reuse, recycle. (<a href="http://www.recycleright.net.au">http://www.recycleright.net.au</a>)</p>
<p><b>Millennium Kids</b></p> <p>Millennium Kids Inc. is a not-for-profit organisation, established in 1996. Based in WA, it is a youth based environmental organisation (10–25 years) with programs extending to Asia and Africa. Millennium Kids is staunchly committed to maintaining the UN Chapter 25 of Agenda 21, promoting governments’ initiatives to address young peoples’ environmental concerns and their programs based on advocacy and action, encouraging young people to make real and positive environmental change. Theoretical underpinnings supporting this program appear strong with academic research project being undertaken with Millennium Kids. (<a href="http://www.millenniumkids.com.au/">www.millenniumkids.com.au/</a>)</p>
<p><b>REmida WA</b></p> <p>REmida WA (<a href="http://www.remidawa.com/">http://www.remidawa.com/</a>)</p>
<p><b>Waste Wise Schools</b></p> <p>The Waste Wise Schools program is a WA government initiative that is a whole-school approach to reducing landfill by implementing the 3Rs – reduce, reuse, recycle. The Waste Authority offers a free program to all WA schools. Their service helps schools set up the appropriate infrastructure and education resources are linked to the Australian Curriculum. (<a href="http://www.wasteauthority.wa.gov.au/programs/waste-wise-schools">http://www.wasteauthority.wa.gov.au/programs/waste-wise-schools</a>)</p>

## Appendix I

### Transcript of a Critical Conversation with Kate – Reflecting on the Class Project, April 27, 2011

*I found it really hard to read what the teachers had said. Especially the classroom teacher, because I felt she'd criticised the project a lot. Saying that, you know, I hadn't been explicit enough with the kids and the kids didn't understand what I was talking about.*

*I felt (pause) like there was some criticism from the art teacher, because she said the kids had come up to her and they just didn't understand what was going on. And I felt really (pause), I don't know, I felt threatened by that and hurt by that and I felt like, I'm sure I explained it. I went over and over and over again about it and the teacher said, "Yeah, I mentioned it but I didn't really teach the point." I felt bad about that.*

*And I've got to remove myself from that spot (pause) and not have it as, you know like – Sue being criticised – but me being a researcher looking at what the teachers have said. A breakthrough came when – because even though the kids complained about it a lot – when I read what they had said, they did show that they had an understanding. But that criticism, I had to change from being an attack on me – to this is what the teachers' perceived. Reading through [the transcripts] again, what the kids didn't understand was the fact that I didn't tell them exactly what they had to do. I left the project open deliberately. So what they were struggling with was not the fact that they were making artwork. They could understand that there is an impact on the environment. What they were struggling with was that I didn't give them a step by step guide. So they were struggling with a process (pause) and the lack of teacher direction in that process and the fact that they had to make decisions for themselves. And that's what they struggled with.*

*By putting on a different hat and reading [the transcripts], rather than taking the criticism quite personally, it was easier. Then at the end, I could write.*

Transcriber: Anna Fantasia-Serve

## Appendix J

Spectrum Project Space Proposal  
February 2013



Sue Girak

## Spectrum Project Space Proposal

**Applicant's name:**

**email address:**

**Affiliation with ECU**

Susan Girak

sgirak@our.ecu.edu.au

ECU PhD Candidate

School of Education

**Supervisors**

Dr Lyndall Adams

A/Prof Jan Gray

Dr Geoffrey Lummis

**Type of event:**

Visual Arts Exhibition

**Project title:**

nuova vita (working title)

**Brief project description:**

REmida<sup>1</sup> promotes environmental sustainability through creativity. I choose REmida arts materials<sup>2</sup> extend the life of the discard through transformation as a way of minimizing my creative arts footprint.

**Artists involved in the project:**

**Susan Girak**

**Preferred period:**

October, 2014

I am flexible from early September to December, 2014

**Preferred use of space:**

**EXHIBITION:**

This application is for a solo artist – entire area

**Preferred use of space:**

Three week timeslot for a 2 week exhibition

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<sup>1</sup> REmida An international network of creative reuse centres with an arts and education led focus. Their aim is to promote environmental sustainability through creativity by providing experiential learning opportunities while engaging with REmida materials.

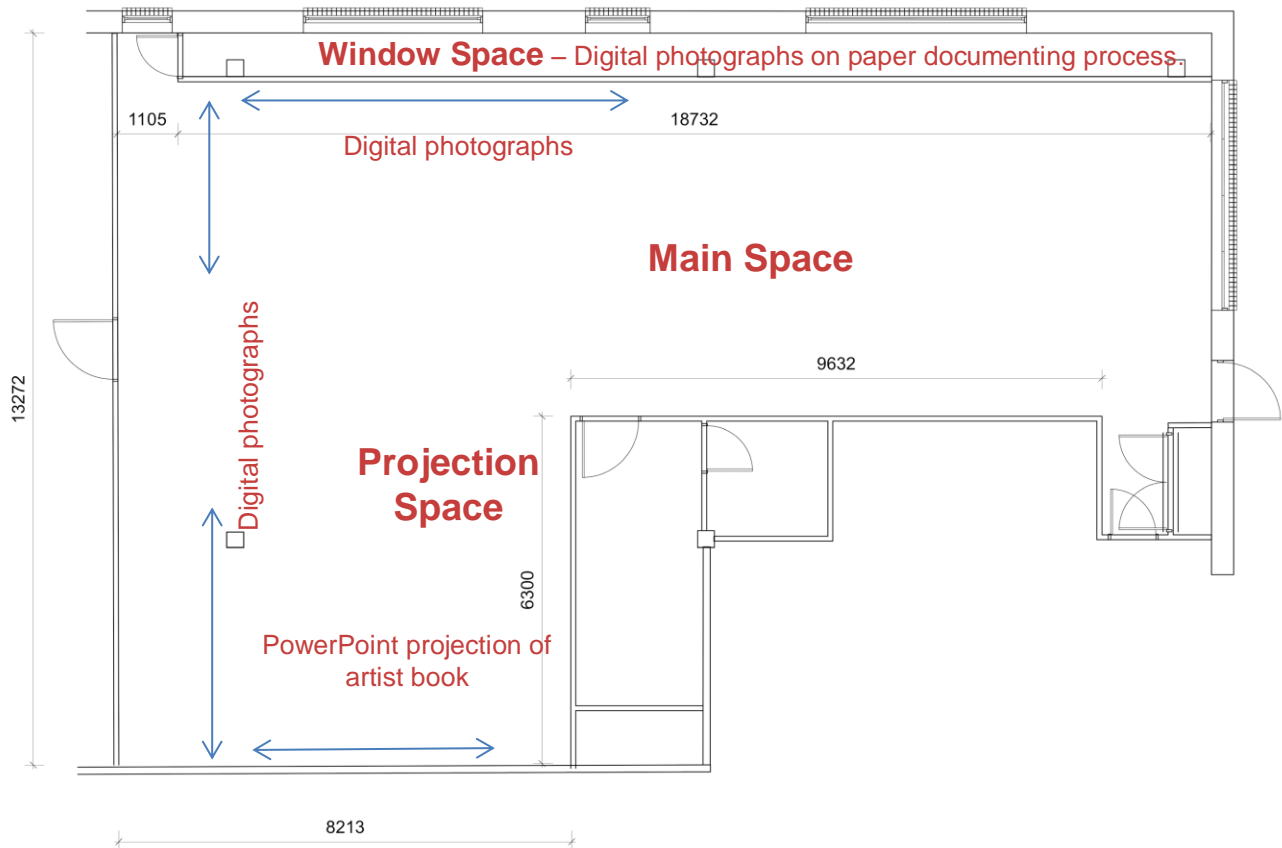
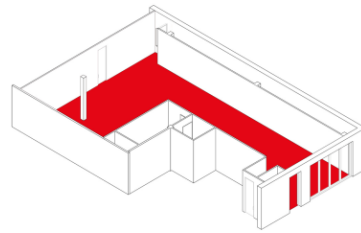
<sup>2</sup> REmida materials: Clean, unused and non-toxic discards recovered from local industries and businesses

## **PROJECT DESCRIPTION**

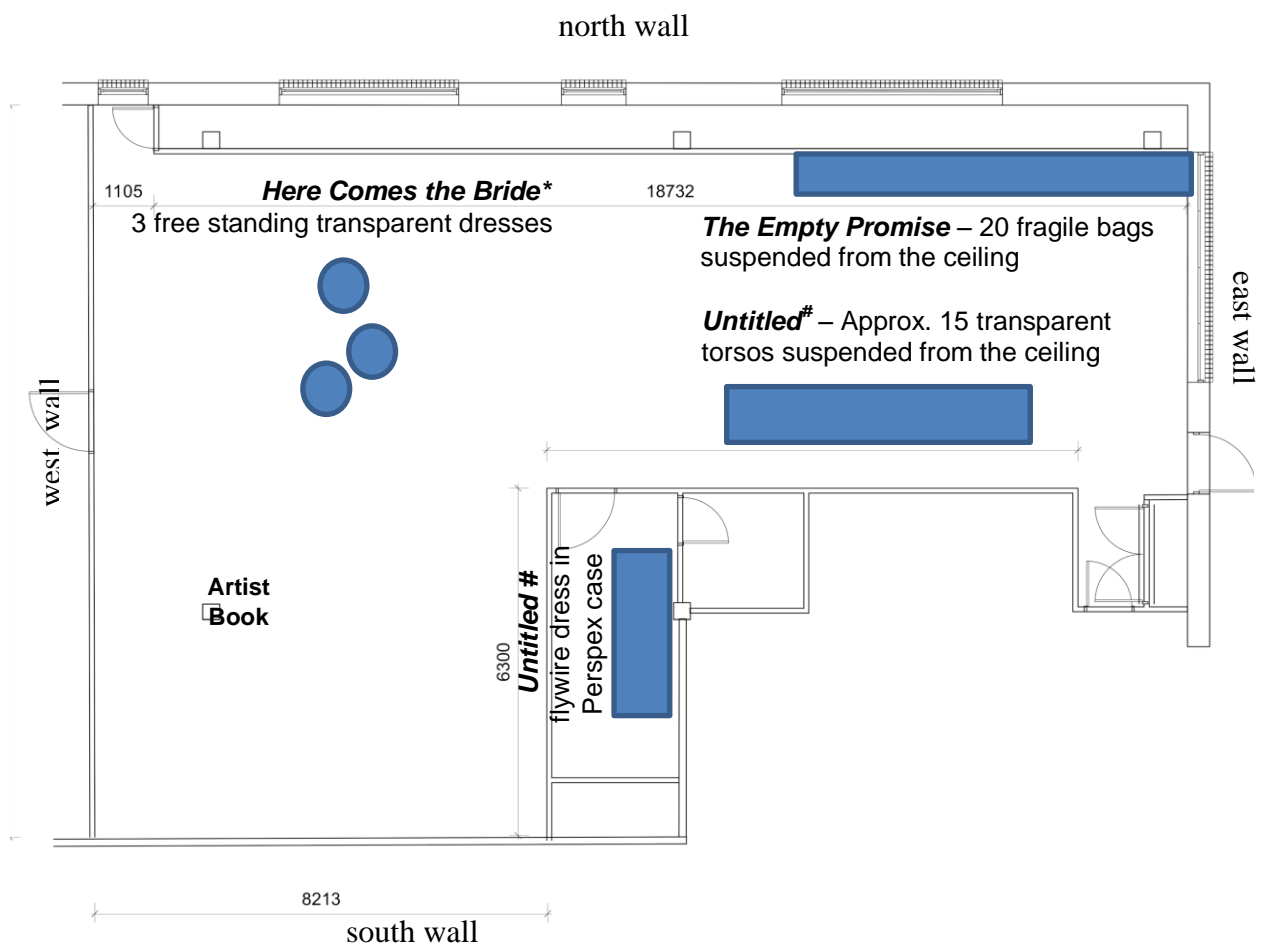
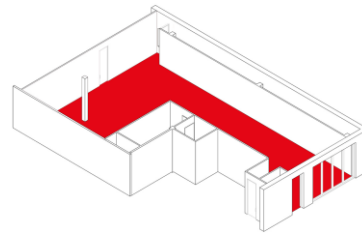
- My aim is to explore the endless possibilities that REmida materials offer within the process of creating visual artworks. I source my materials from REmida to minimise my creative footprint. I deconstruct and reconstruct the materials to extend their life and to transform them physically and aesthetically. By choosing to creatively reuse discards I am eager to explore the endless possibilities those materials have to offer. My artworks express my respect and value towards the environment.
- Artworks include 2D, installations and audio visual. A preliminary list of works includes:
  - *The Empty Promise* (image 1)
  - *Here comes the Bride* (image 3)
  - *Untitled 1* (image 2)
  - *Untitled 2* (image 4)
  - Digital photographs – Including large format digital prints, acrylic panels and smaller digital prints on paper
  - Artist Book
  - Window Space – This space will be used show documentation of my process (for PhD examination purposes)
- Processes
  - Photographs – track hanging
  - Acrylic/glass prints – white plinths (custom made) with a channel (approx. 1.5 cm)
  - Installations – Perspex plinths, strong lighting to emphasise shadows and hanging system for 2 installations to be suspended from ceiling; *The Empty Promise* ≈5kg and *Untitled 1* ≈2kg.
  - *Untitled 2* – Perspex case on a plinth (dimensions to be determined)
  - Artist Book – plinth and computer with PowerPoint for projection on wall
  - Catering facilities for opening night
- Events associated with project:
  - Official opening – catered
  - Gillian McAuliffe, Principal, Bold Park Community School; founder of REmida WA and Professor Mark Hackling, Professor of Science and Technology Education; Director, Edith Cowan Institute for Education Research; A/Dean, Research and Higher Degrees, FEA, ECU to open show.
  - Coloured printed invite
  - Printed A4 b/w catalogue
  - Floor talks (general public) – artist presentation and discussion
  - School visits – 2-3 primary and/or high schools - artist presentation and discussion
  - Media release
  - ECU external examination prior to opening night.

## FLOOR PLAN – WALL SPACE

NB - All artworks in plans are not to scale



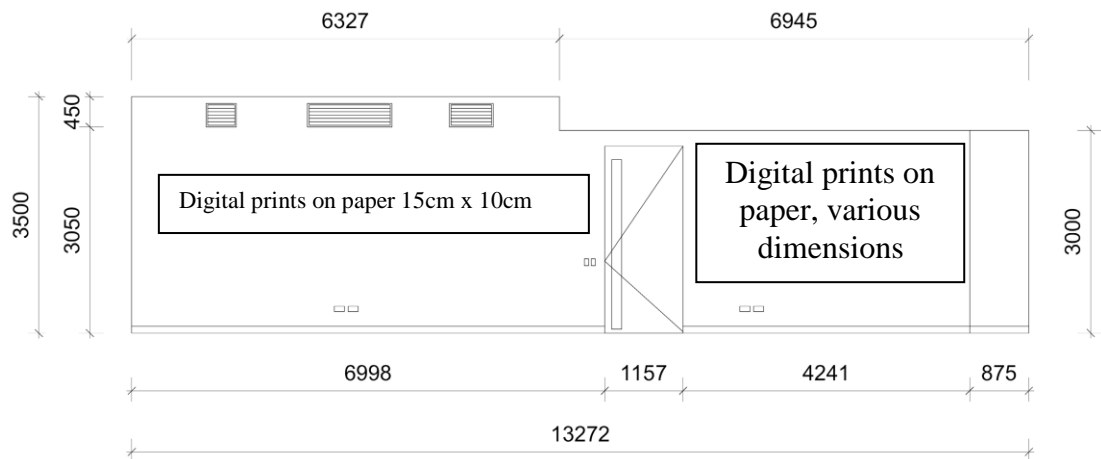
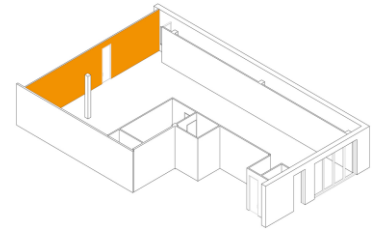
## FLOOR PLAN – FLOOR SPACE



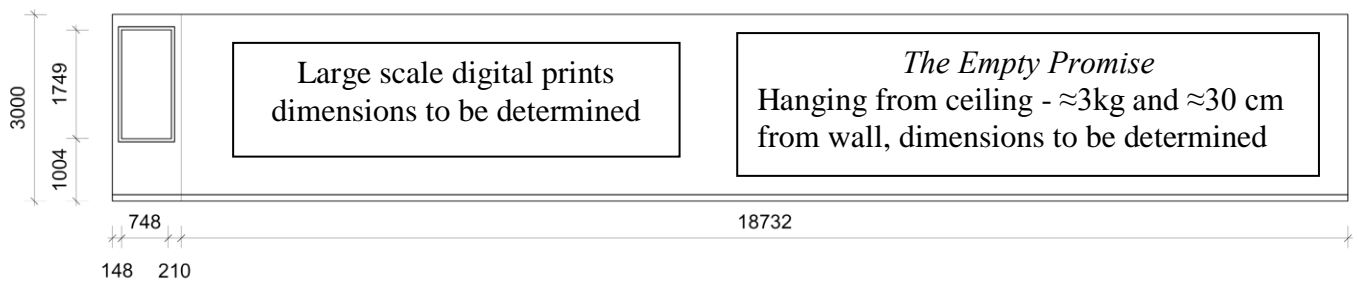
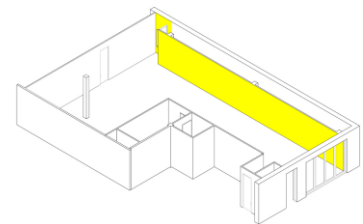
*\*Here Comes the Bride*, this installation will be placed against the backdrop of the west wall.

*#Untitled*, this installation will face the east wall.

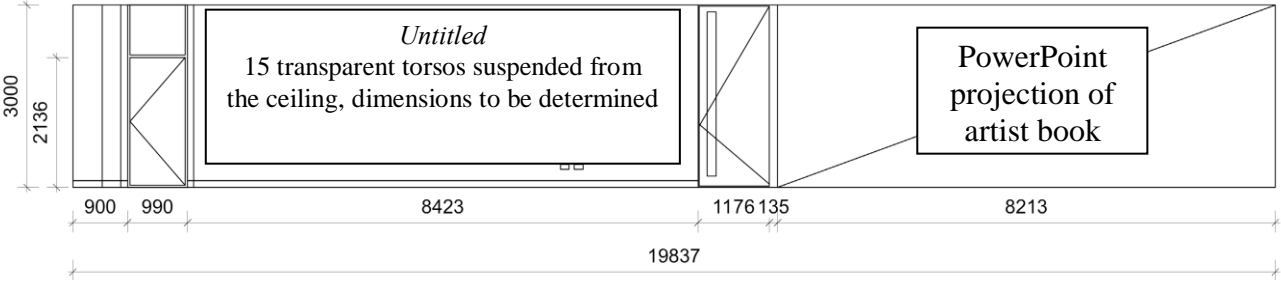
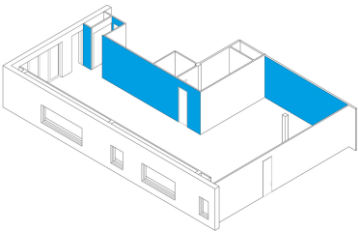
## WEST WALL



## NORTH WALL



SOUTH WALL



EAST WALL

