COLLEGE OF ARTS AND SOCIAL SCIENCES
Research School of Humanities and the Arts
SCHOOL OF ART

VISUAL ARTS GRADUATE PROGRAM
DOCTOR OF PHILOSOPHY

CAROLYN GAI YOUNG

GRASSY WOODLANDS: CONVEYING THE QUALITIES OF ECOSYSTEMS THROUGH PHOTOGRAPHY

A EXEGESIS SUBMITTED FOR THE DEGREE OF DOCTOR OF PHILOSOPHY OF THE AUSTRALIAN NATIONAL UNIVERSITY

MAY 2016
Declaration of Originality

I, Carolyn Young………………………………………………………………….. hereby declare that the thesis here presented is the outcome of the research project undertaken during my candidacy, that I am the sole author unless otherwise indicated, and that I have fully documented the source of ideas, references, quotations and paraphrases attributable to other authors.
ACKNOWLEDGEMENTS

I thank my supervisors and advisors Martyn Jolly, John Reid, Rod Lamberts and Nigel Lendon for their support and advice during my candidature. I thank Jason O’Brien for his technical assistance. I have appreciated the friendship from fellow students in particular Kevin Miller, Lee Grant, Alexandra Gillespie and Meredith Hughes. I am very grateful to the generosity of ecologists Sue McIntyre, Greg Baines, Allison Treweek and Rainer Rehwinkel. I thank the farmers for sharing their knowledge and allowing me to photograph their properties, in particular Robyn and Derek Young, Ngaire and Jeff Bennett, and Andrew Bingley. I thank my parents Judy Young, Barry Young and Julie Young for babysitting and providing a writing retreat. My most special thanks go to my immediate family. Thank you to my children Aubrey and Eliza Whitten for being beautiful distractions, and my partner Stuart Whitten for his encouragement and loving support.
ABSTRACT

The purpose of the studio research was to develop a new way of looking at ecosystems - one that is both aesthetic and scientifically informed. The subject of my research was remnant vegetation within farmed systems. The aim was to provide a quality visual record, through the medium of photography, which could be used to promote the public’s awareness of these endangered ecosystems. In developing the studio practice I participated in the Australian National University School of Art Field Study program, experimented with the still life photography genre, and undertook commissions and an art residency. A field-based research method for making scientifically informed and fine art photographs was developed. The Grassy Woodlands series, the final studio research, visually communicates ecological and farming knowledge of grassy woodlands, and changes that happen to plant diversity as a result of human management interventions. The innovative methodology developed provides a foundation for which to share scientific knowledge, through visual art, with new audiences.

This thesis comprises two parts: studio research with accompanying exegesis (60%), and dissertation (40%).
# TABLE OF CONTENTS

ACKNOWLEDGEMENTS ................................................................. ii

ABSTRACT .................................................................................. iii

TABLE OF CONTENTS ............................................................... iv

LIST OF TABLES .......................................................................... v

LIST OF FIGURES .......................................................................... v

1 INTRODUCTION .............................................................................. 1

2 DEVELOPING THE STUDIO PRACTICE ............................................. 6
  2.1 Introduction ................................................................................. 6
  2.2 Field Study program: remnant vegetation .................................... 6
      2.2.1 Balonne ................................................................................. 7
      2.2.2 Tumut .................................................................................. 11
      2.2.3 Riverland .............................................................................. 13
      2.2.4 Benalla .................................................................................. 17
  2.3 Backyard Harvest series ............................................................ 19
  2.4 Commissions and residencies ..................................................... 26
  2.5 Conclusion ................................................................................. 32

3 CONTEXT TO “GRASSY WOODLANDS” ......................................... 34
  3.1 Introduction ................................................................................. 34
  3.2 Theory, process of consultation and collaboration ...................... 34
  3.3 Field sites .................................................................................... 41
  3.4 Seasons ....................................................................................... 42
  3.5 Photographs of grassy woodlands .............................................. 43
  3.6 Conclusion ................................................................................. 45

4 “GRASSY WOODLANDS” ............................................................... 47
  4.1 Introduction ................................................................................. 47
  4.2 Landscape photographs .............................................................. 47
  4.3 Still life photographs ................................................................. 57
  4.4 Engaging the audience .............................................................. 67
  4.5 Conclusion ................................................................................. 70

5 CONCLUSION ................................................................................ 71

6 BIBLIOGRAPHY ............................................................................ 77
LIST OF TABLES

Table 2.1 Attendance of ANU School of Art Field Study programs during the PhD program ................................................................................................................ 7
Table 3.1 Box-gum grassy woodlands: visual indicators for each state .................39
Table 3.2 Field sites selected for photographing the Grassys Woodlands landscape and still life series and their management at time of photographing .............41
Table 4.1 Text panel used for doctorate exhibition....................................................69

LIST OF FIGURES

All images not otherwise attributed are of the author’s own work.

Figure 2.1 Remnant Belah Open Forest #1-3, 2007, 68 x 79 cm, Type C photograph
Figure 2.2 Remnant Eucalyptus Coolabah Grassys Woodland, #1-3, 2007, 68 x 79 cm, Type C photograph ........................................................................................ 8
Figure 2.3 (left) Harry Callahan, Aix-en-Province, France, 1958, 22.9 x 23 cm, Gelatin silver print and (right) Lee Friedlander, The Desert Seen, 1995-96......10
Figure 2.4 McPherson’s Plain Bog, Autumn, 2008, 94.4 x 112.4 cm, Type C photograph ......................................................................................................... 12
Figure 2.5 Managing the Land for Conservation: The Inspiration and the Hard Work, 2008, 65.3 x 116 cm, Type C photograph ..................................................12
Figure 2.6 Fruits of the Mallee 1 and 2, 2009, 47 x 60 cm, Type C photograph ..... 14
Figure 2.7 Fruits of the Mallee 3, 2008, 47 x 60 cm, Type C photograph ..............14
Figure 2.8 (left) Shona Wilson, Patternation No. 8, 2007, 65 x 65 x 8 cm, bark and fern and (right) Janet Laurence, Heart Shock, 2008, Australian eucalypt with latex tubing and glass vials containing organic substances .......................16
Figure 2.9 Gary, Riverland Dryland Farmer, 2009......................................................16
Figure 2.10 (left) Connecting the Remnant Vegetation: Groundcover, (centre) Shrub Layer and (right) Tree Layer, 2009, 71 x 82 cm (framed), inkjet print on cotton rag..........................................................18
Figure 4.2 State 1. Reference grassy woodland (Turallo Nature Reserve), active flowering (summer) .................................................................................................................. 48
Figure 4.3 State 2. Native pasture, active flowering (spring) ....................................48
Figure 4.4 State 2. Native pasture, active flowering (summer) .................................. 48
Figure 4.5 State 3. Fertilised pasture, active flowering (spring) ............................... 48
Figure 4.6 State 2. Fertilised pasture, active flowering (summer) ............................. 48
Figure 4.7 State 4. Lucerne crop, active flowering (spring) ....................................... 49
Figure 4.8 State 4. Lucerne crop (summer) ................................................................ 49
Figure 4.9 State 5. Enriched grassland, active flowering (spring) ............................. 49
Figure 4.10 State 5. Enriched grassland, active flowering (summer) .......................... 49
Figure 4.11 State 1. Reference grassy woodland (Turallo Nature Reserve), dormancy (frost) .................................................................................................................. 49
Figure 4.12 Examples of experiments in scale and composition for the Grassland landscape series ................................................................................ 52
Figure 4.13 Anne Ferran (left), Backwater, 2005, 75 x 75 cm, digital Type C print, and (right) Lost to Worlds, 2008, 120 x 120 cm, digital prints on aluminium... 54
Figure 4.14 Harry Callahan, Horseneck Beach, Massachusetts, 1965, 15.1 x 19.4 cm, Gelatin silver print ........................................................................................................ 55
Figure 4.15 (left) Joel Sternfeld, Oxbow Archive November 28, 2007; (right) Jem Southam, The Painter’s Pool, 12 October 2003 .................................................. 56
Figure 4.16 State 1. Reference grassy woodland (Bookham Cemetery): active flowering, 19 October 2014 ............................................................................... 58
Figure 4.17 State 1. Reference grassy woodland (Bookham Cemetery): dormancy (frost), 9 August 2014 .................................................................................. 58
Figure 4.18 State 2. Native pasture: active flowering, 23 October 2014 ................... 58
Figure 4.19 State 2. Native pasture: dormancy (frost), 14 August 2014 .................... 58
Figure 4.20 State 3. Fertilised pasture: active flowering, 24 October 2014 .............. 58
Figure 4.21 State 2. Fertilised pasture: dormancy (frost), 24 October 2014 .......... 58
Figure 4.22 State 4. Crop: active flowering, 20 November 2010 ............................ 59
Figure 4.23 State 4. Crop: dormancy (frost), 10 August 2014 ................................. 59
Figure 4.24 State 5. Enriched grassland: active flowering, 22 October 2014 ........... 59
Figure 4.25 State 5. Enriched grassland: dormancy (frost), 20 August 2014 ........... 59
Figure 4.26 Examples of experiments in getting the grid right for the *Grassy Woodlands* still life series: (a) summer, 2011; (b) contained grid; (c, d, e) sparser grid; (f, g) winter, dense grid, 2014; (h, i) plant portraits.......................63

Figure 4.27 (a) Karl Blossfeldt; (b) Herman de Vries, *from the forest floor*, 1997, 50 x 70 cm, collage; (c) Robyn Stacey, *Sixteenth Century Horizontal (blue)*, 2003, 88 x 131 cm, Type C print; (d) Anna Atkins, *Poppy*, c1852, Cyanotype........65
1 INTRODUCTION

The purpose of my thesis is to develop a better understanding of how visual fine artists, through field-based research, can meld subject disciplines about environment\(^1\) with creative art outputs. The thesis comprises two parts: studio research with accompanying exegesis (60%), and dissertation (40%). My research is inter-disciplinary, with a cross-over between visual arts and sciences. The thesis developed from the premise that the world is undergoing an environmental crisis and solutions will require a multifaceted approach that includes the visual fine arts. Science has successfully communicated facts, but there has been failure to take appropriate action.

The purpose of the studio research is to develop a new way of looking at ecosystems - one that is both aesthetic\(^2\) and scientifically informed. Ecologists are struggling to communicate their knowledge of ecosystems, and challenged me to help meet that need. Landscape photographs play an important role in shaping how Australians see and live in relation to the land.\(^3\) Through the making of high quality imagery, Australian wilderness photographers have made salient some of the remoter parts of Australia.\(^4\) \(^5\)

In order to visually communicate ecological concepts through visual fine art, my first challenge was to develop a methodology that enabled me to work across disciplines.

In developing a methodology, I focused on remnant vegetation, and in particular, within farmed systems. Remnant vegetation is, “…any patch of native vegetation

---

\(^1\) ‘Environment’ refers to the physical and biological phenomena. See dissertation for longer definition.

\(^2\) This exegesis assumes the meaning of aesthetic as: “pertaining to the senses”; and “articulating high quality relationships whether they are beautiful or not”.


\(^4\) Geoffrey Batchen, p. 46.

around which most or all of the original vegetation has been removed.”6 I was inspired to photograph remnant ecosystems on farms for several reasons. The public rarely has the opportunity to see remnant ecosystems in good condition. I wanted to provide a quality visual record that could be used to promote the public’s awareness of these endangered ecosystems. Rod Giblet writes that there has been very little Australian landscape photography that depicts environmentally sustainable land use.7 I was motivated to document, through photography, outcomes from sustainable farming practices based on the idea that nature is, “…the physical world in its entirety…nature as a universal realm of which humans, as a species, are a part.” 8 This definition incorporates the belief that humans are stewards of nature. During my research I reflected on the meaning of a ‘wilderness’. The notion of ‘wilderness’ stems from a belief that nature is, “…areas unaltered by human action”9 and ignores a cultural landscape.10 11 12 13 Bill Gammage argues that Aboriginal people managed the whole of Australia as an estate.14 Photographing remnant vegetation provides a portal to the past, chronicling both ecological and social history.15 16

Coming from a natural resource science background17 and now working as an artist, I was drawn to this research area because I wanted to investigate the role of the artist in the environmental movement. The opportunity to pursue the research formally

---

7 Giblett.
9 Ibid.
17 I hold a Bachelor of Natural Resources (honours) from the University of New England, New South Wales (1993), and worked professionally as an environmental officer for 13 years.
arose with the commencement of the Engaging Visions Research Project (EV Project) in which a model procedure for visual artists to creatively engage with Murray-Darling Basin (MDB) communities and assist with environmental concerns was sought. The experiences of both participating student artists in the Australian National University (ANU) Field Study program and the community encountered in each field location were formally evaluated as part of the EV Project. My role in the EV Project was to evaluate the experiences of the participating artists only. The dissertation explores the art and environment phenomenon by focusing on art and environment education at the tertiary level from the participating students’ perspective. My participation in the Field Study program as an immersed researcher was important to the development of my studio practice. In this exegesis I describe the art and environment phenomenon from the perspective of my studio research.

The ANU Field Study program has a core commitment to field investigation where the focus is relationship to place. Therefore, in addition to developing a method for making scientifically informed and fine art photographs, I needed to develop a method that was place-based.

To begin the research, I was guided by two questions. First, using a field-based approach, what kind of methodology would enable me to make scientifically informed fine art through the medium of photography? To answer this question, I investigate methods for bridging visual art and applied science approaches to field-research. Second, how does a fine art photographer develop a new way of looking at ecosystems, and a new landscape aesthetic? I address these research questions, and additional questions that arose during my studio research, in the following chapters: developing the studio practice; context to Grassym Woodlands; Grassym Woodlands; and conclusion.

In Chapter 2, I describe how I explored the subject ‘remnant vegetation’ through fine-art photography and field-based research while participating in the ANU Field

\[\text{18 See dissertation for explanation of this research.}\]
\[\text{19 The ANU Human Research and Ethics Committee approved the research (Protocol: 2007/0231). The people expected to participate in the research were not considered vulnerable and therefore not needing specific consideration as outlined in the NHMRC National Statement on Ethical Conduct in Human Research.}\]
Study program. A preliminary field-based methodology, with the aim of bridging visual art and science methodologies, is discussed. An outline of the Backyard Harvest series follows. Experiments with the still life photography genre and methods for making still life photographs in the field are described. Next I discuss how the still life genre research enabled a new way of looking at ecosystems. In the last section I briefly outline the art commissions and an artist residency undertaken during my PhD candidacy. I conclude the chapter with a preliminary reflection on my studio practice in relation to the research questions. The studio development described in Chapter 2 provides a methodological and aesthetic foundation for the Grassland Woodlands series, which is described in Chapters 3 and 4.

The grassy woodland, a remnant ecosystem in temperate Australia, is the subject for my final studio practice series. In Chapter 3 outlined are the reasons chosen to photograph grassy woodlands, their ecology, the process developed for consulting ecologists and farmers, considerations about photographing seasons, and my field sites. The ecological model, ‘grassy woodland state and transition model’, which forms the theoretical and conceptual basis for the Grassland Woodlands series, is described. To further my ability to communicate ecological concepts through fine-art photography, I adjusted my research methodology and pursued a collaborative approach with one ecologist. My research considers, how might a collaboration between an artist and ecologist work? And, how does an artist represent, through the photograph, a landscape based on another’s knowledge and values? A social enquiry method that enables the melding of ecological knowledge with creative visual art outputs is developed and described. The last section in Chapter 3 briefly discusses existing approaches to photographing grassy woodlands.

The development of the Grassland Woodlands photography series is described in Chapter 4, including the art context and examples of outputs. This series evolved from my participation in the Field Study program and the Backyard Harvest series. The Grassland Woodlands photography series constitutes the final studio practice outcome from my doctorate and will be exhibited for the exam. The series has three parts: landscape photographs, still life photographs, and a billboard version derived from the still life photographs. For the Grassland Woodlands series, my research aim is
to visually represent the herbaceous ground-layer of grassy woodlands and derived states, as described in the ecological state and transition model, using a new aesthetic. My challenge is to not only document the beautiful flowers present in the high conservation value state, but also the changes to biodiversity that happen as a result of human management intervention.

In Chapter 5 the conclusions are presented. A summary of the research approach and key findings in relation to my research aims is provided. The chapter finishes with outlining opportunities for communicating the *Grassy Woodlands* series to new audiences, and proposals for future research.
2 DEVELOPING THE STUDIO PRACTICE

2.1 Introduction

In this chapter I describe the development of my studio practice leading up to, but not including, the *Grassy Woodlands* series. I begin by describing the photographs made while participating in the ANU School of Art Field Study program, the context and the field-based research method developed. The second section describes the *Backyard Harvest* series and experiments with the still life photography genre. In the last section I briefly outline the art commissions undertaken during my PhD and how these furthered the development of my studio practice. The research described in this chapter is guided by the following questions:

1. Using a field-based approach, what kind of methodology would enable me to make scientifically informed fine art through the medium of photography?
2. How does a fine art photographer develop a new way of looking at ecosystems, and develop a new aesthetic?

2.2 Field Study program: remnant vegetation

I began exploring the subject ‘remnant vegetation’ through fine art photography and field-based research while participating in the ANU Field Study program. As shown in Table 2.1, I attended four programs: Balonne (St George, Qld); Tumut (NSW); Riverland (Renmark/Calperum Station, SA); and Benalla (Vic).\(^{20}\) The Field Study program is described in detail in the dissertation (see Section 3.5). The program provides an educational option at ANU School of Art for visual art students to meld subject disciplines about environment with creative outputs in arts.\(^{21}\) It has a core commitment to field investigation where the focus is relationship to place. The field provides a place for formulating ideas through on site expert briefings and

\(^{20}\) A map showing the field locations for these Field Study programs is included in the Dissertation, ‘Section 3.5 The ANU School of Art Field Study program’.

observations, gathering materials and/or for making artworks. Within my studio research, my first challenge was to develop a field-based methodology that would enable me to bridge visual art and science disciplines.

Table 2.1 Attendance of ANU School of Art Field Study programs during the PhD program

<table>
<thead>
<tr>
<th>Field Study program</th>
<th>Dates</th>
<th>Field trips</th>
</tr>
</thead>
</table>
| Balonne              | May to December 2007 | 1. Survey field trip (10-days)  
                        |                               | 2. Field trip one (10-days)  |
| Tumut                | March to August 2008 | 1. Field trip one (5-days)  
                        |                               | 2. Field trip two (5-days)  
                        |                               | 3. Independent field trip (3-days) |
| Riverland            | July 2008 to March 2009 | 1. Field trip one (6-days)  
                        |                               | 2. Independent field trip with the convenor (4-days) |
| Benalla              | July to October 2009 | 1. Field trip one (5-days)  
                        |                               | 2. Field trip two (3-days)  
                        |                               | 3. Field trip three (5-days) |

2.2.1 Balonne

I photographed two farms that contained two different remnant ecosystems: a remnant Belah open forest (*Casuarina cristata*); and a remnant *Eucalyptus coolibah* grassy woodland. These vegetation communities have been extensively cleared in the local area and are poorly represented (or absent) in nature reserves. The farms were being monitored under the “Biodiversity in Grain and Graze” project where the researchers were trying to understand the relationship between agriculture and biodiversity in the mixed farming zones across Australia. My artwork outcome, which was exhibited at the Balonne Field Study exhibition held in St George, was a triptych of each farm (see Figure 2.1 and Figure 2.2). I used a Mamiya RZ67 ProII film camera with either a 50mm or 65mm lens. I chose to use this camera for its affordability and because it enabled me to make large fine quality prints (both hand

---


24 Unless otherwise stated, for all my photographing I used a medium format (67) film camera, and switched between the 50mm, 65mm and 110mm lens.
printed in the darkroom and digital prints). I hand printed the Balonne photographs from colour negatives in the ANU School of Art darkroom.

Figure 2.1 Remnant Belah Open Forest #1-3, 2007, 68 x 79 cm, Type C photograph

Figure 2.2 Remnant Eucalyptus Coolabah Grassy Woodland, #1-3, 2007, 68 x 79 cm, Type C photograph

The field research process involved several steps. During the field trips I attended the meetings and community briefings that were organised by the Field Study program convenor. From these meetings, I understood that the amount of land clearing was of concern. I initiated contact with and consulted government staff face-to-face in St George and over the phone with ecologists and natural resource scientists elsewhere in Queensland to obtain knowledge of remnant vegetation local to St George. Through their networks I contacted two farmers whose properties contained remnant vegetation that was considered, by the ecologists, to be in good condition. The farmers gave me permission to photograph their properties. I developed an interview question guide. Before undertaking the photo-shoots, I informally interviewed the farmers to understand how they valued the remnant vegetation, and spoke with an ecologist to develop my understanding of visual indicators of health for these ecosystems. The ecologists explained how diversity of plants, age groups and logs

25 See dissertation for an explanation of the Field Study program community briefings.
on the ground were an indicator of good habitat for fauna. Both farmers had avoided clearing and farming the remnant vegetation on their land, except as a reserve during drought, because they understood these ecosystems were becoming rare due to clearing. One farmer spoke about how she loves the afternoon light through the forest and used to walk there with her young son because it helped calm him down when he was upset. As a result of these interviews, I chose to photograph in the afternoon light, and include the visual indicators, such as logs, within my photographs. I needed to know visual indicators in order to determine what to photograph. I also read scientific reports and looked at maps of remnant vegetation. To develop my understanding of these ecosystems further, I wanted to visit the two remnant vegetation sites with an ecologist, but they were on leave during my field trips to St George. I visited and photographed each farm twice. After the second field trip, I sent a thank you email to each farmer (with an attached image of their farm) and to the ecologists I consulted. I forwarded them an invite to the exhibition and know that one of the farmers attended. My ability and confidence to carry out this field-based approach stemmed from my extensive fieldwork experience as a natural resource scientist.

In learning how to photograph nature, and specifically within the landscape genre, I initially looked to Australian wilderness photographers, in particular Peter Dombrovskis.26 I used wilderness photography techniques of shooting on a tripod, with a small aperture to maximise depth of field, and photographing on dawn and dusk to obtain detail in both the shadows and the highlights. My challenge for Balonne was to photograph two ecosystems aesthetically. For landscape photographers there are two aspects to aesthetics: (1) what exists in the landscape; and (2) how the photograph is composed. An aesthetic result is obtained when these two aspects, combined, articulate high quality relationships.27 My photographs of ‘unspectacular’ woodlands have to compete with sublime vistas and sweeping panoramas of Tasmanian ecosystems that the Australian public, through wilderness photography, has come to understand as ‘untouched’ or ‘pristine’ and therefore worth conserving.28 Despite the ecologists’ assertions of good health, the remnant

26 For example, see http://www.nga.gov.au/CollectionSearch/Default.cfm
27 John Reid, 5 August 2015, personal communication.
28 Castree.
vegetation on first impressions looked degraded, the view was brown (it was high
drought during my visit and the farmers had allowed the stock to graze the land
bare). Fuller argues, in an extension of Gregory Bateson’s ‘ecology of mind’, that for
nature to survive we need a new aesthetic. In his explanation, Fuller references
Australian desert painters during the early to mid-20th century,

The stubborn refusal of Sidney Nolan and or Fred Williams to accept the
intractability of the Australian landscape, their insistence upon realising an
aesthetic response to it, was not only something new and admirable in art: it
also bore witness to that irrepresible ‘impulse in the human breast’ to affirm
beauty in, and unity with, the natural world, regardless.29

To further consider how to photograph forests and woodlands, I looked at two
photographers in particular: Harry Callahan and Lee Friedlander (see Figure 2.3).
Their black and white photographs suggested possibilities of composing based on the
patterns that the trees formed, rather than relying on colour, which was my usual
practice.

![Figure 2.3 (left) Harry Callahan, Aix-en-Province, France, 1958, 22.9 x 23 cm, Gelatin silver print30 and (right) Lee Friedlander, The Desert Seen, 1995-9631](image)

For the Balonne Field Study program I photographed an ecosystem which sits
outside the traditional Australian wilderness photography domain. An aesthetic and

---

29 Peter Fuller, "The Geography of Mother Nature," in *The Iconography of Landscape*, ed. Stephen
Daniels and Denis Cosgrove (Cambridge: Cambridge University Press, 1998), 29.
30 Harry Callahan, "Harry Callahan Photographs: An Exhibition from the Hallmark Photographic
emotionally engaging outcome was suggested by the sale of three photographs to one of the farmers. In the next Field Study program, Tumut, I wanted to continue photographing remnant ecosystems and experiment with different landscape compositions.

2.2.2 Tumut

For the Tumut Field Study program I photographed remnant vegetation on hobby farms, not working farms, which were being managed by the landholders for the purpose of conservation. The shift occurred because these were the landholder contacts provided by the NSW National Parks and Wildlife Service. The landholders had Voluntary Conservation Agreements and/or Wildlife Refuges Conservation Agreements with the NSW Government. As a result of only being able to attend a few community briefings, I resorted to obtaining government contacts through my own networks. The departmental staff (environmental officers) arranged field trips with two landholders and attended these meetings with me. During my consultations with the government staff, I found it difficult to find out ecological knowledge of these ecosystems beyond what I already knew - I realised afterwards that it wasn't that they were withholding information, it was that their level of understanding was similar to mine - we were all applied scientists. Departmental staff gave me a contact for a third landholder whom I contacted separately and met with on his property. From this selection of three properties, I photographed two.

I exhibited two artworks for the Tumut Field Study program exhibition. *McPherson’s Plain Bog* shows a departure in composition from the St George photographs in that I excluded the horizon and began to think about seasons (see Figure 2.4). Decisions about composition were guided by wanting to show the micro-habitats, such as the change in vegetation along the drainage lines. I included the season within the title to acknowledge that ecosystems are dynamic and therefore visually change. This photograph was hand-printed. For the second artwork (see Figure 2.5) I was inspired by the landholder’s dedication to eradicating blackberries on his property and explored more explicitly the impact of human decisions on the

landscape. Two colour negatives were merged in Photoshop: one showing the blackberry infestation, and the second showing the desired outcome that the landholder wanted. This photograph was digitally printed.

Figure 2.4 McPherson’s Plain Bog, Autumn, 2008, 94.4 x 112.4 cm, Type C photograph

I discussed photographing the landholders with my supervisor.33 The landholder of the property featured in Figure 2.5 spent his weekends spraying the blackberries on this steep property with the help of his 80-year old mother. Jolly likened these landholders to the pioneering folk of Australia who cleared the land for agriculture: these new ‘eco-warriors’ have the same obsessive behaviour, but instead of clearing

33 Dr. Martyn Jolly, 7 August 2008, personal communication.
Giblett argues for a new photography genre, ‘photography for environmental sustainability’ that show people caring for the environment. I partly agree and in response decided to explore portraiture in the next Field Study program, Riverland.

My training in natural resource management taught me how to plan and execute field-based research for applied science projects. For the Balonne and Tumut Field Study programs, I focused my research firmly on the subject ‘remnant vegetation’, and sought information on, and observed field sites that fit, this subject matter. Many of the Field Study program participants I interviewed before their attendance of the first field trip expressed broad subject areas of interests for their art making (if any at all), and had few or no expectations before visiting the field location. These artists were seeking inspiration through direct experience of the field location (the social and physical settings). I wondered if my comparatively more subject focused approach limited my creative engagement with place.

Reflection on both my experiences and the approach of other artists caused me to adjust my field-based research. First, I decided to adjust my field-based approach to one that was more open-ended and exploratory, especially at the beginning. Second, I decided to focus on one ecosystem, and consult with an ecologist(s) expert in that ecosystem. This was realised after trying to photograph three very different and large pieces of remnant vegetation during the Tumut program, and consulting with generalist scientists whereby I struggled to understand what to photograph.

2.2.3 Riverland

For the Riverland Field Study program my aim, as decided after Tumut, was to begin by seeking inspiration from the community briefings and landscape within the field location. Calperum Station, where we stayed, was situated within mallee and had resident ecologists. I was inspired to research the management of the mallee within

---

34 This more nuanced relationship to the bush is documented in Don Watson’s recent book, The Bush (Penguin Australia, 2014).
35 Giblett.
36 For more detail, see Dissertation.
37 Calperum Station is a pastoral lease that now operates as an education and conservation research centre.
the context of environmental trade-offs. I asked an ecologist based at Calperum Station questions regarding the mallee (management history, current condition, the purpose of their research) and examples of visual indicators that show the mallee to be in good condition. For the Riverland exhibition, I exhibited three artworks (see Figure 2.6 and Figure 2.7).

Figure 2.6 Fruits of the Mallee 1 and 2, 2009, 47 x 60 cm, Type C photograph

Figure 2.7 Fruits of the Mallee 3, 2008, 47 x 60 cm, Type C photograph

The artwork, Fruits of the Mallee 3 (see Figure 2.7), provides a conceptual link between my landscape work and the concurrently developing Backyard Harvest series (see Section 2.3, page 19). After a day spent on the Murray River floodplain, where all the trees had died,38 and then driving onto the floodplain terraces through what can only be described as lush green orange orchards, I was keen to represent these environmental trade-offs visually played out through juxtapositions of colour.

38 The river red gums were dead because the river hydrology had been altered by river regulation.
In the book, “The Sense of Place”, Fritz Steele writes that in finding the spirit of place, “Location impact is particularly potent when the key feature of the setting is in strong contrast to its immediate surroundings”.³⁹ As discussed in the dissertation, fellow participants on the Riverland Field Study program also found the landscape potent for inspiration. I wanted the grids, although contained and limited, to suggest the expansive nature of the orchards into the mallee. The tight and squared off grids represented the orderly orchard, in amongst the less obvious, but nevertheless present, natural order of the mallee. I hand printed *Fruits of the Mallee 3*.

The photographs *Fruits of the Mallee 1 and 2* (see Figure 2.6) continued the composition developed during Backyard Harvest series. I photographed in the shade outside the house where we were staying on Calperum Station. I photographed the mallee leaves and grapes (given to me from a neighbouring farm) placed on a black bed-sheet using a medium format 67-film camera. After scanning the negatives, I used Photoshop to render the background completely black. These artworks were digitally printed.

Two sculptures that were featured in a paper by Margot Osborne influenced my experimentation during the Riverland Field Study program.⁴⁰ These were: Shona Wilson’s, *Patternation No. 8 (2007)*, and Janet Laurence’s, *Heart Shock (2008)* (Figure 2.8). The sculptures presented a new way for reflecting on landscape and environmental issues. Wilson’s work made use of a loose grid and references fragility. Her work suggests remnant vegetation precariously linked by wildlife corridors. *Heart Shock* seemed particularly pertinent to the Riverland, where decisions on environmental flows were being made. In my first field experiments I composed straight landscape photographs of the mallee, similar to the Balonne photographs. Inspired by Wilson and Laurence, I then experimented with a variety of art installations, which were documented through the photograph. Installations included suspending grape bunches off mallee branches (tied with string); placing grapes and oranges in grids on a dry salt-water lake, and then in the mallee; and extending the single grid within the landscape, to multiple grids.

---


In addition to the landscape photographs, I explored the ‘eco-warrior’ portrait idea (see explanation in Section 2.2.2, page 11) by photographing a local conservation farmer as shown in Figure 2.9, and the Calperum Station manager. While the idea has merit, I decided to continue to explore the subject of remnant vegetation through landscape and still life photographs in order to retain conceptual focus.

Figure 2.9 Gary, Riverland Dryland Farmer, 2009

---

41 Ibid.
42 Ibid., 27.
During the two field trips to the Riverland, I experimented with and negotiated several ideas in several different locations in the mallee ecosystem. This high volume of art experiments was likely the result of a combination of factors. First, my conscious decision to alter the field research approach by seeking inspiration through direct experience, and as a result becoming aware of the high-quality relationships present within the Riverland. Second, the fear of returning to Canberra without suitable material for the exhibition, which was fed by my lack of certainty during the first field trip on whether or not I would have the opportunity to return to the field location. As discussed in the dissertation, studio time interspersed between two or three field trips embodies experiential learning and action research principles. My studio practice approach to the Riverland Field Study program (both studio time and field-based research approach) suggested that I was attempting to undertake all phases of the experiential learning cycle within that first field trip. For the next Field Study program, Benalla, I planned to attend all three field trips, as well as focus on fewer ideas and field sites, with the hypothesis that this approach would better embody experiential learning principles and lead to rich learning.

2.2.4 Benalla

For the Benalla Field Study program I again first sought inspiration through direct experience of place, and then narrowed my research to one idea and one field site over three field trips. My artwork, which was exhibited at Benalla Art Gallery, was inspired by the ‘Regent Honeyeater Project’. I became aware of this project during a community briefing on field trip one. The aim of the Regent Honeyeater Project is to increase the area of grassy woodlands through re-connecting remnant vegetation and re-establishing the understorey shrub layer. The project relied on farmer’s offering their land and volunteering time. Ecologists determined that when there is less than 15% of this habitat remaining, the abundance of Regent Honeyeater birds (an endangered species) plummets. The project coordinator gave me the name of a participating farmer, who granted me permission to access their land. I took the opportunity during the Benalla Field Study program to explore how to represent remnant vegetation in a new way: the still life photography form.

43 Experiential learning phases described in my dissertation are: direct experience, observation, reflection, abstract conceptualisation, experimentation and negotiation.
44 Ray Thomas, 30 July 2009, personal communication.
The artworks selected for the exhibition formed a still life triptych (Figure 2.10) in which each photograph represented a different layer within the woodland: the groundcover, the shrub layer, and the eucalypt layer. Ecologists classify vegetation communities based on observations of these three layers. My methods for making still life photographs evolved from the Riverland artwork and the *Backyard Harvest* series (see Section 2.3, page 19). The still life photographs were made in Benalla in a makeshift studio. The photographs, captured on transparency, were printed digitally at the same size as the original layout (approx. 48 cm x 60 cm).

![Figure 2.10 (left) Connecting the Remnant Vegetation: Groundcover, (centre) Shrub Layer and (right) Tree Layer, 2009, 71 x 82 cm (framed), inkjet print on cotton rag](image)

The collegial learning environment during the Field Study program was important to the development of my art practice, for example, broadening my perspectives of the field location and within my field site. Giving permission to other participants to watch me make the still life helped me think about grid composition. I learnt from another Field Study program artist that sharing examples of your artwork when consulting with the community helps to develop rapport. Participating in a planting day with the community gave me a deeper understanding of the Regent Honeyeater Project, the landscape and the people involved. The field-based research methodology, as implemented for Benalla, enabled me to make art in response to place, and reflect on ecological concepts. In a conceptual extension of the Backyard Harvest series (see next section), a new way of visually representing the landscape was discovered through the still life form.

---

45 Ecologists classify and describe vegetation communities by these three layers.
46 I gained permission to use the local caravan park communal kitchen which had the perfect diffuse light from the south.
47 This is expanded upon in the dissertation.
At the conclusion of the four programs I jointly curated with John Reid, the EV Project Chief Investigator, the exhibition “Engaging Visions: Your Place in Fine Art” at ANU School of Art Gallery. This was an opportunity to present visual art outputs from the four Field Study programs to Canberra colleagues, and develop my professional skills in curating.

### 2.3 Backyard Harvest series

The fruit and vegetables from my garden, in comparison to shop bought alternatives, inspired me to make the Backyard Harvest series. The series is a typology - a method used in photography where the series forms a collection of ‘type’. The type used in Backyard Harvest is fruit and vegetable. Marc Freidus explains typology as follows,

> A typology is assembled by observation, collection, naming and grouping. These allow the members of the class to be compared, usually in search of broader patterns. These patterns may reveal biological constants if the subjects are living things or social truths if the subjects are human creations.

The property where I live has a small orchard of about 60 trees and two vegetable gardens. I started photographing in the summer of 2007 / 2008, and continued to the 2011 harvest. The making of this series enabled me to work from home, which was important at the time because I was looking after my young family. The subjects - remnant vegetation, and fruit and vegetable produce - merged within the artworks produced for the Riverland Field Study program.

Through the making of the Backyard Harvest series, I developed a technique for making still life photographs, and which was transferable to different field locations. The technique was developed through a series of experiments in light source, background material and studio location. I applied this technique when making photographs for the Benalla Field Study program, art commissions (see Section 2.4) and Grassy Woodlands series (see Section 4.3). Experiments in the still life form

---

48 For details see, John Reid et al., Engaging Visions: Engaging Artists with the Community About the Environment (Acton, A.C.T.: The Australian National University, 2010).

made possible my conceptual leap towards developing a new way of looking at ecosystems. Examples from the experiments in method and composition undertaken whilst developing the *Backyard Harvest* series are shown in Figure 2.11 and Figure 2.12.

Experiments in natural ambient light commenced with using the carport shade. Diffuse light was needed to render tonal range. To avoid the dust that gets kicked up during windy days, and to allow greater control over ambient light, the makeshift studio was moved to the kitchen floor, which has predominantly south facing windows. An area of floor that metered evenly was used. Photographing during the middle of the day avoided direct light from a western window, otherwise a piece of muslin fabric was placed over the window as a diffuser. Examples of still life set ups are shown in Figure 2.13. For each makeshift studio location, light temperature and colour casts thrown by interiors needed consideration. All photographing for this series was analogue, and experiments with grey cards and lens warming filters were used to resolve colour-cast issues.\(^{50}\) A better print was obtained from getting the colour balance correct in camera as opposed to relying on edits in Photoshop. Using a digital camera programed to ‘raw’ would have overcome colour temperature problems, however digital cameras of similar quality to medium format film cameras were unaffordable.

---

\(^{50}\) I didn’t have access to a colour meter. Apparently a mobile phone app is now available.
Figure 2.11 Backyard Harvest: experiments in still life technique and composition, 2007-2011
Figure 2.12 *Backyard Harvest*: experiments in still life technique and composition continued, 2007-2011
Initially a black bed sheet was used as the background on which the fruits and vegetables were placed. The sheet did not absorb enough light, and resulted in the photograph having a dark grey background with shadows caused by the creases. A roll of black studio cardboard was used for the next experiment. Although it did not render a black background, the texture and shadows created by the fruits on the cardboard were visually pleasing, similar to the still life photographs produced by Craigie Horsfield and Joachim Froese (see for example Figure 2.14). The shadows increased the depth of field. The difficulty with using the cardboard was obtaining a consistent tone and hue of ‘black’ across the images, which is important in developing a cohesive series. Using a photography studio with studio lights would have resolved these issues. I did experiment with using studio lighting, but chose to

---

51 Craigie Horsfield and Catherine M. de Zegher, "Relation," (Sydney: Museum of Contemporary Art, 2006).
persist with natural ambient light (and working out ways of satisfactorily controlling the variables) in order to develop a technique that was transferable to the field. I also preferred the results obtained from natural ambient light. A near complete black, which required minimal editing in Photoshop, was made possible by using black velvet. Photographer Robyn Stacey during a seminar explained that she used black velvet in her Beau Monde series (see for example Figure 2.14).52 The near complete black allowed the fruit and vegetables to appear to float in air when the photograph was hung on the wall. In addition to the black background tests, experiments were also conducted with white watercolour paper. The black provided a better contrast against the colours.

The composition for the Backyard Harvest series started with the grid. The aerial perspective was inspired by one evening after my partner and I had, out of necessity, picked fruit in the rain. The fruit was carefully laid out across the lounge room floor to prevent rot. Rosalind Krauss writes about the use of the grid in modern art. Like a window looking out into the landscape, the grid helps us to see, to focus, but also to let us know that like the view bounded by the window, the landscape continues beyond vision.53 In most instances I had enough produce to compose a complete picture (beyond the frame) per fruit or vegetable type. By indicating that fruit and vegetables continue beyond the frame, I wanted to show the abundance of a backyard garden. By giving space around each individual fruit, I was inviting the viewer to not only look at the individual, but also the whole.

The diagonal grid, as shown used in Figure 2.11 and Figure 2.12, was used to mimic how fruit is packaged for transport to minimise bruising and then displayed in a shop. I wanted to provide the viewer with a familiar point of reference to that of their shop experience but with a difference. Instead of the perfect, all the same looking fruit and vegetable, I was offering the tree ripened, bird bitten, but still edible (and much more delicious) fruit from my backyard garden. I also experimented with compositions where the grid was completely contained within the photograph. After

52 Robyn Stacey seminar at the National Portrait Gallery (9 May 2009).
looking at Horsfield’s *Red Cabbage*,\(^{54}\) and also feeling inspired by Joachim Froese’s still life photographs\(^{55}\) who sometimes composes a still life along a shelf, I experimented with photographing singular fruit, and lining up fruit in a row. But I kept coming back to the grid. The need to suggest abundance beyond the frame was more in accord with my idea. I discuss the grid further in section 4.3 (page 57).

![Figure 2.14](image1.png)

(a) (b) (c)

Figure 2.14 (a) Robyn Stacey, *Beau Monde (yellow)*, 2006, 120 x 120 cm, Type C print\(^{56}\); (b) Craigie Horsfield, *Red Cabbage, New York, October 2003*, 108.5 x 100 cm, Dryprint\(^{57}\); (c) Joachim Froese, *written in the past #7*, 2007, 3 Archival pigment inkjet prints, 43 x 112 cm\(^{58}\).

---

\(^{54}\) Viewed at Horsfield’s exhibition, “Relation”, Museum of Contemporary Art, Sydney, 16 March to 3 June 2007.


After experimenting with colour negative for the *Backyard Harvest* series, I decided to switch to colour transparency film, which was then scanned and digitally printed. The advantages over scanning and printing digitally include: better control over blacks; the ease in which reproductions can be made; and the greater archival qualities of digital papers over Type C prints.

Photographs from this series were exhibited in “Zeitgeist”59, “Captured, Collected, Categorised”60 and “The Contested Landscapes of Western Sydney”61.

### 2.4 Commissions and residencies

During my PhD I undertook three commissioned photographic works and an artist residency. These, as outlined below, helped to further develop my PhD studio practice.

For the Stockland Shellharbour (NSW) commission, the invited artist was asked to employ field-based research in answering the question, “Who are we, anyway?” My resulting artwork (see Figure 2.15) reflects on the collective experiences, memories and knowledge that inform the Shellharbour community. Featured in the photograph are plants used by D’harawal people (local Aboriginal people) during the ‘hot and dry’ season62 and European artefacts, all sourced from Shellharbour. Because of the resolution required to produce a 19m long photograph, each plant and artefact was photographed separately using a digital camera. Once the scale and internal grid distances were finalised, the grid was built in Photoshop. An installation shot is shown in Figure 2.16. Undertaking this work inspired me to include human artefacts in the *Grassy Woodlands* series.

---

59 Exhibited as part of the Vivid National Photography Festival 2008, Photospace, ANU  
60 Selected for the sub-culture slide night at the Australian Centre for Photography, Paddington NSW  
61 This was an ANU Field Study program (2010), and in which I exhibited in three associated exhibitions.  
In 2013, five artists including myself were commissioned to make artworks in response to Hall, a village within the Australian Capital Territory.\(^{63}\) The artwork followed a similar method as the Stockland Shellharbour commission.\(^{64}\) Reflecting on this work cautioned me to avoid getting too graphic in my artwork by getting a good balance between the objects and the background. I make comment on this further in Chapter 4 (page 47).

\(^{63}\) The project commission was part of the Canberra Centenary celebrations project, “Portrait of a Nation: Unmade Edges – Distinctive Places”. For more information see, http://info.cmcd.act.gov.au/Canberra100/landing/home/index.htm

\(^{64}\) For more information on the project, including the artist statement see, http://soa.anu.edu.au/publication/unmade-edges-distinctive-places-hall-portrait-nation
At the end of 2014 the Centre for Contemporary Photography (CCP) in Melbourne approached me to submit two photographs, based on the *Grassy Woodlands* still life series, for Billboard 9 of the “OUT THERE Billboard Art Project”.65 The commission provided the opportunity to bring ‘grassy woodlands to the city’, and with the assistance of an accompanying text panel explaining some of ecological concepts behind the artwork, share ecological knowledge with a new audience. The artworks, which were exhibited for six months, are shown in Figure 2.18 and Figure 2.19. An installation view is shown in Figure 2.20. The “Fertilised Pasture in Spring” photograph was published, along with my artist statement, in the book “Art + Climate = Change”, providing another means for communicating scientific basis behind the work.66 I plan to include these billboard prints in my PhD exhibition as a means to demonstrate another way of exhibiting the *Grassy Woodland* series and communicate ecological knowledge with the public.

65 The OUT THERE Billboard Art Program is a Centre for Contemporary Photography and Yarra Council initiative in partnership with 7-Eleven. The two billboards are located on the corner of Smith and Otter Streets, Collingwood. More information can be found at www.ccp.org.au
In 2015 I was awarded an ANU Vice-Chancellor’s College Artist Fellows Scheme (VCCAFS) and was artist-in-resident at the ANU Fenner School of Environment and
Society. The inspiration for my artworks was the Mulligans Flat-Goorooyarroo Woodland Experiment. In response to this research, as well as to agricultural and indigenous heritage of Mulligans Flat, I made four fine-art photographs, three of which form a triptych. For the still life triptych, I reflected on three different ways of looking at and valuing the grassy woodland ecosystem: from the perspective of an ecologist; and historian; and Ngunawal (local Aboriginal people) plant use (see Figure 2.21). The photographs show different biodiversity’s. For the fourth photograph, I photographed insects collected by Dr. Philip Barton from a kangaroo carcass with the purpose of showing some of the diversity of carrion beetles and flies (see Figure 2.22). This residency deepened my understanding of box-gum grassy woodlands from different perspectives, and expanded opportunities for future research within this subject area.

Figure 2.21 (left) Mulligans Flat Woodland Sanctuary, Spring, (middle) Mulligans Flat Ploughlands, Spring and (right) Reflecting on Ngunawal Plant Use in November, 2015, 93.5 x 109.0 cm, archival inkjet print

---

67 For more information see http://mfgowoodlandexperiment.org.au/
68 Research Fellow at The Australian National University.
69 The Australian National University, ”Vice-Chancellor's College Artist Fellows Scheme 2015,” ed. School of Art (Canberra: The Australian National University, 2016).
70 The artwork was exhibited at two group shows: ANU School of Art Foyer Gallery, “Vice-Chancellor’s College Artist Fellow Scheme” (February 2016), and Wagga Wagga Art Gallery, “Land Dialogues” (March-June 2016).
Figure 2.22 *Carrion insects from a kangaroo carcass*, 2015, 65.0 x 77.0 cm, archival inkjet print

The still life photographs in this section show plants, animals and artefacts isolated from the place and/or ecological community from where they came. This extraction, and removal of context, could make it difficult for the viewer to interpret the work. Text was used in various forms to assist the layperson with critically discerning what was being presented in my artworks, including ecological concepts. Artist statements were made available to the viewer either within a text panel on the wall adjacent to artwork or within the exhibition catalogue. For the Stockland Shellharbour (NSW) commission and Hall commission, I wrote a key to the artworks identifying each of the plants, animals and artefacts in the artworks, and for the Stockland work, their use and/or importance. Figure 2.16 shows two people reading the key placed opposite the Stockland commission. For the ANU VCCAFS exhibition I wrote ‘fat’ labels, which included one or two sentences briefly explaining the concepts and knowledge behind each artwork within the triptych.71 Other methods that were employed to help communicate the knowledge informing my artworks were radio interviews72 73, artist talks at exhibitions and participating in an all-day event with

71 Example of ‘fat’ label used: “Attending the Indigenous Heritage Walk led by Ngunnawal Custodian Mr. Wally Bell in the Mulligans Flat Woodland Sanctuary inspired this photograph. I collected plant material from the grassy woodland where I live using the “Ngunnawal Plant Use” book as my guide.”
the community, where the artists and the community members who inspired the artworks discussed the artworks with the broader public.\footnote{Carolyn Young et al., "Portrait of a Nation: Unmade Edges - Distinctive Places: Hall," (Canberra2013).}

2.5 Conclusion

The purpose of my studio research is to develop a new way of looking at ecosystems - one that is both aesthetic and scientifically informed. At the beginning of this chapter I asked two research questions:

1. Using a field-based approach, what kind of methodology would enable me to make scientifically informed fine art through the medium of photography?
2. How does a fine art photographer develop a new way of looking at ecosystems, and develop a new aesthetic?

Over the attendance of four Field Study programs I developed and refined a field-based research methodology that enabled me to make art in response to place and reflect on ecological concepts. The method involved first seeking inspiration through direct experience of place, and when ready to act on ideas, employing my field research skills developed while working as an environmental scientist, for example consulting scientific reports and journals and consulting experts. As a result of implementing this method, I became more aware of the high-quality relationships present within the field location. To facilitate a deeper sense of place I learnt to: focus my studio research over the course of 2-3 field trips on the one ecosystem (or idea) and field site; and share my art with the community. These approaches, along with a collegial learning environment, embodied experiential learning principles and led to conceptual developments in my art practice.

During the Balonne Field Study program I aesthetically registered healthy Australian ecosystems that did not subscribe to the established aesthetic of healthy ecosystems. Looking at sculptures that contemplate similar subject material, and undertaking the *Backyard Harvest* still life photography series, afforded me new ways of visually...
representing the landscape and ecological concepts through a combination of art installations and the still life form.

During the Field Study programs, I consulted with ecologists and natural resource scientists to further my understanding of remnant vegetation. My challenge was to capture, through photography, some of the ecological concepts associated with these vegetation communities. I found it difficult during the Tumut and Riverland field trips to explain my studio research purpose to the scientists I consulted, and therefore difficult to ascertain a satisfactory understanding of visual indicators of a healthy ecosystem. This reflection caused me to seek a methodology that involved consulting with ecologist’s expert in the ecosystem I wanted to photograph.

While attending the Field Study program I was logistically constrained by having a baby and was exhausted. I came to the realisation through making the *Backyard Harvest* series, and early explorations in photographing local grassy woodlands, that I didn’t need to travel huge distances to find ecosystems worth documenting. I felt reassured by other female photographers who, after having children, also brought their art practice closer to home, such as Narelle Autio in her series, *The Summer of Us.* I discovered new ways of looking at nature through spending time with my young son on my 20-acre property: going slower, looking down. I started collecting leaf litter. After the Field Study programs, I decided to focus on the one ecosystem - grassy woodlands - and access field sites located on my property and within proximity, thus enabling more sustained field work than that afforded by the Field Study program, and the opportunity for me to develop a better understanding of the place where I live.

In the next chapter I outline the ecological context to *Grassy Woodlands,* the reasons why I chose to photograph grassy woodlands, and describe how I further developed my field-research method.

---

3 CONTEXT TO “GRASSY WOODLANDS”

3.1 Introduction

In the previous chapter I described the development of my studio practice leading up to, but not including, the Grassy Woodlands series. This chapter outlines the subject for my final studio practice series - grassy woodlands - the process developed for consulting with ecologists and farmers, the collaboration with ecologist Dr. Sue McIntyre, the ecological theory supporting the Grassy Woodlands series, and the field sites. Briefly discussed are existing approaches to photographing grassy woodlands and grasslands.

3.2 Theory, process of consultation and collaboration

From an ecologist’s perspective, high quality temperate grassy woodland has a very diverse native grass and forb (wildflower) ground-layer, with patches of shrubs (occasionally absent) and widely spaced eucalypt trees.76 77 High quality grassy woodlands are easily overlooked because, superficially, they can look like a paddock. Temperate grassy woodlands once covered extensive areas across inland Tasmania, Victoria, New South Wales, the Australian Capital Territory and southern Queensland, and high quality examples are now largely restricted to roadsides, small reserves and cemeteries.78 Gammage argues, and some ecologists agree, that Aboriginal people made the woodland structure through the way in which they managed the landscape.79 80

There are several reasons why I chose grassy woodlands as the subject for my final studio practice series. Grassy woodlands occur on land that is productive for agriculture and therefore have been widely converted to pastures and crops. Only

79 Gammage.
80 For example, see the appendix in, The Biggest Estate on Earth: How Aborigines Made Australia.
10% of box-gum grassy woodlands remain, and within that remnant, only half is considered to be high quality (high conservation value). Woodland ecologists are struggling to communicate their knowledge on grassy woodlands. As a fine-art photographer, I was challenged by ecologists to help meet that need. My curiosity was provoked when an ecologist colleague claimed that the wildflowers of grassy woodland rival those of Western Australia and Swiss meadows. Photographing grassy woodlands enabled me to work closer to home, with several high-quality box-gum grassy sites and derived agriculture landscapes within 30 minutes’ drive from my home. Opportunities also presented themselves for consulting with woodland ecologists who worked and lived within my region. Photographing the grassy woodlands was an opportunity for me to learn more about where I lived.

My challenge was to capture through photography some of the ecological concepts that the researchers were dealing with. This reflection caused me to seek a methodology that involved consulting with ecologists that were an expert in the ecosystem I wanted to photograph. Visually representing ecological knowledge of grassy woodlands required me to learn how to observe visual health indicators. To increase my knowledge, I developed a social enquiry method that built upon: my field-based methods used during the Field Study program (as discussed in Chapter 2); qualitative methods researched in preparation for my dissertation; discussions with social scientists; and readings on photo-elicitation. The process I developed for consulting with grassy woodland ecologists was as follows:

1. I approached ecologists within government departments (NSW and ACT) and CSIRO with my idea. As a visual aid, I used photographs from my previous studio practice (i.e. Benalla and Tumut Field Study programs).
2. I went on field trips with three ecologists to a variety of native grasslands and grassy woodlands to learn more about the scientific method of observing,

---

81 My research predominantly focuses on the endangered box-gum grassy woodland, a type of grassy woodland.
82 Stol and Prober.
85 CSIRO is the Australian Commonwealth Scientific and Industrial Research Organisation.
recording and documenting grassy woodlands, including the different scales at which the ecologist researches the grassland: quadrat, paddock, landscape and aerial. Through these field trips, and consulting reference books, field guides and government reports on grassy woodlands, I learnt how to identify many plant species and identify visual indicators of high quality grassy woodlands (summarised in Table 3.1, page 39).

3. Through talking with ecologists, going through their research database, and subsequent ground-truthing, I developed a list of field sites for photographing.

4. I then photographed the grasslands and farms, and/or collected specimens for bringing home and photographing for the still life series.

5. Several woodland ecologists were consulted on repeat locations to show them my works-in-progress photographs. The ecologists provided feedback on whether the photographs captured the ecological concepts correctly, as well as their emotional and aesthetic reactions. These consultations were held in the ecologist’s office, my studio at the university and in grassy woodland field sites.

The method outlined above was initially employed for learning, from ecologists, about high quality grassy woodlands, including their signs of ecosystem degradation. In accord with my studio research purpose (see Chapter 1, page 1), I also wanted to consider the grassy woodland ecosystem within an agricultural context. Ecologists argue, for example, that a native ground-layer is beneficial to graziers: the perennial native grasses continue to provide a food source for stock during summer when the annual, spring growing, exotics die out. To further explore grassy woodlands

86 Saunders et al.
87 Lindenmayer et al.
88 Gammage.
91 Climate Change and Water NSW Department of Environment, "Draft National Recovery Plan for White Box, Yellow Box, Blakely's Red Gum Grassy Woodland and Derived Native Grasskand.," (Sydney: NSW Department of Environment, Climate Change and Water, 2010).
92 Stol and Prober.
93 A process of visiting potential field sites to check their suitability for the proposed research.
94 Rawlings, Freudenberger, and Carr.
within an agricultural context, a friend suggested I contact the eminent woodland ecologist Dr. Sue McIntyre from CSIRO, Canberra. From McIntyre, and through reading journal papers on this subject, and discussing these papers with McIntyre, I learnt about a conceptual ecological model that considers the effect of agriculture on plants diversity within temperate grassy woodlands.

McIntyre and her colleague Sandra Lavorel developed an ecological ‘state and transition model’ model for grassy woodlands, which forms the basis for my Grassy Woodlands series. State and transition models are a way of diagrammatically looking at an ecosystem, and are employed to help make sense of changes in vegetation composition and structure. The state and transition model described by McIntyre and Lavorel (see Figure 3.1) represents five land use types in temperate grassy woodlands: reference grassy woodland (high conservation quality); native pasture; fertilised pasture; crops and sown pasture; and enriched de-stocked grassland. The states numbered 1-5 are described in terms of grazing level, soil fertility and soil disturbance. The circular arrows depict the management associated with the maintenance of the state and the straight arrows describe the management action that could potentially cause a transition from one state to another and back again.

---

95 McIntyre and Lavorel.
96 Ibid.
100 David J.; Shorthouse et al., "The 'Making of' the Mulligans Flat - Goorooyarroo Experimental Restoration Project," ibid.13, no. 2 (2012).
101 McIntyre and Lavorel.
102 Rawlings, Freudenberger, and Carr.
State and transition models are based on the assumption that an ecosystem exists in a relatively stable state until a disturbance is significant enough to cause a transition to another relatively stable state. For example, fertilizing a native pasture (state 2) can cause the transition from a mostly native ground layer to a mostly exotic ground layer (state 3: fertilized pasture). Rawlings et al. build on McIntyre and Lavorel’s model and describe the vegetation composition and structure within each state, which are visual indicators (see Table 3.1). The visual changes from state 1 (reference grassy woodland) to state 2 (native pasture) can be subtle and require an understanding of native species. From state 1 to state 2, the grasses and herbs remain highly diverse but there is a shift from perennial to annual species. From state 1 to states 4 and 5, the diversity of native grasses and herbs decreases, the abundance of exotic species (which are annuals) increase, and the potential for native plants to regenerate diminishes. Although the state and transition model is a simplified representation of the real world, it provided me with a conceptual model in which to

---

103 Source: McIntyre and Lavorel, 14.
104 Native plants evolved in a low-nutrient system and die out in high-nutrient systems.
105 Rawlings, Freudenberger, and Carr.
visually represent, through the photograph, changes to biodiversity as caused by different agricultural land uses.

Table 3.1 Box-gum grassy woodlands: visual indicators for each state\textsuperscript{106}

<table>
<thead>
<tr>
<th>State</th>
<th>Characteristics for each state: visual indicators</th>
</tr>
</thead>
</table>
| State 1: Reference grassy woodlands | Eucalypts spaced as woodland  
Large and medium tussock grasses  
High diversity of grasses and herbs  
All native species  
Mostly perennial, few annuals  
Regeneration present |
| State 2: Native pastures   | Eucalypts generally present  
Medium and small tussock grasses  
High diversity of grasses and herbs  
Mostly native species, some exotics  
Many native annuals  
Regeneration usually present |
| State 3: Fertilised pastures | Eucalypts scattered or absent  
Few small perennial tussock grasses  
Low diversity of grasses and herbs  
Mostly exotic species  
Annuals tend to dominate  
Few native species regenerating |
| State 4: Crops and sown pastures | Eucalypts very scattered or absent  
Dominated by sown species  
Mostly exotic annual species  
Few or no native species present  
Native generally not regenerating |
| State 5: Enriched pastures  | Large perennial exotic grasses dominant  
Very low diversity of grasses and herbs  
Little or no regeneration of native species |

Initially, my relations with Sue McIntyre was of a consultative nature, where I would meet with McIntyre to seek advice. The consultation meetings took place during a couple of field trips to her nearby property in amongst grassy woodland and within

\textsuperscript{106} Adapted from: ibid., 12.
my studio. McIntyre was very receptive to working with me; she had wanted to collaborate with an artist for a long time to communicate ecological knowledge of grassy woodlands.\(^{107}\) Collaboration involves, “a situation of two or more people working together to create or achieve the same thing”;\(^{108}\) “the action of working with someone to produce something”.\(^{109}\) McIntyre wanted ecological knowledge of grassy woodlands to be communicated through visual art, and I wanted my artwork to be scientifically sound. A new guiding research question was posed: how might a collaboration between an artist and ecologist work? Our collaboration took several forms, which added to the process already established for the consultative approach: going on field trips together and determining quadrats for me to photograph for the landscape series, and collecting plants together for some of the still life series; looking at my photos to ensure they that captured the visual indicators correctly (more on this in Chapter 4); working together to define appropriate seasons for me to photograph (see section 3.4); providing advice to McIntyre on her photographs of grassy woodlands and research documentation; reading through and providing advice to McIntyre on the book she is writing on grassy woodlands; and additional discussions around how to collaborate on a separate book involving a combination of my photographs and our writing (briefly discussed in Chapter 5).

After establishing that I would use the grassy woodland state and transition model as the guide for grassy woodland photography series, I then needed to establish field sites on farms, which were once grassy woodlands. To do this, I discussed possible locations with McIntyre, and then selected a farming area in which to door-knock. I was fortunate to receive a welcome reception from the first farm visited. The farmers gave me permission to photograph their native pastures, fertilised pastures, crops and sown pastures. In our first meeting, I showed the landholders examples of my photographs of grasslands and woodlands (still life and landscape) as a means to share what my intentions were. The farmers, through a consultative process, educated me on farming practices (crop and grazing rotation). During the photographing of the *Grisly Woodlands* series, the farmers sold their farm, and

\(^{107}\) McIntyre and Young.


through ‘word of mouth’ I secured two other farms in which to photograph. I aimed to photograph the farms partly from the perspective of the farmer: what they considered to be a good outcome for their farm business. I was fortunate to find farmers whose objective was to farm within the land’s suitability and capability.

### 3.3 Field sites

The field sites photographed for both the *Grassy Woodlands* landscape and still life series are listed in Table 3.2. Sixteen sites were photographed, with most located in NSW and two sites in the ACT. Kangaroos grazed all field sites to various levels of intensity.

Table 3.2 Field sites selected for photographing the *Grassy Woodlands* landscape and still life series and their management at time of photographing

<table>
<thead>
<tr>
<th>State</th>
<th>Field site</th>
<th>Locality</th>
<th>Current management</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Grassy woodlands</td>
<td>“Gang Gang” (McIntyre’s property)</td>
<td>Gundaroo, NSW</td>
<td>Not grazed by livestock*</td>
</tr>
<tr>
<td></td>
<td>Turalla Nature Reserve</td>
<td>Bungendore, NSW</td>
<td>Not grazed by livestock</td>
</tr>
<tr>
<td></td>
<td>Six Mile Travelling Stock Reserve</td>
<td>Bungendore</td>
<td>Management unknown</td>
</tr>
<tr>
<td></td>
<td>Bookham Cemetery</td>
<td>Bookham, NSW</td>
<td>Not grazed by livestock Occasionally mowed</td>
</tr>
<tr>
<td>2. Native pastures</td>
<td>“Gang Gang” (McIntyre’s property)</td>
<td>Gundaroo</td>
<td>Not grazed by livestock</td>
</tr>
<tr>
<td>3. Fertilised pastures</td>
<td>“Willow Grove” farm</td>
<td>Gundaroo</td>
<td>Improved pasture, grazed by livestock</td>
</tr>
<tr>
<td></td>
<td>Bingley farm</td>
<td>Sutton, NSW</td>
<td>Improved pasture, grazed by livestock</td>
</tr>
<tr>
<td></td>
<td>“Manandawara” farm</td>
<td>Gundaroo</td>
<td>Improved pasture, grazed by livestock</td>
</tr>
<tr>
<td>4. Crop or sown pastures</td>
<td>“Willow Grove” farm</td>
<td>Gundaroo</td>
<td>Lucerne crop and fallow</td>
</tr>
<tr>
<td></td>
<td>“Willow Grove” farm</td>
<td>Gundaroo</td>
<td>Oats crop</td>
</tr>
<tr>
<td></td>
<td>Bingley farm</td>
<td>Sutton</td>
<td>Lucerne crop and fallow</td>
</tr>
<tr>
<td></td>
<td>Bingley farm</td>
<td>Sutton</td>
<td>Rye or Oats crop</td>
</tr>
<tr>
<td></td>
<td>“Manandawara” farm</td>
<td>Gundaroo</td>
<td>Clover and phalaris</td>
</tr>
<tr>
<td>5. Enriched grasslands</td>
<td>Road side</td>
<td>Gundaroo</td>
<td>Occasionally mowed</td>
</tr>
</tbody>
</table>
3.4 Seasons

I was inspired to photograph the grassy woodlands across seasons to show some of the diversity and abundance of wildflowers, as well as provide a point of comparison for how grassy woodlands look in other seasons when plant growth is limited or dormant (and more likely to resemble a paddock). Landscape photographers Joel Sternfeld and Jem Southam often photograph a particular place across seasons. I commenced the Grass Woodland series with the aim of photographing the European defined seasons of spring, summer, autumn and winter. I then questioned whether these seasons captured the visual changes that occur within grassy woodland and derived agricultural landscapes. After I consulted three farmers, McIntyre and I came up with three visually different stages, which I am now using as the basis for photographing the five land use types. The visually different stages identified were:

1. Active flowering (‘spring glory’)
2. Dormancy caused by,
   - Frost
   - Drought
3. Controlled growth caused by,
   - Grazing
   - Mowing
   - Fire

Another way to consider seasons would have been to photograph according to Indigenous seasons, similar to how I have approached the Stockland Shellharbour

---

* Note: kangaroos grazed all field sites.

---

110 For example, Joel Sternfeld’s series, “Oxbow Archive” and “Walking the Highline”, and Jem Southam’s series, “The Painter’s Pool”.
111 Sue McIntyre’s wording
commission (see Section 2.4). After some consideration, I decided to photograph the ecological and farming seasons because that was the focus of my research. Learning about Indigenous seasons and making artworks in response could be a focus for future research.

3.5 Photographs of grassy woodlands

Grassy woodlands have been photographed for several publications. Most notable are the photographs of Esther Beaton who was engaged to photograph the gamut of woodlands for the book, “Woodlands: A Disappearing Landscape”.\(^\text{112}\) Other photographs of grassy woodlands can be found in field guides\(^\text{113}\), and government documents with the purpose of assisting private landholders in managing box-gum grassy woodlands, and are predominantly taken by the ecologists during their field work without the consideration that a professional photographer would provide.\(^\text{114}\) Beaton’s compositions are predominantly landscapes; similar to the composition I chose for photographing the remnant vegetation in the Balonne (see Figure 2.1 and Figure 2.2). The photograph is typically shot straight on, from waist height, and includes the three main vegetation structures within the woodland: the ground-layer, the shrub-layer (if present), and the tree layer. The purpose, as stated in the book, was for the photographs to illustrate woodland ecology, as well as elements of woodland management and conservation. Occasionally Beaton photographed from a hill vantage point to show the paddock scale. Also included are photographs of individual animals and plants, photographed in situ. Beaton’s compositions give the reader a human-scale view of the woodlands: a view that a person walking through the woodland, with the occasional bending down to look at something up-close, could encounter. In Rawlings et al. guide, “A Guide to Managing Box Gum Grassy Woodlands”, two photographs are used to illustrate each of the five states for box-gum grassy woodlands: the landscape scale (as described for Beaton), and the quadrat (1m x 1m scale). These are field records taken by the authors who are ecologists, and not printed as fine-art photographs. Photographs in flora field guides show individual grassland species in situ (within the grassland / woodland) during their flowering season. Nearly all photographs of grassy woodlands show the

\(^{112}\) Lindenmayer et al.
\(^{113}\) For example, Eddy et al.
\(^{114}\) For example, Rawlings, Freudenberger, and Carr.
reference state (state 1, high conservation quality) and not the changes that happen to grasslands as a result of human management interventions.

In researching artists who have photographed grasslands I came across the USA photographer Terry Evans. Evans writes, “My task as an artist is to tell the stories of the prairie.”115 Born in the heart of the American prairie, Evans photographed the prairie for nearly 30 years: first the undisturbed prairie116, second the inhabited prairie117; and third military occupation, abandonment and then restoration of the prairie.118 Evan writes that in photographing the ‘pristine’ prairie she often worked at waist height, fascinated by the complexity of forbs and grasses on the ground, searching for patterns close up. When Evans photographed the inhabited prairie, she found she needed to photograph from the sky (aerial) to find patterns because viewed from waist height there is, “…only wheat and ground.”119 In photographing the prairie both pristine and inhabited, Evans has explored many compositions, in both colour and black and white: the quadrat (looking down), the paddock scale, aerial, as well as photographing museum specimens of pressed plants. Examples of her photographs are shown in Figure 3.2. Her photographs, “…show marks that contain contradictions and mysteries which raise questions about how we live on the prairie.”120 Evans is an artist and her photographs are informed by the knowledge of others including: ecologists, farmers, indigenous peoples, and military personnel.

115 Terry Evans, "Tallgrass Prairie Preserve, Oklahoma," in In Reponse to Place: Photographs from the Nature Conservancy's Last Great Places (Bullfinch Press, 2002), 68.
117 The Inhabited Prairie (University Press of Kansas, 1998).
119 The Inhabited Prairie, 6.
Figure 3.2 Terry Evans: (a) *Asters, three awn, dropseed and other grasses, Fent’s Prairie*, November 1979\(^{121}\); (b) *Prunus serotina, black cherry*, 2001\(^{122}\); (c) *Looking south at Tallgrass Prairie Preserve*, 2001\(^{123}\); (d) *Prairie burn, Lake Melvern, south of Lyndon, Kansas*, April 1981\(^{124}\).

### 3.6 Conclusion

In this chapter I outlined the subject for my final studio practice series, including the ecological conceptual model, ‘grassy woodland state and transition model’, which forms the basis for *Grassy Woodlands*. Most photographs of grassy woodlands are illustrative and aim to show the reference state only. My approach expands this aim by also considering the changes that happen to grasslands because of human

---


\(^{122}\) “Tallgrass Prairie Preserve, Oklahoma,” 74.

\(^{123}\) Ibid., 70.

\(^{124}\) *Prairie: Images of Ground and Sky*, 57.
management interventions. I developed a social enquiry method that built upon my field-based methods used during the Field Study program, whereby I consulted with ecologists and farmers to increase my knowledge of grassy woodlands. A method of collaboration was commenced with one ecologist, Dr. Sue McIntyre. Sixteen field sites were located for photographing. A new approach to documenting seasons that is specific to visual changes that occur within grassy woodlands and farming was also developed with McIntyre. In the next chapter I present my *Grassy Woodland* photography series: the outcomes, development, and art context.
4 “GRASSY WOODLANDS”

4.1 Introduction

In the last chapter I outlined ecological theory on grassy woodlands, my consultation and collaboration methodology, and contemporary photographs of grassy woodlands. The *Grassy Woodlands* series described in this chapter constitutes the studio practice outcome from my doctorate and will be exhibited for my doctorate exam. The Field Study program experience and Backyard Harvest series forms the foundation for the *Grassy Woodlands* series - methodology and compositional aspects. *Grassy Woodlands* has three components: landscape photographs; still life photographs; and a billboard version derived from the still life photographs. Examples of artworks proposed for exhibition, studio development and context are described. The billboard version, which is derived from the still life series, was outlined in Section 2.4 (see page 26).

For both *Grassy Woodlands* series, I first photographed spring, winter and summer. Under revised classification of visual states (see Section 3.4, page 42) the spring and summer photographs are both relevant to ‘active flowering’ (which occurs throughout spring and summer) and the winter photographs became ‘dormancy caused by frost’. I also captured ‘controlled growth caused by grazing and mowing’. The *Grassy Woodlands* series does not capture the visual states of ‘dormancy caused by drought’ or ‘controlled growth caused by fire’. Both states are important for considering the impacts of agricultural intervention on plant diversity and abundance. I commenced the series after the millennium drought broke, and opportunities to document changes brought by fire were not available during my research. During the period I photographed, the farmer’s maintained good ground cover within the pasture paddocks, and therefore my photographs capture the effects of low to medium grazing.

4.2 Landscape photographs

Ten examples of the landscape photographs within the *Grassy Woodlands* series are presented in the following figures.
Figure 4.1 State 1. Reference grassy woodland (Bookham Cemetery), active flowering (spring)

Figure 4.2 State 1. Reference grassy woodland (Turallo Nature Reserve), active flowering (summer)

Figure 4.3 State 2. Native pasture, active flowering (spring)

Figure 4.4 State 2. Native pasture, active flowering (summer)

Figure 4.5 State 3. Fertilised pasture, active flowering (spring)

Figure 4.6 State 2. Fertilised pasture, active flowering (summer)
Figure 4.7 State 4. Lucerne crop, active flowering (spring)

Figure 4.8 State 4. Lucerne crop (summer)

Figure 4.9 State 5. Enriched grassland, active flowering (spring)

Figure 4.10 State 5. Enriched grassland, active flowering (summer)

Figure 4.11 State 1. Reference grassy woodland (Turallo Nature Reserve), dormancy (frost)
Consistent with a typology approach, the landscape photographs in Figure 4.1 to Figure 4.11 are photographed from the same elevated position, under similar light conditions, with the same camera and film, and show approximately the same area of ground-layer. There are several reasons why I chose this composition and method. My aim was to visually represent the herbaceous ground-layer, as described in the state and transition model for box-grassy model, and as aesthetically as possible. The repetition of composition assists the viewer with visually comparing plant diversity and abundance across states and seasons. The looking down view was initially inspired by the scientific observation at the quadrat scale. I found that by elevating the camera (about three metres off the ground) and angling the lens acute to the ground and using a small aperture, the grasses were adequately in focus and showed the mosaic of species. All states were photographed at dawn or dusk to maximise opportunities for diffuse light. Each state was given the same treatment and therefore value. The print size of approximately 70 x 90 cm enables the viewer to both look at the scene and feel visually immersed by the scene.

Through repeat consultations with ecologists and farmers, and my collaboration with Dr. Sue McIntyre, I learnt how to identify visual indicators for each state. I initially struggled with separating state 1 (reference grassy woodland) from state 2 (native pasture) as both states have a considerable overlap in native grass and forb species. To overcome this problem, my collaborator Dr. Sue McIntyre and I went on field trips together, and McIntyre assisted by marking out areas for me to photograph that met the criteria for state 2. When printed at their final size, the landscape photographs show the visual indicators which separate them into the five ecological states. For example, from state 1 to state 2 you observe a shift away from a mosaic of native plant species, towards more exotic species and/or a couple of native plants dominating, such as Themeda australis (kangaroo grass). Patches of bare earth are also a visual indicator of reference grassy woodlands (state 1) because these allow

---

126 Kodak Portra 160 (NC) 120 film was used. I chose colour negative as I get to know my images better when I hand print.
127 Tree occurrence generally declines with land use intensification and regeneration occurs at different scale to that of the herbaceous ground layer. For more information, see McIntyre and Lavorel.
other plants to seed (like a tree falling in a forest enables another tree to grow). My photographs of State 3 (fertilised pasture) (see Figure 4.5 and Figure 4.6) show non-native pastoral species for example phalaris and clovers, and a couple of native plants that can sustain higher nutrient levels, for example stipa (*Austrostipa* species). State 4 is easy to visually discern because they are a sown crop and have limited exotic species, for example the lucerne crop shown in Figure 4.7 and Figure 4.8. State 5 sites are unmanaged, and this combined with high nutrient levels enable weeds and other less favourable exotic pasture species to dominate.

My landscape photographs helped Dr. Sue McIntyre think through the scientific boundaries she had placed around the states, for example the fluidity of the flora species present within a state. For example, after looking at my state 2 (native pasture) landscape ‘spring’ photograph (see Figure 4.3) McIntyre initially categorised my photograph as State 3 because the flowering exotics appeared to dominate. After further reflection on my photograph, McIntyre re-categorised my photograph to state 2 acknowledging that there exists a continuum of species between states, and that sufficient native plants were present in my spring photograph, which would become visually dominating when they flowered in summer as shown in see Figure 4.4.

Before arriving at the final photographs, experiments were undertaken in scale, elevation, lighting conditions and camera. Evans’ prairie photographs, taken across different scales and elevation, were inspiring (see Section 3.5, page 43). Before I became aware of the ecological state and transition model for grassy woodlands, I experimented with capturing the different scales in which ecologists view grassy woodlands (see Figure 4.12). These, which were described to me during field trips with the ecologists, were:

a) 1m x 1m quadrat, camera looking straight down to show the diversity of plant species;

b) Mid-view scale, typically a paddock scale to show the ratio of grasses to trees, and mosaic of plant species;
c) Big landscape scale to show the grassland situated within valley, for example the grassland occupying the flat basin and surrounded by hills covered in grassy woodland; and

d) Aerial to show the grassland and box-gum woodland in context to geomorphology and land use.

Figure 4.12 Examples of experiments in scale and composition for the Grassland Woodlands landscape series

The mid-view and big landscape view did not afford a new way of looking at grassy woodlands; Beaton had successfully achieved this (see section 3.5, page 43). I initially photographed reference grasslands at the quadrat scale from head-height, which was the maximum height of my tripod when placed on the ground. At head-height elevation, the focus was compromised. Having the seed head and the ground in focus is important because I want the viewer to see the plant species clearly. I
considered a composite shot after looking at John Wolseley’s129 paintings, which are like maps operating at different temporal and spatial scales, and the work of Lidwien van de Ven who had made a collage using photographs of the same landscape but shot from slightly different locations.130

A solution came to me while looking at photographs from two series by Anne Ferran. Her *Backwater*131 series feature a channelized tidal waterway in a heavily industrialised part of London (see Figure 4.13). The photographs are shot from above, perhaps five metres, and record the flora and mud in the pit. The heightened perspective showed the space between the plants (creating negative space), a shaft of light revealed the sparse plants, framed by the darkness of the walls and muddy ground. I felt inspired by Ferran seeing the beauty in these places that may otherwise be considered dank wastelands. Looking at *Backwater* inspired me to find a way of photographing the grasslands from a higher vantage.

Ferran’s *Lost to Worlds* photographs helped me solve another problem (see Figure 4.13). Like Evans, I was concerned with finding pattern within the ground-layer. In photographing the reference grassy woodland (state 1), along with assistance from my collaborator I used knowledge of visual indicators (see Table 3.1) to help choose the exact location in which to photograph. Because the reference grassy woodland has diverse plant species, finding patterns came relatively easy, and resulted in a complex and interesting photograph. For the other less diverse states, I was concerned that patterns at the quadrat scale would be insufficient to engage a viewer. For her photographs of the American prairie under crop, Evans found she needed to shift her gaze to the aerial view. Ferran’s photographs *Lost to Worlds* show grassy mounds where a prison for women convicts once stood, and are described by Geoffrey Batchen, “…the photographic prints look down, at your feet or just beyond them, to the ground about to be walked.”132 Photographed with no horizon, Batchen writes, the ground appears to stretch to infinity in all directions. This feeling that the landscape continues beyond the frame mirrors my use of the grid in the still life

129 For example, see http://www.johnwolseley.net/
130 Photographs were exhibited at the Museum of Contemporary Art, Sydney 2006 Biennale.
132 Batchen, 8.
series (see explanation in Section 4.3, page 57). Unlike Ferran’s and my *Grassy Woodlands* landscape photographs, which eliminate the horizon altogether, wilderness photographers such as Dombrovskis raise the horizon line to immerse the viewer in nature’s sublimity. Ferran has created emotionally engaging images from what is just grass covering a subtly shaped land. This demonstrated that aesthetics is about relationships between entities, no matter what the entity might be, and suggested aesthetic possibilities for photographing states 3-5 in which the ecosystems contained mostly grasses.

Like Harry Callahan’s black and white photographs of grass (see Figure 4.14), Ferran in her *Lost to Worlds* series used extreme contrast to accentuate the grass texture and undulations of the ground. I had a different purpose. For my series it was important that the viewer see the subject clearly: the individual species and their relationship to one another. In contrast to Callahan and Ferran, I deliberately photographed in diffuse light that enabled full tonal range with the intent of rendering detail in both the shadows and the highlights. In addition, within the canonical traditions of modernism established by straight photographers such as Walker Evans and Edward Weston, my aim was a sharply focused image. I

---

133 Ferran.
134 The Ground, the Air (Hobart: Tasmania Museum and Art Gallery, 2008), 37.
also accepted, though, that to experience the grassland you typically had to experience wind, and I accepted some blur within my final selections as long as the subject was still communicated.

![Figure 4.14 Harry Callahan, Horseneck Beach, Massachusetts, 1965, 15.1 x 19.4 cm, Gelatin silver print](image)

The composition of my photographs is formed by a combination of texture and colour. In coming to this resolution, I researched the work of two contemporary landscape photographers: Joel Sternfeld (USA) and Jem Southam (UK). In addition to employing texture and colour as composing strategies, Sternfeld and Southam were inspiring because they documented seasons. Sternfeld was also inspiring in that he selects to photograph ordinary places, and through his images makes them extraordinary: he makes visible the quality relationships present. Sternfeld in his *Oxbow Archive* series photographed an agricultural field almost every day for a year (for example see Figure 4.15). Southam in his *The Painter’s Pool* series photographed a wood in private ownership over the course of a couple years (for example see Figure 4.15). Like Friedlander, they often include the tangle of understory in their photographs. By photographing in a diffuse ambient light, Sternfeld and Southam capture details in the shadows and highlights. Many of their photographs have a restrained colour palette, particularly the photographs shot

---

138 For example, in addition to the series referenced in the text are the series: *American Prospects* (1987) and *On This Site: Landscape in Memoriam* (1996).
during the winter months. After wondering how to aesthetically capture the grey ‘paddock’ in winter (which even my ecologist collaborator, Dr. Sue McIntyre, found drab), I found Sternfeld and Southam’s embracing of the muted colour palette (in cahoots with texture) encouraging.

In their photography books for the *Oxbow Archive* and *The Painter’s Pool* series, Sternfeld and Southam title their photographs according to the date in which the photograph was taken, and sequence them in chronological order. Sternfeld also used this approach when photographing the High Line across seasons (in the City of New York), a place local to him.\(^{141}\) Similarly, in my doctorate exhibition I plan to group the *Grassy Woodlands* photographs from each field location, so that the visual changes rendered across seasons is more easily comprehended, and include the season or date within the photograph title. Such an approach, like Sternfeld’s title suggests, provides an archive. A paradox exists though in trying to photograph visual changes: no matter how many times the photographer visits, the photograph can only visually reference a moment within the transience of life. The chances of the photographer coming across a similar visual state in a given season decreases as we continue into the Anthropocene, and perhaps Sternfeld had this mind when he said the *Oxbow Archive* photographs are, “…a little bit sad.”\(^{142}\)

---

\(^{143}\) Sternfeld, *Oxbow Archive*.
\(^{144}\) Southam.
Both Sternfeld and Southam photograph with a large format camera (8x10) and make the most of the format’s ability to focus sharply from the foreground through to the background. I was mostly happy with the depth of field achieved with a medium format camera, but wondered, “Could I get something more from a large format camera?” In answer to this question I borrowed a 4x5 field camera and photographed three sites. I found that some of the 4x5 negatives showed a greater depth of field compared to my 6x7 negatives, specifically towards the background (the top of the landscape photograph). However I decided that the increased depth of field afforded by the 4x5 camera was not enough to necessitate an overhaul of camera equipment: the medium format camera enabled me to achieve my research aims.

4.3 Still life photographs

When I was first venturing out on the *Grassy Woodlands* photography series a grassland ecologist wished me luck – he was referencing the difficulty of photographing the grassland because they are windy places. The lack of control with regard to wind, fog and light, is one reason why I developed a still life photography practice, but my main desire was to show the morphology of individual plants and their apparent abundance across a field site. The still life and landscape series were designed to be exhibited together: the landscape provides context to where the plants, animals and artefacts came from, a view of their ecological community; and the still life enables the viewer to appreciate individual plant species often hidden amongst the other plants. In this section I describe and discuss the *Grassy Woodlands* still life series.

Ten examples of the still life photographs within the *Grassy Woodlands* series are presented in the following figures.
Figure 4.16 State 1. Reference grassy woodland (Bookham Cemetery): active flowering, 19 October 2014

Figure 4.17 State 1. Reference grassy woodland (Bookham Cemetery): dormancy (frost), 9 August 2014

Figure 4.18 State 2. Native pasture: active flowering, 23 October 2014

Figure 4.19 State 2. Native pasture: dormancy (frost), 14 August 2014

Figure 4.20 State 3. Fertilised pasture: active flowering, 24 October 2014

Figure 4.21 State 2. Fertilised pasture: dormancy (frost), 24 October 2014
Like the landscape photographs, the *Grassy Woodlands* still life series (see Figure 4.16 to Figure 4.25) are all photographed in the same manner and from the same field sites. The still life photographs are all landscape format, photographed from above at the same height, with the same background, diagonal grid, camera and film. Each photograph uses a 19cm diagonal grid within a total area of approximately 70 cm x 90 cm. The reasons for using a grid are explained in Section 2.3 (page 19) and later in this chapter. The still life photographs were made using natural light in a makeshift studio as shown in the bottom right image in Figure 2.13, (page 23). The reasons for using the one method are the same as stated for the landscape series (Section 4.2, page 47). The still life photographs not only reveal plant diversity changes from state to state, but also indicate what type of season has

145 Transparency 120 film.
been had, the land management,146 the animals who inhabit the area (represented through bones, scats, pellets, fur, feathers), some of the geology (rocks and dirt on roots), human occupation (represented through exotic plants and artefacts) and human values (based on the plants I select to show). The still life photographs were done in addition to the landscape photographs to make evident the individual plant species that are difficult to see with such detail, if at all, within a landscape photograph. My still life photographs also reference the symbolism of Dutch vanitas still life.147

Adapting botanical skills, I would visit the field site in the morning to collect the materials that were representative of biodiversity, abundance, season and land use. My collaborator, Dr. Sue McIntyre, accompanied me on several field trips to state 1 and state 2 sites, and assisted me with species selection for my still life photographs. As required by law, I left untouched plant species on the protected list. Protected species were rarely encountered during my field trips.

The ecological state-and-transition model for box-gum grassy woodlands guided my research on identifying potential field sites. As shown in Figure 3.1 and Table 3.1, the vegetation composition and structure for each state is broadly defined by this theory. Specific observations at the field sites enabled me to develop my understanding of species present. I learnt through these exploratory excursions that the plant species within each state, to a certain extent, varied from field-site to field-site. To capture and communicate some of this variability, I decided to photograph multiple field sites within each ecological state (see list of field sites in Table 3.2). I showed my work-in-progress still life photographs to McInyre to ensure that they encapsulated the states, as defined by the ecological state and transition model for grassy woodlands. Feedback on my specific observations also led Dr. Sue McIntyre to re-consider the acceptable ratio of native to exotic species within states.

146 For example, the inclusion of a clump of dead grass indicates a rainy season prior where lots of growth took place and/or no burning or little grazing since.
147 The transience of all things is symbolized by objects such as skulls, and freshly picked but nonetheless dead plants. The photographs reference the vanity of all worldly things such as pleasures of the flesh (cigarette package, discarded coffee cups) and natural beauty (flowers).
Specific observations of each field site were also used to establish apparent abundance of plant species. In my still life photographs, I wanted to show the morphology of individual plants and their apparent abundance across a field site, and therefore deliberately chose not to only collect species from the one quadrat. During each collection field trip, I would initially scout the entire field site (between 2.5 hectares in area) to gauge plant species presence and abundance, other objects, and their aesthetic potential. Based on advice from Dr. Sue McIntyre, I would collect more of those species that were common and aim to represent this apparent abundance when composing the still life. Upon returning home I immediately started the process of laying them out on black velvet in a diagonal grid, making compositional decisions based on plant morphology, apparent abundance within the field site, and aesthetics. When satisfied with the composition, I exposed the film. The developed transparency film was scanned and then printed digitally onto archival cotton rag at a scale of 1:1. Repeat field trips to the same field sites enabled for periods of reflection between visits, for example, reflection on representing ‘place’, ecological states and the different stages in plant biology as the seasons progressed.

In developing the 19cm grid for the *Grassy Woodlands* still life series I undertook several experiments, which are highlighted in Figure 4.26. The first experiment was to increase the surface area of the image used for the Benalla photographs (from 48 cm x 60 cm to 70 cm x 90 cm) in order to create a more impactful image through size. The bigger size also allowed me to show more of each plant. I retained the same number of rows (three complete rows and two rows cut in half by the photograph edge) because I felt that increasing the number of rows would make it difficult for the viewer to take in both the individual specimen (the fine detail) and the whole photograph. I experimented with containing the grid completely within the frame as a metaphor for grassy woodlands being ‘islands’. To accommodate an entire grass or forb, I experimented with placing fewer species in the photograph, as well as the single plant portrait. Concerned that the plant samples were too big and interrupting the grid, I experimented with using smaller cuttings. I photographed the first round

148 All still life photographs were photographed on tripod and using a Mamiya RZ (6x7) with transparency 120 film, 100 ISO, 81A warming filter.
of spring and summer still life photographs in this sparse manner. Feedback from a
couple of colleagues and my ecologist collaborator (Dr. Sue McIntyre) was
unanimous: why all that black space around each specimen? McIntyre commented
that she thought that the plant spacing’s in the Benalla still life photographs were
perfect. After undertaking the Hall commission (see section 2.4, page 26) and
reflecting on its composition too, I concluded that my work had become too graphic
- the specimens were too far apart to form a visual relationship with each other.

When it came to photographing the next season (dormancy caused by frost) I kept
the same 19cm grid, but used larger samples and created a denser grid (see Figure
4.26). To show more of the plant, such as the flower and the root, I allowed sections
of the grid to break in which a plant stretched across two rows. The results from my
first photo-shoot of ‘dormancy caused by frost’ were unsatisfying. The plant samples
used were too big: they obscured the grid. A balance needed to be found between the
objects and the background. After coming to these conclusions, I reshot the
‘dormancy caused by frost’ photographs with great care.
Figure 4.26 Examples of experiments in getting the grid right for the *Grassy Woodlands* still life series: (a) summer, 2011; (b) contained grid; (c, d, e) sparser grid; (f, g) winter, dense grid, 2014; (h, i) plant portraits.

The difficulty with photographing plants from five different states within the same grid dimensions was that the reference grassy woodland (state 1) has lots of small forbs whereas the fertilised pasture, sown pasture and enriched grassland (states 3-5) contain large grasses and weeds. I also wanted to show the roots of plants, in particular the bulbs. I used three strategies to overcome scale issues: I grouped smaller plants or sections of plants (i.e. leaves); dug up and included a clod of dirt containing small plants and fungi, not too dissimilar to the water colour by Albrecht
Durer, *The Great Piece of Turf* (1503)\(^{149}\); and as mentioned, broke the grid by allowing a plant to stretch across two rows.

In addition to the still life photographs referenced in Section 2.3 (page 19), I looked at artists who specifically photographed botanical specimens, including the work of four artists shown in Figure 4.27. Except for Robyn Stacey, all these artists are (or were) also botanists.\(^{150}\) All four artists have been informed by botanical and herbal illustrations. Blossfeldt’s photographs were originally made for instructing in the drawing of plants.\(^{151}\) In 2003, Stacey was visiting artist at the National Herbarium of the Netherlands and said her work brings, “a contemporary aesthetic to the plant material while at the same time drawing on the rich tradition of botanical depiction…to recreate the idealised essence of the specimen that is associated with botanical illustration.”\(^{152}\) The individual botanical sample allows the viewer to focus on the details of the individual plant, but does not allow the viewer to appreciate the plant associations. Stacey attempts to overcome this through arranging the museum specimens as though in a field, like Durer, viewed from side on (whilst lying on your belly).


\(^{150}\) Karl Blossfeldt was an amateur botanist.


\(^{152}\) Antonia Williams, “Petal Pushers,” *Vogue Living* 2004, 66.
To show diversity, both the morphology within a single plant species and across species, Dutch artist Herman de Vries (now living in Germany) also employs the grid.\textsuperscript{157} I became aware of de Vries work in the last two months of my doctorate. His work differs from mine in that he uses a white background and mostly photographs single specimens, and in some instances frames the actual pressed plant(s). He then


\textsuperscript{157} Gooding.
hangs the individually framed plants or photographs of plants in a grid on the gallery wall. de Vries has also collected different species from a particular location and placed them in the one photograph, but not always in a structured grid (as shown in Figure 4.27). In all his works, the grid does not ‘spill out’ beyond the frame. de Vries writes that he uses the grid to eliminate aesthetic subjectivity, “…the grid is not determined by aesthetic thoughts and feelings, it is determined by the shape of the biggest leaf. In this way, every [object in array] occupies the same-sized space so that you can compare the leaves ranged together.”158 This was similar to my approach to Backyard Harvest. Using these determinations, de Vries argues the viewer is free to exercise his or her own aesthetic: de Vries already believes that plants have their own power and beauty to move the viewer and therefore he doesn’t feel he needs to add his own feelings. In contrast, my grids in the Grassy Woodland still life series were made based on scientific and farming knowledge and aesthetic choices. Like my landscape photographs of grassy woodlands, my grids are composed according to colour and texture. In a seminar Robyn Stacey spoke about her photographs giving an object beauty and intent through composition.159 Similar to de Vries (and the ecologists I consulted) I see intrinsic beauty in the plant, but I aim to provide intent through a beautifully composed picture.

Like de Vries, my training in natural resource science informs my observations of the landscape. Gooding writes of de Vries, “…he knows how to look at nature in a systematic way, and his knowledge of plant forms, of taxonomy and nomenclature, and of plant distribution are inscribed into his ‘reading’ of the landscape.”160 But as an artist, de Vries feels free to work in arbitrary ways, and work to no rule, and says, “I’m just a mediator.” Aspects of mediation do apply to my art practice. For example, while collecting samples I ask myself questions such as, how would ecologist ‘x’ or farmer ‘y’ value this particular site? Answers are informed by the discussions I had with ecologists and farmers during our informal interviews. However my photographs are constructed: I choose what to include and what to ignore.

158 Ibid., 62.
159 Robyn Stacey seminar at the National Portrait Gallery, 9 May 2009
160 Gooding, 68.
Collaborations between the artist and the scientist are not an anomaly. Photographer David Littschwager, for example, works alongside zoologists within the field, and together they aim to represent the biodiversity found within a fixed volume: one cubic foot.\textsuperscript{161} The fact that an artist and a scientist feel the need to collaborate is symptomatic of our times - disciplinary boundaries have become less porous. Gregory Bateson in his essay for Evans’ book, \textit{Prairie: Images of Ground and Sky}, writes, “We have not since the sixteenth century had artists whose prime direction was the synthesis between a scientific and an aesthetic understanding of nature.”\textsuperscript{162} Trying to re-constitute the so-called Renaissance scholar has been attempted in universities through interdisciplinary projects.\textsuperscript{163} Bateson considers the marriage between art and representation necessary, and praises Evans’ in her attempts to combine rigorous photography (precision to analysis) with love of the prairie. My training in the scientific method means I can read journal papers on ecology with moderate understanding, and discuss ecological concepts with ecologists. The scientific training also equipped me with a systematic method in which to pursue my research on the ecology of remnant ecosystems. During my studio research, I learnt to declare my professional background to ecologists early in our relationship in order to encourage a more meaningful discussion on ecology.

### 4.4 Engaging the audience

The intended audience for the ‘Grassy Woodlands’ photographs are the general public, for example any person viewing the artworks in the gallery, on-line, on billboards, within catalogues and books, but acknowledge that my artworks may be more easily understood by people with an interest in grassy woodlands (both amateur and professional). One purpose behind the artwork is to communicate ecological concepts, and to achieve this purpose I employ text to assist the viewer with interpreting the artworks (See section 2.4 for examples of different forms of text used previously). For my doctorate exhibition, I placed a text panel on the wall adjacent to the first work and provided a floor guide with more detailed information.
about the science informing the artwork. The text that was used for my doctorate exhibition text panel is provided in Table 4.1. An aim of the text panel was to assist the viewer with discerning the differences between each photograph within the typology, for example the change from forb dominated ground-layer to pasture and weed species as the reference grassy woodland becomes altered by different agricultural land uses (Land use type 1-5). In addition, the titles for each photograph were designed to assist the viewer with understanding that the photographs represented different places and land uses, over different seasons (for example, see: Figure 4.1 to Figure 4.11; and Figure 4.16 to Figure 4.25).

The still life and landscape series were designed to be exhibited together: the landscape provides context to where the plants, animals and artefacts came from, a view of their ecological community; and the still life enables the viewer to appreciate individual plant species often hidden amongst the other plants. As stated in my text panel, trees are not represented in the landscape photographs because the grassy woodland state and transition model that guided my research describes changes to the herbaceous ground-layer only. Photographs showing a more pulled-back, broader landscape view of grassy woodlands have been published elsewhere, as referenced in Section 3.5 (page 43).
These photographs capture knowledge that ecologists and farmers have about grassy woodlands. High quality grassy woodlands are easily overlooked because, superficially, they can look like a paddock. But from an ecologist’s perspective, high quality temperate grassy woodlands have very diverse native grass and forb (wildflower) ground-layer, with patches of shrubs (occasionally absent) and widely spaced eucalypt trees. Temperate grassy woodlands once covered extensive areas across inland Tasmania, Victoria, New South Wales, the Australian Capital Territory, and southern Queensland. High quality examples are now largely restricted to roadsides, small reserves and cemeteries. Grassy woodlands occur on land that is easily used for agriculture and therefore have been widely converted to pastures and crops.

The ecologist Dr Sue McIntyre and her colleague Dr Sandra Lavorel developed an ecological ‘state and transition model’ model for grassy woodlands. This conceptual model forms the basis for these photographs. ‘State and transition’ models are a simplified way of describing the changes in vegetation composition and structure when grassy woodlands are increasingly turned to agricultural uses. The state and transition model described by McIntyre and Lavorel represents five land use types in temperate grassy woodlands:

1. Reference grassy woodland (high conservation quality);
2. Native pasture;
3. Fertilised pasture;
4. Crops and sown pasture; and
5. Nutrient enriched de-stocked grassland.

The first grouping of photographs in this exhibition – the Grassy Woodlands Still Life series (photographs #2-13) – contain plant specimens and artefacts found at field sites that represent each of these five different land use types. Starting with a ‘reference’ grassy woodland field site, the series continues through the different states described in the state and transition model. Each diptych shows seasonal change experienced within each field site.

The second series of photographs – the Grassy Woodlands Landscape series (photographs #14-24) – are grouped differently. The first five photographs represent each different land use type during the one season: spring. The second grouping of five depicts each land use type during summer. The final photograph shows a reference grassland during winter or ‘dormancy caused by frost’. Trees are not represented in the landscape photographs because the state and transition model only describes changes to the herbaceous ground-layer.

This exhibition also includes two large billboards located on the outside of the School of Art building. To view these, head out the Ellery Crescent entrance, turn right and walk 30 metres. The billboard on the left represents reference grassy woodland and the billboard on the right represents fertilised pasture (effectively a sheep paddock). These billboards were first exhibited in Melbourne as “Billboard 9” for the “OUT THERE Billboard Art Program”. Please see take-away sheet for more detailed explanation.

Carolyn Young June 2016

---


165 The OUT THERE Billboard Art Program is a Centre for Contemporary Photography and Yarra Council initiative in partnership with 7-Eleven. The two billboards are located on the corner of Smith and Otter Streets, Collingwood. More information can be found at www.ccp.org.au
4.5 Conclusion

In this chapter I described the *Grassy Woodland* photography series, its development and context. My aim was to visually present the herbaceous ground-layer, as described in the ecological state and transition model for grassy woodlands, using a new aesthetic. The series has three components: landscape photographs, still life photographs, and a billboard version derived from the still life photographs, which will be exhibited for my doctorate exam. The series follows a typology tradition to enable the visual comparison between reference grassy woodlands (of high conservation quality) and the changes (including to biodiversity) brought about by agricultural interventions. The landscape photographs offer a new way of looking at the herbaceous ground-layer through elevating the view and angling the lens acute to the ground. The still life photographs extend the traditional botanical sample by showing plant associations within each ecological state and communicating ecological concepts. The combination of repeat consultations with ecologists and farmers, and collaboration with ecologist Dr. Sue McIntyre provided me with the knowledge required to visually communicate ecological knowledge of grassy woodlands, not only the beautiful flowers, but also changes that happen to grassy woodlands as a result of human management interventions. The studio research resulted in a new way of looking at grassy woodlands - one that is both aesthetic and scientifically informed.
5 CONCLUSION

The purpose of my studio research was to develop a new way of looking at ecosystems - one that was both aesthetic and scientifically informed. In undertaking my research, I predominantly photographed remnant vegetation within farmed systems. The aim was to provide a quality visual record that could be used to promote the public’s awareness of these ecosystems. My participation in the ANU School of Art Field Study program as an immersed researcher was important to the development of my studio practice. The Field Study program has a core commitment to field investigation where the focus is relationship to place. Therefore, in addition to developing a method for making scientifically informed and fine art photographs, I developed a method that was place-based.

My research was guided by two questions:

1. Using a field-based approach, what kind of methodology would enable me to make scientifically informed fine art through the medium of photography?
2. How does a fine art photographer develop a new way of looking at ecosystems, and develop a new aesthetic?

As described in Chapter 2, through participating in four Field Study programs I developed and refined a field-based research methodology that enabled me to make art in response to place and reflect on ecological concepts. The method involved seeking inspiration through direct experience of place through observations and attending on site expert briefings. I discovered that on the first field trip, I needed to consciously adopt an open mind. When ready to act on ideas, I employed field research skills I developed while working as an environmental scientist. I consulted ecologists and farmers about remnant vegetation, and read scientific materials - all of which were used to locate my field sites. With various levels of success these sources of information helped me determine what to photograph. Because of implementing this method, I became aware of the high-quality relationships present within the field location. To facilitate a deeper sense of place I learnt to: focus my studio research over the course of 2-3 field trips on the one ecosystem (or idea) and...
field site; and share my art with the community. These approaches, along with a collegial learning environment, embodied experiential learning principles and led to conceptual developments in my art practice.

One reason I consulted with natural resource scientists was to learn how to identify visual indicators of high quality remnant vegetation ecosystems. The remnant vegetation ecosystems were novel to me, and I needed to know visual indicators to make a scientifically informed photograph. During the Tumut and Riverland field trips, my consultation method failed to elicit adequate knowledge on the ecosystems. Perhaps rapport was lacking between the natural resource scientists and myself, and/or perhaps my questions were outside their expertise. These reflections caused me to adjust my field-based research method when undertaking my final body of work, “Grassy Woodlands”, by incorporating a consultative approach over a longer term with ecologists whose specialisation was the ecosystem I wanted to photograph.

During the Balonne and Tumut Field Study programs I aesthetically registered, through landscape photographs, three healthy Australian ecosystems that did not subscribe to the aesthetics established by Australian wilderness photographers. The woodlands and bog were palettes of brown, and without the sublime vistas and sweeping panoramas of Tasmania. Looking at sculptures that contemplated similar subject material to mine, and undertaking the Backyard Harvest still life photography series, afforded me new ways of visually representing the landscape and ecological concepts through a combination of art installations and the still life form.

Concurrently to attending the Field Study programs, I started making the Backyard Harvest still life photography series. The fruit and vegetables from my garden, in comparison to shop bought alternatives, inspired this series. Through experiments in light source, background material and studio location I developed a technique for making still life photographs that is transferable to different field locations. I used this technique when making photographs for the Riverland and Benalla Field Study programs, art commissions and Grassy Woodlands series. The grid composition was refined through a series of experiments. The reasons for choosing to use a grid were several: to indicate abundance; to mimic the display of fruit and vegetables in the
shop; and to allow the viewer to focus on the individual and the group and therefore see morphological variability. My *Backyard Harvest* experiments in grid compositions formed the foundation for aesthetic decisions in composing the *Grassy Woodlands* still life photography series.

While attending the Field Study program I was logistically constrained by having a baby and was exhausted. I came to the realisation through making the *Backyard Harvest* series, and early explorations in photographing local grassy woodlands, that I did not need to travel huge distances to find ecosystems worth documenting. I felt reassured by other female photographers who, after having children, also brought their art practice closer to home. After the Field Study programs, I decided to focus on local grassy woodlands and explore a more in-depth consultative approach with ecologists.

In Chapter 3 I outlined the subject for my final studio practice series, grassy woodlands. The ecological conceptual model, ‘grassy woodland state and transition model’, forms the basis for the *Grassy Woodlands* photography series. The model represents five land use types: reference grassy woodland (high conservation value); native pasture; fertilised pasture; crops and sown pasture; and enriched de-stocked grassland. Woodland ecologists are struggling to communicate their knowledge on endangered grassy woodlands and these ecologists challenged me to help meet that need. My challenge was to capture through photography some of the ecological concepts that the researchers were dealing with, for example, the impact of fertiliser on native plant diversity. I developed a procedure, based on social inquiry methods, for artist consultation with ecologists and farmers, and began a collaboration with the woodland ecologist Dr. Sue McIntyre. The consultations and collaboration provided me with the skills and knowledge to visually discern the ecological states, and document these through photography. Sixteen field sites were established for photographing. A new approach to documenting seasons that is specific to visual changes that occur within grassy woodlands and farming was developed in collaboration with McIntyre.

In Chapter 3, I posed the additional guiding research question: how might a collaboration between an artist and ecologist work? For a collaboration to form, the
people working together need to want to achieve the same thing. In the instance of my collaboration with Dr. Sue McIntyre, we both wanted to communicate ecological knowledge through the visual arts. McIntyre wanted her research findings to emotionally engage an audience, and I wanted to visually communicate ecological knowledge of grassy woodlands through fine-art photography. We needed to work collaboratively to achieve our wishes. The collaboration formed after about one year of me consulting her. McIntyre was the first to suggest our relationship was one of collaboration. The collaboration, in which other artists and ecologists could learn from, involved two-way knowledge transfer. At times, the boundaries between who was the scientist and the artist would blur. McIntyre provided feedback on my art, both the encapsulating of scientific knowledge and the aesthetics. I provided McIntyre with visual examples of ecological states, which helped her think through the scientific boundaries she had placed around them, for example the fluidity of the flora species list. In addition, I provided her with feedback on her documentary photographs, and advice on illustrating her part-memoir part-scientific book she is presently writing on grassy woodlands. Our collaboration is set to continue beyond this PhD research where we plan to continue our discussions about collaborating on another book whereby a selection of my photographs would be paired with both McIntyre’s and my own writing.

In chapter 4, I described the *Glossy Woodland* photography series, its development and context. My aim was to visually present the herbaceous ground-layer, as described in the ecological state and transition model for grassy woodlands, using a new aesthetic. The series has three components: landscape photographs, still life photographs, and a billboard version derived from the still life photographs. These photographs will be exhibited for my doctorate exam. Each uses a similar: composition, lighting conditions and camera. Following a typology in photography tradition, and employing the grid, allows the viewer to visually compare plant diversity and abundance across states and seasons. Photographing at different times of the year shows some of the seasonal variability within the one field site.

Most photographs of grassy woodlands are illustrative, show the high conservation value states only, and lack quality. Consulting with ecologists and farmers, and collaborating with Dr. Sue McIntyre, enabled me to visually communicate ecological
knowledge of grassy woodlands, not only the beautiful flowers, but also those changes to grassy woodlands as a result of human management interventions. A new way of looking at the herbaceous ground-layer was achieved through elevating the view and angling the lens acute to the ground. I learnt how to identify many visual indicators of high quality woodlands, and furthered my ability to identify plant species. The consultations and collaboration was enhanced through my professional background in environmental science: I could read journal papers on ecology with moderate understanding; and discuss ecological concepts with ecologists. The scientific training also equipped me with a systematic method in which to pursue research on the ecology of remnant ecosystems.

Still life photographs make evident the individual plant species that are difficult to see with such detail, if at all, within a landscape photograph. Like other botanical artists, my photographs bring, “…a contemporary aesthetic to the plant material while at the same time drawing on a rich tradition of botanical depiction…”\textsuperscript{166} The grid extends this tradition by not only showing the individual plant specimen, but also a representation from across the field site: the viewer can develop an appreciation of plant associations of an ecological state within the one photograph. The landscape and the still life photographs viewed together allow the viewer see the subject more clearly, both the individual plant species and their relationship to one another. The landscape composition, without horizon, gives the feeling that the landscape continues beyond the frame and mirrors the use of the grid in the still life series.

The studio research led to professional development opportunities - three commissions and an artist residency. These opportunities also helped to further develop my \textit{Grsasy Woodlands} still life series by: inspiring the inclusion of human artefacts; and helping to resolve issues of balance between the objects and the background. The artist residency helped me to reflect on grassy woodlands from new perspectives, which were: Ngunawal (local Aboriginal people) plant use; animal ecology; and agricultural heritage. Plants develop new meaning and reach new audiences - beyond the scientific journal paper - when shown and communicated in

\textsuperscript{166} Williams, 66.
new contexts such as public art, galleries, and artist books. The billboard demonstrated, when accompanied by explanatory signage, a new way of using art as a means to share with the community scientifically informed observations of biodiversity. Photographs from the *Grassy Woodlands* series are scheduled for several exhibitions, and provide opportunities to continue to promote the public’s awareness of these endangered ecosystems.\(^{167}\)

I have identified several areas in which to implement the innovative methodology developed during my studio research. Dr. Sue McIntyre (key ecologist collaborator) and I are discussing the possibilities around publishing a book on grassy woodlands that combines her ecological knowledge with my fine-art photographs. Opportunities also exist for developing a project with ANU grassy woodland ecologists in their research on ecosystem restoration and native mammal re-introductions. The *Grassy Woodlands* series could be expanded through continuing to document changes caused by fire and drought, and across seasons defined by Indigenous Australians.

My studio research focused on communicating ecological and farming knowledge of grassy woodlands. This resulted in a new way of looking at grassy woodlands - one that was both aesthetic and scientifically informed. The methodology developed provides a foundation from which to continue to explore ecosystems, through visual fine art, from different values and knowledge bases.

\(^{167}\) Photographs from the *Grassy Woodlands* series are scheduled for exhibitions in NSW at: Weswal Gallery (May 2016), Moree Regional Gallery (September 2016), Janet Clayton Gallery (October 2016), Tamworth Regional Gallery (2017), and Goulburn Regional Gallery (2018).
6 BIBLIOGRAPHY


Jolly, Dr. Martyn. 7 August 2008, personal communication.


Reid, John. 5 August 2015, personal communication.


Shorthouse, David J.; Daniel; Iglesias, Stuart; Jeffress, Sharon; Lane, Peter; Mills, Grant; Woodbridge, Sue; McIntyre, and Adrian D. Manning. "The Making of the Mulligans Flat - Goorooyarroo Experimental Restoration Project." *Ecological Management & Restoration* 13, no. 2 (2012): 112-25.


Thomas, Ray. 30 July 2009, personal communication.


