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Ecocritical English
A Subject-led Approach to Sustainability

Sasha Rose Eleanore Matthewman

A thesis submitted in fulfilment of the requirements for the degree of
Doctor of Philosophy in Education and English
University of Auckland, 2017.
Abstract

In times like these, schools should teach as if place and planet matter. Despite the relevance of planetary health to every school subject, issues of environmental sustainability are marginalised in mainstream education. I argue that subject teachers should consider the distinctive contribution of their subjects to environmental sustainability. I develop this “subject-led” approach in relation to the teaching of English. The dominant construction of school English is rooted in identity and culture, whereas ecocriticism in literary and cultural studies shifts attention to the environment and theorises how texts represent the more than human world. I consider how ecocriticism can be adapted to inform the teaching of English in schools guided by the following research questions: what is the potential of a model of ecocritical English for teaching and learning in secondary schools? What theoretical and practical tools would help to develop this model?

I study the case for ecocritical English from different angles in a linked chronological series of publications. Empirical work drew on a study of approaches in two Auckland schools, a pedagogical arts performance in Glen Innes and an arts installation event in a South Auckland secondary school. Ecocriticism informs my methodology for reading, while narrative inquiry is a frame for writing about classrooms, educational events and places. This is an interdisciplinary study which finds theoretical support in ecocriticism, English in education and literacy studies, but also draws on aspects of Futures Education, Education for Sustainability, theatre studies, post-carbon and green social theory.

The research indicates that ecocritical English informs students’ environmental and cultural identities and can offer inspiration to teaching when adapted to specific cultural and environmental contexts. The investigation led to the development of a model of “3D Eco-Literacy” which has prompted dialogue about literacy teaching in English that also has relevance to other school subjects. I analyse green social theory perspectives against the English “Cox models” and “3D Eco-Literacy” to provoke discussion about the green political implications of different orientations to English. I recommend an ecocritical orientation to Secondary English supported by ecocritical principles, the 3D Eco-Literacy model and revised Cox models for English.
This thesis is dedicated to my soulmate John, my son Dylan and my dear Uncle John, with love.
Acknowledgements

I would like to acknowledge John Morgan for his love, support and intellectual guidance. I am grateful for his encyclopedic knowledge of educational research as well as his strategic assistance in taking our young son Dylan on multiple day trips by public transport all over Auckland during the lost weekends leading up to the submission of this thesis.

Grateful thanks are due to my supervisors Peter O’Connor and Alex Calder who have been supportive and careful readers of the text and who have given me the benefit of their experience and expertise.

I have worked with a range of colleagues during the course of this study. Thanks to my respected co-author Molly Mullen. Thanks to Tamati Patuwai for his kōrero and inspiring work. Thanks to all the teachers who introduced me to the experience of New Zealand English. Those named in the thesis are Paul Green, Patricia Viger, Newton Rewi, Rosamund Britton and Di Cavallo. Thanks to the project team of Tuhia ki te Ao—Write to the Natural World: John Morgan, Molly Mullen, Rawiri Hindle and Michelle Johansson. You have all helped me to think harder about the ideas in this thesis. Thanks to Esther Fitzpatrick for her encouragement. Thanks to Terry Locke for a stimulating discussion on the history of New Zealand English teaching. Thanks to Bo Zhou for help with formatting the reference list and to Craig Berry for help with the images. Remembering where I started, I would like to thank all the student teachers who enthused me during my time at the Graduate School of Education at the University of Bristol. Thanks to Malcolm Reed who was a rigorous English mentor when I started my career as an English teacher.

Remembering those who have passed, but whose influence remains: Robert Matthewman, Rosemary Matthewman, Ethel Simmons (Nanny) and Lucy Dewar.

Thanks to friend and running partner Joanne Sobryan for keeping me sane with runs in the Waitakere bush. Thanks to friend Sarah Collier who willingly offered to read the final draft. Thanks to dear friends in England for the supportive posts: Lilleith Morrison, Arusha Javadi, David Mair, Marina Gall and Eliza Lacey.

Last, but not least, thanks to my son Dylan who put up with my absence in body and mind for a number of weeks in the closing stages and who came up with his own heartfelt slogan of “R.I.P. PhD”.

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Methewman, S.R. Mullen, M with Patuwal, T. The River Talks: An ecocritical "kōrero" about ecological performance, community activism and "slow violence". In Press RDiE (Research in Drama Education) This publication appears in the thesis in chapter 1.

Nature of contribution by PhD candidate: I designed the interview questions, and directed the analysis of the interview transcript. I was responsible for devising the structure (Script plus interruptions), the voice of the article and I wrote the main draft. I contributed the images to illustrate the work. I provided the main theoretical underpinning of the work in relation to ecocriticism with input from Molly on how this relates to the literature in applied theatre and performance studies. I edited and reworked the piece in relation to feedback from internal reviewers and external reviewers. This necessitated some important editorial changes and additions which improved the structure.

Extent of contribution by PhD candidate (%): 60%

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<tr>
<td>Patuwal Tamati</td>
<td>As the artist featured in the piece, Tamati's oral contribution and reflections during the interviews were central. The role of the researchers (Sasha and Molly) was to write the article which involved shaping, ordering, editing and presenting the material in relation to theories of ecocriticism and applied theatre.</td>
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Locating Eco-critical Literacy in Secondary English in SET 2017 included in Chapter 5 of thesis.

**Nature of contribution by PhD candidate**

Author of the main body of the paper. Teachers are named to recognise their contribution to the reflection process. See below.

**Extent of contribution by PhD candidate (%)**

98%

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List of Publications and Publishers

Note: All publications have been either approved for publication in the thesis or allow publication in a thesis under the publisher’s agreement.


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INTRODUCTION
Ecocritical Principles and the Research Agenda

I’ve heard it said, though I can’t remember where, that all writers spend their lives telling the same story, over and over, in different forms, sometimes without even knowing it. When I look back over these essays, I can appreciate the notion. Standing back and observing my own tics and obsessions from a distance, I can see themes emerging like springs from a mountainside. I didn’t always recognise them when I wrote them down, but now I can see a river flowing, and I think I can see its direction of travel.

—Paul Kingsnorth, Confessions of a Recovering Environmentalist

I want to make a case for teaching English as if place and planet matter. By this I mean an ecocritical version of English that nurtures ecological sensibility and is capable of addressing questions of moral and political commitment to place and environment. My inspiration for rethinking Secondary English as both cultural and environmental originally derived from ecocriticism in tertiary English Studies and was fuelled by my anxious reading of the literature of environmental crisis. This work was then complicated and enriched by my experience of migration from Bristol, UK to Auckland, New Zealand. Thus, I began my thesis study on the other side of the world, jolted out of my settled and secure knowledge of an educational context, culture, place and environment.

Research Questions

I began with the following research questions which have remained central: what is the potential of a model of ecocritical English for teaching and learning in secondary schools? What theoretical and practical tools would help to develop this model?

Inevitably the thesis raised questions about translations and transitions. What happens when ecocriticism and ecocritical pedagogy are translated to the school context? How is teaching ecocritical English affected by the transition from one culture and environment to another? How could learning English help to inform and shape the diverse cultural and environmental identities of students? What is particular about the Aotearoa New Zealand context in terms of developing an ecocritical English in contrast to my previous experiences of teaching in England and Wales? I found myself attempting to interpret Aotearoa New Zealand in the light of the place that I
had recently left in an uneasy see-saw of attachment. The project began to splinter into different avenues of inquiry as I began to write about my educational experience in New Zealand and found new possibilities for allies and connections with environmental traditions and movements that were emergent or already in place. The process of making connections with ecocriticism has meant that I have drawn on research literature which touches on histories and cultures of English, Environmental Education (EE), Education for Sustainable Development (ESD), Education for Sustainability (EfS), Futures Education, ecocriticism, literacy studies, post-carbon and green social theory, although only insofar as they relate to the central theme of a more ecocritical English. While ecocriticism at tertiary level aspires to interdisciplinary connections, English in schools already exists as part of a structured curriculum. I have been led to think further about how what English does in relation to the environment and sustainability connects with, or differs from, what might be done in other subjects, drawing in particular on research and teaching connections with the Arts and Social Sciences.

**Rationale for the Study**

You would think that the most helpful connection for thinking about English, sustainability and environment in the school context ought to be the field of EfS. However, literature in the field of EfS tends to ride roughshod over school subjects in specifying ambitious cross-curricular pedagogical approaches and content changes (see for example the seminal text by John Huckle and Stephen Sterling, 1996 or the problem based learning proposed by David Orr, 2004). At the same time EfS as a field, seems, currently, to be a lost cause in schools, precisely because the curriculum is organised around subjects. For example, in the UK national curriculum (Department for Education, 2013) the word “sustainability” is not mentioned at all and environment is mentioned only in Geography and Science, with only three uses of the word to convey environmental understanding rather than a context. Meanwhile in New Zealand, the situation seems more promising as “sustainability” is recognised as one part of the “future focus” cross-curricular principle and also as one of the curriculum values. Sustainability is usefully defined as “exploring the long-term impact of social, cultural, scientific, technological, economic, or political practices on society and the environment (Ministry of Education, 2007, p.39). Yet researchers in
EfS note that despite policy support, sustainability is “not pervasive within all schools and several challenges remain in order to realise national and international intentions for EfS” (Eames, Roberts, Hooper & Hipkins, 2010, p.7). In part this may be due to the dominance of “action competence” which is the favoured approach to sustainability in New Zealand. Action competence is an approach which focusses on supporting students to evaluate an environmental situation or problem and take action on the sustainability issues (Eames, 2006; Ministry of Education, 2014a). Action competence and whole school approaches have not been a particularly successful strategy for integrating sustainability into secondary school education with only 25% of schools offering sustainability education. A particular challenge is to find ways to ensure that EfS is represented in the secondary curriculum (Eames & Barker, 2011).

In this thesis I develop an approach to the problem of sustainability in secondary schools based on the premise that each subject offers a unique lens for understanding and interacting with the world. Children are growing up in the context of an environmental crisis which is the subject of scientific, cultural and political debate. The environment is not just the preserve of Geography and Science but requires a variety of intellectual perspectives and methods of study. This approach represents a different paradigm for addressing EfS in schools, centred on valuing, rather than challenging the integrity of disciplines and the subject-based organisation of curriculum and pedagogy in secondary schools. This is not to discount the value of whole school sustainability initiatives, or cross-curricular action competence projects. However, sustainability thinking in schools needs to be part of every learning area, just as “parent” academic disciplines across the sciences and the humanities have responded to the intellectual and moral challenge of climate change and environmental degradation, including: sociology (Beck, 1992; Urry, 2011), economics (Carolan, 2014), politics (Kovel, 2007; Newell and Patterson, 2010), drama (Kershaw, 2007; May, 2007) and literary studies (Buell, 1995; Garrard, 2004). In the last decade, the intellectual and institutional coalition of fields engaging with the environmental crisis has been named the “Environmental Humanities” which indicates a critical mass of interest in the issue (Bergthaller et al, 2014). As yet, school subjects have not caught up with these debates and by default they remain part of the “carbon curriculum” validating a “business as usual” approach to the rapidly unfolding ecological crisis (Matthewman & Morgan, 2013).
The environmental crisis is an established fact. In the last ten years attention has been focussed on climate change as the gravest threat to the stability of weather systems, the risk of flooding and dangerous heat waves, the health of ecosystems on land and in the sea and to the existence of low-lying land-masses. The Intergovernmental Panel on Climate Change (IPCC) notes that climate change destabilises nation-states through its effects on food crops, water supplies, human health and species loss (2014a). Geographical isolation is no protection—although being rich will probably help to insulate some people from the worst effects. The report warns that New Zealand is “at risk”, and unprepared in relation to the impacts of sea-level rise, coastal flooding, and changes in rainfall patterns, and notes that the impacts of climate change are likely to impinge most on indigenous communities. At the same time, the report notes that indigenous and “local” knowledge represents a “major resource” in moves towards societal adaptation to climate change. Recent work on Ecosystem Services (Royal Society, 2011; Dymond, 2014) in New Zealand has noted that many conflicts and disputes over environmental issues are, at root, “clashes of incommensurable values, where the values of one user group cannot be expressed within the worldview of another user group” (Royal Society, 2011, p.5). For example, the economic use of a river for irrigation purposes is incommensurable with the recreational value of the river or the mauri of that river.1 It is easy to think of instances such as the recent signing of the settlement of the Whanganui River, the ownership of the shoreline and the decision to return Auckland’s volcanos to iwi which illustrate some clear cases where cross-cultural co-operation and understanding of the environment is crucial. It is no exaggeration to say that knowledge and understanding of the environment is central to identity and culture in New Zealand (Bell, 1996). “Culturally Responsive Pedagogy” has been put forward as a central factor in academic success for Māori and Pasifika students in school (Johansson, 2012; Ministry of Education, 2014b). However the policy documents focus on “culture” (language, family and social practices, values, rituals and ceremonies) with no direct attention given to how culture intersects with environmental histories, attitudes, practices, values and beliefs. Culturally Responsive Pedagogy is an abstract concept which needs clarification in relation to real classrooms and situations. This study seeks to engage with diverse cultural and environmental perspectives and

1 The Māori concept of “mauri” may be translated as life force or vital essence.
knowledge in Aotearoa New Zealand as part of educational design and practice (Mulholland, Selby & Moore, 2010; Selby & Kagawa, 2010).

As a former teacher of English and teacher educator I concentrate my energies on English. At the same time English and ecocriticism cannot be considered in isolation from the wider problem of integrating EfS into secondary schools, so this study sends out feelers to make productive connections across related disciplines and pedagogical approaches.

**Ecocritical Research Trajectory and Current Aims**

The subject-led approach to sustainability in English takes initial inspiration from ecocriticism and draws on my previous work in the UK as a starting point for the thesis study. During that time (1998-2012) I was the subject English coordinator for the Initial Teacher Education programme at the University of Bristol. I had been an English teacher for eight years and I was still involved in teaching in schools. One aspect of the teaching programme was a final four weeks of exploratory work after the main teaching practice. During this time cross-curricular and creative projects, trips and workshops were planned between lecturers in different subjects. I became interested in the connections between Geography and English through a collaborative project on teaching concepts of place in the literary representations of London. The search for a theoretical “common ground” between the Geography educator, John Morgan and me, led us to ecocriticism as the “study of the relationship between literature and physical environment” (Glotfelty, 1996, p. xix). In turn this intellectual interest in how texts represent place, environment and the more-than-human-world led me to take a stronger moral and political position on the question of the environmental crisis. I did not start out with much awareness of my own environmental identity; this has been developed gradually through an intellectual engagement with ecocriticism. At the time, my newfound interest in the connection of English to ecology and environment led me to establish an “English and Environment Research Group” of twelve beginning and established teachers in Bristol, to consider practical ways in which English could engage with ecocriticism. The research was an informal and haphazard process of generating, sharing and collating ideas within the group. The outcome of this work was *Teaching Secondary English as if the Planet Matters* (Matthewman, 2010) and the series *Teaching School Subjects as if the Planet*
Matters which I co-edit. This contributed to the discussion of how English Studies has engaged with ecology at tertiary and school level (Pareham, 2002; Matthewman, 2010; Kerridge, 2012). Two further books in the series have been published so far: Teaching Secondary Geography as if the Planet Matters (Morgan, 2012) and Teaching Secondary Maths as if the Planet Matters (Coles, Barwell, Cotton, Winter & Brown (2013). The books were intended to be practical resources for teachers based on classroom experiences and located firmly in the context of teacher education in the UK.

This thesis project extends and develops that initial work on ecocriticism and English in relation to the contrasting but related educational contexts of the UK and New Zealand. While I will discuss examples of ecocritical lesson ideas the main aim is to draw out overarching principles and implications for developing an ecocritical English approach which is attentive to cultural and environmental context. The research in this thesis seeks to have an impact on how sustainability is integrated into the curriculum and into the pedagogical practice of teachers within and beyond the New Zealand context. It seeks to contribute to the theoretical debate about what constitutes effective teaching of sustainability in schools.

Finally, I have had to look outside the discipline of English in order to think about the political and social context of the environmental crisis which has led me to work with post-carbon and green social theory. Through this work I have aimed to make connections with the broader political purpose of what we think we might be doing as educators when we try to “teach green”.

Research Contexts and Data Collection

Empirical work drew on reflections on practice as a teacher educator; a study of ecocritical approaches in two Auckland schools; a pedagogical arts performance in Glen Innes and an arts installation event in a South Auckland secondary school. I worked with five teachers (three English teachers and two Arts teachers) in the first research project (funded for one year by the University of Auckland) at James Cook High School, observing each teacher three times and using pre and post-lesson design interviews with the teachers and with six of the students in each class. Sets of students’ work were collected from each class. An important aspect of this work was the written reflections on the ecocritical reading group process with the teachers.
These written reflections were circulated and discussed in relation to informing the planning of the teachers. In the second project at James Cook, I worked with an interdisciplinary team of researchers in Dance, Environment and Planning. The arts-based research involved personal reflection on the process of creating an arts/science installation as part of Fluid City rather than the formal collection of data from participants (funded by the University of Auckland as part of the Transforming Cities initiative). The River Talks was an arts event that I attended with a colleague; the arts director, Tamati Patuwai followed up audience expressions of interest in relation to their roles, and as academics we were invited to write about the event. The third funded research project Ecocriticism in English took place at two schools: James Cook High School and Hobsonville Point Secondary School. This project was funded by the University of Auckland for one year as part of preparation for research bids for government funding from the Teaching and Learning Research Initiative and involved one English teacher in each school. They were each interviewed at the beginning and end of the project and were observed twice with a Year 9 class (ages 13-14). Six students in each class were interviewed at the end of the project and samples of their work were collected from each class. The fourth project Tuhia ki te Ao—Write to the Natural World has been funded by the TLRI for two years (Matthewman, 2016). It involves the same English teachers as in the pilot project and two Arts and two Social Sciences teachers. The research tracks the progress of students in one Year 9 class in each school in each year of the project. The class is taught by all three teachers in each school. Teachers were interviewed at the start of the project and will be interviewed at the end. Six students from each class each year will be interviewed at the beginning and end of each year. Students’ work from each unit and written team reflections from meetings have been collected. Further details on the contexts and methods are given within the publications or in the commentaries.

**Theory and Methodology Overview**

**A Sociocultural Approach**

My sense of methodology in educational research has been developed through a long process of apprenticeship. As a teacher educator-researcher, this was rooted in the practice of lesson observation and feedback in which mentoring and reflective practice were central processes. My observations were grounded in versions and
practices of English and how these were interpreted and realised by the student teacher. Feedback discussions included the student’s school mentor and at their best involved a dialogic three-way process of interaction which explored the lesson in the wider context of the student’s past learning experiences and current work in the school and in their educational studies (see Peter John on observation and mentorship, 2002). My university mentor Malcolm Reed introduced me to the work of Mikhail Bakhtin and Lev Vygotsky in this context of scaffolded and dialogic learning for the school student and the beginning teacher (see Reed, 2006).

A more formal introduction to the practice of educational research came through my involvement in InterActive Education, a large scale research project funded by the Economic and Social Research Council (ESRC) over four years (2000-2004). By dint of being in the right place at the right time I was given the role of leading the English team of two other researchers and nine teachers across seven schools. The project as a whole investigated the role of technology in the subject cultures of English, Maths, Science, Geography, History and Modern Foreign Languages. Teacher educators in each of these subjects led the teams. The project was theorised within a sociocultural frame of learning and worked on the concept of a lesson and lesson sequences as “design experiments” which could be iteratively worked upon through the teaching and research process (this derives from the concept of a lesson plan as a “thought experiment” within a key text for the project, Engaging Minds, Davis, Sumara, Luce-Kapler, 2000, p.98). We viewed teachers in the team as co-researchers in investigating the challenge and potential of integrating technology. In turn, I was mentored by more experienced researchers in the project, while being thrown into a high level of research responsibility for the English research outcomes.

The experience of this project has shaped my practice as an educational researcher through the research practice, the mentorship and the readings and discussions in sociocultural learning theory. It means that I view all educational practice as situated in complex social relationships and environmental conditions and I have a resistance to individualistic psychological models of learning. I view learning as distributed and collaborative across resources, persons, tools and sites (Perkins, 1993) and motivated by social interests and actions (Vygotsky, 2012; Kress, 2010; Wertsch, 1993). These sociocultural perspectives are implicit in the way that I record and “see” work in classrooms although they are not an explicit frame of reference for my analysis in this study. Instead, my processes of analysis in this thesis draw on
narrative approaches and literary interpretation informed by ecocritical perspectives. However, sociocultural perspectives underpin the theory of literacy which I draw upon more extensively in Chapter Five. I am interested in “thick” descriptions of classrooms which attempt to capture as much of the texture of the context as possible (Geertz, 1994). In terms of representing classrooms I use vignettes to illustrate particular moments of interest within the wider context of the classroom. In developing these vignettes I am influenced by the concept of the lesson as a “design experiment” and the vignettes of practice produced to illustrate theoretical ideas about teaching and learning (see for example Davis, Sumara & Luce-Kapler, 2000, p.36).

In vignettes of teaching I aim to give the flavour of what it was like to be there. I want the teacher to recognise the vignette as a reasonable and fair representation of a lesson experience even if timings might be condensed or altered. These representations then become available for the analysis of teachers and researchers who have the option to consider them critically and to ask what might have been different. At the same time, due to the ethical considerations involved, these are careful narratives which glimpse the multiple pressures of teachers’ work and which attempt to position the work of the teacher in a sociocultural and environmental context. I take it that the learning is not just about what the individual teacher does and says, but is dependent on the learning opportunities afforded by the classroom resources and environment, the school culture and the local community. Nevertheless I believe that the teacher has agency and my readings of classrooms attempt to imagine how a more ecological and environmentally rich English might be generated. The goal of an ecocritical English has also come to represent for me a way of considering how English could be taught in a more relevant, holistic and sustaining way, as explored in Chapter Six.

**Narrative Inquiry and Cultural Analysis**

In this study observations were made using a prompt sheet (based upon the one I used as a teacher educator in Bristol) to record aspects of the classroom environment with one section for recording the presentation and interaction of the teacher and the other section for detailing the reactions and learning of the students. These observation sheets were written up in detail with a space for the post-lesson discussion with the teacher. The observations formed the basis of vignettes of practice which also drew on interview data and analysis of students’ work. Interviews with teachers and students were semi-structured around the themes of environmental identity and the ecological
units of work. When interviewing students I prompted them by referring to samples of their writing and image work which was useful in eliciting fuller responses. I do not formally code interviews or observations. I have tried the procedure in the past (including the irritating programme of Nvivo) but for this close qualitative work with a limited number of participants the aim is to read deeply and associatively rather than to make simple coding connections across a range of samples. I read and re-read the interviews and observations carefully and attentively, annotating them as “texts” and noting where they connect with the literature base that I am using. This may result in cognitive mapping processes as I seek to understand the links and ideas that are emerging, much as I would do in planning a piece of writing. Often it is in the writing of a vignette that the significance of a moment in the observation or an interview emerges. So I write to analyse. This is an approach which is validated by “narrative inquiry” although in truth for me this largely represents a post hoc rationalisation of a method that I have used intuitively as a result of my training in reading and writing about texts, and through engaging with narratives of teachers lives set within socio-political contexts in the work of Ivor Goodson (2003), or with representative vignettes of practice (Davis, Sumara & Luce-Kaplan, 2000). However my awareness of narrative inquiry as a research method has helped me to reflect on my approach. Narrative inquiry focuses on constructing stories from events, experiences, artefacts and dialogues (Andrews, Squire and Tamboukou, 2008). Narrative offers a framing device to “investigate the ways that humans experience the world depicted through their stories” (Webster and Mertova, 2007). Within narrative inquiry approaches the analysis of the data is unfolding and iterative from the outset of collecting data (Connelly & Clandinin, 1990). For example, in this study, field notes become reflective accounts which can then be merged with other data in writing the teaching vignettes. These narratives can then be set within publications which contextualise or theorise the narratives. Looking for patterns in the data which are prompted by the research questions or which arise out of the reading are important ways of organising and structuring initial writing. The hermeneutic research methodology focuses on textuality, drawing on ecocritical reading and writing and narrative inquiry to build thick descriptive narratives of the process of engaging with sustainability in the English and Arts context. Narratives are analysed through an “ecocritical” commentary which places the stories of participants within the contexts of curriculum policy and the discourses of English, Arts, EfS and ecocriticism. All participants were
invited to respond to the narratives which relate to their involvement and their perspectives are incorporated into the research publications. Questions which have guided the analysis of research narratives include: what does this narrative show us about the intellectual and cultural resources that teachers and students draw on to integrate an ecological perspective? How is the ecocritical reading of texts reflected in teaching, writing, discourse and performance? How is engagement with sustainability affected by issues of cultural and environmental identity and personal histories? How is engagement with sustainability affected by conceptions of the subject and subject boundaries? To what extent does the narrative show a change in attitudes and understanding in relation to sustainability and English? To what extent does the narrative show “catalytic” validity?—a term used by Patti Lather (1991) to refer to observable changes in teachers’ practices within a qualitative research paradigm.

The thesis is a crossover between the disciplines of English and Education and has been supervised in both fields. It is therefore part literature research and analysis, part ecocritical cultural analysis and part qualitative empirical study influenced by sociocultural theory and narrative inquiry. As the thesis is presented “with publications”, aspects of the research methodology are discussed “in situ” and where relevant within the publications or as part of the commentary sections. This study is qualitative and eclectic in terms of the literature used. Within qualitative and hermeneutic parameters, the approach in the study claims licence to resist “the tyranny of method” (Thomas, 2007, p. 90) and to “do whatever seems best” (Thomas, 2007, p. 96) but with serious thought and “a remorseless agitation, an unapologetic use of fragments from here and there” (Thomas, 2007, p.96). By this I mean that data from students’ and teachers’ work, interviews and observations are included as literary fragments that are used illustratively to develop an interpretation and an argument. It is not my intention to provide a systematic presentation of data as objective “results” although I do offer and illustrate “findings” and suggestions for practice in the final chapter.

Ecocriticism (The Main Theoretical Underpinning)
There are a number of definitions of ecocriticism used within the thesis. The definitions emerge in relation to each particular context of writing. However, my own working definition based on the literature is as follows: ecocriticism is a movement within literary and cultural studies which investigates the way that nature and the
Environment are represented in texts and how these texts have environmental reverberations in the world.

Ecocriticism is the main theoretical source in the thesis. However, ecocriticism is not really a theory, at least not in an overarching sense and it has become increasingly theoretically diverse as a field of interest. Ecocriticism takes a political and moral orientation to the world ranging over discourses of environment, nature, environmental crisis, sustainability and more recently, the concept of the Anthropocene. My approach to ecocriticism is therefore pragmatic. I take what I think I need from it in relation to how it helps me to reconceptualise English as a more environmental and ecological subject. Given the complexity of the field, in this thesis I work with a set of ecocritical principles around which ecocritics tend to coalesce, debate and disagree. Set out below is an account of the principles that I derive from the literature on ecocriticism and from working with teachers (adapted and updated from Matthewman, 2010, p.23). I relate these principles to the teaching of English and to the approach taken in the thesis.

1. Ecocriticism makes the environment and the non-human central to the interpretation of the text. The principle of a shift of attention from human representation to the environment and to the non-human (or more positively the more-than-human) is the fundamental difference in the ecocritical approach to reading texts. Ecocritics have made important contributions to understanding the strategies that authors and artists use to represent the fragile and threatened “more-than-human” world. Ecocriticism is an inclusive and eclectic field ranging widely over popular cultural forms including film, virtual worlds, music, documentaries and advertising seeking “to track environmental ideas and representations wherever they appear” (Kerridge, 1998, p. 5). The “tracking” of ecocritics is often deliberately polemical and involves identifying both helpful and damaging discourses and concepts of the environment in order to re-imagine the relationship of the human to the non-human world in more sustaining ways (Buell, 1995). Eco-linguistics has a similar focus but with a more detailed and systematic collation and analysis of language based on the principles of discourse analysis (see Stibbe, 2015). The process of identifying the strategies that authors use is familiar to teachers of English but more precise attention to strategies for representing “setting” or animals could be drawn from ecocritical studies.
In this study the history of curriculum for English in the UK and New Zealand is read ecocritically in that the environmental aspects and potentials of that history are highlighted and critiqued. This means focusing on aspects of that history which are marginalised or less prominent. Similarly, observations of lessons focus on the way in which ecocritical perspectives and ecological knowledge shape teachers’ curriculum planning and pedagogy.

2. Ecocriticism has a related interest in animal welfare and the representation of animals. Animal studies has an important place within ecocriticism although there are tensions between a focus on the welfare of individual animals and the ecocritical emphasis on whole ecosystems (see my account of Erica Fudge confronting ecocritic Dana Phillips about his favourite hobby: “But what about the fish? Teaching Ted Hughes with ecocritical bite”, 2007). Animal Studies (of literature and culture) is a field in its own right. Erica Fudge (2002) has investigated historical attitudes to animals and their cultural and literary representation from a polemical animal rights perspective. Related to this work but attempting a shift in literary practice, John Simons (2002) has written about animal rights as a lens for interpretations of literature. A more neutral approach is found in accounts which consider the intellectual and cultural dilemmas involved in human symbolic and practical uses of animals. For example, in New Zealand, Annie Potts, Philip Armstrong and Deidre Brown (2013) have written about the importance of “iconic” animals in the national and cultural imaginary. Notwithstanding the differences of intention and focus between animal studies and ecocriticism, conferences run by ASLE (The Association for the Study of Literature and the Environment) regularly include papers on animal representation.

The representation of animals has relevance and importance for teachers of English, particularly in relation to developing an ecocritical approach. Children’s literature is full of animal representation yet this is often taken for granted or ignored when these texts are taught. Paying attention to the precise ways in which animals are represented in texts has the potential to develop ecological literacy and empathy with the more-than-human world. In Chapters Three and Five the cultural significance and environmental importance of animals is a dominant strand within the discussion of environmental units of work in English.
3. Ecocritics take account of environmental conditions both at the time of writing and the time of reading. Ecocriticism prompts a re-evaluation of texts in relation to the environmental contexts of the past, present and future. For instance, can reading a nature poem about a kiwi ever be innocent of the imminent threat of the bird’s extinction? What was the range of attitudes to nature represented in a Shakespeare play like As You Like It? How can we see the roots of current environmentally destructive attitudes to nature in a novel like Dickens’ Hard Times?

In English lessons media coverage of the environmental crisis will influence the way that students read texts about nature and this can be explored and made explicit. For English teachers paying attention to environmental contexts has the potential to expand the narrow definition of “setting” as merely “ancillary to the main event” or backdrop to character and action (Buell 2000, p.177). The environment as active context or agent is discussed in Chapter Three of the thesis.

The research itself will pay attention to the environmental conditions which shape each inquiry. This may mean the environment of the classroom, the school, the locality and the representation of the environment of the nation as set in particular time frames within the awareness that the environment is an ongoing process not a settled entity.

4. Ecocritics take a moral and/or political stance on environmental issues and may urge environmental activism. Ecocriticism has both an intellectual and a political dimension. Pippa Marland suggests that the prefix “eco” in ecocriticism connotes a more political orientation than some critics are comfortable with, while for others the activist aspect of ecocriticism is the “raison d’être” of the field (2013).

There are a range of environmental positions and one typology of these is discussed in Chapter Five. Garrard (2004) suggests that “deep ecology” is the most common implicit or explicit position for ecocriticism within radical positions that include ecofeminism, social ecology, eco-Marxism and the esoteric Heideggerian ecophilosophy. In essence “deep ecology” holds that nature has intrinsic worth, rather than value only in relation to human use. So a forest can be seen as a valuable habitat in its own right or it can be viewed as “standing reserve”, a source of wood, or perhaps a leisure location for a holiday park. Social uses of nature are not necessarily destructive, and eco-Marxist and eco-feminist positions have considered how not all people exploit nature equally. These positions examine the domination of nature and
the links to forms of social domination. Following on from this, ecocriticism has stressed environmental justice in relation to indigenous peoples with particularly influential work in the field of postcolonial ecocriticism by Rob Nixon who elucidates how the invisible effects of slow degradation of environments can be made visible by writers and artists (2011). This development within ecocriticism is explored in relation to the art/science projects described in Chapter Four.

Education has an important part to play in terms of shaping students’ responses to the environmental crisis. However, the political dimension of sustainability education tends to be downplayed in schools. This has the unfortunate effect of simply legitimising current political systems rather than allowing openness to critique and alternative political perspectives—a problem which is further explored in the discussion in Chapter Six. Teachers of English also face the disciplinary reservation that the environment is “about science” rather than a cultural issue to be addressed in the arts and humanities. How far should English stray into a domain which has heretofore been designated the preserve of Science and Geography? How can English make a distinctive contribution to environmental teaching without repeating work in other subjects? These questions arise in the classroom work reported in Chapter Three. An ecocritical approach to English has the potential to take environmental teaching beyond simplistic messages about turning off the lights and reusing plastic bags to encompass ecocritical and holistic thinking about a whole set of attitudes and behaviours (see Chapter Four). Most significantly English as a subject is rooted in ideas of “personal growth” and may have a significant role in influencing students’ emerging environmental identities. The links between English, literacy and environmental identities are a particular focus within Chapter Five.

5. Ecocriticism breaks through traditional boundaries between texts and disciplines, connecting readily with science. Ecocriticism aspires to be interdisciplinary, as demonstrated in the title of its most prominent journal *ISLE* (*Interdisciplinary Studies in Literature and Environment*). Ecocritics argue that a holistic and collaborative approach is necessary in order to grasp the complexity of environmental problems and solutions. Ecocriticism is likely to be eclectic in the “evidence” that it uses and will draw upon a diverse range of disciplines and texts to help with reading the meanings of environment within and beyond the text. In this thesis there is discussion of art/science collaborations which attempt to forge new
alliances with the scientific disciplines of biology, ecology, and geography. North American ecocritic Dana Phillips (2003) disagrees with both the “science” of ecology and ecocriticism’s use of ecological ideas (see Chapter One). Phillips’s explanation of the debates within ecology is important in debunking some commonly held myths—such as the stability of ecosystems and the inevitability of natural succession. However, ecocritics such as Wendy Wheeler and Hugh Dunkerley have roundly defended the validity of the science they draw upon (Wheeler & Dunkerley, 2008). Also, in terms of the world “as text”, cultural geographers have established valuable methodologies for reading “place”, landscapes and townscapes (e.g. Barnes & Duncan, 1992; Curry, 1996). In schools where teachers from different disciplines often work in adjacent classrooms, there is at least the potential for cross-curricular connections and collaborations. Such collaborations help to make knowledge more meaningful to students in revealing the overlaps and intersections between subject areas. The issue of the environment is not the exclusive preserve of any one subject. The environmental crisis is a moral, social and aesthetic issue as well as a scientific problem. Working together on the issue of the environment is essential to show how these different claims intersect and compete. It is unusual for the “two cultures” of science and English to work together but there are creative and productive possibilities in forging these new links. In this research, interdisciplinary work helped to reveal how ecocriticism can be more than a specialised branch of literary theory and has the potential to shift the way that the world is read. Methodological interdisciplinarity is also an aspiration for this project which seeks to combine reading practices derived from literary theory with social sciences approaches to qualitative research.

6. Ecocritics challenge the idea of nature as only existing in language. The environment is shown as a real problem needing real action. Donald Trump has denied the reality of human induced climate change and his presidency has been associated with the creation of “alternative facts”. Yet the succession of IPCC

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2 On 7 May 1959, the novelist and former research chemist Charles Snow delivered the prestigious Rede Lecture at Cambridge University on ‘The Two Cultures’. Snow argued that the split between the ‘two cultures’ of modern society, the sciences and the humanities, was a major obstacle to solving the world’s problems. The lecture, with introduction and context, is published as The Two Cultures (Snow 1998).
3 “Alternative facts” is a phrase first used by Kellyanne Conway, U.S. Counselor to the President.
reports so far, from 1990 to 2014, present convincing and rigorous evidence from thousands of scientists that climate change is real, that humans are responsible and that it is possible for “alternative facts” to be revealed as lies. The postmodern idea that all reality is constructed in discourse has been disputed by first wave ecocritics impatient with endless deconstructions of meaning about nature and the environment. Kate Soper (2000) defends the realist idea of nature against a tendency to obscure physical facts with linguistic equivocation:

In short, it is not language that has a hole in its ozone layer; and the ‘real’ thing continues to be polluted and degraded even as we refine our deconstructive insights at the level of the signifier. (p.124)

Most ecocritics seek to acknowledge the existence of a “real” physical nature that is under threat, without denying the way that nature is understood through cultural constructions and representations. While for some ecocritics this has lead to a rejection of theory, later explorations of ecocriticism discuss the complex connections between the word and the world and the intersections of nature and culture (Buell, 2005, pp.29-61). Ecocriticism directly challenges approaches which focus on texts as cultural and linguistic artefacts existing only in relation to other literary texts. The text also exists in relation to the “real world” which it represents. Ecocriticism takes us back to “nature” (however constructed that nature is), and reminds us of the existence of a real and endangered planet. Material ecocriticism takes up the problem of physical realities versus linguistic constructions through asserting and reading the agency of “matter” in texts, bodies and environments (Iovino & Oppermann, 2014). Much of this work seems highly abstract and technical but the implications of attention to the material impacts of our simplest actions is an important attitudinal shift. In teaching terms this might suggest not that we need to cover “everything” but that we may in fact start “anywhere” as all “matter and meaning” will have a relationship to environmental questions.

In an important sense the environmental crisis is about perception but it is also about who you are and where you stand in the world. It is already a disaster for poor communities in Bangladesh, the Maldives and the Sudan, while the impact on life in New Zealand is little more than a vague cultural unease. Environmental disasters hit randomly and it is difficult to plan for the unexpected. For ecocritic Greg Garrard
(2013) this requires a “pedagogy of the unprecedented” meaning that essentially we need to be prepared for the unexpected and to imagine futures which are unfathomable. In terms of methodology this suggests an orientation to the future, attentiveness to the effects of texts on our perceptions as well as attention to sources of scientific authority and consensus.

7. Ecocriticism has historically shown interest in nature writing although all texts can be read ecocrítically. As noted, ecocriticism represents a committed position, since it seeks in part to evaluate environmental texts in terms of their usefulness as a response to environmental crisis. In practice, an ecocritical approach may involve changes in the types of texts that are selected for study, as well as analyses which place texts in their geographical and ecological contexts. Buell’s first manifesto for ecocriticism argued for a new canon of nature literature, with particular emphasis on non-fiction nature writing (1995). First wave ecocriticism in America was strongly focussed on nature writers in the tradition of Henry Thoreau and the wilderness narrative. Second wave ecocriticism seeks to go “beyond nature writing” (Armbruster & Wallace, 2001). Lawrence Buell’s later work acknowledges interest in tracing environmental themes and processes in texts that are not obviously about nature or the environment and stresses the significance of multicultural and metropolitan texts (2005, 2011). Meanwhile in Britain interest in nature writing has grown with the emergence of a generation of “new” nature writers (see Chapter One).

Given the urban and suburban contexts of most UK and New Zealand schools it is important for an environmental English to be inclusive of both built urban and cultivated rural places. An environmental approach to English also needs to be responsive to the full range of texts and genres rather than being limited to a narrow focus on particular “ecotexts”. The study and practice of nature writing—which can include writing about nature in the city as in The Wild Places (Macfarlane 2007)—offers many valuable opportunities for English teachers. It may prompt experiential learning through outdoor work, open up the potential for collaboration with science, and is an accessible genre for writing and study which connects with current concerns about threats to the natural world. The study of nature writing may also be instrumental in raising students’ ecological literacy (see Chapter Five).

The implication for methodology here is that ecocritical researchers should consider the ecologies of form. What form of writing is best suited to the nature of the
research? The research takes its cue from second wave ecocriticism which contends that any text can be read ecocritically. Famously, Roland Barthes saw cultural meanings in events such as a wrestling match or a plate of steak and chips (Barthes, 1972). Ecocritics have been similarly eclectic in their choice of what can be read ecocritically. A lesson as an observed event can be read ecocritically, as can an artistic symposium.

8. Ecocriticism can celebrate the wonder of nature and/or seek to show the extent of the environmental crisis. Ecocriticism can be celebratory, seeking to encourage empathy and care for the natural world. It can also be elegiac or “ecocidal”, revealing the dangers and degradation of human impacts on the earth. Whatever the case, nature writing in the twenty first century cannot pretend to be innocent of the environmental crisis. Pastoral is the genre that has traditionally been characterised by a celebration of nature. In a typical pastoral the country is seen as a place of retreat and moral refreshment from the wickedness and artificiality of the city and is peopled by rural workers such as shepherds and cowherds, although the idea of pastoral has always contained the possibility of cynicism. (Most literally figured as Jacques in the Forest of Arden in As You Like It.) Terry Gifford (1999) has suggested a further complication of the category in coining the term “post-pastoral” which is intended to show how the reading and writing of rural retreat must now be tempered with the awareness of ecological threat.

For English teachers, an ecocritical approach to teaching literature would be alert both to the wonders of the natural world and to the contexts of environmental significance and endangerment. This requires some research and knowledge. For instance, Ted Hughes’ Pike (Hughes 1967, p.21) raises moral questions about fishing and offers opportunities for discussion of river quality and fish stock (Matthewman, 2007), while Andrew Motion’s poem Sparrow (Motion 2004, p. 143) has more resonance with discussion of the possible causes of the decline of these birds (as discussed in Chapter Five).

There is hope and despair in environmental work, and both can motivate the ecocritic or the environmentalist. Ecocritics and environmentalists have made the case for promoting a love for and celebration of nature which could prompt the desire to protect it. This is well expressed by the most celebrated maker of nature documentaries, Sir David Attenborough:
The best way of taking the message to the people is by showing them the pleasure, not necessarily by saying every time you’ve got to do something about it, but by saying look isn’t this lovely? And the other bit follows. (*Life on Air*, screened 14 May 2006).

At the same time the problem of despair and pessimism is a particular issue for environmental pedagogy, but arguably a necessary part of the process of moving towards informed hope (Hicks, 2014). The methodological implication is that accounts of environmental work can tend towards the celebratory or the pessimistic. Both positions may be necessary.

9. Ecocritics think and teach outside (or they at least look out of the window). Literary and environmental field trips are an integral part of ASLE conference programmes reflecting an ecocritical emphasis on experiential and outdoor pedagogy. For instance, Greg Garrard describes an activity where he asks his students to compare an hour experiencing a natural place with an hour of TV (Garrard, 2009). This is a more manageable variation on the experiment by the environmentalist writer Bill McKibben in which he compared the experience gained through twenty four hours spent on a mountain with watching the entire output of twenty four hours of television recorded from all 93 cable channels (McKibben, 2006). Similarly, the ecocritic and poet John Elder has written about learning to scythe with his students as a concrete experience of the references to scything in poetry by Robert Frost (Elder, 2001). As Greg Garrard (2012) points out ecocriticism has plenty of examples of teaching “on the trail” preferably in relation to visiting real places linked to literary texts. However, Erin James raises the challenge of teaching postcolonial texts that do not fit easily into this model of pedagogy (2012). Ecocritics frequently write about their own environments and the way that they are influenced by them in their critical writing. The wistful ecocritical academic gazing out of the window is satirised by Dana Phillips (2003) in the opening chapter of *The Truth of Ecology*. In more recent accounts of pedagogy ecocriticism has developed interests in moving image and the potential of new media technologies as another kind of “window” or screen for interacting with the world (see for example Lioi, 2012).
The ecocritical emphasis on connecting real places and literary texts whether through fieldwork or through the medium of the screen are obvious potential strategies for School English. However, when field trips do take place, the environmental potential of the learning may be implicit rather than discussed (see Chapter 5).

**Ethical Considerations**

An ethical position on action in the world is fundamental to an ecocritical position. Ethics have been granted for the empirical research components by the University of Auckland Human Participants Ethics Committee. The principles that have informed this work are as follows:

**Crediting research participants and protecting and valuing their perspective.** I have named teachers and schools in the thesis as they are considered to be co-researchers in relation to the project of developing an ecocritical English. This creates a particular pressure to write the narratives sensitively and contextually in a way that does not damage the reputation of the participant. It has meant checking the observation data, the reflections and the publications with the participants and incorporating their amendments to ensure that writing does not compromise individuals’ sense of themselves and their role or the integrity of the research. This may mean occluding certain material but it creates the benefit of producing more collaborative case study research in an on-going relationship with participants (MacDonald & Walker, 1975). The names of all students have been changed to protect their confidentiality and they have been made aware that in small scale studies it is not possible to guarantee anonymity.

**Ethical dilemmas in critiquing lesson observations.** Some research material can be particularly sensitive. Written accounts of lesson observations can reveal issues which other professionals may judge critically. Therefore these need to be framed positively if they are to be shared amongst teaching colleagues. In relation to post-lesson feedback I have found this to be a delicate balance of support and critique. In relation to the study the focus is on how to integrate the ecological so this frames the feedback discussion so that it feels less about personal teaching style. Inevitably some
feedback links with notions of what might be considered general “good practice”. Trust in critique may emerge as relationships develop and in the context of respect for demonstrated teaching expertise.

**Power dynamics of working in schools.** Schools are hierarchical places. The researcher needs to be careful that participants are willing to contribute to the research and that they are aware that they can withdraw at any time. Ideally this means communicating the research to the potential participants independently of the more senior members of staff. In the first research project (2012) being new to Auckland I had no leads for contacts in schools. I contacted all the Heads of English in all secondary Auckland schools via an email list. I received only three responses and I followed up these contacts with a personal visit. The Head of English sent the research flyer to staff in English and the Arts. I ran a presentation for English and Arts teachers on ecocriticism and invited them to participate in the research. This process involved the Head of English and the Assistant Principal talking to potentially interested staff in English and the Arts. I worked with five participants (three English teachers and two Arts teachers). Participants for subsequent research projects came through personal contacts with teachers at the schools. The reality is that with the number of emails and work-related demands faced by busy teachers, personal contact is the most effective prompt for sparking interest in participation. The researcher may not have access to teachers independently of senior staff and so this means that clarity in communicating the participants’ rights in terms of voluntary participation and withdrawing from the research is essential.

**Reciprocity in working with participants.** The research process should be a satisfying and enlightening process for participants. This requires a commitment to high standards of communication, preparation and punctuality. Where there is researcher input in terms of professional development or interviewing then this should be engaging and of a high quality which does not bore or waste the time of busy professionals. Participants should be offered the opportunity to engage with the research intellectually and to discuss the work with the researcher. The researcher should be careful to avoid unreasonable demands for additional work beyond what is paid and accounted. Teachers do not tend to have research as a priority so I aim to give time for teachers to write research reflections and to discuss ideas within paid
meeting time. I also feel that the researcher has a responsibility to respond to reasonable requests for academic support—such as references, advice with planning and reading suggestions. For example, I have provided references for teachers in the project and written a review of *The River Talks* event for the director to circulate to media outlets. The paper on *The River Talks* was invited by the director as a way to publicise the work and the cause more widely.

**Ethics raised through narrative work.** Narrative work inevitably reorganises and condenses observed events from a particular viewing perspective. It can change the represented characters and may involve altering or editing dialogue. “A personal narrative is not meant to be read as an exact record of what happened” (Webster & Mertova, 2007, p.89). This raises some ethical issues in relation to the “truth” of the research representation. In vignettes I use the exact words of participants except in one case where the participant wished me to add a phrase in relation to clarifying his meaning when talking about his practice. Participants should be able to recognise and acknowledge the verisimilitude of the representation even if the details have shifted. They should not feel misrepresented; they should be given the opportunity to discuss and alter representations. The teachers have read and commented on drafts of the publications that represent them and have read and agreed the final pieces. The work on presenting the dialogue on *The River Talks* which is based upon an interview transcript is explained in more detail in Chapter Four.

**Ethics raised through the use of visual images and artwork.** Visual images can be taken in public places. Images of the public in public places can be used but the researcher should be ethical in not using images which are intrusive (Moss, 2008). The images from *The River Talks* and *Fluid City* were taken at public events. The images from *Fluid City* are used with permission. Student teachers’ poetry in Chapter One is taken from a creative writing anthology published by the University of Bristol and circulated to schools after the field trip. Additional permission from the author was obtained to use the complete poem in the original publication by Bloomsbury.
Structure of the Thesis “with Publications”

This thesis represents different takes on the challenge of integrating environmental and ecological thinking into school English. It is based around eight publications written between 2013 and 2017. The publications are organised into chapters with an introduction and a commentary. The purpose of the commentaries is to draw out the development of the argument across the thesis and, where necessary, to update the literature and the development of my own thinking in relation to the endpoint of the thesis completion. The publications have been slightly edited to sharpen ideas and to maintain consistency of style and word usage across the thesis but the integrity of their original form has been retained so that they read as complete in themselves. The publications follow a line of developing inquiry across the time period of the study and this is elucidated in the commentaries which conclude each chapter.

Methodologically this structure allows for an additional layer of researcher reflexivity as the accounts demand self-reappraisal as well as contextualisation within the thesis (Dunne, Pryor & Yates, 2005, p.87). In places new information relating to the publications is footnoted and this is indicated in brackets as a 2017 insertion.

I have explained the ecocritical context for the study in the “Introduction: Ecocritical Principles and the Research Agenda”. This has included the research questions, rationale, research contexts and data collection, theory and methodology overview, ethical considerations and now an account of the structure of the thesis.

In the first chapter “First Wave Ecocriticism and English Methods”, I set out the roots of my interest in ecocriticism and discuss a publication on teaching poetry writing which arose from an English field trip in England and Wales (Matthewman, 2013). The commentary reflects on the methodological issues of evaluating the “impact” of ecocritical work in contrast to empirical methods from school-based education and sustainability. The chapter reflects a “first wave” ecocritical approach and makes initial connections to the context of New Zealand—a new and unfamiliar point of reference at the time of writing the publication.

The second chapter, “Thinking about Futures: Re-visioning a Curriculum for Sustainability” takes on the broader context of educational futures. This is explored in an international context in the first publication in relation to post-carbon social theory (Matthewman & Morgan, 2013) while the second publication focusses on engaging with the specifically New Zealand context of futures and sustainability education.
The chapter therefore extends the discussion started in Chapter One of sustainability education as a point of contrast with an ecocritical approach.

Chapter Three “English and Ecocriticism: From the UK to New Zealand” compares the history and current state of Secondary English in New Zealand with that of the UK in relation to the spaces for ecocritical teaching and learning. Within this chapter there are two publications. The first conceptualises Secondary English in New Zealand and the particular challenges and potential of ecocritical English in this context contrasted with the UK (Matthewman, 2014a). The second publication in this chapter revisits this work from a more practical and professional perspective seeking to appeal to New Zealand teachers of English (Matthewman, 2014b). The chapter commentary evaluates models of English in relation to their ecocritical potential and considers local aspects of curriculum and assessment which work with, or against, an ecocritical project.

The theme of ecocritical spaces for teaching and learning is taken up more literally in Chapter Four “From New Zealand to Aotearoa: Postcolonial Perspectives and Material Ecocriticism in Performance” in relation to the physical and cultural locations of two arts, science and education events. These events are analysed drawing on postcolonial and material ecocriticism. The central publication in this chapter represents a dialogue about ecocriticism, performance and education in relation to the educational arts event, The River Talks (Matthewman, Mullen & Patuwai, 2015). The commentary compares The River Talks with Fluid City an educational arts installation performed at James Cook High School. The analysis situates English within the arts and the culture of Aotearoa New Zealand and shows the potential of ecocritical reading to reveal embedded contradictions in teaching about sustainability and embedding hope for the future.

In Chapter Five, “New Departures: From Ecocritical English to Eco-critical Literacy”, concepts of “subject English”, identity and literacy are considered to ask how these might work together to inform environmental identities and eco-critical literacy. Two linked publications (Matthewman, 2017; Matthewman, in press) are presented on the themes of “3D Eco-Literacy” and environmental identities.

In the final chapter “Fifty Shades of Green: Challenging the Rule of Grey Capitalism”, I speculate how the Cox models of English and 3D Eco-Literacy might
match established and emergent shades of green social theory with green political implications for teaching.

The “Conclusion” draws together and summarises the findings, implications and recommendations arising from the thesis study within a reframing of the Cox models and looks ahead to the future.

This introduction has set out my research problem space and the research agenda that follows, including the connections of the research to ecocritical principles. In subsequent chapters ecocriticism is linked and compared with other sources and models for thinking about sustainability and the environment. The next chapter considers questions of poetry, place and method.
CHAPTER ONE
First wave Ecocriticism and English Methods

Five years have past; five summers, with the length
Of five long winters! and again I hear
These waters, rolling from their mountain-springs
With a soft inland murmer.

—-Wordsworth, “Tintern Abbey”.

This chapter “First Wave Ecocriticism and English Methods” will introduce, present
and discuss a published chapter (Matthewman, 2013) which illustrates my initial
thinking at the beginning of the PhD study around the potential links between School
English and ecocriticism.

In 2004 I read The Song of the Earth by Jonathan Bate (2000). The Song of the
Earth has become a seminal text in the field of ecocriticism partly because it is a
virtuoso re-reading of romantic poetry but also because it steadily and persuasively
draws attention to the way that texts are grounded in environmental contexts. This
offers a challenge to the poststructuralist play of receding meanings and a counter to a
reading of romantic nature writers as creating a purely imagined world within
language and webs of intertextuality (Soper, 2000). Bate is interested in the “real”
materiality of the world which the texts refer to and evoke—the connection between
the physical environment and the text rather than the interrelations between text and
text. For me, when I first read it, The Song of the Earth was a revelatory work of
criticism offering a new angle on reading nature poems. I was struck by Bate’s claim
that “poetry is the place where we save the earth” (p.283) and puzzled over it. Is
poetry meant to serve as a metaphor for “art” in general or is Bate making a case for
poetry in particular as a special ecological genre? Bate’s extended analysis of the
sensuous and experiential effects of nature poetry suggests the latter. This is also
perhaps a knowing counter to W.H. Auden’s famous line that “poetry makes nothing
happen” (Auden, 2007, p.88). It was this proposition that “poetry is the place where
we save the earth” that first captured my imagination as a teacher of English and
offered potential avenues for thinking about sustainability and the Arts as a teacher
educator. The book spurred me to read more about the field of ecocriticism and to
consider Bate’s question in relation to the teaching of poetry in English classrooms.
(Matthewman, 2007; Matthewman 2010; Matthewman 2013). The following published chapter is illustrative of an early attempt to bring together the concerns of English teachers (in this case focusing on the teaching of poetry writing) with the literary practice of ecocriticism.
Publication 1. Ecocritical Approaches to Writing Nature Poetry

Premise
My focus in this chapter (Matthewman, 2013) is on the writing of nature poetry and the potential of ecocritical approaches for engaging children with poetry and environment. I will begin by illustrating the “ecocritical” moves involved in reading a selection of nature poems. The implications of these ecocritical moves will be developed in relation to a summary of established methods for teaching children to write poetry and a case study of an English field trip. I will argue that an ecocritical approach to the teaching of poetry can make sharp connections between learning to develop as a poet and learning about nature, environment and locality.

“Ecopoetry” and Pedagogy
In The Song of the Earth (2000), Jonathan Bate develops a powerful “ecocritical” argument for nature poetry as “the song of the earth”, deeply connected to the rhythm and pulse of nature. This ground breaking ecocritical study of nature poetry has been recognised as offering implications for the teaching of poetry and for sustainability education (Matthewman, 2007; Matthewman, 2010; Stables, 2010). However, it is important to emphasise that Bate is not proposing a worked out model of environmental pedagogy. Primarily, Bate’s (2000) study of nature poetry is remarkable for its convincing and nuanced re-readings of romantic poetry locating authors and texts within their historical, geographical and environmental contexts. This suggests a subtle shift in teaching towards a more deliberate attention to the importance of environmental questions and shaping. This is part of a typical ecocritical move which makes the non-human (or the more-than-human) central to interpretation rather than focussing exclusively on human culture and action. Thus, a traditional reading of Byron’s poem “Darkness” (published in 1816) might respond to a representation of a universal apocalyptic nightmare of the human psyche, whereas Bate locates the suffering of the poem in a real ecological event—the eruption of the Tambora volcano in Indonesia in 1815. This explosion triggered a volcanic winter as dust filtered out the sun and lowered the Earth’s surface temperature, causing widespread famine, war and hardship in America and Northern Europe.
The bright sun was extinguished, and the stars
Did wander darkling in the eternal space,
Rayless, and pathless, and the icy Earth
Swung blind and blackening in the moonless air;
(Byron, 2007, p.239)

In a similar critical move Bate rereads Keats’ “To Autumn” as recalling a particular time and place when the air in 1819 really was clearer after the three cold, damp, summers following the Tambora eruption and traces Keats’ precise evocation and consumptive appreciation of a healthy “imaginary ecosystem” (Bate, 2000, p.107). These readings trace how environmental conditions and awareness have shaped the writing of these poets. Readers are equally influenced by their own environmental contexts. For instance, Bate’s analysis of “Darkness” became suddenly more compelling to me when I moved to Auckland, a city that sits on an active volcanic field with suburbs distributed among approximately fifty three volcanoes. Likewise, it would be hard nowadays not to read the poem in the light of the growing evidence of anthropogenic climate change. Environment influences individual readers but communities of readers or literary fans can have more tangible environmental impacts. In re-reading Wordsworth, Bate discusses how the tourist landscape of the Lake District has been moulded and marketed by Wordsworth’s literary influence. The concepts of the picturesque and the sublime in art and literary writing have helped to define how we imagine and therefore shape and preserve landscapes in the UK. Likewise, in New Zealand, the positive and symbolic qualities of “the bush” are part of the white settlers’ (Pākehā) identity, which is created as much through cultural work in media, literature and art as through tramping in the wild (Calder, 2011). Bate's method involves researching the environmental context of the past and the ecological influences on the writer as well as acknowledging the way that texts shape and influence the way that we see the environment with indirect or direct impact on the way that the environment is valued and managed. For Bate, poetry is the genre that has the most purchase in creating a sensual evocation and memory of the natural world. Drawing on Heidegger, he defines “ecopoetry” as poetry that can help us to access the meaning of “dwelling” in tune with the earth’s rhythm and this is

4 Pākehā is a Maori word used to refer to non-Maori New Zealanders of European descent.
set against the alienation of politically didactic environmental poetry. Famously (at least within ecocritical circles) he concluded this scene shifting study of nature poetry by writing that “if poetry is the original admission of dwelling, then poetry is the place where we save the earth” (Bate, 2000, p. 283).

So, what does Bate really mean by this bold claim? Is he serious or is this an ending strategically written for rhetorical flourish? (After all the reading and writing of poetry is rather a sedentary and minority interest—however we might wish it otherwise.) Of course, it is easy to attack Bate’s metaphorical language as overblown and overstated in the context of rational educational planning. For instance, Andrew Stables (2010), who has written persuasively about environmental pedagogy in relation to English, has attacked the philosophical basis for Bate’s argument, while Greg Garrard (2010) has queried the lack of empirical evidence for such ecocritical claims to transformative pedagogy. However, these arguments surely miss the point. Bate is a literary critic who has written a work of persuasive criticism that has poetic force rather than a policy document to be evaluated and applied. Given that the effects of poetry are inevitably subtle and immeasurable, Bate’s analysis of the way that poetry connects to the Earth is worth taking seriously in relation to poetry pedagogy without being too literal about measurable “impact”. Bate writes that poetry has a unique and special power to make the natural world present to the reader and to prompt an emotional connection with nature. He argues that poetry is particularly attuned to the rhythm of the body and the sounds of the Earth, that it can embody experience to make us sensually experience the world, to make us feel the nestle of the tiny round of a bird’s nest in John Clare’s poem “The Pettichap’s Nest” (Bate, 2000, p.161) or the physical presence and smell of a wild moose in Elisabeth Bishop’s poem “The Moose” (Bate, 2000, p. 200). So, also, in Heaney’s poem “Death of a Naturalist” (Heaney, 1998, p. 5) the frogs act on all our physical senses in the evocation of the sudden wet movements, the smell, the noise, the tautness of the frog’s skin. Thus, what poetry can do is to re-enact the sounds and rhythms of the Earth and make us re-experience it through all the senses. In this way poetry captures what Bate calls the earth’s song.

If this is a persuasive line of thinking, then teaching children to write poetry about nature (and to read it) can (in a modest way) be as much about building connections between representations of nature and children’s environmental awareness of locality and place as it is about teaching them to use and appreciate
language in imaginative, concise and specific ways. In the following section I will review established methods and approaches to teaching the writing of poetry in relation to how this might connect with ecocritical practice.

**(Eco) approaches to Teaching Poetry Writing**

*Close observation.* This is strongly evident in the work of Ted Hughes’ *Poetry in the Making* (1967). Young writers are encouraged to pay very close attention to the precise detail of what they experience through the evidence of all their senses. Hughes writes about “capturing animals” and landscapes in this way, illustrating his method with his own poems and other literary examples and models. For instance, in relation to his poem “The Thought-Fox” (Hughes, 1967, p.19) Hughes describes his impression of the fox emerging every time he reads it. Similarly, referring to Gerard Manley Hopkins’ poem “Inversnaid”, Hughes puts forward a view of poetry as a way of experiencing nature more deeply:

> The value of such poems is that they are better in some ways than actual landscapes. The feelings that come over us confusedly and fleetingly when we are actually in these places, are concentrated and purified and intensified in these poems. (Hughes, 1967, p.80)

This sense of poetry as distilling and re-invoking experience is also at the heart of Bate’s thesis. Attentiveness to nature and environment is woven in as part of the process of reading and writing.

*Shaping autobiographical experience.* Jill Pirrie draws on the work of Hughes and is endorsed and praised by Hughes in his foreword to her book *On Common Ground* (1987). Pirrie emphasises the importance of remembering “with a special intensity”, as well as the detachment of patterning and structure guided by and often inspired by literary models. Although rooted in common, everyday, experience the students are encouraged to render the experience as exciting, fresh and unfamiliar rather than remaining humdrum and banal, or drifting into their own idiosyncratic and “unconvincing flights of fancy”. Ideas drawn from literary examples are used to prompt this—such as the poem “Water Picture” by May Swenson which Pirrie uses to
prompt students to see the strange juxtapositions created by really looking at the picture of a reflection in a window and the bizarre pictures it creates (Pirrie, 1987, p.80). In the Swenson poem the reflection creates the image of a newsreader talking in the garden while the cats tread on his face. The children’s poems show very precise and vivid accounts of real events and places. This is primarily an experiential approach that can connect with an ecocritical emphasis on the way that texts draw on the value of real experiences in nature. Ecocriticism has challenged the poststructuralist idea that texts exist only in relation to other texts and language. While a naïve insistence on literature as a reflection of reality is open to ridicule there is some purchase in remembering the referent of nature at the same time as being aware of how vision is constructed and distorted in the process of representation as captured in Swenson’s poem.

Language games. Language based approaches such as Sandy Brownjohn’s *Does it Have to Rhyme?* (1980) and *What Rhymes with “Secret”?* (1990) start by playing with words and using language games and move towards broader themes and models for writing. “Success” in these poems is often guaranteed by the application of a formula. As the management of uncertainty in writing can be challenging in the classroom then writing poems can often remain at the level of grammar and word games. This can devalue the writing as “real” poetry with children having little investment and ownership of the content. This tendency to rely on form has been characteristic of the literacy strategy\(^5\) model of pedagogy (Matthewman, 2007; Wilson, 2007). Ecocriticism seeks to investigate the representation of nature and to engage with real environmental contexts and challenges. An ecocritical approach would therefore need to move beyond poetry as a language game to engage children in motivated writing about their environment.

Formulas for writing. This involves using structures such as repetition or forms as a starting point for writing as containers for experience. The work of influential American poet and teacher Kenneth Koch in the 1970s takes this approach

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\(^5\) The literacy strategy was a UK government initiative that instigated an approach to English based on the structured teaching of phonics and grammar at word, sentence and text level. It was rigorously recommended, implemented and inspected at primary level (1998-2010) and as part of Secondary English (2001-2010).
in his books *Wishes Lies and Dreams* (1970) and *Rose Where Did You Get That Red? Teaching Great Poetry to Children* (1973). A formula approach can risk being applied to literacy strategy recipe of “add one noun, two adjectives and make sure you include two similes”. However Koch’s description of his way of working in the classroom suggests an intuitive and fluid reading of “great poetry” alongside children’s responses, so that one feeds into the other, finding ways into the imaginative heart of each poem and making the connection with children’s interests. Poetic models are chosen in response to the work of the children. For instance, Koch tempers children’s self-conscious literariness and the anxiety to rhyme by introducing poets that work differently, such as Walt Whitman and e.e. cummings. The importance of providing strong exemplar models is crucial to the teaching of writing and this has been specifically explored as a productive link between reading and writing poetry (Sedgewick, 2003). However, Wilson (2007), in surveying the literature, cautions that the way that form is taught in the classroom can limit the development of children’s own poetic voice. Equally, ecocritical approaches remind us that there is both an interplay between reading and writing texts and interacting with the environment directly.

**Exploring speech in action.** This approach emphasises the language that children use and hear around them, rather than taking literary language as the only model. It sees language as active, dynamic, and dramatic, and seeks to allow the expression of an authentic voice for the child writer. Michael Rosen is the key practitioner and poet here. The anthologised poems written by children in *I See a Voice* (1982) and *Can I Hear You Write?* (1989) have a direct freshness and a dramatic quality which frequently involve snatches of found speech and dialogue. This connects with the emphasis during this period on the creativity of the child and on working class experience. The emphasis on the orality of poetry is often neglected in school approaches which concentrate on poetry as a visual and written form (Alexander, 2010). This work can inform an ecocritical approach for urban contexts which recognizes that the nature that children experience may be found in the garden or yard, the park, the building site and experienced in the seasons and the weather rather than in wilderness. Accordingly, nature is bound up with human talk and actions and nature poetry should not be seen as a pristine and prettified genre set apart from everyday environmental contexts.
Workshop approach. Most practitioners employ a workshop approach combining the following strategies: collaboration around ideas and drafting, feedback from teachers and peers, and strategies for the sharing and presentation of poetry. Many also stress the importance of individual contemplation and silence as part of this process. Some stress the role of the teacher-poet (See Koch, 1970 and Brownjohn, 1994). Poets and teachers have also reported on the role of visiting poets in raising the profile of poetry (Coe, 2006). Undoubtedly, an experience which becomes “out of the ordinary” has the potential to have a lasting emotional impact on students; this can be created in visits by writers, theatre companies, trips to the theatre or museum or field trips. While cultural visits are a common feature of English, field trips are relatively rare. In contrast to mainstream approaches, ecocritical pedagogy has explored the value of the field trip in making connections between literature and ecology. This investment in the value of place-based teaching has rich potential for interdisciplinary learning (See Crimmel, 2003). Working outside the classroom in a particular natural or built environment creates a shared stimulus of experience and place which can facilitate collaborative writing and ecological knowledge building.

Having briefly set out a number of common approaches to teaching poetry in English classrooms, in the next section I present a case study of a field trip which was designed as an experiment in “ecocritical pedagogy” focusing on the teaching of poetry.

Fieldwork in English: a Case Study

For this field trip thirty student teachers of English visited Tintern Abbey in South Wales and then took part in a two hour walk along the sculpture trail in the Forest of Dean which is just across the Welsh border in Gloucestershire, England. This fieldwork was followed by a creative writing day at the University of Bristol. The methods and principles involved in teaching poetry through fieldwork are explained in order of the process: 1. Reading Tintern Abbey; 2. Walking and writing the sculpture trail; and 3. Writing workshop.

1. Reading Tintern Abbey. For the romantic tourist of the late eighteenth century, Tintern Abbey became the highpoint of the famous Wye Valley Tour publicised through a bestselling guidebook Observations on the River Wye, written in
1782 by the Reverent Gilpin (See Bate, 2000). Tourists would consult Gilpin to check what they should look for, armed with a body of clichés about bold hills, rugged rocks, lofty heights and hazy hills. A ruined abbey was considered the crowning glory of a “picturesque” scene—a scene which imitated art in the perfection of its beauty. Visiting the abbey today it is still possible to feel the grandeur of landscape and architecture which provoked Wordsworth’s poetic response. Yet, it is a “touristy” scene, and there is an effort of mind to blot out the crowds, signs, gifts and ice cream to get a sense of what inspired Wordsworth in his famous poem “Lines Written a Few Miles above Tintern Abbey” (Wordsworth, 1984, p.131). This, too, is part of the experience of the visit—for as Hughes (1967) points out, to write about landscape is to re-imagine and re-create it rather than reproduce it—a concept which is essential to understanding the picturesque. In pursuit of the picturesque, landscape views were sought which seemed artistic, but the artist also felt at liberty to cut or add his own finishing touches to improve the scene. For instance, Gilpin’s artistic impression of the abbey ignores the real signs of human habitation such as the workers’ cottages and offers a solitary abbey set in pristine nature. Wordsworth goes further by occluding any reference to the abbey in the poem apart from in the title. This suggests a deliberate challenge to the picturesque, with its notion of a ruined abbey as decoration, to create an extended meditation on the “sublime” elements of the natural setting. This might be contrasted with an ecocritical viewpoint which would be likely to address the signs of human intervention and work in nature as part of the critique of the relationship between nature and culture.

In relation to these ideas of the picturesque and the sublime, students were asked to consider how Wordsworth’s poem “Lines Written a few Miles above Tintern Abbey” negotiates the “natureculture” of the abbey and its surroundings. They were also prompted to reflect on their own experience of the grandeur of the place in amongst the bustle of tourist business. To document their thinking, some students chose to take pictures, some drew aspects of the scene and some worked on a draft of writing.

Influences from the Wordsworth poem filtered into a number of contributions to the final creative writing anthology with some very deliberate, witty and modern

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6 The term “natureculture” is used in this thesis to indicate the challenge to the binary opposition of nature and culture following the theoretical work of Donna Haraway (1997). Inserted 2017.
takes on the problems of maintaining a picturesque viewpoint as in this opening from “Tintern Abbey 2”:

Turner painted chickens picking through unmown grass
I picture stained glass bright in lancet windows
and black robed figures, ploughing early mist.
Ravens caw across the mossy quiet;
Coaches tear along the A466

Try for a moment to visualise that fat American tourist
In her vulgar yellow raincoat
Composing lines
She stoops to photograph the Northern transept
Nobody writes anything

Another poet jokes in the middle of a long pastiche of Wordsworth’s poem that he feels “ecocidal” at the same distraction of the unfortunate tourist wearing a bright yellow coat:

Fuck sake. Is she lost? Has she been thrown overboard?’

A third, more serious poem, The Window Frames of Tintern Abbey integrates the context of picturesque rules for looking, with a glancing reference to the Reverend Gilpin’s guidebook:

We arrived at the Abbey around midday
The approach was spectacular, showing the ruin nestled in the valley.
All clothed in ivy, the tumbled walls (as the Reverend writes)
Sit in contrast with Nature’s elegant lines

These extracts from the students’ poetry give a flavour of their experience of place during the fieldwork as well as their reading of poetry and context. It can be hard to engage students with a long, complex landscape poem like ‘Lines Written a Few Miles above Tintern Abbey’ but working with their own impressions and
representations of place provoked sustained attentive readings of the poem. The questions of how and why Wordsworth had represented this location in the Wye valley in a particular way became more relevant in relation to actually experiencing the place first hand.

2. Walking and writing the sculpture trail. The second part of the day focussed on creative nature writing inspired by the Forest of Dean sculpture trail. The structured guidance for the activities is described below:

   a. Sculpture response. There is a “pedagogy of place” in the artworks themselves which prompt questions which can lead to further exploration of the history and geography of the setting; as in the provenance of the sculptures of the rail tracks, the tin mines and the canal boats. Students discussed the sculptures in groups of two or three, focussing on the relationship of sculpture to place and considering narratives and histories of the setting as well as being attentive to comments made by visitors.

   b. How to capture a wild wildflower. Students carried simple field guides with them and were encouraged to use these to identify the wildflowers that they came across. Students were asked to select and draw a wildflower using the analytical mode of drawing in the field guide (see Blamey, Fitter & Fitter, 2003). Afterwards, they wrote a description of the wildflower to try to capture its essence and to allow someone else to recognise and identify it. They were encouraged to include an emotional response to the wildflower as part of this writing. Next, students were asked to identify the wildflower in the field guide and to compare their response with the account given in the guide, noticing the field guide’s use of specialist vocabulary and Latin names and noting down any words or phrases that they might want to use in a redraft of their initial response.

3. Writing workshop. i) The writing workshop began with whole class exploration of students’ impressions of the field trip, sharing drawings and digital images from the day and hearing snippets of writing, anecdotes and ideas. Two tutors lead this session, prompting with questions and drawing out and sharing information about the history and geography of the place and the names of wildflowers. A range of books was provided for reference: herbal dictionaries, wildflower guides and
geographies of the area. Students also shared the published nature poems that they had selected to read in preparation for the fieldwork.

ii) Students were given time to research the name and habitat of their selected wildflower together with any myths, stories or herbal uses associated with it.

iii) Students were asked to discuss their ideas and drafts in groups. They wrote some more in silence then they read each other’s work in pairs, giving feedback on the working drafts. Students finished and typed their writing at home. This was a fairly typical creative writing workshop in terms of the drafting process. What made it special was the cohesive effect of the shared experience that they drew upon. This meant that it was easier and more engaging for students to respond to pieces of writing which were about the place and the experience that they too had been part of.

A number of students combined the different elements of the tasks during the day into one piece of writing. Some students chose to develop poetry or descriptive pieces about the sculptures and others produced closely observed nature poems about their “captured” wildflower. Most of the finished pieces showed a real specificity and confidence in relation to the natural subjects. One poem described a thistle, combining precise use of botanical terminology with religious imagery inspired by the abbey:

Canopied Seat
Spiny, rib-vaulted stems
Vestments with green-purplish hems
Florets, cloisters and liturgical bracts
Branched transepts
Hairy passages
Egg shaped masses

Another poet also undercuts the reverence for place and nature with humour, but also uses her new sense of authority on her chosen wildflower. She reflects on the moment of standing by the sculpture (“I do not like our site specific sculpture in its wonderful environment”) and collecting and losing a sprig of St John’s Wort:

John ate my wildflower specimen:
‘good for the gums’ he informed me,
wrongly.
Some students drew upon the nature poetry that they had brought in to share. Danny Dignan drew on Raymond Carver’s poem *Eagles* (Carver 1986, p. 120) as he writes about a number of sightings of beetles along the Forest of Dean trail. This superb piece of writing shows the power of a literary model and repays reading in full:

**Beetles** (with apologies to Raymond Carver)

It was a small, inch-wide black beetle
Which appeared at our feet
On the speckled brown carpet of the woods
On the edge of the Forest of Dean.
It stopped in its tracks and
Stopped us in ours.
A shining, black, unblinking carapace
Stood there like the quietest, hardest,
Meanest bastard in the pub.
Defiant.
Waiting for its moment to move on.
So we moved on.
We saw others along the way.
Two of them loitering by the mangled chicken wire sculpture of the feral,
Long eared goat.
Like miniature museum attendants clad in Darth Vader costumes.
Bored shitless with nothing much to do.
There were others.
One silent assassin scuttling by the bench as we ate sandwiches, salads and
Stodgy sugary bread and butter pudding.
Another in the upturned palm of the hand feigning helplessness.
Playing dead, waiting for its moment to move on.
So we moved on.
Talking about Tintern Abbey
but thinking about older, smaller, fiercer things

The most structured approach to teaching writing was in relation to the response to a wildflower. One of the students reflected on the teaching method in a prose poem titled, *How to Treat the Wildflowers of Britain and Ireland* (a play on the title of one of the wildflower guides that we looked at (Blamey, Fitter & Fitter, 2003). The poem is in three stanzas: 1. Forgotten forget-me-not 2. Disowned forget-me-not 3. Remembered forget-me-not, and is accompanied by a sketch of the wildflower. The poet describes the process of finding the wildflower, discarding it, and then finally choosing it as a subject, drawing it “crudely” and in green “the only pen I had with me”. In this poetic sequence the student recalls the cultural, literary and botanical moments in her ecological learning as part of an emotional experience and identification with the natural world:

I learnt all about it, how it taught us about honey guided bees, how it was christened by a lover’s dying breath, what it should have looked like. You were short for your kind, perhaps I misdiagnosed you.

Calices x 2, Nutlets x 4

I didn’t understand what they were, but I remembered my forget-me-not. I remembered what it taught me.

The process of research is shown to be both a deepening of engagement but also an expression of inexperience, uncertainty, and finally, humility.

**Reflections**
These poems suggest that there is something very powerful to be learned from the close observation and shared experience of environment. There are obvious connections here with established approaches to teaching poetry—such as the use of literary models, the emphasis on “real voices”, close observation and a workshop approach to shape autobiographical experience as well as valuing the notion of teachers as poets. The key developments are in the attentive ecocritical reading of
nature poetry and the interdisciplinarity of the shared fieldwork experience. The work was interdisciplinary in that it connected with aspects of art and science involving a rich, multi-layered “reading” of sculptures and environmental sites drawing on field guides and geographical and botanical non-fiction texts. These influences can be traced in much of the writing that was created. The engagement was clearly with place and environment as well as with poetry as form. The process entailed developing knowledge and language to understand the environment as well as working from an engaged response to place and text. In particular, there was a recognition of “small things” such as the forget-me-not and the beetle (identified in class as a Dor beetle). Obviously the hope is that student teachers’ experiences in learning to teach their subject will have a positive influence on the way that they teach children. Writing poetry, may in this sense, play a small, but significant part in the project of saving the Earth as children learn to notice, know and value nature more precisely and personally.
Commentary

Teaching Ecocriticism and Teaching Nature

The chapter above was written in the first year of migration to New Zealand and reflects a concern with teaching in England and Wales and with the culture and environment of that home territory, albeit with, at this point in the study, some rather vague apprehensions of how being in a new country on the other side of the world might change perspectives.

First Wave Ecocriticism and Nature Writing

Ecocritically, the chapter is located in the “first wave” of interest in romantic poetry and nature writing—bringing together pedagogical implications drawn from Jonathan Bate and Lawrence Buell respectively—the British and American heavyweights of early ecocritical theory and practice.

The pedagogical dimension of ecocriticism is related to the activist concern within ecocritical practice which arises from an “anxiety of influence” (Bloom, 1997). This is not the Bloomian anxiety over the dominating influence of past authors and their texts but the pressure that ecocritics feel in relation to their influence on “real world” ecological futures (Major & McMurry, 2012). In his foreword to a collection of ecocritical work, ecocritic Scott Slovic (2002) ruefully acknowledges the small circle of readers reached by ecocritical publications and describes his own moment of “ecodespair” at the lack of impact following from efforts to raise environmental awareness. As a politically motivated branch of literary practice, ecocritics tend to evaluate their work on their contribution to a cause as well as their contribution to criticism (Phillips, 2003). Also, the pedagogical call in The Song of the Earth was picked up by educationalists with an interest in both English and environment (Matthewman, 2010, 2013; Stables, 2010). This has influenced two related directions in ecocritical theory: firstly, the embrace of cultural studies and “popular” texts, and secondly, attempts to articulate a particular pedagogy for ecocriticism as one expression of political action. This is the underpinning for some interesting connections between ecocriticism and education. For instance, Lawrence Buell, the most prominent ecocritic in the United States suggested that the success of environmentalist efforts finally hinges not on “some highly developed sense
technology or some arcane new science” but on a “state of mind” involving attitudes, feelings, images and narratives (2001, p.1). This is a view that connects with some versions of EfS which have emphasised “state of mind” and values, feelings and attitudes as crucial (See Bonnett, 2002; Selby & Karagawa, 2010). Of course, the question of the best way to attain an appropriate environmental “frame of mind” (as well as the bigger question of what an environmental frame of mind should include) is a tricky one that has exercised both educationalist and ecocritic alike.

Buell’s first answer to the formation of an environmental “frame of mind” was that ecocritics should dedicate themselves to the appreciation of nature writing. According to Buell this was the genre most likely to create the “right” kind of attitudes to nature in readers (1995). This was accompanied by a four part schemata for testing the environmental worthiness of texts:

1. The nonhuman environment is present not merely as a framing device but as a presence that begins to suggest that human history is implicated in natural history; 2. The human interest is not understood to be the only legitimate interest; 3. Human accountability to the environment is part of the text’s ethical orientation; 4. Some sense of the environment as a process rather than as a constant or given is at least implicit in the text. (pp. 7-8)

In relation to this test, the canon of American nature writers scored very favourably and there followed a swathe of American ecocritical attention to writers such Henry Thoreau, Mary Austin, John Muir, Leo Aldpold, Edward Abbey, Annie Dillard, Terry Tempest Williams and Barry Lopez. In part, this was also a move led by Buell to redraw the canon to give nature writing some status in the academy (and therefore wider reach and power to ecocritical practice in tertiary courses). This has had some success with a range of English courses now featuring ecocriticism and nature writing. A parallel movement has seen a surge in the popularity of the genre of nature writing in Britain with the rise to prominence of Kathleen Jamie, Richard Mabey, Robert Macfarlane and Mark Cocker with recent highly acclaimed work by Richard Kerridge In Cold Blood (2014) and Helen MacDonald H is for Hawk (2014). Joe Cowley’s reflection in Granta Magazine on the qualities of The New Nature

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7 The relationship of ecocriticism and EfS will be discussed further in relation to Chapter Two.
Writing stresses the confrontational qualities of the writing and the awareness of threat in the context of ecological crisis (Cowley, 2008). This is writing which responds to the steady stream of concern about a multi-dimensional ecological crisis played out on local and global scales. Joe Moran (2014) points out that the authors identified as “new” nature writers have resisted the term before going ahead to show how they are collectively redefining the genre. Not only do these writers show awareness of ecological crisis but they provide a powerful corrective to the wilderness trope so prevalent in American nature. Nature is shown to be compromised, occasionally malevolent, impassive and impenetrable but ultimately unavoidable and necessary. The accommodation is that of a “magical mundanity” in the broken nature that we co-inhabit with the more-than-human world. This is the British version of the nature epiphany—the “ditch vision” which sees a value in the local, less than pristine environments of the urban rural interface (Garrard, 2007, p.63).

I was influenced by an interest in nature writing as well as my reading of romantic ecocriticism in designing the field trip to Tintern Abbey and The Forest of Dean. Indeed, Moran explains how the two movements have a lot in common: such as the attention to botany and place in both romantic ecocritical writing and nature writing. After all they have shared the same trajectory and environmental literacy “space” (Garrard, 2007, p.363). In terms of structuring the teaching episode I used the model of nature writing described in The Truth of Ecology (Phillips, 2003). Phillips discusses nature writing as a movement from “civilisation to nature” involving a pattern of excursion into the unfamiliar followed by a return home for a specifically literary shaping (2003, p.186-187). This expands the more formal (and limiting) definition of nature writing as the representation of nature in a personal non-fiction essay (Branch, 2001). As Moran (2014) explains, the notion of a particular form taken by nature writing is becoming increasingly unfixed and fluid. Phillips discusses (and largely dismisses) American nature writing as arising from a deliberate, solitary and transcendental experience in the wilderness. Although I was influenced by this concept of nature writing in my planning, in practice the experience was reframed pedagogically as a social excursion and a discursive and collaborative writing event. This is one instance of how ecocritical insights change in translation to a pedagogical practice (and in relation to the specifics of the nature and culture that you inhabit). The students’ writing reflects some of the models of new nature writing in the deliberate representation of nature as constructed, compromised and imbricated with
This has been classed as a “second wave” ecocritical endeavour although this separation appears rather convenient and one wave tends to merge into another (see Bennett & Teague, 1999; Ross, 1995). An experience of venturing into “pristine” wilderness, *alone*, was never going to be easy to attain in the context of Britain’s crowded and visibly “worked on” green places (see Macfarlane, 2007).

While the initial ecocritical emphasis on nature writing and realism was an important move in drawing critical attention to a body of work that had been beneath the literary radar, it was perceived as a straightjacket by ecocritics eager to make their mark on a wider range of literature. Hence there has been a turn in ecocritical writing towards culture and the social and away from exclusive concentration on personal accounts of wilderness experiences (e.g. Armbruster & Wallace, 2001; Buell, 2005; Marland, 2013). Chapter Three of this thesis discusses the wide range of texts that can be part of an ecocritical project.

The turn to ecocriticism as Cultural Studies is effectively endorsed by Buell’s discussion of the power of advertising in representing and creating lifestyles and desires which motivate economic actions. He uses this example as part of his call for ecocriticism to be at the forefront of a counter move to shape environmental attitudes and values (2005). This is Buell’s second answer to the problem of influencing an environmental “frame of mind”. Buell’s emphasis on a utilitarian choice of texts for study and a utilitarian exegesis could be as reductive in relation to popular texts as it was in relation to nature writing. Phillips (2003), in particular, has cautioned against ecocriticism lapsing into agit prop and has criticised the positivist strain in ecocritical theory which seeks to measure the “results” of ecocritical pedagogy (p.161).

**Researching “Effective” Ecocritical Pedagogy**

A related response to the ecocritical anxiety of influence is expressed through the concern for developing an ecocritical pedagogy (Bartosch & Grimm, 2014; Garrard, 2012a; Pareham, 2006). This initially centred around ideas of place-based pedagogy and experiential learning (Garrard, 2007, 2010, 2012a) which links with parallel developments within sustainability education (e.g. Gruenewald & Smith, 2008). Studies of ecocritical pedagogy have relied on teachers’ personal narratives of

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8 Place-based learning is revisited in more detail in Chapter Five of this thesis.
practice (e.g. Christensen, Long & Waage, 2008). The validity of these accounts has been challenged by Greg Garrard, one of the leading UK ecocritics, who has sought to emulate positivist research methods in sustainability education (see for example Buissink-Smith, Mann & Shephard, 2011; Birdsall, 2010) in order to provide more convincing data about the “effectiveness” of ecocritical pedagogy—although studies of the efficacy of sustainability courses offer short term measurements rather than long term impact studies (Buissink-Smith, Mann & Shephard, 2011).

Garrard (2007) reports on a research project designed to assess the effectiveness of environmental education provision in ecocritical cultural studies courses. This involved administering questionnaires over three years, focus groups and two interviews. Garrard is upfront that the results of the questionnaires were not encouraging: “Results from such studies should be treated with caution, since students gave little thought to their replies and the sample size of third-year students was small” (2007, p.370). Evidence of students’ knowledge of environmental issues was gathered by questions like “name five edible plants and their season of availability” and “name five resident birds in your area”. These were the only questions presented in the study as Garrard reports that the students were “mystified” by the other questions in this section of the questionnaire (p.382). At this point he seems to evaluate the lack of success of his first attempt at an empirical study with the problem of a small sample size, due to the unexpected logistical difficulties of gaining participation, rather than to a problem with the choice of methodology. However, the methods of literary reading do not easily translate into the kind of “evidence-based” studies imagined by Garrard as providing answers to ecocriticism’s pedagogical insecurities. Understandably, despite Garrard’s earlier calls for ecocritical empirical engagement (2007; 2010), his edited collection Teaching Ecocriticism (2012a) consists entirely of narrative accounts and reflections on teaching experiences and practices.

While there is an empirical dimension to the account of the field trip to Tintern Abbey and the Forest of Dean, my approach to analysis follows a literary method of close reading. This fits within the interpretative paradigm of research. Interpretative materials (the poems) are evaluated by their ability to illuminate lived experiences that have been witnessed first-hand by the researcher and the participants (Denzin, 2014, p.578). The students’ writings which arose from the trip and the workshop were read attentively to seek insights into how they engaged with ecocritical ideas and with
the place itself. In this endeavour as a teacher-researcher I aimed to draw reflexively on my own knowledge of the context and the field to produce an informed, but inevitably partial, representation of that event (Dunne, Pryor & Yates, 2005, p.22). Each student in the study responds differently and each response is nuanced and unique although connecting themes between responses are evident and my interpretation seeks to make contrasts and connections and to draw out some overarching pedagogical principles. Poetry is an apt form for the expression of inner feelings and thoughts and requires careful crafting of form and content. As literary experiments the poems both arose from the event and are a form of data for the research. The activity and the research methods are aligned and do not conflict with the methods and approach of English. The sample size is small but the data is rich and suggestive of the strong affect of the trip (unlike the casual and rapid responses common to questionnaires). The work does not provide evidence of long term “impact” but there is demonstrable permanence and value in the engaged writing that the students produced. These are “vital texts” that invite the reader to engage (Richardson, 1994, p. 517). The quality of the published anthology would be something for students to treasure, revisit, re-read, repeat and adapt with their own students. For instance, one student wrote to me to describe how she had designed a trip to the Forest of Dean with her own class, using and adapting the activities and taking the student teachers’ poetry anthology as inspiration. Seven students from this year went on to join the environment and English group in their first year of teaching together with two of their teacher mentors which suggests a level of commitment to engage with ideas about how English connects to sustainability, although I did not gather specific “evidence” of environmental understanding and action.

Garrard asserts that “ecocritics face a choice in their teaching between environmental education and education for sustainable development” (2007, p. 373). Garrard locates environmental education as aligned with the ecopoetical approach put forward by Jonathan Bate and in this particular paper he moves towards promoting the more overtly critical, social and political approach that he associates with Education for Sustainable Development (ESD). This is not his final position, but it illustrates an important dilemma for this study that relates to the contribution of English to an ecological curriculum.

In tertiary education students usually have a particular subject focus for their degree or training whereas in schools there is a different dynamic where subjects rub
up against each other and there is a web of curriculum where sustainability should figure. My position is that English needs to be part of the web and not outside it, a subject that engages with ideas about nature, the environment and sustainability on its own terms. Garrard in rethinking and questioning his ecocritical courses worries about the “coverage” of key aspects of sustainability (illustrated in the questions about edible plants and resident birds). Indeed the problem of how far teachers of English should go in relation to building their own and their students’ ecological literacy (in the sense of knowledge) is a moot point. In this particular case study ecological literacy was developed as the need arose in relation to the specific location, the texts and the task itself. It was neither my intention nor my perceived role to provide a comprehensive course on sustainability linked to the Forest of Dean.

Memories of Nature
Now as I look back on those moments of teaching during those excursions to, and around, Tintern Abbey, the students’ writings are a record of something worth doing and worth remembering. As one student commented in a teaching evaluation the trip was “strangely healing”, which is also, incidentally, a common trope in the new nature writing. Wordsworth’s poem was the impetus which led me to the Wye Valley—simply a fortuitous match of text and location. But at the same time as I recognise the value of that field trip, this poem now reads as “out of place” in New Zealand and appears to be all about Wordsworth and his momentous, monumental and masculine relationship with nature. A relationship he propounds pompously, with multiple exclamations and qualifications.

wilt thou then forget
That on the banks of this delightful stream
We stood together; and that I, so long
A worshipper of nature, hither came
Unwearied in that service: rather say
with warmer love - oh! with far deeper zeal
of holier love.

(Wordsworth, 2007, p.30)
It is easy to mock it, and many of my students turned to parody and satire. But parody is also a form of “serious” engagement. Locke (2015a) links his interpretation of a “cultural heritage” version of English to “deference” and “acculturation” (p.26). But in the student teachers’ poetry we see that engaging with canonical texts can be playful and rebellious, an assertion of an alternative cultural and environmental perspective.

Perhaps nature, and poems about nature, do not teach anyone anything much without initiation into a culture of reading nature and reading poetry (and those student teachers were already primed to make informed connections). Rarely would children nowadays in Britain or New Zealand have unfettered access to wild, natural places without supervision (see Louv, 2005) and even more seldom would they choose a book of poetry from the library shelves. It is the work of the teacher to help the student find some connection with a poem and with the world that the poem represents and ultimately to help them to feel part of that discourse of nature and culture. These students visited the Wye because they were bussed there and they read the poem because they were directed to do so. In visiting and writing they made their own sense of the poem and the landscape informed by further readings, discussions and shared writing. The work of mediation is central to the project of an ecocritical English. Neither understanding of poetry nor understanding of nature happen just by “being there”. Both require sustained acquaintance and guides to interpret their significance and meaning.

This chapter has introduced the process of ecocritical reading within an empirical pedagogical context and raised some methodological issues in terms of how to align the cultural and literary approach of ecocriticism with developing an appropriate research methodology. The next chapter will consider the way in which English as a school subject fits into future orientated curriculum planning in terms of addressing issues of ecological sustainability.
CHAPTER TWO
Thinking about Futures: Re-visioning a Curriculum for Sustainability

I pulled that future out of the north wind
at the landfill site, stamped with today’s date,
riding the air with other such futures,
all unlived in and now fully extinct.

—Simon Armitage, “A Vision”

How does the school curriculum represent a sustainable vision for the future? This chapter is about how discourses of the future relate to the representation of sustainability in the curriculum, both as an international concept and in relation to the national context of New Zealand. The two linked articles lay out an argument for an ecological shift to a “post-carbon curriculum”. True to the spirit of ecocritical work they are interdisciplinary papers and the outcome of collaborative work between teacher educators in English (Sasha Matthewman) and Geography (John Morgan). As long term research partners these papers represent our joint negotiation of new theoretical, environmental and cultural territory in the first two years of our settling in Aotearoa New Zealand in 2012.

The first paper (Matthewman & Morgan, 2013) takes an international perspective rather than being specifically located in the New Zealand context. The “new territory” here is post-carbon theory. The paper presents an account of the development of the curriculum arising out of a society founded on the expansion of capital and dependence on carbon-based energy. This is the ground for thinking about how school subjects might respond to sustainability—and what stops this being an easy fit. In writing this paper we drew on our experience of school subjects in the curriculum as a whole from working collaboratively for fifteen years with colleagues in initial teacher training—both as teachers and as researchers. However, as might be expected, we drew our key examples from our respective subjects of English and Geography.

The second paper (Matthewman & Morgan, 2014) is written for a New Zealand audience and thus responds to the educational debates there. We were attempting to bring an “outsider” perspective to this new (for us) educational
landscape in relation to the construction of sustainability as a “future focus”. We drew on our previous account of the carbon foundation of education (Matthewman & Morgan, 2013) and applied this to the concept of Futures Education in New Zealand.

Overall, the two papers propose that post-carbon social theory offers a set of workable theories and projections about global future scenarios that can be applied and adapted to national educational contexts. The focus on post-carbon social theory allows an alternative history or narrative of the educational project to emerge as it relates to the influence of “carboniferous capitalism”. In both papers we use our subject specialisms to exemplify how the assumption of carboniferous capitalism constructs subject disciplines as well as how a shift in this perspective could be enacted in curriculum planning and teaching with a focus on the future. It should be noted that this is a different analysis to that put forward in the literature on EfS and engages rather with Futures Education as the main educational field. David Hicks (2012a) has suggested that Futures Education attends to the missing temporal dimension of education through asking students to think critically and creatively about different possible, probable and preferable versions of the future. While Futures Education has been a cross-curricular approach, Hicks suggests the potential of locating Futures thinking within subjects, as well as within sustainability education more widely. Hicks points out that sustainability education has tended to focus on immediate and local projects rather than promoting a broader critical perspective.9 This chapter supports Hick’s argument for a future dimension drawing on the critical perspective of post-carbon social theory.

9 “Action competence”, the preferred New Zealand model of EfS, involves a project-based response to a defined local issue.
Publication 2. The Post-Carbon Challenge for Curriculum Subjects

Abstract
There is surely no more important issue facing educators today than the onset of human-induced environmental change. As global capitalism comes up against the “limits to growth” (both in terms of natural and social systems), there is an urgent need for a “futures-oriented” approach to education. Taking as its starting point the concept of “post-carbon social theory”, this paper explains how the subjects that comprise the school curriculum developed out of the transition to a carbon-based modernity. As the environmental costs of that development have become clear, there have been moves to “green” the curriculum through EfS. The paper argues that the success of these approaches is limited because they fail to address the continued dominance of “disciplined” approaches. In view of this, the paper examines the potential of “post-carbon” approaches to curriculum subjects, suggesting that secondary school teachers who have a strong understanding of how their subject contributes to a conceptual understanding of sustainability will be better placed to explore these issues with students.

Welcome to the Anthropocene
In 2008 the Stratigraphy Commission of the Geological Society of London debated the question, “Are we now living in the Anthropocene?” The twenty one members of the Commission unanimously voted “yes”, based on their assessment of evidence to support the hypothesis that the Holocene epoch (the interglacial period of stable climate that allowed for the development of agriculture and urban growth) has ended, and that human activity is a major factor in the future development of the Earth’s physical processes. Though there is argument about when the Anthropocene commenced, the key development is the emergence of wide-scale use of fossil fuels in the industrial revolution. This started a worldwide transformation of rocks into air, a geological reversal of hundreds of millions of years of carbon sequestration from the atmosphere by living processes. From a pre-industrial value of 270-75 parts per million, atmospheric carbon dioxide concentration has risen to about 310 ppm in 1950. Since that time, what Will Steffen, Paul Crutzen and John McNeill (2007) term a “great acceleration” has seen levels rise to 380 ppm.
These are dramatic developments. The most authoritative source of information on global climate change, the IPCC, suggests a rise in average global temperature ranging from 1.8 degrees Celsius to 4 degrees Celsius by the end of the 21st century, with associated major impacts on the stability of ecosystems, food production and human societies (IPCC, 2007, p. 45). The early years of the 21st century have been marked by a whole series of “portents of things to come”, including (but not only) Hurricane Katrina, flooding in Bangladesh and Pakistan, massive crop failures due to drought in the states in 2012, record temperatures recorded in seventeen countries in 2010, and the global economic crash of 2008. Although there is a vociferous “lobby” which continues to challenge such evidence, there is an established scientific consensus about the existence of anthropogenic climate change. The IPCC released a synthesis of its fourth assessment report on climate change in 2007. Based on six years work and involving 2,500 scientific experts from 130 countries, the report found that:

Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global mean sea level. Eleven of the last 12 years (1995-2006) rank among the 12 warmest years in the instrumental record of global surface temperature. (IPCC, 2007, p.30)

The report further states, “most of the global average warming over the past 50 years is very likely due to anthropogenic GHG increases” (IPCC, 2007, p. 72). Despite this consensus, there has been little evidence that these scientific “facts” will immediately translate into decisive human action on the scale needed to put in place the systems needed for what the IPCC terms “mitigation” and “adaptation” to climate change.

10 The most recent IPCC report, issued in 2014, is worded far more strongly using certain and uncompromising terms to describe climate change effects such as “unprecedented” (7 times), “highest” (5 times) and “severe” (14 times). Even with a reduction in carbon the warming of the climate, acidification, sea level rise and unpredictable climatic effects are set to continue for centuries (p.15). The authors (the aggregated work of “thousands of experts and scientists” (ν)) present the situation as dangerous but offer hope that mitigation is possible: “continued emission of greenhouse gases will cause further warming and long-lasting changes in all components of the climate system, increasing the likelihood of severe, pervasive and irreversible impacts for people and ecosystems. Limiting climate change would require substantial and sustained reductions in greenhouse gas emissions which, together with adaptation, can limit climate change risks.” (2014b, p.56) (Footnote added 2017)
Indeed, the gap between what we know about climate change and the efficacy of the global political and social response continues to widen.

**Theorising the Transition**

There is a growing literature (both popular and academic) that is starting to address the implications of climate change at a societal level. Our analysis of the response to climate change within educational research and policy is prompted by the dramatic sense of urgency in these studies of society reflected in titles such as: *The End of Modernity* (Sim, 2010), *The Great Disruption* (Gilding, 2011), *The End of Growth* (Heinberg, 2011) and *The Long Emergency* (Kunstler, 2005). These studies are indicative of the perception that there has been a distinct break between past and present. This sense of a radical discontinuity is also found in overtly “academic” treatments across a range of disciplines (e.g. Buell, 2003; Giddens, 2010; Neill, 2000; Penna, 2010; Rees, 2003). Together, both “popular” and “academic” accounts take seriously the idea that society is undergoing a major shift in its resource-base that has profound implications for all aspects of how we live our lives. We will focus on two examples here, which we think are indicative of a new paradigm of “post carbon social theory”. The first example is Peter Newell and Matthew Paterson’s (2010) *Climate Capitalism* and the second is John Urry’s (2011) *Climate Change and Society*. Newell and Paterson argue that dealing successfully with climate change entails transformation of society so that the economy can be “decarbonised” (p.7). They point out that the “fact” of global warming became apparent in the 1960s, but that the development of economic systems since that time was shaped by neoliberalisation (with its moves to increase production, liberate markets and limit regulation) and which has had the effect of leading to higher levels of carbon dependency. They stress that a merely personal response to the challenge of climate change is inadequate:

> if decarbonisation is to really take off, the challenge has to be addressed at many more scales. The suppliers of our energy have to have incentives to switch to renewable options. We have to have transport systems that do not create incentives for individual and unnecessary car use, which in turn implies changes in planning systems for a carbon-constrained world. (p.8)
Newell and Paterson are pessimistic about the prospects for decarbonisation, noting that the “solutions” to climate change will almost certainly be framed within the assumption that “market mechanisms” are the best way to deal with the issue. They outline a set of scenarios for carbon capitalist futures, ranging from the “carbon capitalist utopia” in which the introduction of carbon exchange training, combined with incentives to develop green transport infrastructure lead to a stabilisation in the demand for energy and a shift in the energy mix from fossil fuels to renewable sources, to a “decarbonised dystopia” in which highly unequal societies develop in relation to energy use. An important feature of Climate Capitalism is its insistence that measures to “decarbonise” rely on political, cultural and economic forces working together, something also stressed in John Urry’s (2011) Climate Change and Society.

Climate Change and Society is concerned to explore how to shift from high carbon to low carbon economies and societies. Urry argues that, to date, discussions of climate change have been dominated by economics and science, but that there is an urgent need to develop social theory perspectives. Urry explains how an interlocking set of “systems” were put in place in the 20th century which lead to growing dependence on fossil fuels:

Climate change is a legacy of the 20th century when powerful high carbon path dependent systems were set in place, locked in through various economic and social institutions. And as the century unfolded those lock-ins meant that the world was left a high and growing carbon legacy. Electricity, steel and petroleum cars, and suburban living and associated consumption are three of those locked-in legacies. (Urry, 2011, p.198)

This set of “path dependencies” means that the 21st century will offer a constrained set of alternatives. Like Newell and Paterson, Urry stresses the importance of setting out a range of preferable, probable and possible scenarios, which may involve state or community regulation of mobility, stringent measures to reduce resource-dependency or chaotic fighting for limited resources and deepening chasms of inequality. Urry judges that a future based on continued economic growth, high levels of mobility, and a reliance on technological innovation to “solve the problem” of carbon dependency, is “not very probable”.

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A central element of post-carbon social theory is the idea that the very notion of “society” developed as part of the transition to a system of nation-states each following their own path to economic development, defined through industrialisation. There is a sense that what we mean by “society” is undergoing important shifts (something presaged in Urry’s earlier *Sociology beyond Societies*, 2000). Anthony Elliott and Bryan Turner (2012) discuss the various ways in which society has been conceptualised in Western social theory, and examine a range of possible future societies, including the emergence of “catastrophic societies” in the light of climate change, peak oil and shocks to food and water security.

Reading these discussions of “post-carbon social theory” is discomfiting. One response is to discount the scenarios envisaged as too radical. However, we take the view that they represent an important attempt to take seriously the challenge of theorising the transition to “low carbon societies”. Our reading of this literature is that it offers an important resource for educators who are seeking to grapple with the question of what life will be like in the future for young people in school today. This is because it takes a reflective look at the past and present of contemporary society, recognises the complexity of forces that shape present trends, acknowledges the fact that “society” is still under construction and that the future (though path-dependent) is still open to change. Whilst we find the writers’ conclusions pessimistic, we cannot avoid seeking to address the serious questions that these writers pose as well as recognising that there are “resources of hope” within the analysis.

These arguments should represent a major challenge to those involved in formal education. There is a strong sense that children going through formal schooling at present will face a future that does not offer the same lifestyle options enjoyed by previous generations. However, there is little indication that policy-makers and school leaders are prepared to fundamentally rethink the purposes of schooling in relation to climate change. An indication of this can be gained from responses to the financial crash of 2007-8, which has seen the intensification of moves designed to get the economy back to “normal” and urge young people to gain more and better qualifications to compete more effectively in the ever more competitive labour market. There is no doubt that schools and curricula are “future-oriented”, in that they encourage young people to look forward to their place in the global economic system. However, the problem emerges when they imagine that future as merely a continuation of the present, or, as Richard Slaughter put it over three decades ago,
schooling “unthinkingly reproduces an obsolete world-view” (Slaughter, 1988, p.217). This is not to deny the existence of visions of the “future” surrounding schooling. In particular, there are a wide range of accounts of future schooling that stress the ways in which technology is set to transform education as in the accounts of “Multiliteracies” developed by The New London Group (1996) and screen-based “multimodality” by Gunther Kress (2010). On the other hand, it is rare to encounter more nuanced and balanced discussions which are open to a range of possible futures as in Keri Facer’s Learning Futures: Education, technology and social change (2011). In the rest of this paper, we explore the implications of these ideas about “post-carbon social theory” for education.

**The Making of the “Carbon Curriculum”**

In advanced economies, education has operated with a strongly human-centric model of social life, in which questions such as the limits of growth and the ethical consequences of consumption for the planet and human life forms was generally bracketed out. This is because the development of mass schooling was forged in the transition from agrarian-based economies and societies to predominantly industrial and urban-based ways of living. Education has been seen as the key to economic modernisation, and increasingly as providing flexible, creative workers for the new capitalist economy. A corollary to the education of “human capital” is that schools also became an important site in the socialisation of future consumers during the post-war period. All these factors mean that schools are thoroughly embedded in the continuation of carbon-based economies.

To take this point further, we want to suggest that this analysis works at the level of the subjects that comprise the school curriculum. The subjects can be seen as inextricably linked to the development of distinctly modern societies whose growth was dependent on the sequestration of carbon or fossil fuels. Sociology is perhaps the clearest example of an academic discipline that emerged out of the disorder and disruption associated with the transition from agrarian economies to modern industrial capitalism. The founding fathers of the discipline—Marx, Durkheim and Weber—were all concerned, in their different ways, with the effects of industrialisation and urbanisation on traditional social structure and organisation. It is no coincidence that they worked in the archetypal “modern” states of Britain, France and Germany. Geography, too, emerged as a subject whose role was to support the project of
capitalist expansion and imperialism. The transformation from feudalism to capitalism entailed a revolution in the structures of geographic thought and practice, and the discipline was concerned with the exploration of the Earth in relation to the economic value of its resources. History was concerned with relating the story of national advancement and progress. The natural sciences played their part in formalising the knowledge gained in the process of expansion of capitalist societies and providing the basis for applied sciences around engineering and industrial development. The arts and humanities may not, at first, appear to fit this pattern. However, modern art and literature can be seen as aesthetic responses to modernisation, and English, in particular, developed with a distinctive part to play in providing a moral core to life in an increasingly secular society (Eagleton, 1986).

The subsequent curriculum histories of individual subjects have taken many twists and turns throughout the 20th century, but their origins in the emergence of industrial modernity is clear. Modern social theory, which underpins the academic construction of disciplines and the school curriculum, was born in the transformation from predominantly rural-based societies to highly urbanised and industrialised societies that were reliant on the extraction and consumption of fossil-fuels (what has been dubbed “carboniferous capitalism”). In a situation where carbonised modernity is no longer possible, social theory will need to come to terms with resource scarcity, and this will have important implications for how the future is portrayed (and prepared for) in schools, and refracted in school subjects.

The “Greening” of Curriculum Theory
The previous section made the point that schooling developed with, and was part of, carbon-based capitalist development. Over the past half-century, the environmental movement has challenged the direction of this economic growth. In line with this, there has emerged a movement to “green” the education process. Modern Environmental Education emerged in the mid-1960s as a response to the growing awareness of the costs associated with industrial progress. This educational development was related to a broader political awareness. Rachel Carson’s Silent Spring, widely regarded as the “landmark” text in the emergence of modern environmentalism, was published in 1962, and the first Earth Day was held in 1970. The Club of Rome’s Limits to Growth report appeared in 1971 and (in Britain) the Ecology Party was formed in 1973. In its early days, Environmental Education or
“green teaching” was marginal to the “core” business and concerns of schooling, and tended to be confined to the edges of the curriculum or located in General Studies. However, throughout the 1980s, as awareness of global and local environmental issues increased, Environmental Education gained a foothold in curriculum discussions. In retrospect, the turning point was Prime Minister Thatcher’s speech to the Royal Society in 1988 in which she argued that Conservatives “were the true friends of the Earth”. The first government White Paper on the environment was published in 1990 and this was followed in 1994 with the report Sustainable Development—the UK Strategy. However, it was not until 1997 with the election of the New Labour government, that environmental concern became a widespread principle of UK policy. It was at this moment that those working in the field of Environmental Education were welcomed into educational debates, and for many this represents the maturing of the field. By this time, the title Environmental Education had been dropped in favour of, first, Education for Sustainable Development (ESD) (which owed its name to the influential Bruntland Report of 1987), and later, Education for Sustainability (EfS).

The development of ESD can be seen as part of the wider discourse of “environmental modernisation” which holds that the goals of economic development and growth are compatible with ecological sustainability (Dryzek & Schlosberg, 2001). However, critics argue that this risks misunderstanding the nature of the economic system that produces environmental degradation. This helps to explain the striking absence of terms from political economy in this discourse. For example, in an otherwise insightful text on the nature of environmental citizenship in schools, Hayward (2012) fails to name the economic system—capitalism—which promotes consumerism and undermines democratic accountability. Without grappling with questions of political economy, there is a danger that activity or “action” is reduced to tokenism or “feel-good” actions such as being content to build a bicycle path next to a nuclear power plant (Poli, 2010, p.71). Sustainability in this apolitical sense is an easy label for everyone to wear as there is no challenge to the status quo. As Swynegedouw reasons:

I have not been able to find a single source that is against “sustainability”. Greenpeace is in favour, George Bush Jr. and Sr. are, the World Bank and its chairman (a prime warmonger on Iraq) are, the Pope is, my son Arno is, the
rubber tappers in the Brazilian Amazon forest are, Bill Gates is, the labour
unions are. All are presumably concerned about the long-term socio-
environmental survival of (parts of) humanity; most just keep doing
business as usual. (Sywngedouw, 2007, p.207)

In the face of these criticisms, other educators have adopted “deep green” or
“ecocentric” perspectives. For instance, Selby argues that ESD is complicit in
accepting a paradigm of continued growth while providing the palliative sense of
environmental action (Selby & Kagawa, 2010). These criticisms are linked to a
broader “postmodern turn” in curriculum studies. An early indicator of this direction
can be found in the three papers published in 1989 in the prestigious Journal of
Curriculum Studies, by Noel Gough, William Doll and Richard Slaughter which are
reflective of the “reconceptualist” turn in curriculum theory which was a reaction
against the technicist and rationalist extremes of curriculum planning and
implementation. Reflected here was a concern to see curriculum as necessarily part of
a “complicated conversation” which provided the starting point for an emerging field
of “green curriculum studies”. This literature is marked by a postmodern mistrust of
the high science and technology which Enlightenment thinkers championed. Instead,
there is a concern with bioethics which places nature at the centre of experience.
Green curriculum studies favours a return to localism or place-based ethics at a time
when places are being re-structured through economic processes. Overall, this
approach tends to distance itself from “mainstream” Environmental Education which,
it is argued, is still wedded to models of Western science and technical fixes to
environmental problems.

This postmodern green idealism has recently been accompanied by work in
the field of critical pedagogy, where concern with the environmental crisis has been
added to the 1990s concern with “difference”. A major problem with the critical
ecopedagogy literature is that it is strong on exhortation and rhetoric and weak on
practical implementation. An example of this approach is found in David Hursh’s
(2010) article “The Long Emergency”. Published in a volume on radical social
studies, Hursh’s chapter explains the twin crises of 20th century capitalist
modernity—the environmental and neoliberalism. It starts by asking how we can
create a world that is environmentally and economically sustainable. Hursh notes that
the educational system focuses on preparing students to become economically
productive individuals and aims to hold them accountable through high-stakes standardised testing. The curriculum has been narrowed so that lessons that “would teach students to think across disciplines have been largely eliminated (p.146). His conclusion is that “figuring out how to develop a sustainable and just world requires that we develop an interdisciplinary understanding that incorporates global politics and local initiatives, science and ethics, history and technology” (p.147). Focusing on this will “require that we rethink our educational systems away from one in which teachers deposit knowledge in students’ heads while teaching an artificially segregated subject area to one in which students, teachers and community members actively work to answer questions that are important to both individuals and communities” (p148).

It is hard to disagree with Hursh’s aspiration. However, one of the problems with this approach is that it remains marginal to the everyday, practical activity of schools and teachers. Despite over three decades of concern about the fragmentation and mechanical organisation of schooling and curriculum, with its “subject-based” approach, that is how the vast majority of schools are presently organised and how most teachers think about their work. What is more, teacher education programmes are organised around the preparation of subject specialists while consideration of environmental issues is sparse and dependent on the passion and expertise of individuals.

These institutional arrangements are compounded by the fact that these developments have led to a disconnection between the worlds of green curriculum theorists and teachers in schools. Whilst deep green writing can slide into visionary imaginings with little hope of concrete effects on mainstream education, critical pedagogy provides sharp commentary of the capitalist spectres haunting the world but little advice on managing change within school classrooms. Both the visionary, transformational and action-based ideals of EfS are particularly difficult to translate to a secondary context which is, by order of governments, keen to improve national “standards” through achievement in subject areas. The result is that EfS tends to be confined to pockets of optional, fragmented, extra-curricular activity (OFSTED, 2008).

This discussion leads us to conclude that almost three decades of sustainability education as an overarching “perspective” has so far failed to make a significant impact on the carbon-curriculum which is based on the goal of preparing students for
ever-increasing competition for economic success. In fact, in the UK at the present
time, there are moves to instantiate a return to core knowledge that threatens to further
marginalise interdisciplinary fields such as EfS. In this context, we suggest that the
first task of those concerned to work towards post-carbon curriculum studies should
be to examine the potential of school subjects to contribute to students’ understanding
of an ecological world-view which accepts the implications of a low-carbon future,
questions our dependence on carbon and seeks to explore alternative ways of
organising society so that ethical human survival is possible.

The Shape of Post-Carbon School Subjects
There is an urgent need for schools and teachers to take seriously the environmental
challenges currently faced within classroom teaching. However, whilst many teachers
themselves may recognise the urgency of the situation, the priorities of schooling
seem to pull in the opposite direction. As Bowles and Gintis (1976) pointed out many
years ago, schools exist to reproduce capitalist social relations, and, as capitalism
faces a squeeze on its profitability, schools themselves are becoming places where
“surplus value” is realised. Whilst schools cannot compensate for society, they still
exist as public spaces where questions about the “good life” and the future of society
can be raised. Teachers committed to this vision can work individually and
collectively to ensure that the curriculum allows for a consideration of alternatives to
fast capitalism. This suggests that those of us in universities should support teachers
in developing their work as disciplinary specialists. In the final part of this paper we
suggest ways in which teachers of English and Geography can draw upon disciplinary
perspectives to engage with arguments about the post-carbon society.

Post-Carbon English. English originated as a subject discipline grounded in
literary responses to both the environment and culture in the transition to a capitalist
industrial society. FR Leavis and his student Denys Thompson were profoundly
influential in developing a vision for school English as an antidote to the effects of
industrialisation and urbanisation. In Culture and Environment (1933) they proposed
that the purpose of English was to engender in students the critical awareness required
to contest and oppose the debilitating effects of mass media, and suburban sprawl.
The reaction against “Leavisism” in the 1960s and 1970s focused English teachers on
the cultural aspects of an urban society, and, at university level, English focussed on
the human concerns of race, gender and class, and the later post-modern and post-colonial turns (Eagleton, 2003). However, since the 1990s, and in response to the growing awareness of environmental “crisis”, there has emerged a distinctive field of environmental criticism or “ecocriticism” (see Barry, 2001; Bennet & Royle, 2009; Wolfeys, 2002) which offers a distinctive disciplinary source of inspiration and guidance for English teachers in schools.

Ecocriticism has explicitly challenged the occlusion of the environment as a topic focus for study within literary studies (Buell, 1995; Glotfelty & Fromm, 1996; Kerridge & Sammells, 1998). Ecocriticism has engaged with themes such as climate change, environmental justice, urban sustainability, biological diversity, animal representation and welfare (for representative collections see Armbruster & Wallace 2001; Lemanager, Shewry & Hiltner, 2011). The field has questioned the Canon, engaged with issues of environmental pedagogy and sought to develop links with the physical and natural sciences. Ecocriticism’s main contribution is to show that English has a powerful role to play in mediating and representing the cultural response to the environmental crisis. Ecocriticism seeks to value the natural resources and places that we have left, to acknowledge and mourn the passing of wildlife and places, to critique the processes which lead to further environmental damage and injustice and to help envision future scenarios based on the multiple narrative drives of the present.

An indication of quite how radical a shift in perspectives is required, in order to bring School English into a post-carbon frame, is evident from the treatment of Cormac McCarthy’s best-selling book, The Road (2006) in a recent School English study guide (Penhall, 2011). The book and the subsequent film present a terrifying vision of a post-apocalyptic world that seems without hope of regeneration. It is hard to imagine teaching this text without raising serious questions about planetary health and addressing the fears that students might experience in relation to the future that McCarthy has imagined. However, the study guide confines itself to exploring the narrative point of view within particular scenes, the narrative sequencing, and the development of relationships and characters. There is no direct reference or discussion at all of the political and cultural significance of the post-carbon dystopia which McCarthy has imagined. This must be a deliberate avoidance of a large mammoth in the room, something akin to teaching To Kill a Mockingbird (Lee, 2006) without mentioning race. While The Road imagines the endgame of environmental
destruction, the emphasis in the study guide is on directing attention to the potential of the text as a springboard for the development of literacy skills and the analysis of literary technique. In many ways this reflects the technocratic development of English in the wake of the waves of literacy strategies (1998-2012). An ecocritical approach might be a reminder that texts teach us about the world as well as about words and sentences. Certainly such an approach would foreground the way that the text represents a complex vision of a post-apocalyptic world and a dystopian post-carbon future. An ecocritical perspective might highlight the role of literary narrative in memorialising lost landscapes while pedagogically one way of countering the deep pessimism of the text would be to juxtapose other scenarios and other narratives for a post-carbon society. For instance, Margaret Atwood’s novels Oryx and Crake (2004) and The Year of the Flood (2009) offer the potential for thinking about different post-carbon identities, with both humour and hope. Surely a teaching unit that did not deal with The Road’s destructive vision would leave students alone with their fears while they dutifully logged the character development in their online portfolios?

Change is possible within existing traditions of English teaching in schools. For example, English has always maintained a strong commitment to the ideal of fostering “personal growth” and the development of cultural identity. The transition to a low carbon future will require a shift in how we evaluate personal success, from one based on a celebration of economic success and mobility, to a value system and identity grounded in sustainability. English could be the place where alternative ecological identities and futures are read, imagined and discussed.

Perhaps the current link between English and carboniferous capitalism is most starkly evidenced in the teaching of advertising. Typically lessons are focussed on a celebration of the variety and cleverness of advertising techniques. Students are encouraged to design their own advertising campaigns in emulation of these models of success and excess. So typically students design trainers and associated campaigns to compete with Nike and Adidas rather than to investigate the way that these companies are imbricated in a whole set of environmental and social justice issues. In contrast, ecocritical readings of advertising have explored the variety of ways that the natural world is exploited as a potent metaphorical resource for encouraging higher levels of consumption. Once again, a common set of approaches in English teaching, could, when viewed from an ecocritical perspective, allow students to consider
alternative perspectives about the consumer society and its role in unsustainable futures.

In summary, then, in relation to the pressing challenge of preparing children for a post-carbon future there are some fundamental shifts to be made in the way that school English is evolving as a subject. As a distinctive interdisciplinary approach, ecocriticism has begun to examine the way that literary and cultural readings and textual practices matter in mediating attitudes and responses to environmental questions and futures. Ecocritical work provides models for reading texts that question the way that English implicitly accepts and imagines a carbon future. Ecocritical theory and practice has direct implications for the way in which English could be shifted to include the environmental perspective. Given the scale of the environmental crisis, it would be strange not to scrutinise the role of cultural texts in the mediation of our past, present and future relationship with the natural world.

**Post-Carbon Geography.** It might be thought that Geography is the most obvious place in the school curriculum where teachers and students can explore in systematic and disciplined ways the relationship between society and nature. Indeed, Peet’s (1998) definition of geography seems to suggest that this is the case:

> Geography looks at how society shapes, alters, and increasingly transforms the natural environment, creating humanized forms from stretches of pristine nature, and then sedimenting layers of socialization one within the other. Geography also looks at how nature conditions society. (p.1)

However, the subject as taught in schools has failed to develop this type of knowledge and understanding. The subject was born out of carbon-based modernity, and throughout its modern period has provided narrative histories of progress and technological advancement. When awareness of the limits to growth and the issue of resource scarcity and environmental degradation emerged from the late 1960s geographers presented themselves and their discipline as an applied science of problem-solving and management. An analysis of the subject as taught in schools in the mid-1980s argued that:
The ideas taught in schools are generally based on an unquestioning view of social change and economic forces. Lessons on environmental problems tend to blame purely natural causes, or regard them as global or universal problems attributable to such causes as overpopulation, resource scarcity, inappropriate technology, overconsumption or overproduction. All such teaching fulfills an ideological role. It fails to relate issues to the different social settings in which they arise, and fails to explain how technology, consumption and production are structured by economic and political forces. (Huckle, 1988, p.64)

Such “apolitical ecologies” were rejected by most human geographers in the 1980s as geography as a subject re-aligned itself to new political economic perspectives which saw nature as socially produced. The subsequent postmodern and cultural “turns” within geography as a discipline saw a good deal of work on the social construction of specific environmental problems, turning away from grand narratives. This means that “nature” as understood by geographers is a complex set of competing approaches, methodologies and ideologies (see Castree, 2005 for an overview). School geography has, however, failed to engage with these developments and has become concerned to deliver a pedagogically “slick” approach to teaching and learning a limited amount of content. This has made it susceptible to critics who claim that the subject serves the purpose of “green-washing” (e.g. Williams, 2008).

The result is that nothing less than a major re-orientation of Geography as taught and learned in schools is required if students are to gain a realistic understanding of contemporary environmental challenges. The commonly taught subjects in the geography curriculum are capable of being taught in order to accommodate the challenge of the post-carbon era. Examples include urban geography, where the study of cities, towns and settlements could incorporate recent work on the nature of cities, agricultural geography which focuses on the shift from productivist to post-productivist agriculture in the developed world and examines the various cultural changes in the nature of food, transport systems that encourage widespread mobility, and the arguments about resources and population. All these could be used to examine the ways in which modern geography has assumed the ready supply of carbon resources together with the implications of the end of growth. In developing this work, teachers will need to have knowledge of environmental,
social, physical, political and economic processes and this will require significant changes in programmes of teacher education.

**Conclusion**

In this, admittedly exploratory, paper, we have set out to explore the question of how educators might respond to the challenges of a “post-carbon future”. Following work in social theory, we accept the idea that is impossible to think about “society” and “nature” separately, and that, as resource issues come to dominate the politics of advanced economies, the challenge is to rethink schooling so that young people will have knowledge and understanding of the complex workings of human society, and be able to participate in building alternative futures. In our work as teacher educators, we work with beginning teachers who have invested their energies in becoming subject-experts. They want to teach English, or Geography, or Science, but many also express concern about environmental issues and societal futures. In this paper we argue that, at the present moment, the obvious starting point is to help them to examine how their own “subject” is dealing with the most important issue of our time—how we transition to sustainable futures. In making this argument, we are aware of the criticism that focus on subjects can lead to the continuation of a “fragmented” curriculum. However, asking how English, Geography, History, or Maths can act as resources for understanding issues of sustainable futures immediately requires an engagement with ideas and perspectives from other fields. When teachers with a deep understanding of their own subjects undertake this work, there is the possibility of a “strong” interdisciplinarity.
Publication 3. Sharpening New Zealand’s Future Focus: a Scenaric Stance

Abstract

*Future focus* is one of the eight principles of the New Zealand Curriculum. However, the term is sometimes conflated with the more expansive term “21st century learning”, which, this article argues, accepts uncritically dominant assumptions that New Zealand’s future will be part of a hyper-globalised, fast-paced, capitalist world. This article insists on future focus as a means of developing the curriculum to support students as they learn to think critically about globalisation, sustainability, enterprise and citizenship. Using the example of scenario-building in the context of carbon-based economies and high consumption lifestyles we emphasise that Futures Education requires important skills of study, analysis, creation, imagination and interpretation.

Key Points

1. Future focus is one of the eight principles of the *New Zealand Curriculum*. It is based on the concepts of enterprise, sustainability, globalisation and citizenship. However, there appear to be some difficulties in interpreting and implementing the future focus principle in schools. 2. Some of the published literature on the future focus appears to draw upon and accept the idea (which is commonly repeated in public life) that New Zealand’s future is as part of a fast-paced, globalised knowledge economy, and that schooling needs to change to reflect this. 3. This globalised knowledge economy is only one possible future for New Zealand. There are others. The task of Futures Education is to help students critically explore a range of possible, probable and preferred futures. This can be achieved through what we call a “scenaric” stance, and each learning area has an important contribution to make.

Introduction

The curriculum is a message to and about the future.


This article is about the future focus in the *New Zealand Curriculum* (NZC) (MoE, 2007). The future focus is one of the eight principles on which the *NZC* is based. NZC
states that: “The curriculum encourages students to look to the future by exploring such significant future-focused issues as sustainability, citizenship, enterprise, and globalisation” (p.9).

Future focus is to be delivered through existing “learning areas” which are categorised as English, the Arts, Health and Physical education, Mathematics and Statistics, Learning Languages, Science, Social Sciences and Technology. There is some evidence that schools and teachers are currently finding it difficult to do this. For example, a recent Education Review Office (2012) report stated that the future focus was: “the least evident of all the principles at school curriculum level in classrooms’ curricula. It had not been adequately examined and discussed with teachers by school leaders and therefore most of its aspects were not understood” (p.21).

This may reflect the complexity of the four terms that comprise the future focus principle. Rachel Bolstad’s (2011a) report on NZCER’s (New Zealand Council for Educational Research) future focus research projects states that: “When we have asked teachers, students and other people to tell us what the words sustainability, enterprise, globalisation or citizenship mean to them, many have struggled to articulate their thoughts” (p.11).

The Ministry of Education’s (2011) webpage on the future focus principle offers little practical support in conceptualising these terms. Without such a conceptual understanding, the danger is that the future focus will either be ignored or that teaching will be fragmented and misinformed. There is therefore an urgent need to enable school leaders and teachers to develop informed approaches to “futures” work in curriculum planning. This article is offered as one starting point. It begins by summarising the background and concepts of “Futures Education” and how this relates to New Zealand. It then focuses on “scenario building” as a flexible approach for school leaders and teachers to build the future focus principle into school professional development and curriculum work.

**What is Futures Education?**

One starting point for guidance on developing the future focus in school curricula is the field of Futures Education, (for a brief but authoritative introduction to the field, see Sardar, 2013). Futures Education was closely linked to the emergence of “new social movements” that challenged the direction of Western modernity and
overlapped with an ensemble of “adjectival studies” such as World Studies, Global Education, Peace Education, Development and Environmental Education (Dufour, 1990). Important and representative texts include Pike & Selby (1988), Hicks (1988), Beare & Slaughter (1993), and Hutchinson (1996). These books reflect the concerns of the 1980s around nuclear war, environmental threats, and demographic change. They accepted the arguments of the “new social movements” about the need to integrate the “personal”, “political” and the “planetary”, and argued that schools should actively teach with a futures’ perspective since, paradoxically, schools did not provide students with the intellectual resources to think about, and actively create “futures” (Slaughter, 1988). An important feature of this literature concerned the role of teachers in curriculum change, finding ways to teach about possible, probable and preferred futures in principled and engaging ways (for a more recent statement and overview, see Hicks, 2012b).

In the 1990s, the influence of Futures Education waned in the face of school reforms geared towards producing human capital and economic growth. However, recent years have seen a revival of interest in the idea of education about futures, or what we prefer to call “second wave” Futures Education. This is reflected, for example, in the OECD’s “scenarios” for the future of schools, and texts such as Facer’s (2011) Learning Futures. There are some important differences between first and second wave Futures Education. Whilst early Futures Education originated in classroom practices and was closely linked to teachers’ work, “second wave” Futures Education is more concerned with imagining alternative organisational and system changes. This change is reflected in Beare’s (2001) Creating the Future School, which effectively links the “new age” rhetoric around networks and systems with the aspirations and visions of school reform. Second-wave Futures Education assumes that epochal shifts in the nature of economy and society mean that schools created for the “industrial age” are no longer “fit for purpose” for the 21st century. In the next section we argue that much of the work that characterises Futures Education in New Zealand to date shares this assumption.

New Zealand’s Futures
In our view, the interpretation of futures work in New Zealand education has been shaped and constrained by a powerful unfolding narrative about the future that exists in wider political and cultural debates. This is essentially a fast-paced capitalist
future. In this section, we argue that developing a future focus in school curricula will need to go beyond this powerful but limiting discourse.

In New Zealand, policy-makers’ concern with the “future” can be traced to the economic crises of the 1970s. The end of the “Long Boom” of the post-war period prompted debate about New Zealand’s future. In the early 1970s, the Muldoon government commissioned the Holmes Report *New Zealand at the Turning Point* (1976) and subsequently established the NZ Planning Council and the Commission for the Future. This concern with New Zealand’s future has intensified, with the McGuiness Institute noting sixteen major initiatives that focus on New Zealand’s future between 1990 and 2008 (McGuiness, Foster & Grace-Pickering, 2011). Some of these are highly significant, such as the Porter Project of the early 1990s and the Knowledge Wave initiatives of the early 2000s. Both of these projects focused on the need for New Zealand to improve its competitiveness and develop innovation, and had important ramifications for education. The notion of competitiveness underpinned the 1993 National Curriculum and stressed the importance of entrepreneurialism and the need to produce human capital. The Knowledge Wave was based on the idea that advanced western economies have qualitatively and quantitatively shifted towards post-industrialism and that New Zealand must find ways to encourage innovation. In education, interest in these ideas was prompted by Jane Gilbert’s (2005) influential book, *Catching the Knowledge Wave*? which documented the contours of an epochal shift in the nature of economies and explored their implications for schooling and curriculum.

The argument (daily repeated in the media) that New Zealand’s future will be closely linked to the emergence of a “knowledge society” inevitably shapes educational discussions. We argue that much of the work of the NZCER around educational futures is clearly linked to “second wave” Futures Education because it starts from the assumption that education is not fit for purpose for the 21st century, and then sets out to indicate the forces that are shaping the future and to show how schools need to change to reflect these developments. Such work broadly accepts the argument that current schooling approaches are not sufficient to address and support 21st century learning needs and seeks to find ways to help policy-makers and school leaders re-invent their practices (Bolstad, 2011b). The call for “21st century schooling” is not simply a New Zealand phenomenon: the work draws upon influential international commentators such as Charles Leadbeater who have a clear
view of how education needs to change, and organisations such as the Global Education Leadership Partnership (GELP, 2016) which is part of a wide network of powerful corporations who are insistent on the need to bring about innovation and change. Thus, New Zealand Futures Education is linked to a global network of think-tanks, policy-makers and corporations who seek to reform education in ways that are in line with how they imagine the world to be in the future (e.g. Cisco Systems, 2012, Hannon, Gillinson & Shanks, 2013).

As educators, we think it is important to critically examine this “imaginary future” and the values and assumptions that underpin such work. Our concern is that such work can too easily accord with the views of global capital and corporations (Goldman & Papson, 2011). This version of educational futures suggests that successful schooling will enable New Zealanders to play their part in a globalised knowledge economy which is predicated on high levels of mobility and travel, and to participate in an economy geared to personal and collective consumption. This is a future where the state plays a minimal role in collective provision and where both nation-states and individuals are compelled to “compete and thrive”. It is this vision that helps explain the intense focus on achieving NCEA credentials, maintaining the nation’s standing in international league tables, and the (perhaps apocryphal) sign on the entrance to one school in Auckland which reminds students: “No pressure, no diamonds”.

Such high-stakes models of schooling are effectively preparation for life in the consumer society. They encourage us to think of ourselves as individuals who have succeeded or failed according to our own merits while downplaying the role of social class, race and gender as determiners of material rewards. The rewards are expressed through having access to the products and choices of the consumer society. Of course, this does not presume narrowly materialistic lifestyles, but that is the model of the “good society” that is implied.

To clarify our argument: the problem with the type of future-oriented discourse that has developed in New Zealand is that it does not explicitly encourage schools or teachers to provide young people with the opportunity to envisage and imagine alternative futures, and as such goes against the spirit of first-wave Futures Education which was characterised by a concern to imagine and critically examine a wide range of societal futures. In this sense it is useful to think of futures as “invented traditions”. This was the term used by Eric Hobsbawn (1983) to describe the ways in
which nations use symbols, myths, emblems and stories to construct a sense of historical tradition. Hobsbawn’s approach points to the ways in which influential groups and classes get to define what the past means and therefore can shape the future. By the same token, nations, powerful groups and classes also seek to construct or invent the future. Thus, in considering any representation of the “future”, it becomes important to ask: who is asking us to imagine the future, in what ways, and why?

We realise that for some readers this criticism of the direction of New Zealand Futures Education may seem too harsh, especially as we write as relative “newcomers” to the country. We should make it clear that we are not suggesting that individuals or organisations have contrived or conspired to promote a singular view of New Zealand’s future. Instead, we are suggesting that, at the present time there is a powerful discourse or narrative about that future which understandably shapes discussions within education.

A Note on Post-Carbon Social Theory

Against this powerful narrative about New Zealand’s future, we argue that educational work should help students to understand that there is no single and set trajectory. Indeed, New Zealand, as part of the global capitalist economy, faces an uncertain future. Its trajectory in the post-war period was linked to American Fordism which set it on the path to high levels of material consumption, easily visible in the landscape in the form of housing and car ownership (Rolfe, 1999). A consumer society promotes social norms of privatism and individualisation, and the concomitant speed-up and de-traditionalisation of social relations. These forces, which were growing in influence from the late 1960s and throughout the 1970s, were unleashed in the last quarter of the 20th century in the form of the “neoliberal experiment” which fundamentally altered the economic and cultural landscape of New Zealand (Kelsey, 1995; Le Heron & Pawson, 1996). However, the period since 2007 has seen relatively low levels of economic growth and low wage growth. This increases social tensions and requires high levels of household debt to maintain cultural expectations of consumption and travel. On a broader scale, the continued sustainability of highly mobile societies based around steel and oil is increasingly questioned, and the viability of such societies is uncertain (Elliott & Urry, 2010; Urry, 2012).
The idea of a post-carbon society is associated with the sociologist John Urry and his collaborator Anthony Elliott (Elliott & Urry, 2010; Urry, 2011). The assumption is that most social theory has developed and proceeded on the assumption of carbon-based modernity. Thus the social sciences emerged to describe and explain societies that were experiencing the “shock of modernity” as they went from agrarian (rural) to industrial (urban) modes of organization. Urry and Elliott argue that we can no longer take for granted the continuance of a carbon-based modernity, and social theory needs to factor in the decline of a carbon-based way of life.

The implications of post-carbonism for schooling are potentially profound given that the current curriculum is based on a carbon-blind model of society and culture. School learning areas to a greater or lesser extent assume the continuance of a carbon-based society and are oriented towards that future without an understanding of how a carbon future is now compromised by the evidence of climate change and the pressures of carbon energy shortage as peak oil production is reached. These factors need to be considered as main drivers in curriculum work on futures.

In our recent work (see Matthewman, 2010; Matthewman & Morgan, 2013; Morgan, 2012) we have argued that all curriculum subjects need to find ways to teach about post-carbon futures. Bolstad’s (2011a) research on future focus and reports by ERO (2012) show that future focus in schools has been based on cross-curricular project work and seen as an opportunity to integrate authentic learning contexts. This might involve sustainability work such as restoring local areas, or enterprise projects with local business involvement. However, while “action competence” is undoubtedly valuable in developing students’ ability to problem solve and work collaboratively, this does not necessarily translate into an understanding of how action fits into different perspectives on the possible, probable and preferred scenarios of the future. Learning areas can provide the critical framing, knowledge and representational tools for thinking about the future from different perspectives. For example, English lessons might involve writing future vision stories based on scenarios of future citizenship, science lessons might focus on the science of climate change as part of sustainability; technology might consider enterprising and innovative future designs. The following section sets out some ideas for scenario work within the framework of the future focus principle.
A Scenaric Approach to Futures Education

Futures Education has developed a variety of “tools” and methods which allow teachers and students to explore futures in manageable ways. Readers of this journal may be aware of materials developed to support the Secondary Futures Project in the 2000s. One of the simplest “tools” is the “futures wheel” which starts with a single event and then works to explore all the possible consequences of this event; a second is the “futures tree” which branches into possible, probable, and preferable futures and the third, more complex tool (which we discuss in detail here) is that of “scenarios” which describe a set of different futures and ask students to examine how these might have come about, who are the winners and losers in such scenarios, and which are most likely or preferable. A key principle of Futures Education is that it insists on the openness of the future while being based on an understanding of existing trends within the present. Facer (2013) defines this as a “scenaric stance” that entails: “an orientation towards the future that restlessly resists closure and that systematically seeks to open up awareness of and routes towards multiple futures” (Facer, 2013, p.138).

Scenario building involves setting out various scenarios for a future year based on known social, economic, political and environmental trends and “drivers of change”, establishing a plausible timeline of events as well as playing out the implications of so-called “wild cards”—the unpredictable factors which may occur and impact on possible, probable and preferable futures. A recent example of a wild card was the global financial crash of 2008, whilst future wild cards might include the discovery of cheap renewable energy, the opportunities for new forms of social relations afforded by digital technologies, or the impact of a major global pandemic. It is important to stress that scenarios are not forecasts of the future—since the future cannot be known—but are ways of imagining how different forms of action and events have linked consequences and implications for future outcomes. Scenarios therefore seek to build representations that are internally consistent and convincing.

One of the advantages of scenarios is that they allow teachers to provide some context to the abstract notions of globalisation, sustainability, citizenship and enterprise found in the future focus principle for the NZ national curriculum. Scenarios offer the potential to explore these different aspects of the future focus principle in a way that is coherent and linked.
Scenarios are a powerful thinking tool for professional development in future focus and school curriculum planning. In the next section we want to explore the potential of using scenario building as a method of opening up the curriculum to alternative futures. We will provide some examples of scenarios and then offer some practical activities which can be developed around scenario building.

Examples of “Authored” Scenarios
All scenarios are authored. That is, they represent the interests, beliefs and experience of particular individuals or teams. This authorship can be made explicit and analysed in classrooms to make the angle on events explicit or teachers and students can choose to build their own scenarios around their interests, concerns and focus.

In terms of our interest in post-carbon futures, a challenging set of scenarios is provided in Newell and Paterson’s *Climate Capitalism* (2010). The authors acknowledge that in the foreseeable future there is no credible alternative to capitalism. However, they argue that current forms of “carboniferous capitalism” (i.e. economies that are based on the extraction of carbon from rocks) are unsustainable, and that the next 50-100 years will be characterized by moves to “de-carbonise” existing economic and social relationships. Thus the future will be post-carbon.

Whilst their scenarios focus on the economics and politics of climate change, the sociologist John Urry offers an account of “post-carbon” futures that explores the social and cultural dimensions of these developments:

It is now clear just how energy is crucial to this new century: without sufficient energy and harnessed in the right long term way, many societies and many lives will reverse from their apparently inevitable high carbon trajectories. We all need to be thinking futures even if doing so is immensely difficult. (Urry, 2011, p.139)

**Post-carbon futures (after Urry, 2011).** Urry describes four scenarios: perpetual consumerism; local sustainability; regional warlordism; and low carbon/digital networks. The scenarios are summarised below as they provide powerful models for schools and teachers to work with and adapt.

**Perpetual consumerism.** In the perpetual consumerism scenario, the discovery of a technological fix for cheap, emission-free energy facilitates a society
based on high levels of consumption, connectivity and mobility. The downside to this scenario is that this will involve unequal access to resources and will create high levels of stress due to the pressure of hyper-connectivity. This is a scenario that feels familiar to us and also possible because it is based on our rapidly evolving experience of digital technology. However, Urry insists that it is dependent on the improbable discovery of cheap and emission-free energy, and is therefore unlikely to eventuate.

Local sustainability. This scenario of local sustainability involves a reversal of all the social and economic trends and systems of the twentieth century as local communities reduce their carbon footprint and learn to live in sustainable tight-knit and self-sufficient communities with limited mobility and consumption. Given the extent to which we have become accustomed to current high carbon lifestyles, this would be the least likely outcome of any global crisis in energy supply and climate change effects.

Regional warlordism. In the regional warlordism scenario, society and nation-states become increasingly unstable with breakdowns in global and local infrastructure as climate change and peak oil effects cause damage to food, water and energy supplies and infrastructure. The rich insulate themselves from environmental and social breakdown in gated communities. Resultant struggles over resources lead to civil unrest and tyrannical forms of governance and/or tribal forms of organisation against a backdrop of general chaos and lawlessness. There are signs that this is already happening in parts of the poor South, and Urry regards this as a likely outcome of “business as usual” combined with climate and energy crisis.

Low carbon/digital networks. Urry describes the low carbon/digital networks scenario in some detail as a preferable and possible future. It would involve digital management and coordination of transport and high levels of connectivity capable of simulating face to face contact. Low carbon lifestyles would be facilitated by alternative forms of technological innovation. Communities would be compact and self-reliant but networked to be efficient in their use of resources. This scenario would require significant investment and innovation and a downside is that it could involve high levels of digital surveillance.

Four Possible Futures for New Zealand. Urry’s scenarios discuss the global aspects of change, but were developed out of his work commissioned by the UK government on the future of infrastructural projects. New Zealand’s situation is, of
course, different and its uniquely isolated geographical position permits the imagination of a separated future capable of self-sufficiency and cushioned from global disorder (at least in the short term). This “isolationist imaginary” is reflected and challenged in the Sustainable Futures Institute’s (2008) *Four Possible Futures for New Zealand in 2058*. The report is focused on the response of New Zealand to sustainability in social, cultural, economic, environmental and political dimensions and raises important questions about New Zealand’s relation to the rest of the world.

The four scenarios are as follows: 1. *Power to the People*: New Zealand and the world solve the sustainability challenges of the present; 2. *An Island Paradise – but back to the Jungle*: New Zealand solves the sustainability challenges of the present but the world does not; 3. *Missed the Global Bus*: New Zealand does not solve the sustainability challenges of the present but the rest of the world does; 4. *All Over Rover*: New Zealand and the world fail to solve the sustainability challenges of the present.

**Developing Scenarios and Professional Development**

As an aside, it is worth reflecting on a comment by a reviewer of this article that the pessimistic scenarios are too bleak and alienating for students in schools. This is a long-standing issue in Futures Education (see Hutchinson, 1996). In our experience, teachers often seek to provide sources of hope and optimism, often at the cost of ignoring negative aspects, simplifying models of social change and downplaying issues of structural power. The scenarios above offer positive as well as negative representations of the future. Students need to be supported in thinking through how preferable futures can be made more possible.

In the creating these scenarios, timelines and stories for each of the scenarios were developed and refined through a process of workshop collaboration which could be adapted by schools. One important starting point is the question of when does the future begin? Today? Tomorrow? Five years? Fifty years? 100 years? 500 years? In practice, many scenarios seem to be based around a fifty-year timeframe, perhaps because this sufficiently near to make us care about what will happen to our children and grandchildren, or those who are near to us, but also distant enough to be seen to involve significant and wide-reaching change from the conditions of the present (what futurists call “the 100-year present”). In thinking about the scenario of New Zealand as an isolated island paradise the scenarios put forward a case for the increasing
pressure of global collapse over time and therefore the need to think globally as well as well as nationally.

Hicks’ (2012a) experience of more than three decades of work in Futures Education leads him to conclude that many teachers and educators find it challenging to teach about the future, and this suggests the need for professional development within schools. Some suggestions for this are provided below. The future focus principle can be addressed both within and across subjects. It is therefore up to school leaders, in consultation and collaboration with teachers, to determine how the curriculum integrates the future focus.

This could involve examining a range of scenarios (such as the ones above) and their implications in terms of how they relate to sustainability, enterprise, globalisation and citizenship. (For instance, Urry’s scenarios imply very different models of what it means to be a “citizen”, and are based on different interpretations of “globalisation”). Whilst these are general scenarios, they can be used to think about national contexts, such as: what would these scenarios look like if applied to the New Zealand context? The next section provides some suggestions for activities and questions to guide professional development sessions on future focus.

**Professional Development: Activities and Questions**

Group leaders could introduce examples of scenarios (such as in Urry, 2011) and consider how these scenarios are relevant to the New Zealand context. The scenario examples could be followed by a selection of “drivers of change” such as climate change, population, food security and ecosystems (See appendix to the Sustainable Futures Institute report 2008, p.51). Participants could choose which scenarios to work with. At this point the group leader might randomly introduce one or two “wild cards”: such as global pandemic, technological breakthrough, terror attack or collective protest.

Each group could work with the information to build a scenario which addresses aspects of future focus e.g. enterprise, globalisation, sustainability and citizenship creating a possible timeline with key events to this future in 2068.

The final stage involves critique. Which scenarios are preferable? Most likely? What changes and developments are needed to help to build that future? What is the relevance of future focus for work in each learning area? How can creativity, adaptability, imagination and innovation in relation to multiple futures be kept in play
within the curriculum? A map of how each learning area contributes to the aspects of future focus could be produced with decisions made about which learning area could lead in which aspect of future focus.

**Developing the Future Focus within Learning Areas**

Scenarios can be written in different ways to reflect the concerns of different learning areas. Scenarios can also involve “multimodal” audio, visual, spatial, mathematical and artistic forms of representation as ways of imagining and making “real”. For example the art installation *Greenhouse Britain: Losing Ground, Gaining Wisdom* (Harrison & Harrison, 2008) presented a room-sized sculptured map of the UK that altered its filmic borders according to the flooding effects of different scenarios of sea level rise. This was accompanied by aural commentary in the form of a haunting reporter voiceover “the news is bad and it’s getting worse”, poster displays and maps of different regional effects, imagined historical accounts of the process, ideas for sustainable farming projects, poems written by “fictional survivors” and scientific information and disaster videos (See [http://greenhousebritain.greenmuseum.org](http://greenhousebritain.greenmuseum.org)).

Below are some suggestions for work in learning areas:

**English.** Future scenarios could be used as the basis of creative writing projects, perhaps as part of collaboration with Social Sciences. Informed research about society, economy and environment could inform fully fleshed out future visions which could involve writing in a range of genres. Models of literary work could be sampled from science fiction writers such as Margaret Atwood, Cormac McCarthy, George Orwell, John Wyndham and Suzanne Collins. (See further suggestions for science fiction reading in *Teaching Secondary English as if the Planet Matters*, Matthewman, 2010)

**Mathematics and Statistics.** Data, tables and graphs can be an important part of the representational resources of future scenarios. What mathematical data could support and clarify written scenarios? How could Maths be used to understand the probability of particular futures? What data can be accessed? The book *Teaching Secondary Mathematics as if the Planet Matters* (Coles et al, 2013) provides a range of useful resources and lesson ideas. (See in particular Chapter 3 “Climate Change” pp.31-49.)
Social Sciences and Science. In Geography, scenario building is already part of geographical thinking and the operation of different scales of analysis is strongly highlighted. Teaching Secondary Geography as if the Planet Matters (Morgan, 2012) has a range of future oriented approaches and the scenaric approach is developed from a specifically geographical perspective in Chapter 8 “Climate Change Mobile Lives and Anthopocene Geographies” (pp.132-147). Futures thinking is also highly relevant to History, although this may initially appear to be all about the past. For instance, how does the history of New Zealand help us to understand how change happens? What were the drivers of change in the past? Research on how we used energy in the past can be brought to life through interviews with the older generation. What are the drivers of change in the present? There is also a growing interest in counter-factual history which can provide a sense of how the future is contingent and open-ended. In biological and physical sciences a key question might be: how can science help us to understand the changes that are happening in the environment now and how is that likely to impact on the future?

The Arts and Technology. How can we represent different future scenarios to make them more accessible and visible? What role has art played in imagining future worlds? Innovation is crucial to the success of preferable futures. How can innovation and creativity be encouraged and linked to preferable and possible scenarios? Could low carbon constraints on design push creative and disruptive innovation? See for instance the innovative Open University project Creative Climate which invites diary entries in text and video formats to collate creative responses to climate change around the globe (Smith, 2009).

Conclusion

In this paper we have argued that it is important for educators to offer young people in New Zealand an analysis which challenges a singular future based on a model of carbon-dependent, mobile, and high consumption lives. A truly educational approach to futures is to explore a wide range of possible, probable and preferred futures. To this end we have discussed the value of a “scenaric stance” in futures thinking. The main point that we would emphasise here is that Futures Education is not (or should not be) a “technocratic” exercise that seeks to provide a set of techniques for teaching about the future. Instead, Futures Education requires important skills of study, analysis, creation, imagination and interpretation—in short, the skills of curriculum-
making. We hope that the ideas and resources provided in this article will be useful for teachers and schools in developing Futures Education in New Zealand.
Writing post-Trump, the transition to a post-carbon future seems almost impossible, and the world seems even more dangerous. 11 This is a difficult time to have environmental designs on education. Within secondary schools the question of the environment is routinely bracketed out, unless, rarely, the environment is the specific topic under discussion. Yet at the same time the environment is everything, running through every aspect of our lives and implicated in every choice we make. This thesis considers specifically the implications of ecocriticism for the curriculum and pedagogy of secondary school English. However, as shown in Greg Garrard’s work (2007, 2009, 2010) an interest in ecocriticism as pedagogy necessarily leads into an engagement with other environmentally-focused discourses within education and beyond. Writing these papers represented an important stage in the development of my thinking about how English relates to questions of sustainability in the contexts of national curricula, subject trajectories, histories of educational change and representations of global environmental shifts. Therefore in this commentary section I will clarify some aspects of the relationship between English, EfS, ecocriticism, post-carbon social theory and Futures Education situating the thesis within these overlapping, sometimes competing discourses.

Re-framing Education
The papers introduce and draw upon a set of concepts which offer different perspectives on education in relation to sustainability. For instance, the following terms invoke particular frames of reference: the Anthropocene (geological processes and time); post-carbon (future organisations of society in relation to changes in energy consumption) and future focus (an emphasis on futures thinking). In the papers these “trigger words” are used to re-frame and re-think curriculum subjects from an ecological perspective.12

We begin with the “story” of the Anthropocene. In a recent review of educational literature in relation to the Anthropocene, Teresa Lloro-Bidart (2015)

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11 Donald Trump was elected as President of the United States on the 20th January 2017. His stance is decidedly “anti-environmentalist”.
points out the dualism of this metaphor: it can promote a human-centred and technicist view of climate problems or it can be used to highlight and challenge the dominance of human impacts on the Earth. She argues that “humanist paradigms and traditions that fail to consider how the non-human and material world co-shape our mutual worlds have dominated the field of education” (p.140) and suggests that the use of post-carbon social theory in our paper (Matthewman & Morgan, 2013) represents “a rethinking of education as less “human-centric” aligning with the posthumanist and ecofeminist political ecology of education” (p.135).

In writing the post-carbon paper we were interested specifically in the evolution of curriculum subjects in the context of the new demands of the Anthropocene. The Anthropocene concept applied to education requires an unusual scale of “super historical” thinking which connects with the discourse of the “end of nature” (McKibben, 1990) and the perception of significant future change at every level of life, as detailed in the chilling and rigorous detail of the IPCC reports. The use of the term “post-carbon” in relation to the Anthropocene was deliberately premature. “Post-carbon” anticipates the necessary response to the conditions of the Anthropocene and the accelerated burning of fossil fuels. After framing this geological scale of environmental and social change as a context for educational response, the second paper (Matthewman & Morgan, 2014) sought to critique the one-dimensional “future focus” in the New Zealand curriculum. It was in opposition to this singular vision of the future that post-carbon social theory was introduced, and the alternative frame of Futures Education explored, both as a historical moment and as a current educational movement. In both papers, ecocriticism helps to inform and structure the imagination of a post-carbon English, within a post-carbon curriculum, in which the status of the non-human is revised.

Post-Carbon Social Theory—an Urry Update
Both papers attempt to make the idea of multiple futures understandable and imaginable through the representation of possible, probable and preferable “scenarios” of the future. One of the journal reviewers objected to the pessimism of the scenarios. This was a point that we attempted to address in our rewrite. David Hicks (2014) explores the problem of balancing hope and despair, optimism and pessimism, as a familiar and fraught issue raised in relation to pedagogy in Environmental Education and EfS. But it is worth remembering the timely caution of
Serge Latouche that we need “an alternative to the suicidal optimism of ‘a politics of ostriches.’” It is this latter blissful (and passive) optimism that will lead us more certainly to disaster than an attitude of a crystalizing catastrophe” (2014, p.95). Latouche argues that a “pedagogy of disaster” might “jumpstart” decisive action in relation to the Anthropocene (p.94).

Latouche’s arguments are more suitable for policy makers than for children but his point about the danger of blissful and passive optimism is well made. A solution might be to work at creating an opposing position of concerned and active optimism rather than despairing and demanding pessimism. The late John Urry’s recent, and last book, What is the Future? (2016) might have helped us to create more informed and optimistic accounts.13 The pessimistic scenarios that we drew from his Climate Change and Society (2011) emphasised “locked in” capitalist systems whereas, What is the Future? embraced concepts of complexity, innovation and unpredictability. For instance, Urry makes a narrative case study of the significant social changes projected from the invention of 3D printing. For instance, “Ben” is described working on designing a medieval village for homework which he will “print” out. He comments:

Next year we will get a new recycling station so we can just take the unwanted objects down to get them shredded into more printer stock. Our shed is full of all the old bits and bobs we are always printing out and breaking. (p.117)

Urry develops a nuanced and richly imagined story—so that while 3D printing is shown to have positive effects through reducing supply chains (and the dependency on oil), the problem of sourcing materials and wasteful printing is still an issue to be solved in individual households—perhaps, he suggests, through turning towards a shared resource of community-based printers. Thus problems, and possible solutions, are integrated in a detailed and realistic narrative. Overall, Urry’s last, rather literary and imaginative book, argues for the construction of preferable futures through using the method of science fiction “storying” and the deliberate imagination of utopias (albeit with problems still in process). In taking this approach Urry follows Naomi Klein (2014) in rejecting the dystopian as creating a passive acceptance of impending

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13 John Urry (1946-2016) was Distinguished Professor of Sociology at Lancaster University, England.
catastrophe and disaster, rather than a restless striving for a better world. He also suggests that the dystopian imagination can have its own negative *productive* effects both in preparing people for undesirable futures (which they are then more likely to accept) and in nudging people onwards *towards* these futures. Urry’s analysis in *What is the future?* makes me think again about the scenarios and texts we used.

Scenario building involves “backcasting” as well as forecasting. Backcasting means working back from the scenario you would like to achieve in order to analyse how it might be made both *possible* and *probable*. Urry (2016) devotes a chapter to literary visions of the future to illustrate the important contribution that science fiction makes to building “real” futures. The problem (for envisioning a hopeful future) is that these “Anthropocene Fictions” (Trexler, 2015) tend to be dystopian. To counter this, Urry discusses approvingly, and at some length, Jonathan Porritt’s *The World We Made* (2013) as an example of backcasting from a highly developed scenario of a utopian sustainable future. Porritt is a well known figure in British environmental politics and non-fiction writing. A former leader of the British Green Party, he is founder and director of “Forum for the Future”, an international organisation working for sustainable change to food and energy systems. His stance is “can do” and pragmatic—he even attempted to work with oil companies BP and Shell on transition to renewable energy, although he has since reflected that this was a “painful” and pointless journey (Porritt, 2015). *The World We Made* is his first foray into fiction. The book is structured as the fictional memoir of a protagonist narrator called “Alex”, a history teacher born in 2000, looking back over his life from the vantage point of 2050. Unfortunately, Porritt’s protagonist comes across as smug with his series of status updates celebrating the power of positive thinking and action with the dominant message of “haven’t we done well?” The problem here is a literary one. The past conflicts referenced in the text might have been interesting but they have all been solved (more or less) to create the stability and sensibleness of the book’s present tense. This is not to deny the book’s utility as source of sustainability designs, images and notes collating many emergent and exciting sustainable practices and technologies. This could be great material for teaching Social Sciences. (Jonathan

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14 Within ecocriticism the Anthropocene has been used as an umbrella term to signify the range of literature which has dealt with major human impacts on planetary health from terraforming of new planets to responding to climate change.
Porritt started his career as a teacher and the pedagogical potential is to the forefront of this work. The pedagogical problem for the English teacher is to re-introduce some literary conflict and drama. For example, students might be set a creative writing task that imagines a threat to this near perfect world. Students could begin by studying aspects of *The World We Made* in the thematic groups suggested by the book’s chapter headings identifying key aspects of the sustainable world (such as education, cities, international relations, food security). They could then discuss the potential threats (some of which are referenced in the text) and then individually write stories which first set the utopian scene and then disrupt it. Most English teachers would acknowledge that children find reading dystopian fiction cathartic and morbidly fascinating, noting also the popularity of futuristic disaster films which play on the deep cultural desire to envisage the worst. Perhaps the pedagogical trick is to keep open the possibility of utopian alternatives to the apocalyptic vision. For some texts this is already part of the “structure of feeling” as in Atwood’s *MaddAddam Trilogy* (Atwood, 2003, 2009, 2013) whereas other texts such as McCarthy’s *The Road* (2006) offer no hope at all. The hope needs to be present in the classroom, but there is no need to insist that the texts and the tasks are always relentlessly positive.

Porritt’s recent work has been criticised by traditional radical greens as an example of a “bright green” environmentalism in thrall to the power of smart technology and business to solve environmental issues (Hoffman, 2009). Urry’s writing also fits with the “bright green” perspective but helps to give serious credence to the promise of sustainable technology. “Bright green” is also the perspective most likely to find some purchase within the New Zealand educational landscape as the emphasis of the New Zealand future focus is predominantly digital, entrepreneurial and global. Urry’s post-carbon analysis shows how sustainability can fit into this worldview. He offers a complex view of technology within the broader context of ecological change. He shows how technology operates with a societal and environmental framing in a reflexive relationship. He is at pains to stress that “we can never do just one thing”— there is no direct line to solving environmental problems, particularly the issue of climate change, rather there are a range of interlinking and interlocking forces at work with elements both of technological and social processes that cannot easily be predicted in advance. One of the key challenges for educators

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15 The definition and implications of a “bright green” perspective are revisited in Chapter Six.
interested in environmental futures is that technology is the dominant story and it is highly correlated in the imagination with continued consumption and discourses of economic expansion rather the realistic and probable necessity of slowed growth, reduced travel and consumption and a changed climate. This does not have to mean a lifelong celery diet, in the sense of a joyless and limited existence (although admittedly reduced meat consumption is a likely part of the future). As Urry points out, preferable futures which take on board shifts away from fossil fuel consumption and an extractive and destructive view of the environment may come to involve highly social, digitised and creative ways of living sustainably.

Re-reading the two papers in this chapter, I am struck by how the insights of post-carbon social theory and Futures Education have helped to shape my thinking about how English might respond to sustainability. The essence of thinking sustainably implies thinking critically about the future and the rights of future generations. Including a future oriented dimension for responding to, and writing texts, from an ecocritical perspective, helps to avoid the sense of simply leaving things as they are and accepting the status quo. Crucially, students need to see the environment as one part of a set of processes that they can influence within the full set of social and political relationships that they occupy as citizens, as producers, as consumers, as future workers and as part of a biotic community. This links with Buell’s (1995) fourth textual “test” of environmental worthiness as “some sense of the environment as a process, rather than a constant or a given, is at least implicit in the text” (p. 8).

In English, the radical potential of ecocriticism is to bring the non-human and the physical world into the foreground of the analysis. As I have indicated, this potential does not necessarily need to reside in the text, but in the treatment, in the teaching. This has also been a development within second wave ecocriticism which has embraced a wide range of texts “beyond nature writing” (Armbruster & Wallace, 2001) and beyond the original, rather restrictive, set of rules set out by Buell in The Environmental Imagination (1995), but since revised in his later manifesto, The Future of Ecocriticism (2005). The shift of attention towards the ecological and the non-human creates a political tension with the dominant drive of education, which in New Zealand is narrowly “future focused” on a neoliberal, competitive and technological future. However, thinking about Futures Education as potentially “bright green” may offer educators a pragmatic compromise and strategic link with
the dominant technological perspective. According to Urry (2016) it may also be our best bet for survival.

This chapter has highlighted three political and overarching concepts that have influenced the study: the Anthropocene, the post-carbon and the New Zealand “future focus”. An ecocritical English must be “future focussed” in the sense of creating and envisioning multiple futures which include utopian possibilities. The next chapter will consider specific ways in which English teachers can engage with sustainability by drawing on ecocritical approaches to literary theory. It builds on the ecocritical work described in the first chapter and considers how these ideas, which were first developed in the UK, shift in relation to the context of Aotearoa New Zealand as a related but unique culture and environment.
CHAPTER THREE

English and Ecocriticism: From the UK to New Zealand

Ferdinand: Though the seas threaten, they are merciful; I have cursed them without cause. *Kneels*

Alonso: Now all the blessings Of a glad father compass thee about! Arise, and say how thou camest here.

Miranda: O, wonder! How many goodly creatures are there here! How beauteous mankind is! O brave new world, That has such people in't!

Propero: Tis new to thee.

—Shakespeare, *The Tempest.*

This chapter is concerned with what happened when I attempted to apply the ecocritical approach to school English that I was developing in the UK to New Zealand. I am thinking here of how my own approach has changed in relation to current practices of English in New Zealand. In the previous chapter I considered overarching theoretical approaches to curriculum change in the context of the Anthropocene. This drew on my experience as a teacher educator in the UK and initial literature-based educational research in New Zealand. This chapter is based on classroom research in New Zealand and the specific conditions of secondary school English teaching in New Zealand, as a context for ecocritical pedagogy and curriculum choices. The two publications included in this chapter arose out of a one year classroom research project at James Cook High School in Manurewa, South Auckland funded by the University of Auckland.

The first paper (Matthewman 2014a) is written for an international research audience, as part of a special issue on “English curriculum in the current moment: tensions between policy and professionalism.” for the journal *English Teaching: Practice and Critique.* In submitting this paper I was attracted by the radical intent of
the special issue and the invitation to offer alternative approaches to English as a subject, as expressed in the call for papers below:

We are interested in contributions that provide alternative views that might disrupt the “normalisation processes” created by policy and mandated curriculum. This volume asks English educators to “think differently” about how the teaching of English might be actively conceptualized and positioned by English teachers and educators in the face of current constraints, pressures, and mandates. (Moni, Haertling-Thein & Brindley, 2014)

In interpreting this call I developed an argument for an ecocritical approach, drawing on historical and contextual research into the conditions of New Zealand schooling and the specific elements of traditions of English as a frame for analysis of the empirical study at James Cook High School. The second paper (Matthewman, 2014b) followed on from this work but aimed for a more succinct and practical approach in relation to the remit of the national professional journal of NZATE, the New Zealand Association for Teachers of English. The suggestions for classroom activities and resources in that paper are intended as starting points for what might practically be done in an English classroom, in New Zealand, in relation to ecocriticism.

In these papers concepts of environmental identity and the relationship of ecocriticism to literacy and environmental knowledge are seeded and briefly set out, while the main focus is on how “versions of English” in both the UK and New Zealand connect with ecocriticism.
Publication 4. Clearing the Ground for a Greener New Zealand English

Abstract
In the context of public and policy concerns about human induced climate change, it is striking that dominant models and histories of English teaching fail to emphasise the environmental significance of English as a school subject (Matthewman, 2010). School English has not caught up with the growing body of ecocritical work within English and cultural studies which has explored the relationship between cultural texts and environmental thinking. This article explores the potential for teachers in New Zealand to clear the ground for a “greener” version of English. This could be facilitated by a number of features which are unique to the New Zealand context. These include the powerful (though contested) imagery of New Zealand’s pristine environment; the historical relationships of New Zealanders to the land; the integration of Māori environmental values into educational policy; the relative openness of the national curriculum in New Zealand; the absence of a dominant canon and tradition of English teaching; and the recent turn towards New Zealand literature (with its strong emphasis on links to the land) in literary choices for study. The article will examine traditions of English in New Zealand against the social, cultural and environmental factors which offer the potential for ecocritical versions of English to emerge within new models of teachers’ professional practice.

Keywords
English curriculum, English teaching, ecocriticism, environmental education, environmental sustainability, Education for Sustainability.

Introduction
Few would deny that we live in a time of intense and dangerous environmental crisis. We have entered the Anthropocene: a time dominated by human impacts on the Earth, of ecological risk (Beck, 1992), of Gaia’s revenge (Lovelock, 2006) and of environmental consequences causing hardship and devastation around the globe (Gore, 2006; Intergovernmental Panel on Climate Change [IPCC], 2014c). Images and reports of environmental problems and crisis are a daily part of media and lived experience. What, then, would explain the relative silence in school curriculum documents on matters of sustainability within nations such as the UK and New
Zealand? This paper challenges the idea that the articulation of school subjects can continue to assume that it is “business as usual” in dealing with the planet. Instead, this paper argues for a curricular and pedagogic response to a changed world order. The case considered is that of subject English in the context of New Zealand.

All subjects have a responsibility to explain and respond to the world. This paper focuses on the response of English to the environmental crisis within a “post-carbon curriculum” (Matthewman & Morgan, 2013). In explaining this response I draw on my experiences as a teacher educator in the UK, and as a researcher in New Zealand. In the UK over the period 2005-2012, I worked with teachers to explore the practical ways in which school English could become an ecocritical subject (see Matthewman, 2010). Teachers developed classroom initiatives in English, which were underpinned by a response to ecocriticism, the term most commonly used to define the green movement in University English studies (see for example Buell, 2005; Clark, 2011; Garrard, 2012; Glotfelty & Fromm, 1996; Kerridge & Sammells, 1998). Ecocriticism connects readily with English but sharpens and shifts the gaze onto the environmental implications of texts. This is partly through text selection or an “environmental canon” (see Buell, 1995) but mainly through analytical work that uses research on ecological, geographical and biological contexts to focus on the representation of nature, built and natural environments, and the relationship between the human and non-human. Ecocriticism has evolved to become highly inclusive of a range of cultural and media texts: “ecocriticism seeks to track environmental ideas and representations wherever they appear” (Kerridge & Sammells, 1998, p. 5). This inclusivity fits well with the wide remit of English in schools. Ecocriticism is a rich field of study that, like any branch of literary theory, resists neat closure. However, an attempt at categorising the broad principles of ecocriticism specifically for teachers of English is provided in Matthewman (2010) and a concise but authoritative discussion of the history of ecocritical theorising and practice is given by key figure Lawrence Buell (2012).

In this paper I want to shift the focus to New Zealand (while making comparative glances to the UK) to try to bring into focus a curriculum and a culture which, I suggest, has the potential to move towards a “greener” version of English.

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16 Ecocriticism is not critical literacy with an “eco” focus but derives from literary theory. However, the discourse of critical literacy fits well with an ecocritical approach.
New Zealand is powerfully imagined and represented as a pristine country of environmental splendour with a deep history of affinity for the land (Bell, 1996). At the same time it is a country conscious of competing in a neoliberal, global marketplace in which the natural world is sold both as a tourist attraction and as a set of consumable, marketable assets (Werry, 2012). English has the flexibility to be a subject that interrogates such conflicting positions and values. In the project of developing an ecological vision for English, New Zealand may offer a context less constrained by curricular pressures, canons and practices than the UK, one that is more responsive to environmental concerns. In the next section I will give a brief overview of the history of New Zealand Secondary English in relation to the opportunities and constraints for developing an ecological approach to the subject.

**Traditions of English**

Ivan Snook argues that English as a subject in New Zealand schools began as part of the colonial project to cultivate a version of pastoral England in the heart and on the soil (1989). The school curriculum was originally based on that of England, with the additional project of the “correction” of New Zealand idiom (Soler, 2000). During the 1930s and 1940s New Zealand inherited the Leavisite view of the study of the traditional English literary canon as a civilising and humanising force (Mayo, 2000; Stoop, 1998). This neo-colonial history is still reflected in the recent centrality of Shakespeare in the New Zealand curriculum while other English canonical texts are strongly represented in teachers’ shared lists of regularly taught texts.\(^\text{17}\) This is despite the fact that, unlike in England and Wales, there has never been a prescribed list of authors in New Zealand.

There is a link between the settlers’ work in clearing the bush and forest to create a version of English pasture and the ideological mission to plant representations of English environment and nature in the imaginations of children. Both projects shaped the relationship of people to the land. In England a strong tradition of literary writing about English nature and the English environment was linked with the tradition of English teaching. This was a tradition that saw English as having a role in developing aesthetic and moral attitudes to nature, environment and culture. Leavis

\(^{17}\) Shakespeare was until recently the only prescribed text through bursary examination and as a NCEA standards but this was dropped in 2012. This information comes from lists of texts commonly taught by teachers collated by staff at the University of Auckland.
and Thompson (1933) sought to promote the teaching of the great tradition of English literature in schools as part of the imaginative preservation of a sense of the organic community and close links with the rural environment.

The original project and mission of English thus involved reading great literature in order to form an aesthetic and critical appreciation and knowledge of the landscape. Obviously, children growing up in New Zealand would experience the body of traditional English literature as a distant representation of an estranged nature and a different, if related, environment and culture. The study of the English literary canon simply did not have the same ecocritical potential embedded in it for New Zealand children; it was a nature that they had left behind, or never known. Indeed, children’s author Margaret Mahy writes of the “colonisation” of her imagination through the nearly exclusive exposure to English literary texts (Jackson, 2011).

A specifically New Zealand art and literature took time to establish a critical mass (Pound, 2010). Alex Calder (2016) identifies a broad period of national “invention” that took place in relation to fiction writing between 1920 and 1950. Christopher Hilliard (2016) in a cultural materialist reading of the same period recounts the issues that New Zealand writers experienced getting their work into circulation. He identifies a gradual emergence of publishing opportunities during this time, in particular the influential periodicals Phoenix (1932) and Landfall (1947). There was a considerable time lag before New Zealand literature became an object of study in New Zealand classrooms and this was a move that was still being contested by teachers who advocated a traditional English canon during the 1990s (Stoop, 1998). However, New Zealand literature has emerged as a powerful, if largely untapped, ecocritical resource (Rawlin, 2003). From the outset, “the land” was represented as the defining force on Pākehā (white European heritage) writers and artists while the relationship to this new land and new nature was (and is) a defining force in the culture (Steven, 1989; Bell 1996). Māori culture and art went through a separate renaissance of consciousness in the 1970s and this, together with fierce and ongoing disputes over land ownership and management, have been part of an emerging bicultural identity in which Māori and Pākehā work out the terms of engagement. The concept of land and belonging in this nationalistic and contested sense is different to an eco-consciousness of place. However, Māori perspectives include a sense of obligation as tangata whenua (people of the land) to sustain the land and the water. Meanwhile the relationship of English teaching to Māori culture
and language, and to an emergent Pasifika identity has been highly significant although thoroughly unresolved with ongoing debates about bilingualism and language policy (Lee, 1990; Locke, 2002, 2010a; Middleton, 1994; Stoop, 1998).

English as a study of the traditional colonial canon was first challenged, not by literary developments or biculturalism, but by progressive versions of English centring on “personal growth” dominant in England in the mid-1960s, and in Australia and New Zealand in the 1970s following the Dartmouth conference, and the publication of Dixon’s paradigm shifting *Growth through English* (1975) (Locke, 2000; Stoop, 1998). As a flexible version of English, this allowed responsive approaches to issues. In England, this entailed attention to issues of race and gender and the pressing environmental crisis of nuclear war. However, the eighties was also a period of backlash against teacher autonomy and issue-based teaching across the UK. Debates about standards in reading, writing and spelling became dominant in the British press and the UK national curriculum published in 1990 was clearly intended to standardise assessment in English as well as to define the terms of the subject beyond “growth”. The development of the national curriculum in New Zealand published in 1994 shared the UK emphasis on assessment levels. This was the main constraint upon the work of the curriculum developers, causing considerable concern for English specialists (e.g. Bendall, 1994; Locke, 2000; Locke, 2007). “Personal growth” was cited as an influence, with a “muted” emphasis on literary heritage, which stressed the relevance of New Zealand texts to personal, cultural and national identity (Locke, 2007, p. 38). This encouraged a turn towards New Zealand writers as objects of literary study.

New Zealand literature may be rooted in relationships to the land but the emphasis in literary critique of this literature is upon the formation of national identity rather than ecological relationships to place (Jackson, 2011). This follows the pattern of critique in University English Studies, which has been to privilege race, culture and gender as the hot topics rather than environment (Glotfelty, 1996). For example, Edward Said’s call for a “worldly criticism” draws attention to the political and the postcolonial rather than the planetary. Also, a literary concern with the land does not necessarily translate into a classroom focus on environment; the non-human is frequently the subordinate in a nature/culture binary, while plot and character take precedence over setting.
This is a binary relationship that ecocritics challenge. The non-human is made central to reading and the divide between nature and culture is shown to be thoroughly meshed as “natureculture”. For instance, an ecocritical touchstone is McKibben’s (1990) claim that the concept of nature has ended, a claim which paradoxically asserts our desperate dependence on a fragile world that needs to be put first. An extensive literature search for texts taught in New Zealand revealed no specifically ecocritical studies at all, except of texts firmly within the English canon, such as Shakespeare. However, the concept of place as an influence has begun to emerge as an important theme in collections and critical commentary, primarily as part of the work of defining Aotearoa “New Zealandness” (see for example Hebley, 1998). Alex Calder’s (2011) account of early settlement literature unsettles cultural understandings of place and belonging rather than exploring ecological relationships. A concept of “personal growth” through English could include both the development of cultural identity in relation to place and an understanding of the human relationship to nature and environment. Ecocriticism offers a more assertive shift towards developing a specifically environmental identity that takes account of the growing awareness and knowledge of ecological crisis. The study of New Zealand literature is rich in potential to develop this ecocritical understanding in students.

Unfortunately, as in England, the recent emphasis on literacy and technical and technological competence in relation to standards has worked against both the concept of “personal growth” through literary study and the development of critical literacy. This more utilitarian version of English is based on the development of skills and competences for the workplace. The competency curriculum model offers considerable freedom to teachers in terms of choice of texts and approach, but little in the way of guidance and direction in how to journey towards meeting strict assessment standards. In the absence of a strong vision and tradition for English, this might risk a model of curriculum design based on completing assessment tasks which meet assessment standards by the most direct route possible. For an outsider, a specifically New Zealand vision for English is hard to grasp from the multifaceted debates in the current literature, although this may be part of the lived experience of teachers. Certainly, the emergence of a New Zealand vision for English may be hard to realise under the pressure of accountability to standards (Locke, 2002; Locke, 2010a). Meanwhile in the UK, past utopian visions for English as a powerful and “dangerous” subject are stifled by managerialism and standardisation. While the
resonance of an ecological vision for English has been recognised, reviewers of *Teaching Secondary English as if the Planet Matters* (Matthewman, 2010) have commented on the dissonance of this work with the dominant version of English in schools in the UK (Teagle, 2013; Stevens, 2013).

**Education for Sustainability (EfS): An Open Door?**

Given the present pressure on English as being primarily about literacy standards, it might be expected that sustainability and environment should be marginal concerns for the subject in school. Perhaps more surprising is the silence in the curriculum as a whole. To date, the pressure of climate change, the energy crisis and widespread concerns about environmental challenges have not been significantly represented within the national curricula of either the UK or New Zealand. Snook (2007) identifies the lack of attention to sustainability as one of the major gaps of the current New Zealand curriculum (Ministry of Education, 2007) and Eames and Barker (2011), key proponents of EfS in New Zealand, report that integration of sustainability teaching into the secondary curriculum is still a major challenge.

There is no settled place for EfS in either the English or the New Zealand curriculum. Although the most recent New Zealand curriculum (Ministry of Education, 2007) places ecological sustainability as one of its core values, and lists sustainability as part of the principles of future focus in curriculum planning, as Eames, Cowie and Bolstad (2008) point out, there is still a significant tension between these curriculum aspirations to integrate sustainability into the curriculum and school-based curriculum planning. In effect, sustainability risks being squeezed out of the secondary curriculum where there is an emphasis on achieved NCEA standards in the core subjects. Furthermore, Snook (2007) argues that not only are values connected to sustainability, environmentalism and citizenship not followed through in the guidance for learning areas, but that they are actively undermined by the ubiquitous focus on enterprise. He argues that this is a reflection of the powerful influence of the business lobby and contends that this amounts to the indoctrination of a particular set of neoliberal values to create “passive consumers on the one hand and exploiters on the other” (p. 40). Similarly, Tulloch (2009) writing about the marginalisation of EfS in the curriculum, points out that sustainability is coupled with enterprise and globalisation in the future focus theme with no indication that this collocation involves a fundamental conflict of values.
The result is that sustainability is marginalised and undermined as a cross-curricular project within a secondary curriculum dominated by accreditation in key learning areas. Significantly, as Snook (2007) points out, there is nothing to stop teachers from challenging these dominant neoliberal values within their teaching and curriculum choices—that is within learning areas (loosely school subjects) such as English. The curriculum door is, in theory at least, left open for an alternative ecological vision to emerge. To illustrate this potential in the next section I will discuss the background to a case study of New Zealand teachers developing an ecocritical practice.

Glimpses of Ecocritical English in Aotearoa
My own lesson observations and discussions with teachers in the UK suggested that despite support, committed and imaginative teachers were only able to tinker with ecocritical approaches through creative work on the margins of the curriculum. Through chance rather than disillusionment, I migrated to New Zealand in 2012 and took up a researcher post at the University of Auckland. I led a year-long research project into the potential of ecocritical approaches within English and the Arts in a secondary school in Auckland with a low socio-economic rating. I worked closely with three English teachers and two art teachers, basing the professional development aspect of the project on the process of shared ecocritical reading of texts. Like many other migrants before me, I encountered a different cultural mix, as well as an unfamiliar natural ecology and built environment.

As an educationalist and a teacher of English, I encountered a version of English that I recognised but which was inflected differently, particularly in relation to post-colonialism. In the UK I was a teacher educator over a fourteen year period (1998-2012) and I became used to seeing very different versions of English played out in different schools and different classrooms—from rigid objective and teacher-led, highly disciplined teaching to exploratory classrooms dominated by group work and student enquiry.

There is always a diversity of practices in relation to an official curriculum. In making some tentative reflections on English teaching in New Zealand, I am under no illusion that the version of English played out in one New Zealand school is representative of dominant practice. However, it is worth pointing out that during this period of teaching in the UK, explicit literacy teaching and highly structured work
became the dominant model of delivery driven by the literacy strategy expressed in the *Framework for Teaching English* (DfEE, 2001). This model of English informed by the literacy strategy could be done well or badly but could not be ignored. While researching the work of teachers in one New Zealand school, I noticed a much looser mix of practice across the work of the three English teachers, from lesson to lesson and teacher to teacher. This was a school untouched by the literacy strategy lesson structure and the mantra of objective-led teaching.

The teaching I saw was not necessarily better or worse for this but the structural model of the literacy strategy was not a constraint or a consideration in lesson design. I noticed that teachers in New Zealand have considerable freedom to choose texts (within the usual financial constraints on resources) and do not have to defer to a set list, although there are favourite texts. It was striking that the teachers in the research sample drew on a considerable range of choices from New Zealand writing, both in their practice and in the references that they made to texts within the ecocritical reading sessions. All of the teachers were constrained by the demands of assessment pieces—a consideration that was uppermost in their planning—but it was notable to me that the National Certificate of Educational Achievement (NCEA) allows considerable freedom in designing these assessment tasks. Teachers suggested that their main constraint lay in the difficulties that their students experienced in comprehension of texts and basic literacy. Students generally seemed to lack confidence in both oral, and written work—particularly in whole-class contexts. The teachers’ perceptions of what these students could achieve was a key factor in planning.

In the next section of this paper I will offer some reflections on instances of practice as a partial glimpse into broader trends and possibilities in New Zealand English in relation to ecocritical work. These instances are presented as connecting with three themes: the relative openness and freedom of the New Zealand curriculum; the myth of New Zealand as “100% pure”, a pristine place; and the historical and cultural struggle for belonging in New Zealand, expressed with forceful simplicity in the Māori phrase “tangata whenua” people of the land.

**Stepping Through the Open Door**

From the perspective of a teacher educator from the UK used to the national curriculum lists of set texts and the finely grained teaching objectives of the
Framework for Teaching English (DfEE, 2001) (with 98 objectives for students in their first year of Secondary English), the New Zealand national curriculum (2007) appears wide open. Paul Green18, a highly experienced English teacher and Deputy Principal is widely read in English and New Zealand literature as well as making significant use of digital resources found on YouTube and the web. During the ecocritical reading group meetings he referred to a range of texts, introducing new works to the group as well as pursuing the reading leads that were offered by others. He was alert to texts that might connect with his students although he was highly concerned by questions of literary value and evaluated his selection of texts against his acute critical judgement of their worth. To me, he seemed curiously unencumbered in his planning by curricular or pedagogical constraints, pursuing a “rhizomatic” course of teaching a unit on food which covered a range of texts including: The Omnivore’s Dilemma for Kids (Pollan & Chevat, 2009), Classic Combo (Heatley, 2008) and the film Samsara (Fricke, 2011) and which incorporated interviews with organic farmers.

A Vignette

It’s a hot day. Kayl is lying on the floor of the classroom and Paul, the teacher, is ignoring him. Students are slumped about the room and all but one of them are Pasifika or Māori. On the desks there is some evidence that thinking happened here yesterday. It doesn’t look much like English though—a table representing notes about “Food production before and after the Europeans came”. Of course now it’s all fries and MacDonalds—according to the students’ scribbled notes.

Paul talks the students into the lesson and reminds them about the school garden and how this work on food connects with that. He invites Meola, a teaching assistant, to speak. She is Māori and involved with local production on a small organic farm.

Students have nothing to ask but their faces are mostly turned to the speaker, listening. Paul asks questions and she talks about sustainable ways of living on the land linking this to cultural practices.

18 Teachers are named in the following accounts to credit their ecocritical work as co-researchers. This was approved by the University of Auckland ethics committee. The classroom narratives are fictionalised to protect the identities of students whose real names and identifying features have been changed. The accounts have been validated by teachers as representative moments in their practice.
She takes the opportunity to tell them to eat their veggies and grow and cook their own food and eat healthy. I become impatient with the moral message and the representation of sustainability as an individual moral imperative (again). The students are listening, though, showing respect for the speaker and Kayl is sitting up on the floor leaning against the desk. But I challenge Meola that things have moved on—we can’t feed the world by turning hunter-gatherer. It’s too late for that. We talk about this for a minute or three, Paul, Meola and me—what can be done? How can change happen? Can we make changes ourselves?

The students say nothing and I worry about their involvement. Paul flicks on a clip from the film Samsara. It shows images of factory production of food. People in white blood-stained coats shovelling pieces of meat in a factory, hooks with endless pig carcasses moving along a train of miserable workers. At one point a machine is shown which sweeps live, yellow chicks into a conveyor belt. It looks like a giant vacuum cleaner and the chicks look tiny and fragile.

There are loud sounds of protest in the class. It is the first time I have seen these students visibly react to text. Anger. I feel it too—whatever we need to do to feed the world, to mass-produce food—it surely should not be this. Calmly, reassuringly, Paul asks the students to discuss their impressions and then to write about what this film shows us about the human food chain.

After the lesson, Paul seems satisfied but I am uneasy. “Paul, I could see that they reacted to that lesson but, I am wondering where we are going with this, I mean, was it English?” He looks surprised.

“Yes, it fits. They are focusing on the repercussions of the words and ideas.”

However, this seems more like Social Sciences to me. Paul asks me if I have any texts that might link with the lesson on the food production theme and I pass on a graphic cartoon Classic Combo, which shows the provenance of a meal of hamburger, fries and coke. We talk about the Omnivore’s Dilemma, which he read recently. I try to suggest the importance of the different forms of representation in all this—film, documentary, cartoon, literary non-fiction. I reflect that in the UK I would be trying to get the teachers to free up the technical analysis, to actually talk about what the text says about the world, but in this lesson the message and response has been all important and Paul thinks that this is ok. He says, “I am constantly disturbed by how little so many of them know about the world. They don’t have much to go on. I am trying to give them some pointers, some facts. Something to work with.”
I trust his judgement—he is clearly developing something and most importantly, he believes in it.

In this vignette it is possible to see that Paul, as a teacher, has no problem with breaking the boundaries of English. This is a version of School English, which is comfortable with what might be seen in other contexts as disciplinary trespass (interdisciplinarity is a strong feature of ecocriticism). There were no straight lines in Paul’s teaching. He followed up ideas as they arose although he had a plan in mind about the final assessment. He also drew on a very wide range of texts, both in his own planning and thinking and in terms of the variety introduced to students. He did not feel that every text required analysis; some were just there, background study, speaking or not speaking for themselves. His lessons confounded my expectations (based in UK classrooms) for a much more direct insistence on student participation and activity from the outset, as part of the mantra of what constitutes good practice. However, in this lesson, students had access to considered argument, they engaged emotionally with text and they were given the opportunity to verbalise and write their response. In the course of their unit of study, they engaged with a very wide range of texts and perspectives and they expressed keen interest in the work during the focus group discussion after the unit. In the UK I would frequently observe a similar group of below average attainment being given a much more restricted experience based on a narrow range of decontextualised extracts and “drilling and copying” of literacy skills. Mike Fleming and David Stevens (2015) point out that too often basic readers are denied the opportunity to behave like experts and to consider the rhetorical and social purposes of texts (p.43). To me, Paul’s work reflected a primary concern with cultural and critical literacy. He did not seem dominated by a skills-based curriculum. Of course, this may be a mark of his experience rather than of a particular culture of New Zealand teaching.

My observation of Paul’s planning and teaching suggests that an ecocritical approach is possible, even with classes who need considerable support in making inferential readings and articulating opinions. The constraint is not from the curriculum but from the professional challenge of managing the complexity of ecocritical reading at this level and in translating this into classroom discussion and activity. In Paul’s class students did not seem confident enough to take part in sustained, whole-class discussion of complex issues of food sustainability. But it may
be the case that the process of observing this was valuable and fed into their later writing—certainly Paul felt that it did. Significantly, the only instance of sustainability as a school focus was a small school vegetable garden, screened from the main school thoroughfare, which was worked on by a small group of students whose academic ability was considered well below average. This secret garden had the potential to play a stronger role within the ethos of the school setting. Indeed, through working with an ecocritical focus, Paul began to make reference in his lessons to the presence of the garden in discussing the cultural texts around food—ecocritical pedagogy has been strongly rooted in making literary connections to real places (Christensen, Long & Waage 2008; Garrard, 2009; Garrard, 2012).

Crucially, such cross curricular projects need to be related to work in learning areas, if they are to have credibility and criticality. English is well placed to be flexible enough to connect with sustainability projects from the perspectives of reportage and argument to the ways that literary and cultural texts represent related human endeavours and practices. Arguably, to work on a garden is an experiential process which requires (eco) critical framing to have any lasting impression.

Imagining New Zealand’s environmental “purity”
I expected a readiness for environmental thinking in New Zealand. After all it is a country that prides itself on the representation of sublime and pristine landscapes (Werry, 2012). Yet this is a cultural imaginary that may be distant and unavailable to children growing up in the city suburbs of Auckland. In the following account of a lesson, the Head of English, Patricia Viger presents the New Zealand purity myth at face value:

A Vignette
We enter the classroom to the sounds of native birds punctuated by the weird electrical pulse notes of the tui. The screen projects images of native bush. Patricia begins with class business relating to punctuality, the class trip coming up and finally a review of the previous lesson. Students are reminded that they learned about the ruru, a nocturnal bird and another student offers the fantail as another bird that they discussed. The link to their poetry task is made clear in the technical term “onomatopoeia” written up on the board. They are encouraged to describe the sounds they hear.
Patricia plays a clip of Frosty and the BMX kid (McLachlan, 2010) in which God comes to New Zealand in the form of a bearded old man. He refers to New Zealand as “my Eden”. Having clarified the meanings of “Eden”, Patricia draws out a contrast between what we might expect to find in Eden as paradise and what we might not expect, beginning with sounds and prompting students to suggest expressive adjectives.

The two lists on the board develop an opposition between the natural and the man-made: “Calm wind”, “swaying trees”, “running water”, “splash of the river” set against “motorway noise”, “other people”, “machinery”, “cell phones” and “motor trucks”. Having run through the same procedure with sights, Patricia plays the advert for New Zealand tourism which has the famous slogan of “New Zealand 100% pure”. Through recalling the list of images of iconic beauty with students, Patricia makes the implicit case that this advert is a representation of what we might expect to find in Eden. However, the explicit emphasis is on collating a list of words and phrases suitable for use in their own poems to be written later.

Patricia’s lesson explicitly draws on the dominant cultural imaginary of Aotearoa New Zealand as a pristine and unique natural environment. As an immigrant from Detroit, this perception of New Zealand’s purity is close to Patricia’s heart:

I grew up really in a concrete jungle and I moved to Aotearoa New Zealand… I’ve lived in a rural environment and I’ve lived in Auckland. But still people complain that it’s not 100% pure, well it’s not, but compared to Europe or compared to the US it’s so much greater in terms of what still remains of a natural healthy environment and it’s worth preserving and worth acknowledging. (Interview Patricia Viger, March 20, 2012)

Patricia’s cultural imaginary is strongly held against the competing awareness of environmental damage. This could be a source of strength, a deeply held belief that works to motivate environmental sensibility and awareness. Patricia, for instance, is a long-standing member of the Green Party and a keen advocate of the environment. However, it is a vision that can be at odds with the experience of city kids who live in the “urban” and “edgy” environment of South Auckland. One of the students suggested that the place he felt happiest in was Auckland City rather than the vision...
of Eden that was being carefully constructed. For some students this cultural myth and pride in environmental richness had not yet touched their imaginations and might need to be articulated. The critical deconstruction of the myth might need to come later. In Patricia’s lesson there were gestures towards this in a discussion of the use of kauri trees to build the city of San Francisco, acknowledging an environment that has been radically altered by phases of human settlement. This begins to develop an understanding of how cities are built in, with, and on nature (Bennett & Teague, 1999). A focus on city environments is an important ecocritical development, which could have particular resonance for city children who need support to understand representations of their own environments as crucial to sustainability.

Clearly there is a tension at work within the lesson between the functional aim of collating and extending vocabulary for a class of students for whom English is a second language and the more indirect learning about the way that New Zealand is represented in two cultural texts. In this case the functional assignment aim seems dominant and the work on cultural representation is a backdrop—at the same time Patricia is clearly building what Stables (2003) has described as functional environmental literacy in the careful naming of natural elements. Patricia’s aim to develop in city children a sense of awe and wonder about the natural world and to develop their environmental literacy was an ongoing theme within the broader plan. Part of the scheme of work involved a trip to the Waitakere Ranges, which was clearly a formative experience for students. Afterwards, one student talked at length to me about the issues of kauri dieback (a disease of an iconic native tree) and the importance of preserving these trees.

English can be a powerful subject for developing critique of the myths that rule our lives. The idea of myth is being used here in the sense of an ideological construct or story about how we live, which is taken for granted (Barthes, 1972). In this case the critique of New Zealand as 100% pure is not part of the teaching but there is no curricular or disciplinary reason for this not to occur. The decision to invoke the stereotype is a personal teaching decision based on an evaluation of the learning priorities of the class in that lesson, but also part of a commitment to present the natural world positively, as a source of strength, wonder and celebration. This is a strategic exclusion of negativity as well as an avoidance of complexity. Patricia is building the myth of New Zealand as a pristine natural environment and this may be stage one of an ecocritical journey.
Attending to ecological damage as represented or deliberately occluded within texts is a necessary part of ecocritical teaching (and would involve critique of the 100% pure myth). This raises the important issue of how far to address the negative and depressing aspects of environmental awareness within a school context. New Zealand offers “incredible natural resources” for developing in students a sense of “awe and wonder” and this is reflected in cultural texts which celebrate the natural environment of New Zealand and lament its destruction. These cultural texts are important resources for developing a critical awareness of environmental issues and they require careful negotiation and difficult pedagogical decisions.

**Becoming Tangata Whenua**

New Zealanders inherit a strong historical relationship to the land. This is also part of the nation’s myth-making (Bell, 1996). Having a knowledge of the land was essential to survival, and this environmental knowledge was often hard won and linked with the right to belong to that land. The Māori relationship to the land is a source of environmental knowledge and identity that has been strongly represented as a deep obligation to guardianship (kaitiakitanga). As a corollary to this, the Pākehā (white settler) bond with nature and ownership of the land has been reframed as a new form of indigeneity within environmentalist discourse (King, 2004; Potts, Armstrong & Brown, 2013). Thus, the development of settler environmental knowledge and sensibility has been linked with a right to belong.

This sense of belonging can be insecure (King, 2004) and the sense of who has the right to belong is a deeply contested issue. This is particularly true of New Zealand’s largest settlement: Auckland is a city of immigrants, many of them recent and many of them coming from very different home environments in the South Pacific, China, India, South Africa and Europe to live in densely built suburbs, such as the intensive development in Flatbush which is notably restricted in green spaces. Developing a sense of the land, the natural world and the sustainable city environment urgently needs to be part of the experience of New Zealand children who may not all share the same grounding of environmental respect that is fundamental to the cultural myth about New Zealand society and culture.

Alternative perspectives on the world are articulated through the strong influence of Māori values and culture and the recognition of these values in all spheres of public policy in accordance with the Treaty of Waitangi. The bicultural
history of *Aotearoa* New Zealand may be very significant in developing an approach to English which honours the land as sacred and which challenges a dominant Western economic model of land as resources or “standing reserve” (Calder, 2011). Māori values about responsibilities and relationship to the land are represented in myths, stories, songs, art and dance and theatre. In a recent examination of the cultural significance of whales in Aotearoa New Zealand, a nuanced reading of the historical relationship of Māori to cetaceans reveals a multifaceted set of attitudes and practices, which include both exploitation *and* veneration. Armstrong (2013) makes a strong argument that in the process of anthologising and rewriting Māori whale creation myths, both Pākehā and Māori authors since the late 20th Century have chosen to emphasise their ecological significance and resonance, “because it seems to correspond with the ecological preoccupations of contemporary Aotearoa New Zealand and global thought” (p. 78).

Attitudes to whales as a “charismatic megafauna” are central to this argument, and are particularly resonant both in their presence within Māori creation stories, in relation to the whaling stations of early settlement, and in terms of current disputes over Japanese whaling in Southern waters.

This suggests the potential of work in English that seeks to explore the representational meaning of animals in relation to cultural and historical attitudes. In reading texts about whales, students could be analysing not just the textual structure but the social and symbolic “structure of feeling” around animals as ecological symbols and signs. One of the texts that we worked on within our reading group meetings was “The Christening” by Simon Armitage (2010, p. 3), an English author. His poem is a multi-voiced expression of the cultural uses and abuses of the real and representational whale. The conflicting positions, voices and genres are held together through the satirical device of a whale’s stream of consciousness monologue. In the reading group, we contrasted “The Christening” with a reading of Australian poet Les Murray’s serious attempt to give presence and voice to the whale in “Spermaceti” (1993, p. 102). The question of “What do whales mean to our culture?” was part of the discussion of texts about whales, which involves asking precise questions of textual form and purpose. The potential of whale stories included in anthologies such as *Legends of Aotearoa* (Winiata, 2001) offer the possibilities of exploration of historical Māori perspectives, while a text such *The Whale Rider* (Ihimaera, 1987) offers a nuanced rereading of legend in the light of social, cultural and environmental
shifts. The accommodation of Māori and environmentalist perspectives and the emphasis on Kaitiakitanga or guardianship as a strong tenet of Māori cultural belief offer a potential source of strength for an alternative and greener version of English. It gives credence and some power to a view which challenges the dominance of neoliberal enterprise and consumer culture. Ironically, this is a dynamic at work within the national curriculum documentation itself, which is full of glossy images of New Zealand scenery. However, a survey commissioned for the NZ Ministry of Education in 2005 argued that the values reflected in the New Zealand curriculum were fundamentally those of Western individualist economic values, a list which “does not include a strong value on nature, the earth or the environment” (Keown, Parker & Tiakiwai, 2005, p.14). This is in stark contrast to the values placed on nature, community and sustainability that the report identifies as enshrined within Māori culture. Moreover, analysis of the current national curriculum (Ministry of Education, 2007) suggests that enterprise is an increasingly dominant discourse over sustainability.

Conclusion
My initial induction into New Zealand classrooms suggests to me that there is considerable freedom to teach a version of English beyond skills and competences and to draw on the resources of language and cultural texts to develop ecocritical understanding of the world. Reading texts with a critical awareness of what they reveal about our dependent relationship to the more than human world in “natural” and built environments, as well as our relationships with each other, makes intellectual and contextual sense. It is simply odd to ignore how the pressure of environmental change impacts on us all as readers and creators of meaning. As Paul Green comments in relation to the ecocriticism project: “I think that it’s not even something that I would consciously regard as following up. I feel like it’s sort of embedded” (Interview, October 20, 2013).

Ecocriticism fits well with a range of features in place within New Zealand English. There are a range of ecocritical texts, the opportunities to make links between texts and place, access to beautiful natural environments, rich city spaces and an openness in the curriculum to support innovative and cross-curricular work and a consciousness of the environment that is readily available within the culture.
The potential for a distinctive ecological vision of English in New Zealand is there. But its development will depend on negotiation with a number of competing forces which include: an emphasis on technical and technological skills; enterprise and competition in a global market; and a reduction of English to serve the development of functional literacy. Ecocritical reading works to interrogate these contradictions and tensions and could be a valuable counter to uncritical celebration of New Zealand as a natural wonderland untouched by the global issues of climate change and energy shortage within a carbon-based consumer culture.

Essential to developing an alternative and powerful vision of school English is the professional development of teachers, including practice in ecocritical reading. New Zealand’s relatively young body of literature demands to be read ecocritically and this is a potential resource for an ecologically informed version of English. English in New Zealand is relatively free from the dominance of the English canon of texts. However, the absence of a settled tradition of texts for English argues for the need for greater critical work in reading (see, for example, Curnow, 1973). Central to ecocritical reading is the development of environmental identity and the gradual accumulation of environmental awareness and knowledge.

The nurturing and negotiation of children’s understanding of personal and cultural identity is ingrained within notions of English and Arts in schools. Teachers’ and children’s personal and cultural identities are bound up with beliefs and histories about the relationship of humans, nature and environment. For New Zealand as a bicultural society, it would seem important to strengthen the value placed on nature and sustainability within the curriculum to reflect the Māori emphasis on these values and to equip Aotearoa New Zealand children to be kaitiaki (guardians) of the Earth.
It is usual to think of English as a cultural subject rather than an environmental one. Traditionally teachers of English have been hailed as “the preachers of culture” trusted with a mission to pass on the national identity and to nurture the “personal growth” of students (Matthieson, 1975). This personal and cultural mission of English is embedded in current curriculum policy documentation:

The study of New Zealand and world literature contributes to students’ developing sense of identity, their awareness of New Zealand’s bicultural heritage, and their understanding of the world. (Ministry of Education 2007, p.18)

However, “understanding of the world” requires awareness and knowledge about how culture is deeply intertwined with concepts of nature and environment. Within universities, the impact of the environmental crisis has influenced a turn towards ecological questions across departments of arts and humanities. This work has prompted an investigation of the role of culture in both creating and solving environmental problems. Accordingly, English as a university discipline has developed a new stream of work in environmental literary criticism (most frequently referred to as ecocriticism) which has become established as part of the literary critical canon (Barry, 2002; Bennett, 2009; Garrard, 2004; Wolfeys, 2002). Ecocriticism has also begun to have an influence on the way that the subject is studied in schools (e.g. Matthewman, 2010).

In this article I will consider how the development of cultural identity and cultural literacy through English could be powerfully linked with the development of environmental identity and environmental literacy. An environmental inflection of English could be particularly resonant to New Zealand as a society currently torn between deeply felt environmental ideals and powerful neoliberal forces for increasing economic development. The examples of ecocritical activities draw on recent work with teachers at James Cook High School in South Auckland.
What is Ecocriticism?
Ecocriticism is a movement within literary and cultural studies which investigates the way that nature and the environment are represented in texts and how these texts have environmental reverberations in the world. Ecocriticism has implications for English teachers because it shifts the way that we read texts to bring concepts of place, setting, ethics, animal representation, and environmental contexts into more expanded and direct focus. Given the growing importance of ecocriticism within English and cultural studies there is a strong case for including ecocriticism as part of the critical literary concepts introduced to post-16 students. Literary prompt cards have been used successfully with post-16 students as part of an introduction to the range of literary theories. The literary theory prompts for ecocriticism are set out below (adapted from Matthewman, 2010, p.19):

Ecocriticism: Literary Theory Prompts

**Main idea.** The representation of nature is made subordinate to culture in mainstream literary analysis. Reading texts from the point of view of what they reveal about the value of the non-human world can enhance our understanding of the text, the natural world, and the fragility of ecological systems.

**Your task.** Draw out the environmental implications of the text, showing the relationship between the human and the non-human. You may draw on aspects of science and environmental knowledge as a context to inform your reading.

**Think about.** The representation of nature as a force in the text; the relationship between the human and the non-human; the human social and cultural threat to the environment implied in the text.

Ecocritical Reading of Patricia Grace
In relation to the ecocritical “prompts” teachers read and discussed the short story, *A Way of Talking* by Patricia Grace (1991, pp 7-12). The following extract from my write up of our reading discussion is offered as an indication of the way in which an ecocritical approach links culture and nature together.

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As well as dedicated introductions to ecocriticism by Garrard (2004) and Clark (2011), there are chapters in most major introductions to literary theory such as *Beginning Theory* by Peter Barry (2002) and *Introducing criticism at the 21st Century* Wolfreys (2002) and the fourth edition of Bennett and Royle’s excellent *Introduction to Literature Criticism and Theory* (2009) which includes new chapters titled “eco” and “animals”.

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A Way of Talking by Patricia Grace is narrated by Hera, who is from a rural Māori background. Her sister Rohe has recently arrived home from Auckland University and is referred to as “Rose” in the narration and “Rohe” in the dialogue to reflect her dual identity as both ‘Pakehaied’ and of Māori heritage. The pivotal moment in the story occurs when Rose/Rohe meets Jane, a Pākehā neighbour who has moved into the community while Rose/Rohe has been away at university. During the course of a friendly social exchange between the three women, Jane makes a casual remark which underlines their social and cultural distance: “That’s Alan. He’s been down the road getting the Maoris for scrub cutting” (p.8).

The challenge in reading this text ecocritically is to question this unthinking use of language as “a way of talking” about both culture and nature. What does it mean to be described as “the Maoris”? What, in fact, is “scrub”? In this case Jane’s comment about cutting scrub means backbreaking work to clear ground for a landowner. But “scrub” means something different depending on who you are talking to and their environmental identity. It might mean non-native weeds invading pasture, firewood, shrubland, a forest in the making, native kanuka and manuka “a treasure trove of indigenous biodiversity” and a significant habitat for invertebrate fauna and forest birds including threatened species of whitehead, popokatea and fernbird, a source of honey and medicinal oil, effective erosion control and culturally valued material for tools (Ward, 2005).

If the story invites interrogation of what it means to be designated as Māori or Pākehā, it also tolerates questioning about how our “way of talking” implies a relationship and attitude to the natural world and “the land”.

Ecocritical Activities in Secondary English Classrooms
As in the previous example of the short story by Patricia Grace, working together on shared ecocritical readings of texts was the first stage in considering what an ecocritical version of English might mean for teachers at James Cook High School. The following examples from practice show how ecocriticism connects with an environmental inflection of English through developing the concept of setting, engaging with environmental contexts, interrogating media representation of the environment, analysing the representation of animals and encouraging an interdisciplinary approach in relation to the future focus theme of sustainability (Ministry of Education, 2007).
1. **Enriching understanding of place and setting.** At James Cook High School, Patricia Viger designed a unit on *Our Natural Environment in Aotearoa New Zealand* which developed students’ understanding of native plants and trees including their medicinal uses in Māori culture (Nga Rongoā Māori). She also introduced students to the names, sounds and habits of native birds and the characteristics and geographical qualities of natural settings. This work drew on a range of literary and cultural texts including poetry by Marion Rego, the film *The Life of Pi* (directed by Ang Lee, 2012), *The Boy Who Was Afraid* (Sperry, 1952) a novel with a Pacific Island setting, *Frosty and the BMX kid* (McLachlan, 2010). Students went on two field trips: one to the Maritime Museum in Auckland (to support their understanding of island and sea settings in literary texts) and one to the Waitakere ranges where they were given a guided tour of the native plants and their uses by a ranger. Students produced poems drawing on their specific understanding and knowledge of native flora and fauna and wrote stories on the theme of survival in a natural environment.

These were second language students, so functional literacy in terms of the development of their vocabulary and awareness of grammatical categories was a key focus but alongside this Patricia was introducing them to a broad range of cultural texts (cultural literacy) and developing precise terminology for describing the natural world and awareness of the environmental context in which they live (environmental literacy). This is particularly important for students who are relatively new to New Zealand and who have environmental identities and values forged in other contexts. Patricia’s reading of texts prioritised a deep and informed understanding of setting and how it affects the human (and non-human) characters in the text. This was reflected in the activities that she designed. Her use of field work to support this understanding connects with place based learning which is a strong feature of EfS but also ecocritical pedagogy which advocates teaching outside or at least looking out of the window in relation to teaching texts about nature (Garrard, 2010). Field trips are generally thought of as belonging to geography or science but Patricia’s approach suggests how fieldwork can be used to enliven and embody understanding of the concept of setting in texts and in creative writing. The sequence of engaging with writing about native plants is explained below.

**Activity for English fieldwork: How to capture a plant.** First, ask students to notice the detailed and analytical style of drawing in an example from a field guide to
native plants and ask them to choose a plant to draw in similar style. The purpose of this is to focus and sustain attention to the detail of the plant.

Secondly, ask students to write a description of their chosen plant to try to capture its essence and to allow someone else to recognise and identify it. At this point encourage them to include an emotional response to the plant.

The third stage is to identify the plant in a field guide. Students can compare their descriptive response with the account of the plant in the guide. Ask students to notice the field guide’s use of specialist vocabulary and Latin or Māori names and to note down any words or phrases that they might want to use in their redraft. In particular students could research any cultural or medicinal uses of their plant.

Finally students rework their descriptions mixing the scientific discourse with the initial impressionistic response. Strong literary models would help here such as the “garden poetry” of New Zealand poet Ursula Bethell. In “Time” she playfully mixes the linguistic register of a gardening text with everyday observation and reflection:

‘Established’ is a good word, much used in garden books,
‘The plant, when established’ . . .
Oh, become established quickly, quickly, garden
For I am fugitive, I am very fugitive - - -

(1997, p.8)

Notice how she applies the botanical sense of the term “fugitive” to her own practice of establishing herself quickly and then moving on to new opportunities. This creates an opportunity to consider the meanings of words as well as to discuss the way that we observe and “anthropomorphise” natural processes to interpret our own lives.

The work on drawing and writing about native plants could be used as basis for studying the genre of nature writing or nature poetry.

2. Engaging with, and researching, the environmental context. One of the strengths of Patricia’s teaching from an ecocritical point of view is her knowledge of environmental issues and her attention to researching natural contexts. Ecocritical reading involves consideration of the environmental context of the author of the text, the environmental context represented within the text, and the way that the environmental context of the reader influences his or her response to a text.
For instance, we considered four environmental contexts in our discussion about how to teach Hone Tuwhare’s poem *No Ordinary Sun* from an ecocritical perspective. The resonance of the poem gathers force from the awareness of these multiple environmental contexts which connect past and present environmental concerns. This is a framework that can be applied to any text.

**The author’s environmental context.** In relation to *No Ordinary Sun* Tuwhare was deeply affected by his visit to Hiroshima in 1946 while serving as part of the New Zealand occupation force in Japan (see Hunt, 1998).

**The environmental context at the time of writing/publication.** For instance, *No Ordinary Sun* was published in 1956 during a period of of nuclear testing in the Pacific (which took place during the 50s and 60s).

**The contemporary environmental context of reading.** At the time of our reading group we all had in mind the recent leak at a Fukushima Dai-Ichi nuclear power plant following an earthquake in 2011.

**The environmental identity of the reader.** Paul Green who chose the poem for discussion explained the particular resonance of this poem for him as a former member of the Campaign for Nuclear Disarmament (CND) in the UK.

3. **Cross-curricular alliances.** In considering environmental contexts, English teachers encourage new conceptual connections with geography and science. Ecocriticism aspires to interdisciplinarity and has challenged English to forge new cross-curricular allegiances beyond the usual partnerships within the humanities and Arts (see also David Stevens, 2011, for ideas for cross-curricular work). When reading and preparing a text an ecocritical teacher picks up the environmental thread from a particular text which leads out into other areas of knowledge. This is a way of collectively developing our environmental knowledge at the point of need. For instance, Paul Green did a considerable amount of research into the food production system as part of his unit of work which covered a range of texts including: *The Omnivore’s Dilemma for Kids* (Pollan & Chevat, 2009), *Classic Combo* (Heatley, 2008) and the film *Samsara* (Fricke, 2011) and which incorporated interviews with organic farmers and farm workers affected by pesticide use. In working explicitly on the level of food systems, and representations of that system (see for instance the way that *Classic Combo* [Heatley, 2008] uses strategic visual images to show the
provenance of a coke, burger and fries), Paul sought to develop students’ ecocritical and cultural literacy. Students were given access to a range of cultural texts and these texts were explored ecocritically. Paul did not reduce his teaching to a narrow concentration on developing the functional literacy of students whose attainment was below average. Instead, students were supported to contribute from a more informed perspective which in turn had a helpful effect on their ability to write effectively. Students actually knew and understood the process of food production so they engaged emotionally with the content and they were able to articulate a response.

4. Interrogating media representations of nature. Committed ecocritics worry about how far they can actually influence environmental action and frequently take a moral and political stance on environmental questions. However, teachers are understandably cautious about being overtly political in their teaching. Ecocriticism is not didactic teaching of a single perspective on environmental issues but seeks to develop more precise analysis and attention to the represented environment. Ethical questions are always raised in discussing representation and the exclusion of environmental questions and issues of sustainability is also a political act. This is the argument made by Ivan Snook (2007) who criticises the curriculum for its overt and heavy emphasis on entrepreneurialism and contends that this is a direct response to lobbying by big business. At the same time he points out the lack of any settled place for sustainability education within the main curriculum. For ecocritical English teachers the ethical values of texts become important as well as the analysis of how they make their effects. Take for example the teaching of advertising. This can be simply about celebrating the cleverness of advertisers and thereby supporting the basis of consumer culture or it can involve questioning the values and ethics that underlie the advertising texts and the products that they represent. A common activity in English might be to design an advert for a new brand of trainer to spark enthusiastic and creative reactions from label conscious students. An ecocritical approach would also give consideration to the environmental and ethical questions involved in the production and marketing of trainers by big corporations such as Nike and Adidas. Questions such as: what is the impact of the design and production on workers and the environment? How does branding create an illusory sense of status and a desire to consume? Naomi Klein’s No Logo (2001) is an excellent source of critique and there are plenty of websites which challenge greenwashing and provide striking examples
for analysis. A simple exercise would be to ask students to bring in examples of green adverts and green packaging and to research which products really follow green principles. Below is an outline plan for teaching about green advertising and “greenwash” (defined by the Oxford English Dictionary as “the creation or propagation of an unfounded or misleading environmentalist image”).

An outline plan for studying green advertising and greenwash.

1. Share examples of “green” language that signal an ecological or ethical product or a greenwash product. (Terms such as: natural, eco-, environmentally friendly, locally sourced, freedom food, organic, -free, biodegradable and recyclable are common examples.)

2. Introduce the “seven sins of greenwash”— see http://sinsofgreenwashing.org (last accessed 1.8.17)

3. Show students some examples of trustworthy labels such as FairTrade, Organic Soil association, Forest Stewardship Council (FSC). (See http://ecolabelling.org (last accessed 20.12.11) as a helpful site which has an international database of recognised eco labels with data and explanations for each one.)

4. Groups share the green products and adverts that they have brought in and identify any examples of possible greenwash with their reasons for suspicion about the green credentials.

5. The teacher models the analysis of one of the adverts or an example of packaging with the class, highlighting particular features of green advertising or greenwash.

6. Pairs of students analyse one advert or packaged product in terms of the design, image and language in relation to green issues and they present their analysis to the class.

7. Discuss as a class what might count as a green product. Then consider what type of packaging would be least environmentally damaging and how this product could be marketed to the green consumer. Students could then design their own green product with packaging and accompanying magazine advert. See http://greenawards.org (last accessed 7.1.12) for criteria for evaluating students’ work.

8. Plenary to share examples of students’ own products and advertising and to summarise the key aspects of green (and not so green) marketing.

In relation to advertising “greenwash” the New Zealand Tourist Board campaign “100% Pure” would be a significant topic for ecocritical study. How far do students believe the myth of “clean, green” New Zealand which is promoted by the tourist board and which is claimed to be deeply embedded in the national psyche (Bell, 1996)? These raise difficult pedagogical questions to negotiate. On the one
hand promoting celebration of the natural environment in New Zealand arguably
develops an attachment to place and a desire to preserve it but a lack of critical
awareness about the realities of systematic problems in the way that the environment
is managed can produce a worrying complacency that all is being safely taken care of
and that political and individual action is not necessary. What do students understand
about problems with sustainable farming, polluted waterways, depleted seas and
rivers and the environmental impacts of urban development? Inviting students to
connect the representations of New Zealand with work done in science (such as water
sampling) can help students to think across subject areas to consider environmental
issues. Even more powerful would be a planned collaboration between subject
teachers in English and science on a topic such as “the representation and realities of
waterways”.

5. Analysing the use of animals in texts. Cross-curricular work is rewarding
but often challenging to organise. A more accessible starting point for an ecocritical
approach to English is through precise attention to the way that animals are
represented in texts. One of the strategies that writers use to establish empathy with,
and understanding of animals, is anthropomorphism, or “the attribution of human
feelings or traits to non human beings or objects or natural phenomena” (Buell, 2005,
have shown, this is a complex process with different types, degrees and strategies of
symbolic and metaphorical relationship. While no representation can really claim to
be able to see inside the mind of an animal, it is possible for writers to be accurate and
precise in describing animals, drawing on close observations of animals and the
knowledge acquired through scientific studies of animal behaviour. Humans can only
understand and empathise with animals through reference to ourselves and scientific
representation which tries to avoid human comparisons can be distancing, reducing
animals to lists of categories, beings without motivations and feelings. However,
anthropomorphism can lead us into errors of judgement—for example the dolphin’s
“smile” is permanently fixed and not responsive to situations. Such contextual details
are important in analysing texts about animals. For example, in “The Christening” by
Simon Armitage (2010), knowing that the dolphin’s smile is fixed would explain the
whale’s satirical jibe about untrustworthy dolphins who are “laughing all the way to
Atlantis” (p.3).
Attention to anthropomorphism can encourage students to evaluate how we learn about the world through animal representation. In *Whale Rider* (Ihimaera, 1987) how do we react when one whale calls another “husband”? How far does this test the limits of our identification with a being as radically unknowable as a whale? Does it bring us closer to an empathetic identification with whales and their relations to each other or does the uncomfortable dissonance of the institution of marriage applied to a whale provoke a critical distancing from the text at this point? How might Ihimaera’s strategies for anthropomorphisation compare with Les Murray’s “translation” of the voice of the whale in “Spermaceti” (Murray, 1993, p.102)? Categories of anthropomorphism can be a basis for understanding the strategies that authors use in representing animals (see Table 1). In terms of ecocritical understanding, engagement with animal representation entails a move beyond concern for the individual animal (and this is where ecocriticism diverges and quarrels with criticism drawn from Animal Studies) to thinking about the ecological system. Paul Green’s unit on food production illustrates this move from empathy for the individual animal to knowledge about how animals are part of a system which has environmental impacts.

**Table 1. Categories of Anthropomorphism**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Theriomorphic representation (humans as animalistic)</strong></td>
<td>Humans are described as animal-like and have animal features or characteristics in a human world.</td>
<td>A cartoon portraying a politician as an animal, such as Steve Bell’s cartoon of Gordon Brown as a fat ginger cat in the Guardian (Bell 2007, p. 39); <em>The Island of Dr Moreau</em> (Wells, 2005) in which half animal half human creatures are created by the evil protagonist.</td>
</tr>
<tr>
<td><strong>2. Theriomorphic fantasy (human centred animal fable)</strong></td>
<td>Animals participate alongside humans in a human world. They speak and interact with animals and humans in human contexts. Animals and humans behave like each other.</td>
<td>Jonathan Swift’s <em>Gulliver’s Travels</em> (2005); <em>Anancy the Spider Man</em> folk stories (Sherlock, 1956)</td>
</tr>
<tr>
<td></td>
<td>3. Anthropomorphic fantasy (animal centred animal fable)</td>
<td>Animals have human-like relationships in their own “natural” environment and they speak to each other. Humans and animals do not speak to each other although their worlds may connect. Some humans may be privileged to understand the animals’ communication.</td>
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<tr>
<td></td>
<td>4. Metamorphic fantasy</td>
<td>Humans or animals undergo transformation from human to animal or vice versa which reveals an aspect of their nature.</td>
</tr>
<tr>
<td></td>
<td>5. Naturalistic recreation</td>
<td>Animals are described in a “real” environment. There is an attempt to represent an animal viewpoint on the world. The animal may speak but will voice animal concerns and desires (as imagined by the human).</td>
</tr>
<tr>
<td></td>
<td>5. Naturalistic description</td>
<td>Animals are described in a real environment. They do not speak to each other or to humans but human stories and feelings are ascribed to them by the author or by other characters.</td>
</tr>
<tr>
<td></td>
<td>6. Scientific/ objective description</td>
<td>Animals are closely observed. The author tries to be objective and factual in their account. The text does not ascribe emotion to animals or explain their behaviour through reference to human relationships.</td>
</tr>
</tbody>
</table>
**Activity for thinking about Animal Representation.** Students can be given the categories (or a simplified version) and a selection of texts depicting animals. They could be asked to classify these texts according to the categories, giving reasons and evidence for each and being encouraged to identify where there are problems with making a clear classification. This could involve extracts and poems prompting comparisons of the way that texts portray animals. Students could consider the different attitudes to animals within the texts and judge which text best promotes understanding of animal and/or human behaviour.

6. **Future Focus on Sustainability.** The future focus in the New Zealand curriculum offers an opportunity for teachers in learning areas to respond to questions of sustainability. English could have an influential role in this work given the range of available literary and cultural texts which imagine the future. Students could also draw on scenarios of the future as a rich source of data for their own stories (Matthewman & Morgan, 2014). New Zealand’s isolated geographical position permits the imagination of a separated future capable of self-sufficiency and cushioned from global disorder although this “isolationist imaginary” is reflected and challenged in the Sustainable Futures Institute’s (2008) *Four Possible Futures for New Zealand in 2058*. The report is focused on the response of New Zealand to sustainability in a global context projecting into the future of 2058 with descriptions at two yearly intervals. The scenarios are categorized as:

- **Power to the People.** New Zealand and the world solve the sustainability challenges of the present.
- **An Island Paradise – but back to the Jungle.** New Zealand solves the sustainability challenges of the present but the world does not.
- **Missed the Global Bus.** New Zealand does not solve the sustainability challenges of the present but the rest of the world does.
- **All Over Rover.** New Zealand and the world fail to solve the sustainability challenges of the present.

These scenarios are fleshed out in relation to range of realistic possible events and current trends including the influence of technology, natural hazards and political negotiations around carbon use and alternative energy. The scenarios could be used to
give both inspiration and substance to students’ creative writing of dystopian or utopian stories of the future. It is a fact that there are more dystopian visions of the future than optimistic ones circulating in literary and cultural representation. Consider for example: *The Day After Tomorrow* (Emmerich, 2004), *Day of the Triffids* (Wyndham, 2000), *Heavy Weather* (Sterling, 1994) and *Solar* (McEwan, 2011). An alternative approach would be to deliberately work on considering how preferable scenarios for the future could be made more possible. Margaret Atwood’s novels *Oryx and Crake* (2003) and *The Year of the Flood* (2009) are particularly helpful in that both dystopian and utopian possibilities are part of the vision. The ending of *The Year of the Flood* imagines a peaceful and harmonious future literally embodied in a tribe of genetically engineered post humans, who eat only grass, incorporate “natural” population control into their sexual behavior and have skins that emit an insecticide as well as being impermeable to the newly intense solar radiation. One of the attractions of Atwood’s writing is her satirical humour which makes the contemplation of global catastrophe less depressing but no less incisive. Atwood’s work also prompts consideration of how science is used in literary fiction. What scientific elements can be traced to a factual source? What aspects are imagined? Below is a suggested activity sequence for working with science fiction:

**Science factions.** 1. Read a selection of extracts from science fiction and popular science texts. Can you sort the fictional from the factual? What are the genre clues? Write a story which draws on your factual research about current technological innovations. 2. Read the description for one of the years in the scenario “Power to the People” (Sustainable Futures Institute, 2008). Write a first person narrative or a diary entry about a day in that year. 3. Consider some representations of post-humans or genetically modified creatures in literary extracts (e.g. *Oryx and Crake*, Atwood, 2003; *Extinction is Forever*, Lawrence, 1990). 4. Imagine a future world which may require genetic, technological or cultural adaptation as a result of climate change and show how your new generation of earthly inhabitants adapts to climate change challenges.

Work on imagining the future can lead to serious discussions about what values we need in order to manage our technological power. Should it be left to the scientists or do we need artists and writers to imagine where science can lead? What cultural changes do we need to make in order to adapt to our changing world?
Ecocriticism in Aotearoa

English teachers in Aotearoa have considerable freedom (at least compared to English teachers in the UK and the US) to develop English as an environmental as well as a cultural subject (Matthewman, 2014a). English teachers who read ecocritically can design activities which encourage environmental reflection and develop environmental literacy as well as supporting students’ own emerging ecocritical readings of texts. For students in urban Auckland, many of whom are recent migrants, an understanding of the culture and environment of New Zealand will be essential to their sense of themselves as New Zealand citizens. In reflecting on working with teachers at James Cook High School, South Auckland, one of the goals for developing ecocritical English in Aotearoa is to engage with urban representations and understandings of the city as heavily dependent on natural resources. After all cities have become the natural habitat of humans (as well as the habitat of choice for many non-human creatures). Nature is not just “out there”, beyond the imaginary city walls—it is part of who we are and wherever we live. Another ongoing challenge is to integrate work on sustainability at a deep subject level rather than as background study. Working with practices and ideas of ecocriticism can begin to suggest frameworks for thinking and analysis which can support this work at school level. English teachers have always been at the centre of the school curriculum, reaching out to a range of other learning areas. What does this core subject have to say about sustainability and the environmental crisis? English teachers in New Zealand Aotearoa have the curriculum freedom to develop a greener vision of English which connects with students’ emerging environmental identities. New Zealand has a bicultural history of the environment as well as of culture (see Selby, Moore & Mulholland, 2010). An understanding of how culture and environment interrelate could inform the ecocritical work of English teachers and could make an important contribution to students’ development of critical, inclusive and informed environmental identities.
Commentary
Reviewing the Optimism of a “Greener New Zealand English”

Taken together these papers represent an outsider/insider view of the curriculum specifics and cultural traditions of Secondary English in New Zealand in relation to ecocritical potential. The process of writing these papers revealed to me the “situationality” of an ecocritical approach to English (Freire, 1995). Paulo Freire’s term “situationality” encompasses the geographical, social, cultural and historical context of any learning event or endeavour. In this case the situation concerns a specifically environmental and cultural transition from one place to another in relation to the project of ecocritical school English. I have two questions which I want to address in further detail arising from the arguments in the papers. These are as follows: firstly, what are the pedagogical and curriculum challenges of integrating an ecocritical approach in New Zealand in contrast to the UK? Secondly, how can professional development and research methodology practically support teachers to adopt an ecocritical approach in New Zealand?

Pedagogical Problems and Curriculum Challenges
I think I was overly optimistic in my representation of the New Zealand context as “an open door” for ecocriticism. I now see the curriculum openness as problematic particularly in relation to the fragmentation of the curriculum prompted by preparing for individual assessments based on isolated national curriculum levels and NCEA standards. The optimism in the papers was strategic—the rhetorical purpose of both aimed to inspire New Zealand teachers and educators to take an interest in ecocriticism. I have now worked with five teachers of English in New Zealand (as opposed to over 350 beginning teachers of English in the UK). Two of these five teachers were from New Zealand but were trained as dance and history teachers respectively. Two of the teachers were trained in England and one was trained in the US. Therefore none of these teachers drew on a degree or teacher training background in a specifically New Zealand tradition of English. They constructed their versions of English in relation to the New Zealand curriculum which offers great freedom but very little specific guidance. Curriculum and criteria can prompt particular emphases in a teacher’s professional development trajectory. For example it cannot be assumed
that teachers of English in either New Zealand or the UK have a background in literary criticism (an English teacher may have a degree specialising in media, cultural studies, linguistics or even some other unrelated discipline—like history or dance). In the UK a feature of the programmes of study over the last ten years in national curriculum and also in examination criteria at 16 and post-16 English has been an emphasis on contextual research and knowledge. This includes the latest national curriculum documentation which for students of ages 14-15 stipulates as part of “processes for reading” that students should be taught to “understand and critically evaluate texts through drawing on knowledge of the purpose, audience for and context of the writing, including its social, historical and cultural context and the literary tradition to which it belongs, to inform evaluation” (DfE, 2013, p.5). Also, the UK has abolished national curriculum levels because of their “profoundly negative impact on teaching” as the report explains: “Too often levels became viewed as thresholds and teaching became focused on getting pupils across the next threshold instead of ensuring they were secure in the knowledge and understanding defined in the programmes of study” (DfE, 2015, p.12). By default, levels and NCEA standards form the basis of curriculum guidance in New Zealand in the absence of any specific direction in the one and a half columns describing English in the national curriculum in New Zealand (MoE, 2007).

In the UK, even unseen text examination has required research into a particular context. For example, the literary and historical context of World War 1 was studied in preparation for an “unseen” text from that period for post-16 literature. In contrast, NCEA criteria emphasise close reading and personal response but do not insist on the deliberate inclusion of contextual references and links—although of course these may strengthen the argument of the essay being assessed. John Moss, an English in Education educator from the UK, discusses how students are directed to make claims for the authority of the readings that they make. These readings are based in literary theories which may privilege the authority of the reader, the authority of the research into social, historical and cultural contexts and the authority and integrity of the text in itself (Moss, 2000). There is no explicit reference to context or literary tradition in the New Zealand national curriculum description or the national curriculum levels although there is mention of “audiences”, “multiple readings available within a text” and the study of “texts from a range of contexts”. The dominant message is that meaning is located “within” texts and contexts beyond the
text are not reflected in any of the listed indicators of the level. This means that teachers are less likely to prioritise context in their teaching, relying more on analysis of literary techniques and the feelings generated by the text itself. For instance, I recently observed a teacher facilitating students discussing Hone Tuwhare’s “No Ordinary Sun”. The teacher’s questions were all located in the open possibilities of students’ responses: “What do you notice? What interests you? How does the poem make you feel?” Nuclear war was not mentioned.

In relation to my UK English training I read this as a misguided reliance on personal response when some kind of introduction would help (particularly in the course of a two hour lesson—I am not suggesting that this should happen immediately). However, in terms of the curriculum guidance which locates the authority for meaning as either within the text or within the reader, this approach becomes understandable. Another factor in this case was the ethos of the school which is so powerfully about student centred and student-led learning that telling students anything may be viewed by some teachers as an act of pedagogical violence. As another teacher at the school explained to me, “It is not “lessons” it is student-led learning that moves through a learning design process (kick off, planning, action, reflection).”

The emphasis on personal response means that inclusion of environmental context and knowledge is more of a curriculum challenge in the New Zealand context than I realised at the time of writing the papers. In the UK, the view that literary analysis requires contextual study is fully embedded in the curriculum for secondary English and this prompts the teacher to explicitly prepare for students to access this context. More explicitly at post-16 knowledge of literary theories is required in UK syllabuses and ecocriticism can easily be included as one of the range of taught approaches. Of course teachers in New Zealand may include attention to context, but it is a fact that curriculum guidance and official assessment criteria do not explicitly require and prompt this.

Engagement with literary theory is one shaper of English. The curriculum may also promote a particular version of English. As the “Cox models” are recounted so often in English articles I avoided including them in the publications but I am going to list these here as they remain highly significant in the UK history of English and are also a key point of reference in New Zealand:
A personal growth view focuses on the child: it emphasises the relationship between language and learning in the individual child, and the role of literature in developing children’s imaginative and aesthetic lives.

A cross-curricular view focuses on the school: it emphasises that all teachers (of English and of other subjects) have a responsibility to help children with the language demands of different subjects on the school curriculum: otherwise areas of the curriculum may be closed to them. In England, English is different from other school subjects, in that it is both a subject and a medium of instruction for other subjects.

An adult needs view focuses on communication outside the school: it emphasises the responsibility of English teachers to prepare children for the language demands of adult life, including the workplace, in a fast-changing world. Children need to learn to deal with the day-to-day demands of spoken language and of print; they also need to be able to write clearly, appropriately and effectively.

A cultural heritage view emphasises the responsibility of schools to lead children to an appreciation of those works of literature that have been widely regarded as amongst the finest in the language.

A cultural analysis view emphasises the role of English in helping children towards a critical understanding of the world and cultural environment in which they live. Children should know about the processes by which meanings are conveyed, and about the ways in which print and other media carry values.

(DES, 1989)

I began my teacher training in 1990, which coincided with the upheaval caused by the introduction of the first national curriculum for England and Wales in 1988. The Cox models were presented in the national curriculum folder as available and complementary models of English based on research into practices in UK schools (DES, 1990). These models shaped my understanding of what English could mean as a subject in school. In my initial teacher education sessions we debated the models and how far the curriculum reflected them. We played out the implications of the models in terms of practical planning for English lessons. One task was to assign a group a “Cox model” and ask them to devise an English course for a year 10 group (15-16 years old) including the kinds of teaching activities and assessments that would fit best with that Cox model. If your group was assigned “personal growth” a
caricature of this model might be to “bring out the bean bags” and write autobiographies whereas the group assigned “adult needs” might envisage taking the students to the computer room to write a CV using Microsoft Publisher. We were assigned readings from Holbrook, Rosen, Britton and Holt (amongst others) and foremost was the notion that teaching English represents a form of radical political engagement with society and culture. To be an English teacher in the early 1990’s was to be actively involved in combatting racism, nuclear war, gender stereotyping, homophobia and the reluctance of boys to read through a judicious choice of texts, activities and assessments.

We learnt that our responsibility was to validate the language, dialect and culture of the diversity of children within our classes while at the same time and with an appropriately nuanced sense of internal critical contradiction, we were responsible for providing equality of opportunity through access to the powerful language and literary culture of the elite. I am aware that I still cling to this liberal radical view of English but during the late 1990’s the slick, sharp delivery of the National Strategy professional development programme in UK schools gave rise to a new, smart, “professional” English teacher less concerned with issues, literature and language than new technologies, literacy and images. These teachers would be very puzzled by the concern with social missions that drove the designs of our planning. Teachers in New Zealand have not experienced the orthodoxy of a literacy strategy that was enforced with a Stalinist zeal or the comprehensive detail of a UK curriculum which directed all English teachers in the UK. In contrast English in New Zealand could potentially mean almost anything at all but for the emphasis on assessment. An imaginative English teacher can work around assessment in a supportive context. However, in the least imaginative manifestations, the freedom of curriculum combined with the constraint of assessment within English in New Zealand might mean that a lesson, or even more worryingly a programme of teacher education, might be built around responding to the minutiae of individual national curriculum level indicators or NCEA standards.

The rise of “literacy studies” is an ambiguous and treacherous sibling of English on both sides of the world. On the one hand, the importance accorded to literacy as a measure of school success raises the status and profile of English, but at the same time the special preserve of English as the location of cultural knowledge and social debate is undermined by English as literacy (or rather a certain view of
literacy). In the UK the literacy strategy for primary schools and the National Strategy in secondary schools (1998 - 2011) led to the fragmentation of textual study processes, as texts became extracts, used to illustrate “linguistic features” or genre characteristics, but there remained, and still remains, a core emphasis on a canon of texts to be taught and the current curriculum (in reaction) now stipulates reading of “whole texts”. This “cultural heritage” view of English has been dominant in the UK documentation since the 1995 curriculum and the introduction of a prescribed list of canonical texts (DfE, 1995). This is a good fit with an ecocritical approach to textual study whereas an English model which privileges a “cross curricular” or “adult needs” view of English as providing a service for literacy is a much less obvious match. This can be seen in the contrast between the teachers discussed in the publications: Paul Green’s approach combined a cultural analysis and literary heritage model while Patricia Viger used texts for the primary purpose of promoting functional literacy.

The problem is that when teachers decide that they are teaching literacy, rather than English, the kind of literacy they adopt is nearly always the functional kind, as cultural and critical literacy require engagement with literary, social, cultural and political contexts—in effect the processes of “English”. The problematic relationship of English and literacy allied to ecology and environment is taken up in Chapter Five of the thesis.

English in New Zealand is furthest from a “cultural heritage” model (as no canonicity is stipulated) while the development of functional literacy is emphasised in literacy policy statements relating to priority groups as “success in English is fundamental to success across the curriculum” and for participation in the “social, cultural, political, and economic life of New Zealand and the wider world” (MoE, 2007, p.18).

A more general problem for introducing ecocriticism in school English in both the UK and New Zealand is the way that ecocriticism privileges analysis of “setting”. Stories turn on conflict or tensions and the deferral of resolution—and readers respond to characters caught up in the twists and turns of the plot. For example, in teaching Hardy’s The Mayor of Casterbridge, Egdon Heath may be explored as a character, but it is the all too human and conflicted character of Michael Henchard, and the drama of the complicated plot, that drives the students through a lengthy text. It is therefore unsurprising that teachers and students treat the category of setting in a more perfunctory way and as a less appealing focus for literary or pedagogical
attention. But in New Zealand a focus on setting is doubly important. Firstly, because the setting is likely to be unfamiliar because it is a setting from elsewhere or because the text may help to create a sense of place in the New Zealand context. In reading the New Zealand short story “A Way of Talking” by Patricia Grace (1991, pp.7-12), a focus on “scrub” and setting is less likely to be engaging to students than the outrage of the casual racism expressed by the Pākehā character Jane. The challenge is to find creative ways to engage with both environment and character—and at the same time. So in “A Way of Talking” the lack of regard in relation to the diversity of species designated as “scrub” mirrors the disrespect accorded to people who are unnamed, essentialised and referred to generically as “the Maoris”. Of course the discussion about racism must come first—the text demands it—but the significant play in Grace’s text on binaries of culture/nature, city/country, artificial/natural, serve to underline how closely culture depends on nature. This point about the interdependence of environment and culture is there in the publications but the need to teach the two simultaneously needs to be made explicit.

In the previous chapter, I argued that the human perspective is necessarily central to the educational project. One response in terms of addressing the ecological is to see culture as interdependent with nature and environment. Another pedagogical move is to reframe the human as coterminous with the natural world rather than separate. This is fundamental to many indigenous world views and is expressed as a form of kinship within the concept of Māori whakapapa (ancestral relations). John Simons (2002) makes a useful distinction between “strong” and “trivial” anthropomorphism. Strong anthropomorphism is compatible with an indigenous view of nature as deeply interconnected and relational to the human. Trivial anthropomorphic texts do not reveal anything new or interesting about the animals that they represent—they work on stereotypical representations of animals. These texts often simply use animals in order to appeal to children. We would not learn much about bears from reading a standard version of “Goldilocks and the Three Bears” or about mice from watching the Disney cartoon “Tom and Jerry”. In contrast strong anthropomorphisation shifts perception or enlarges our knowledge and consciousness in relation to both the non-human and the human. In this way fiction’s ability to imagine consciousness from multiple perspectives and to write and represent the natural world through human-like characters and dramas invites an extension of empathy, knowledge and care beyond the human. Nature is no longer backdrop and
setting but is personified in agents with characters and plots. This is the representational strategy of nature documentaries like *Planet Earth* or nature poets such as Les Murray whose ecological sensibility extends from such charismatic megafauna as the whale in “Spermiceti” (Murray, 1993, p.44) to imagining the motivation and being of the “Shellback Tick” (Murray, 1993, p.40). What interests me is how to move students from ecological empathy to ecocriticism: the ability to consider the text within a broader ecological context and debate. What prompts this higher level of ecological engagement? But also what shade of green political engagement is implied? In these papers the second question is not fully addressed. The political dimension of the papers presented in the first three sections amounts to a critique of the role of the capitalist political system as carbon dependent while capitalist interests are blamed for excessive emphasis on enterprise and competition within the curriculum. Ecocriticism might connect with a range of possibilities for political green engagement from the enterprising “bright green” through to the retreat of the dark mountain movement. This will be made more explicit in the thesis discussion in Chapter Six.

**Professional Development and Research Methods: the (Im) Possibility of Ecocritical Pedagogy?**

In 1998 Professor of English Dominic Head published a chapter titled “The (im) possibility of ecocriticism”. His argument works the dialectic of ecological thinking within the production of literary analysis as part of the neoliberal university. He asks how the practice of ecocriticism can be any kind of solution to environmental crisis and wonders about the frustration of working in an ecological straitjacket in terms of theoretical and textual choices. These concerns about an ecological restriction in terms of conveying some kind of didactic “message” and the conflict of the entire endeavour with the dominant discourses of competition and enterprise are problems for all varieties of EfS. While there is no easy solution to this problem Head suggests that ecocriticism must follow its English disciplinary path responding to a variety of texts and theoretical movements rather than adopting an ideological theoretical position in favour of realism (the approach initially favoured by “first wave” ecocritics). In effect, he seems to be suggesting that your politics and your literary practice may sometimes have to be out of alignment. This is also true of working with an ecocritical approach in schools. Teaching is an endeavour which requires a
constant negotiation of competing demands from curriculum, school, parents, culture, colleagues and the minute by minute demands of children. Within the context of these demands the internal quarrels of ecocriticism as a complex body of criticism requires a level of specialist interest and commitment that may be unrealistic for most teachers. My purpose in these publications was to provide a level of mediation between the concerns of ecocriticism and the practices of Secondary English as a more productive disciplinary encounter than with the more generic concerns of EfS. The time commitment for the one-year research project at James Cook was relatively intensive. It involved the five teachers in a half-day introductory workshop, a two-hour focus group, individual post-research interviews of one hour, and three two-hour reading group sessions. Two lessons were observed for each teacher. I also carried out pre and post-design focus groups with six students (two from each class). The professional development element of the research could not be easily replicated but the process helped me to identify strategies and activities that could be more widely circulated. This process is explained below.

During the reading groups, I selected a text drawing on prior discussion with the teachers and led a discussion to develop an ecocritical reading of the text and to identify related texts for comparison from the teachers’ experience. In relation to each text I provided additional relevant environmental material such as a conservation article on the meanings of “scrub” in relation to “A Way of Talking”. I recorded the sessions and used these to write a summary and reflection of the discussion which was then circulated to teachers. The purpose of this was to capture the insights and suggestions developed by teachers and to use this as a basis for developing ideas for teaching and to move the thinking forward, building on previous insights. For instance, in the first workshop I introduced the process of ecocritical reading in relation to the poem “Pigs” (Murray, 1993, p.36) contrasting this with a feminist reading using theory prompt cards. However, what came out of the discussion was the importance of the colonial context of the poem and this led me to seek out post-colonial critical approaches such as Rob Nixon’s _Slow violence and the environmentalism of the poor_ (2011). This was a major influence for the paper “The River Talks” (Matthewman, Mullen & Patuwai, 2015) which is included in the next chapter of the thesis.

During the period of focussed reading groups, I observed one lesson per teacher and wrote a carefully non-judgemental account of the lesson with suggestions
for how the lesson could include an ecocritical perspective. All the observed lessons were shared with all the teachers which allowed a greater range of suggestions to be covered and discussed. The second stage was for teachers to develop their own environmental sequence of lessons and I observed one of these for each teacher. I wrote vignettes of practice drawing on the observations, the focus group and the data from interviews. These were shared with the teachers who suggested some changes. Finally the finished papers were shared with the participants and some changes in wording and emphasis were agreed before these were submitted for publication. I should note that one of the English teachers was enthusiastic and environmentally committed but unable at this stage to plan and teach ecocritically. As a young teacher (trained in dance not English) she was focussed on managing her classes in a challenging context using any way to engage them that might connect. During the research project I resisted providing teachers with ready-made activities and plans—working from ecocritical concepts and readings of texts instead. This worked for the two trained and experienced English teachers but the less experienced teacher required step-by-step guidance about how to plan a unit and produce a lesson plan which in this context was not part of my role. However the second publication gave some ecocritical “translations” which could be taken up by teachers; my aim was to embed ecocritical potential into the activities themselves. At the same time I am aware that this is a pragmatic rather than an ideal approach which may not lead to the fundamental shift in practice that I observed in relation to the teachers Paul and Patricia—at least for the duration of the research period. I should state that they were primed to make that change. Both of these teachers expressed in the focus group and the individual interviews strong commitment to environmental issues (for instance Paul had been a member of CND and Patricia was a member of the Green Party) and they were ready to take up suggestions for how to work this into their teaching. Their strong expressions of environmental identity, combined with the surprisingly weak, or even resistant environmental identities expressed in the student focus groups led me to consider “environmental identity” as a direct future research question (see Chapter Five).

This research methodology follows the account of the reflexive and collaborative process of moving “from field, to text, to reader” in Norman Denzin’s (2014) “Writing and/as analysis or performing the world” (p. 571-572) although the performance aspect is more relevant to “The River Talks” paper included in Chapter Four.
The two art teachers on the project are not mentioned in these papers. They both found it difficult to integrate an ecocritical approach using it as an aside or prelude to their usual teaching. Looking back, this is unsurprising, as, despite some concessions to using images such as in the work of Ralph Hotere who illustrated Hone Tuwhare’s poems and a brief discussion of a painting by Colin Mahon, I was focussed on the reading of literary and non-fiction written texts. Nevertheless this initial work within the Arts learning area broadened my understanding of how ecocriticism can relate to cultural projects. This has also been a development within ecocriticism itself. For example, ASLE (Association for Literature and the Environment) in the UK has become ASLEC (Association for Literature, Environment and Culture) in Australasia. I should note here that the art learning area is part of the TLRI (Teaching Learning and Research Initiative) project described in Chapter Five, led by Molly Mullen, an arts specialist and focusses on the particularities of arts “eco-literacy”.

James Cook High School is currently designated “Decile 1”, a government classification which signifies that students come from the lowest socio-economic income group. (The highest socio-economic category is Decile 10.) Only one of the 90 students observed identified as Pākehā European and the majority of students were from Māori or Pasifika cultural backgrounds. This demographic prompted me to consider the sociocultural aspects of the work in schools in relation to Māori and Pasifika perspectives, particularly in relation to listening to, and working with the Art teachers on the project who were of Māori heritage and in relation to the three of the authors that we discussed: Hone Tuwhare; Hone Kouka and Patricia Grace. Widening my cultural perspective is a work in progress.

This chapter has explored issues of curriculum, pedagogy and professional development in relation to the ecocritical project in New Zealand while the issue of post-colonialism is present but under-articulated. In the next chapter the publication on *The River Talks* (Matthewman, Mullen & Patuwai, 2015) takes the form of an extended dialogue between myself and arts educator Molly Mullen with Māori artistic director Tamati Patuwai exploring issues of postcolonialism and ecocriticism. Drama is significant for English both as a pedagogical method and as one of the genres that is studied within English. The paper represents a move out of my comfort zone in attempting to understand and appropriately represent postcolonial perspectives and to understand how these relate to an ecocritical approach to English and the Arts.
CHAPTER FOUR
From New Zealand to Aotearoa: Postcolonial perspectives and
material ecocriticism in performance

Here
alien sounds are struck.
Nowhere is the greater fuss
to tear out the river’s tongue.

Blue hiss a crackle
of the welding rod,
compressed sigh of air
and the whump and whoof
fuse to the rising clamour
of the rivet gun.

—Hone Tuwhare, “The Sea, to the Mountains, to the River”

Indigenous and postcolonial perspectives have been a significant influence on
eccritical writing (see for example Abrams, 1996; Adamson, 2001; Monani &
Adamson, 2017; Nixon, 2011). Despite the reach of this intellectual work, Greg
Garrard (2007) points out that indigeneity has not been an available discourse within
British ecocriticism:

Ecocriticism in the United States and Australasia is thoroughly colored by
respect—sometimes extending to piety—toward Native Americans and
aboriginals, respectively. Despite criticism from some historians of the figure
of the “Ecological Indian” (Krech 1999), the valorization of indigenous
peoples as exemplars of alternative lifeways continues, sustained by
admixtures of postcolonial guilt, vicarious nostalgia, and justified anger at
continued environmental and social injustice suffered by modern descendants
of pre-colonial populations. In the absence of such powerfully symbolic
presences, British ecocritics must draw upon and appeal only to the
thoroughly compromised, irredeemably plural modern culture they inhabit.

(p.362)
Garrard’s reflection helps explain why postcolonial approaches to ecocriticism only became directly relevant to my work with teachers after I began working in a New Zealand educational context. I realised that an ecocritical approach to English within New Zealand requires engagement with the postcolonial context of Aotearoa, and the indigenous perspectives of Māori, not as “symbolic presences” (a phrase that betrays Garrard’s distance), but as expressed by real people, with particular and located views and interests. This is particularly the case within New Zealand’s educational discourse which places a high importance on meeting the obligations set out in the Treaty of Waitangi. The Ministry of Education and employees are defined as representatives of “the Crown” and are obliged, therefore, to honour the terms of the Treaty made between the Crown and Māori iwi. The Treaty provides a context for the relationship between the Crown, iwi and Māori. Ensuring Māori students enjoy and achieve educational success as Māori is a joint responsibility of the Crown (represented by the Ministry of Education and other education sector agencies/departments) and iwi, hapū and whānau (MoE, 2013, p.14).

The meaning of this for practitioners is expressed in a range of policy documents, notably Ka Hikitia (MoE, 2013) and the The New Zealand National Curriculum (MoE, 2007). The principle of the Treaty of Waitangi is the focus of issue 16 of the National Curriculum “updates” as a response to a recent Education Review Office report (2012) which found that teachers were finding this principle difficult to implement. The principle requires schools to build effective relationships for learning partnership and participation with Māori students, parents, hapu and iwi. In terms of curriculum the emphasis is on a “bicultural” approach to language and culture:

As part of their developing identities, all New Zealand students need to understand New Zealand’s unique bicultural heritage. Consequently, all students need opportunities to learn te reo Māori and gain knowledge and experience of important Māori concepts and customs, considering them in relation to those of other cultures. Language and culture are intertwined, so

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21 The treaty of Waitangi was signed by the representatives of the British crown and about 540 Māori rangatira (chiefs) in 1840. The Treaty is a broad statement of principles on which the British and Māori made a political compact to found a nation state and build a government in New Zealand. The exclusive right to determine the meaning of the Treaty now rests with the Waitangi Tribunal, a commission of inquiry created in 1975 to investigate alleged breaches of the Treaty by the Crown. (Ministry for Culture and Heritage, 2016)
this learning provides insights into te ao Māori and Māori world views. It can occur in many contexts and across the curriculum. (MoE, 2012, p.3)

The implications of the Treaty of Waitangi for an ecocritical approach to teaching English in Aotearoa New Zealand requires Māori perspectives, language and cultural outlooks to be part of the conversation. This is not a matter of simply “adding in” but of thinking through where there are productive connections and associations in lessons that can be made beyond the generic policy contexts of the school.

The process of writing the published paper in this section represents foundational work in my developing understanding of Māori perspectives and is significant in relation to the research trajectory of the thesis. This is contextualised in relation to an ecocritical reading of two ecological and pedagogical arts performance events: The River Talks and Fluid City. The River Talks is discussed in the form of a dialogic and visual script which was published in Research in Drama Education. Fluid City is compared to River Talks within the commentary section drawing on unpublished research reflections.

The River Talks paper went through an unusually extended process of writing and rewriting over two years. The representation of “Māori viewpoints” by two British academics is sensitive given Aotearoa New Zealand’s history of colonisation and political and cultural oppression. Reaching agreement on the final form involved a lengthy collaborative three-way process with many face to face meetings.22 The form of a script, interspersed with images, interrupted by reflective and explanatory commentary and supported by academic footnotes is not a “natural” way of representing either the arts event or the conversations. It was highly constructed and reconstructed in an attempt to make it read as a fluent and logical conversation smoothing over the gaps, digressions and time lapses. At the same time it aimed to be faithful to the utterances and intent of all the participants. We performed this script on two occasions in academic conferences as a rehearsed conversation which also helped to re-structure the final piece as presented here. In effect The River Talks arts event resulted in its own kind of academic performance.

22 Attention to relationships and reciprocity has been identified as highly significant in culturally responsive research methodology (Berryman, SooHoo & Nevin, 2013).

Abstract
On 27 February 2013, Mad Ave staged *The River Talks*, a collation of linked performances in and on the banks of the Omaru River in Glen Innes, Auckland, New Zealand. The event brought together artistic and discursive works that challenged a view of this local river as always and forever degraded. An example of committed ecological performance, *The River Talks* created time and space for kōrero, (dialogue) between people with diverse views and stories of the river. Both the enactment of performance and the performance of meeting drew on Māori protocol on the marae and on Māori concepts of the relationship and obligation to the natural world (kaitiakitanga). The writing of this article was invited by the director Tamati Patuwai as part of extending the kōrero to a global audience. In the article we explore how ecocriticism might be applied to ecological issues in performance. To begin to discuss *The River Talks* ecocritically, we draw on Rob Nixon’s postcolonial analysis of the textual response to the “slow violence” of environmental harm. Together, we consider the question of how far *The River Talks* provides a model of performance that could inform other activists, educators and artists.

Introduction
On 27 February 2013, the community-based arts organisation “Mad Ave” first staged *The River Talks*, an ecological performance which set out to challenge the view of a local urban river as always and forever degraded. We (Sasha Matthewman and Molly Mullen) were part of the audience that congregated uncertainly around Point England Park in Glen Innes, Auckland—waiting for something to happen. It began with a sound like a warning siren. A barechested man in jeans adorned with paint and a feather was blowing into a conch shell. Quickly but calmly, guides in “hi-vis” vests directed us back towards the entrance to the park and we gathered by the railings over the river. We looked towards the rising, insistent tone of a woman’s voice giving the karanga (a Māori call to meeting) coming from somewhere up river, among the trees. As we listened, a man with a Mohican dressed in a torn T-shirt emerged from the large concrete tunnel under the railings. He spoke to us in Te Reo Māori (the language of Māori) gesturing to the river and back to himself and to the audience.
Then he paused and spread his arms out wide. “Ko au te awa. Ko te awa ko au. I am the river. The river is me.” Then gently he said “Look at this river. Get close to it.” The audience moved together, leaned over the railings, peered down into the river with its film of oil and green gunge—the discarded MacDonald cartons, the Coca-Cola can, the old tire. The man spoke again, outraged. “If I am this river. If I am this river then what does this river say that I am?” Slowly as his eyes fixed on people, the answers came—“dirty”, “paruparu”, “stink”, “ugly”, “sad”. The man nodded, responded to each person. He told us how he had grown up playing in the river and how his grandparents had gathered food from it. How it made him feel to be “this river” both then, and now. Then he extended his arms towards us, including us. “This is your river. You are this river. We share this mantle.” He asked us to join in a karakia (a prayer) to bless the river. So began The River Talks. A collation of linked performances in, and on, the banks of the Omaru River in Glen Innes, Auckland, New Zealand. Tamati Patuwai, the man in the river, became the river guide and guardian who introduced each performance, setting the tone as the audience watched him react to the artists and listened to his linking commentary. In the course of the event, we watched a poet who performed in shackles; a local Māori artist who talked about her history and that of the river, followed by a Pākehā23 artist, who talked about her shame for the European legacy of exploitation of natural resources; we heard a presentation from a scientist who outlined the microbiotic problems in the river; two Pasifika girls danced for the river, and members of the audience were invited to dance to a band of Cook Island drummers. The performance seemed to have multiple potential endings: a singer performed from a raft on the river; two artists spray painted a sail and a chalked figure blessed the water. But the performance did not end (and we did not notice any member of the audience leave despite the setting sun) until the close of the hui (a meeting) which was led by Tamati to discuss the options and responses to the work of ‘restoring’ the river. This included invited representatives from local businesses, local council representatives, community leaders and wide representation from the local community. Audience members were invited to write down their contact details and the way that they might contribute to furthering the cause of the river. Along with many other people, we wrote down our contact details.

23 The term ‘Pākehā refers to a New Zealander of European descent.
An example of committed ecological performance, *The River Talks* created time and space for kōrero\(^{24}\) and a meeting between people with diverse views and stories of the river. This is a performance event that is rooted in the history of a community and located in the urban site of a local, almost unremarkable, river. Both the enactment of performance and the performance of meeting drew on the cultural rituals of Māori protocol on The Marae\(^{25}\) (and on Māori concepts of the relationship and obligation to the natural world (kaitiakitanga). *The River Talks* brought together over a hundred people which generated many tributaries from the original source of a low budget, small scale, local, arts event. In the weeks following the 2013 event, Tamati organised *The Rivers Meeting*, a follow up hui (meeting) involving local students, residents, iwi (extended kinship group/tribe) representatives, council and political representatives, and NGO workers. Sasha attended *The Rivers Meeting* hui and went to a second run of *The River Talks* in 2014 while Molly attended one of the performances of *The River Talks* held in 2015. Each iteration followed the original structure with some changes in the line-up of presenters and artists.

Back in 2013, Tamati contacted us (Sasha and Molly) to talk about how we could develop an academic perspective on *The River Talks*. This was one of many conversations that Tamati set up to form a network of dialogue and action on behalf of the river from a range of viewpoints and skillsets. Tamati sees his role and that of Mad Ave as linking social and environmental activism and artistic production. Tamati is able to draw on his visibility in the community as a long term resident of Glen Innes and also as a successful actor in mainstream New Zealand television shows. He has an inclusive attitude which seeks to communicate a Māori worldview beyond the local community and to make connections with a wide range of interests and perspectives.

**Revisiting and Extending the Kōrero**

The body of this article is a “kōrero” between the director of *The River Talks*, Tamati Patuwai, and Sasha Matthewman and Molly Mullen. The transcript of a two-hour semi-structured interview with Tamati has been reordered, with some rewording and

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\(^{24}\) Kōrero can refer to any kind of speech genre but within this article we loosely translate the meaning as ‘dialogue’ while acknowledging that the term carries greater status than this within Māori culture.

\(^{25}\) The open area in front of a meetinghouse and surrounding buildings; a place of sacred and communal activity.
weaving in of informal conversations and meetings (which happened earlier or later) to create a coherent dialogue. This dialogue has been shaped to show how aspects of *The River Talks* connects with ideas from ecocriticism and applied theatre and offers a model of innovative public pedagogy on sustainability. This follows in the footsteps of narrative researchers who have “breach[ed] the norms governing sociological interview writing” by rewriting transcripts into poetic or dramatic forms (Richardson, 1997, p.147). Our process had multiple stages, moving from a close reading of the original transcript to identify the topics and themes, into annotating the transcript with more analytical responses drawing on our respective areas of expertise in ecocriticism and applied theatre. Our reflections and research on the content of the interview sometimes interrupt the flow of dialogue and are presented in italics within the text. Images from the performance are included in the text. These were provided by Tamati or were taken by Sasha during the performance and were used as prompts for our initial conversation.

**Talk about The River Talks**

[We settled down around the table. Sasha fiddled with the voice recorder and turned on the projector. The university room with the broken blinds was a sterile, empty space in comparison to our previous meeting places—by the Omaru River for the symposium or at the Glen Innes Marae discussing the future of the river or in the Glen Innes Cafe. Suddenly it all felt a bit formal and awkward—like we were all supposed to be “doing research” and not just chatting. But Tamati looked deliberately at ease and poised to handle our questions. Sasha turned on the recorder and began with the usual preliminaries—but we will skip this and pick up the conversation from where it got interesting—at a point of tension.]

**Molly:** What was it that led you to take up the cause of the river?

**Tamati:** I haven’t taken up the cause of the river. I definitely resist that. I haven’t taken up the cause of the river.

**Sasha:** Ok. (Pause) But you say you didn’t take up the cause of the river, but surely by taking it up for representation you are taking up the cause?
Tamati: Look, I’m from here so for me it’s a natural part of who I am. Kaitiakitanga means an ongoing obligation to the protection of the environment. So, it seems to me to be a natural thing—it hasn’t ever been left out and has never not been taken up. It has always been there but the point was to give it attention now…

Sasha: Ok, so why now?

Tamati: Knowing that the river is not well. You can see it in this image—the algae blooms, the floating rubbish, the oil—so there’s an attention seeking aspect to the work. We need to bring attention to the river and I had sort of seeded the idea with several people and different groups but it just so happened that the local board were starting to take interest…

Figure 1: Omaru Creek, 2013

26 The local board makes representations to Auckland Council about social and environmental issues affecting the locality.
Throughout the interview there are moments, such as this, of cultural unease. We were in the process and on the outskirts of grasping a range of references to Māori culture, protocol and language. The concept of kaitiakitanga is crucial to indigenous Māori. It refers to an obligation to take care of the land as the original guardians; this obligation cannot be shed or created but is an ongoing responsibility for the iwi ancestrally bound to the land and waters. The idea of the guardian “kaitiaki” has been taken up by educators working in the field of sustainability—but this has also been resisted as an appropriation of an indigenous Māori relationship to the land and waters (Mutu, 2010). Tamati’s resistance to the question of taking up the river as a cause is both located in his sense of already being a kaitiaki but also in his view of the limits of his role as a leader/director in bringing attention to the river.

Sasha: So, the timing was right for attention now, even though the river’s decline must have been a long, slow process. Ecocritic, Rob Nixon (2011) in Slow Violence: The environmentalism of the poor writes about how this kind of “slow violence”, the gradual progress of environmental injustice, is a particular challenge for representation. Nixon analyses the way that writers are trying to represent the slow but terrible changes in the health of places and people. In an age built on speed and instant information it is hard to pay attention to this slow process. Nixon is particularly interested in the struggle of poor communities for environmental and social justice in postcolonial contexts. For me, The River Talks takes on that representational challenge through enacting a dialogue between the river and the audience. It creates a dramatic moment out of an ongoing process. Could you take us through how you did this?
Tamati: Yes. At the start of the performance I come out of the drain and speak to the river on behalf of us, the audience. In this cultural context that’s a mantle that I then wear—a responsibility. At the start of the performance I utilise the ancient Māori proverb, “Ko au te awa. Ko te awa ko au”, meaning: I am the river. The river is me. But what if I really commit to that? If I am the river then what does the river say that I am? That became a direct question to the audience—to bring them right up close to the river, to get their noses up in it, their ears, their eyes, everything.

Molly: [Looking at the image on screen.] You’re looking… quite… slightly Mad Max moment there.

Tamati: Ok (laughs). You know our people wore Mohawks and cut their hair in particular ways for battle and I’m wearing kokowai which is a red clay and that’s what they used to protect their skin. Of course I’m wearing sunglasses, the gasmask and fishing pants—modern environmental protection!
Sasha: So this image reads as both past and future.

Tamati: It’s a crossing over. There is no past and future only the crossing over.

Sasha: So you try to hold that moment between the two? Is that it?

Tamati: Take one of our speakers: Stephen Moore. So Stephen’s done a lot of research, his speciality is in the macro invertebrate species in waterways in Auckland. He’s probably done the most research, scientific analysis on the Omaru River and the Tamaki Estuary and so he gave a real solid view on how the river is. What’s alive in the river, what’s not alive in the river and also what’s possible. If we do this, we can bring this about. So that’s what he presented and he was very unwell himself, so it’s the care. He was, if I can say, dying of cancer but he was committed to it. I said look, Steve we’re doing this and I want to invite you to come but I know you probably can’t so it’s up to you, that’s okay. And he went I’m absolutely there, I’m totally going to be there, so he presented his work and he passed away not long after. So you know we are mindful of all of those who have passed away, all of the care and the attention that they wanted to bring to the audience.
Our line of questioning is located in a cultural understanding of the past as finished. This brushes up against Tamati’s cryptic assertion of the “crossing over” which implies that the past and the dead are interdependent with the living and the future. Within many indigenous worldviews the presence of the dead and the unborn is understood as a process of interconnection “the mingled presence in the landscape of multiple generations, with all the hindsight and the foresight that entails” (Nixon 2011, p.18). The River Talks included both young and old performers and called on the presence of ancestors while actively imagining the future. This emanated from within Māori worldviews and a commitment to bringing together a broad cross-section of community.

**Molly:** You also cross over from talking to the river to speaking as the river. From human, to more-than-human. Some of the other performers seemed to do this as well, sort of “river spirits”.

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Figure 3: Stephen Moore’s presentation, *The River Talks*, 2013
Tamati: I called all of them taniwha. Taniwha are guardians, like esoteric guardians of the river.

Molly: In terms of the taniwha, I am thinking of one of the closing images. When the singer is on the raft in the river, dressed in white, singing as the sun sets…

Figure 4: Marama Davidson, *The River Talks*, 2013

*In Māori worldviews elements in the environment have mauri (energy, spirit or life force). In the Tūhoe iwi this is formalised as a literal kinship to the*
environment. The Tūhoe are ancestrally related to elements in the environment as kin. Therefore simply, they are the environment. It is not a question of representation (Mataamua & Temara, 2010, p.99).

Tamati’s claim to speak as the river carries the weight of cultural belief. Taniwha (often artistically represented as a type of possessive water monster or spirit) have been claimed as proof of a concept of Māori ownership of waterways in submissions of Treaty claims to the Waitangi Tribunal.28 At the same time as this spiritual relationship is claimed, representatives of Western science, such as Stephen Moore and Wai Care29 (who demonstrated water testing), were included in The River Talks as if this carried no contradiction to the ontology or the aesthetic. Moore’s presentation on the problems of addressing the restoration of the river due to urban planning factors such as the flooding of storm drains and increasing pressure on waterways through run off from urban pollutions created an abrupt shift in the spiritual discourse and framing.

Tamati: The woman in the river, Marama Davidson, politician, environmentalist and human rights activist worked with Sailasa Tora, traditional Fijian music composer, to place the raft and she created this beautiful poem. It was a mixture of karanga with poetry in English and Māori and yeah I wanted her to have that loudspeaker too because of the contrast. The gentle cultural wailing of the karanga with the big red blow horn.

Sasha: It made me think of Ophelia with a megaphone. The movement between past and present, human and non-human—created some sharp contrasts. Like at the very end, the graffiti artist sprays the proverb across a sail woven from flax. We are reminded that this is urban nature. An urban river, the leisure centre is built right next to it, near the library and a row of shops, a river full of rubbish, bisected by a busy road. Where does that realisation take us?

28 The Waitangi Tribunal was established in 1975 by the Treaty of Waitangi Act 1975. The Tribunal is a permanent commission of inquiry charged with making recommendations on claims brought by Māori relating to actions or omissions of the Crown that potentially breach the promises made in the Treaty of Waitangi (Waitangi Tribunal, 2015). See also a discussion of the taniwha in relation to the ownership of water in Tomas & Johnston (2003).
29 Wai Care is a council programme that works to engage communities to work together to improve the health of the Auckland Region’s waterways and catchments.
Tamati: Remember that people from Glen Innes community only one generation back swam in this river. Two generations back, the river was full of kai. My mother swam and ate in that river, collected watercress, pūhā and fish. They were careful when they swam to mind the watercress and to take only as much pūhā as they needed. I remember the stories of that urban river.

Tamati answers the question of this urban river with a pastoral memory which reminds us of the speed of the loss. This reads ecocritically as a story of displacement. The place is changed and ecologically degraded while the people still live in it and fight for it. (Nixon, 2012, p.19). For Māori it is not acceptable that the river should only be fit to swim in (although this river is no longer fit to swim in) but it should also be fit to eat from as a source of traditional foods, a standard that may be in conflict with scientific or government measures of river health. There is little prospect of that

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30 Māori word for food.
level of restoration for the urban Omaru river but this is not acknowledged within the performance.

Molly: A lot of people from Glen Innes, performers and audience members, came to remember and talk about their memory of the river. But also, the symposium was really well attended by representatives from a range of organisations and businesses and people like us from across the city. How did you achieve that level of response? That level of attention and action?

Tamati: I had close engagement, close access to the community residents of the area and the community workers, agencies, business. I have close access to those people but I needed to configure the expression of the piece so that it did speak to more than just my own network. But this made it hard to define the work, particularly for funders. I told the Local Board that yeah it is art, but they said, “you’ve got some historical heritage stuff in there too?” yeah absolutely, “and you’ve got environment stuff?” yeah got that there too, “and you’re working with the young people?” yes, youth are a big part of it. They said, “Sorry, we can’t see how that fits”. They’ve got their action plans and they didn’t know initially where to place this project.

Sasha: What interests me is how you tried to connect the social issues, cultural values and environmental issues. Too often sustainability is seen as an optional added extra—a bit of recycling, a school garden tucked away in the corner, whereas it should be integral to the way that we live and work.

Tamati: There is a Māori proverb: ‘Nā tō rourou, nā tuku rourou ka ora ai te iwi’, meaning: “your food basket, my food basket will feed the people and sustain them.” I can’t do this by myself. My role has been to create the opportunity, the space and structure for others to come into. We have long time activists here, and we have young children, we have kuia31 from Tonga, we have young dancers from Samoa, we have pākehā sculptors, Māori environmentalists, scientists, poets, singers and politicians. The central themes in all of the presentations came from these artists and scientists. I just gave them the general thrust of what we’re out to achieve. There’s

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31 Respected female elders.
another proverb that says: “when we dwell in unity it is a sweet thing.” What brought these people together and enabled the piece to be created was that all of these people were unified by a common intention.

Sasha: While there was a sense of unity, of intention as you say, there was also juxtaposition, a positioning of very different forms, ideas and worldviews alongside each other within an experience of the river.

Tamati: There was no narrative, but there was a structure to the event. I have been trained in a particular structure and aesthetic, a strongly cultural aesthetic. This cultural aesthetic is based on manaakitanga, care for a person or group’s wellbeing. It involves a holistic series of processes including spiritual and practical elements. It is an aesthetic strongly influenced by, and based in, tikanga, Māori traditions, and the Māori worldview. First we acknowledge the spiritual space and then we move into the invitational. We bring the guests into the space physically, then we take them along a theme and then we finish it in a certain way. There’s definitely a structure there and I chose people who could fit into this. There were some practitioners to whom I gave more of a free rein and others who needed quite strict time boundaries, spatial boundaries and so on. But mainly, all I had asked of people was to attend. In terms of the visual, I just told them: “We’re calling for attention, for transformation, for our river, so please dress appropriately”. I didn’t tell them what to wear. So, there was a delegation, I gave them the space, I asked them to comment on a particular thing and then they took it from there.

Sasha: It seemed as if all the performers deferred to the importance of the river framed within a spiritual ritual. This spiritual framing contained a range of viewpoints and aesthetic images.

In drawing on the rituals of the marae and the protocols of the hui (meeting), this performance links with a tradition of Marae Theatre. When visitors are welcomed onto the marae they become a member of that community with rights and responsibilities. Hence through being welcomed into the space of the river the audience then shares the responsibility to protect it. Similarly in Marae Theatre the audience is welcomed into the performance space as participants within it (Balme,
1996). This allowed all the participants to be part of a Māori worldview—even when a particular element of the performance was shaped from a contrasting worldview—as in the presentations of rational science.

**Tamati:** The visual differences were important. So, the trumpet player wore plastic rubbish bags and willow, the rubbish and the non-native trees that are problems for the river’s ecosystem. That symbolic visual approach communicates in one way. And then the scientists, Wai Care, the water care people, had the whole aesthetic of white coats, bringing that in, the white coat communicates in a different way.

![Figure 6: Wai Care water testing, *The River Talks*, 2013](image)

**Sasha:** This mix of disciplines, making links between art and science, is something that ecocritical work aspires to in theory but can end up merely appropriating and
misrepresenting. It is very hard to break through the disciplinary silos—even when we know that complex environmental issues can’t be addressed from a single disciplinary perspective. Here they are just kind of set against each other—jostling within the same space.

**Molly:** This is also true of ecological theatre which can be focussed on the metaphor of nature rather than a real engagement with ecological issues. For instance, Una Chauduri (1995) writes that in naturalistic theatre the question of the environment is just a backdrop to the social drama and conflict on stage.

**Sasha:** Yes, her challenge to the concept of nature as merely metaphor is also a familiar debate within the literature on ecocriticism. One of the key figures in ecocriticism, Lawrence Buell has suggested that nature should not be presented in texts and performance as merely “a framing device” but should come through as a presence that suggests how human history is wrapped up with natural history. How do you start to create performances which engage people with real ecological problems?

**Tamati:** From a community development perspective, I believe that no one aspect of community can really create transformation. I think to move forward from that is a collective movement. When we say a collective movement, this means many views and hands on the piece. So I wanted to gather as broad a range of expressions and interests and I could. So, the structure of the performance created links between disciplines. It linked people who would not otherwise have sat in the same space together. The performance was about creating these ties, these invisible ties. If we are

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32 See Phillips (2003) for a sharp critique of the way that ecocritics have appropriated ideas from ecology.  
33 Love (2003, p.47) states that “Ecocriticism urges its practitioners into interdisciplinarity, into science. Literature involves interrelationships, and ecological awareness enhances and expands our sense of interrelationships to encompass nonhuman as well as human contexts. Ecological thinking about literature requires us to take the nonhuman world as seriously as previous modes of criticism have taken the human realm of society and culture. That, it seems to me, is ecocriticism’s greatest challenge and its greatest opportunity.”  
34 See Arons and May (2012) for a discussion of how ecological theatre is seeking to engage with ecocriticism and with notions of nature as both material and symbolic.  
35 Chaudhuri (1995) theorises the problem and potential of place in theatrical representation.  
37 Buell, 1995, p.7
going to restore the river, the Council can’t do it by themselves, the residents can’t do it by themselves, the academics can’t do it by themselves, the scientists can’t.

**Molly:** Does that only work at a very local level? This project was very much about drawing attention to the local issue of this polluted creek. That tends to be the approach of applied theatre work, to focus on a specific context and issues of local concern. Some theatre critics, like Stephen Bottoms, have wondered whether local and personal performance has been at the expense of attending to bigger, global issues.\(^{38}\)

**Sasha:** Yes, how do we get “a sense of planet?” How can you “frame” the polluted creek in Glen Innes in the problems of Auckland’s sustainability as well as the global effects of climate change and environmental degradation?\(^{39}\)

**Molly:** What tends to happen is that global level issues may be seen as too “epic” to address in performance, so artists tend to focus on a specific place, or draw attention to the hidden and micro-level.\(^{40}\) Can you suggest any ways in which this work showed the connections between this local issue and those bigger, global, economic, political processes?

**Tamati:** Yes, so pieces like that by the poet Anatonio Te Thaionti, in which he performed while connected to a heavy sea buoy and also a large hook from the hangi chains. On the hook, which looks like an anchor, he’s written kāwana, which means governor. The anchor that is holding us down is the governor.\(^{41}\) But, the chain also connects us to the buoy and the buoy is hope, which keeps us afloat.

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\(^{38}\) In a review of *Theatre ecology: environments and performance events* (Kershaw, 2007), Bottoms (2010) criticises Kershaw for privileging the small scale but aesthetically coherent over more contradictory but mobilising performances such as actions by Greenpeace.

\(^{39}\) Ecocritic Heise (2008) develops the argument for a global viewpoint in *Sense of Place and Sense of Planet*.

\(^{40}\) For instance, Heddon and Mackey (2012) consider the value of their personal emancipatory environmentalism through performance practice.

\(^{41}\) In 1840 the Treaty of Waitangi was signed by over 500 Māori chiefs. In the English language version the Māori ceded “all the rights and sovereignty” to the British Crown, whereas in the version in Te Reo Māori, the Māori rangatiratanga (chieftains) gave the queen “te Kawanatanga katoi” (the governance or government over the land) but retained rangatiratanga (sovereign rights) (see Orange, 2011). The Governor General of New Zealand originally represented the Crown and British government, later just the Crown. Interpretation of the Treaty of Waitangi is an ongoing matter of dispute in Treaty Claims.
Sasha: That’s interesting—so this is a link to the injustices of the colonial past in New Zealand but also the idea of hope seems to be central in trying to mediate the ecological problem. Here the hope seems to be in the art itself—the dancing the singing, the paintings as well as in the feeling for the river and the real sense of community connectedness you created within the piece and the place. But the hope is realistic, grounded—maybe weighed down by the past.

Molly: Like there in the visual image of the artist attached to those objects. And he had something written on his shirt. I can’t remember what it was, capitalism, corporate or something.

Tamati: Yes, it was “capitalism”, and he also had the rope around his neck…

Figure 7: Anatonio Te Thaioitia, *The River Talks*, 2013
**Molly:** And he’s got the ties, the business ties around his wrist. He signals a connection to the economic, being bound to a business world that does not at first seem to be part of this place, capitalism implicated as well as the colonial history of this country.

**Tamati:** Absolutely, the business, corporate capitalist power has a big part to play in the pollution of this river. But bringing the attention of local businesses was important as part of the solution.

*In 2013 we came away from The River Talks with a sense of “grounded hope”* (Hicks, 2014). *Hicks distinguishes between optimism which is merely hopeful against a realistic assessment of the situation drawing on resources (including art and community) to move forward in hope—even when the outlook is bleak. However, leaving The River Talks in 2014 and 2015, this hope was challenged. There was still litter along the river banks and the Wai Care presenter was again displaying the results of tests that showed that the water was significantly polluted. A lot of community action had taken place over the past two years towards creating a healthier river. But the process of cleaning this river (such as through riparian planting) seems much slower (and less visible) than the process of polluting it.*

**Molly:** For me, it was really apparent in this piece, and also many of the other pieces in the overall performance, how large scale, often global issues have real effects on human and more than human bodies. It probably remains at the level of the individual though?

**Sasha:** I think Elspeth Fougere’s “line of dirty washing” is also a striking illustration of that sense of contamination and individual sense of responsibility.
Tamati: Yes, those canvases were first dipped in beeswax and then she dipped them in the river. The wax-coated canvases collect whatever they’ve been dipped into. She did a series of five panels and it looks… physically it looks like a landscape, but they also smelt...

Sasha: …and how she presented them as well—on a washing line, like that figure of speech “don’t wash your dirty linen in public”. It was made visual that idea of putting into the public realm what you are ashamed of, and the hidden dirt of the river too. And her whole talk was about shame—wasn’t it actually? The collective shame of being a pākehā and what her ancestors did to the land.

Tamati: Shame, asking for forgiveness. Apology. She had concerns about that approach and I just said look wherever you are is where you are. But, the connections ripple outwards from the past. Her father, who she spoke about, he’s done some work
since the performance collating the data on the project into a report for us. So there are the layers, the rippling connections across generations.

**Sasha:** The connections between global and local were also there in the range of Pacific cultures represented, Samoan, Tongan, Māori, Cook Island. These are all peoples whose lives, and the environments of their countries of origins, are being impacted by global environmental change.

**Tamati:** That’s right. This is an issue that affects the Pacific diaspora in New Zealand and I wanted to make a specific challenge to that diaspora. If we are Pacific Islanders, if we say we are Pacific Islanders, let me tell you this: our people are water people. Now if our river sits in such a state, and if we’re supposed to be water people, well what are we doing about it? It is a challenge to our sense of identity and young people in particular are responsive to that kind of challenge.

**Sasha:** About thirty school students came to the hui that was held later—that was quite a turnout. I remember you being very clear that they should lead on the topic of education. One of the students from the local school (who became a leader of that student environmental group) spoke very movingly during the openfloor discussion after the performance event. He said that he hadn’t realised that anyone else cared. But I think that sense of everyone being included (and taken care of) in the performance and the talk was unusual. There was never the sense that it was the sole responsibility of any particular group or individual. This could be problematic politically—although comforting in terms of not alienating anyone—such as the funders and business and council representatives?

**Molly:** Yes, much of the pollution washes in from outside of the community and government policies have moved away from environmental regulation. What about the inclusion of the video of Dan Baron Cohen, speaking from the Amazon, why did you include that?

**Tamati:** This comes back to the global perspective. As you say, these kinds of projects can be insular, isolating, when we get so specific about this particular river. We also need to remember that we are part of the world, a wider community. All the
rivers run together. Our community is part of another community which is connected to the world. We can seek inspiration from other people and places and other work. There are other people taking steps to restore other rivers in other places that we are connected to. So bringing in people from, or talking about projects restoring other urban streams in Auckland, Dan’s work in the Amazon, these are examples of possibilities of political action. We are creating our own unique approach to it but we’re connected to other ways of working.

**Molly:** In the wider field there seems to be an uncertainty about what theatre can actually do in the face of ecological crisis, about what results it should be seeking to achieve.42 *The River Talks* seemed to have an ambiguous intentionality.43 What I mean is that there was a very clear objective to see the river restored, but it was still an open ended process … you know, you weren’t working towards that objective in a linear, pre-planned way. It was in the structure of the performance itself that ended with an open discussion, while the process of restoring the river, was left unfinished, but with an open, inviting gesture. The performance created an opening for what connections might form and where they might lead.

**Tamati:** The primary purpose of this piece, as an event, as a *symposium* was about introducing people to a deep inquiry of engagement with themselves as a community and the river. It was not a “show” or a presentation. The intention was to open up dialogue, but crucially for the river to be a participant in this exchange, not just the subject being discussed. All the performers spoke to the river and spoke to me as the river. This dialogue needed to involve the local residents, workers, agencies and businesses, but the dialogue also needed to include more than my existing network.

As I have said, no one aspect of community can really create transformation on its own. I think to move forward from the current situation requires a collective movement and in this instance a collective movement meant having as many views and hands on the piece as possible.

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42 See Kershaw (2007) for a discussion of the theoretical dilemmas for eco-performances.  
43 Heddon and Mackey (2012) drawing on ecocritical theory argue against presenting environmental issues such as climate change in a ‘closed and didactic manner’ (p.175).
Tamati’s reference to the river as a participant, to be included in the dialogue is significant in the light of the highly publicised granting of a legal identity to the Whanganui River in New Zealand—the first instance of this in Western law. In the case of Whanganui the river is accorded two spokespeople to give voice to the river’s legal interests (Finlayson, 2014). Tamati’s role as a guide through the collation of performances was important in establishing and maintaining a focus on the river as an entity deserving of respect and attention. The river was continually in the sightline of the audience and interactions in terms of talking to the river, gesturing back to the river, wading through the river, cleaning the river of debris, taking water from the river, blessing the river all contributed to the sense of the river being a living presence.

**Sasha:** There seems to be a strong thread of intention to educate people about the river, to speak to a diverse range of community groups which led to specific and independent forms of action in relation to the project, such as the student environmental group at Tamaki College. The performance was deliberately located in the academic discourse of learning—in the concept of the symposium—although it spoke in many different voices and discourses. Ecocritics worry about the limited impact of their writing and the problem of pedagogy—environmentalism tends to be perceived as a pedagogy of giving things up rather than liberation. There is also an anxiety about showing political commitment. Do you think *The River Talks* addressed any of these concerns?

**Tamati:** Yeah, in its commitment. People are often afraid of giving children these kinds of new experiences, about how they can manage the children’s experiences and responses. But for me, it’s all about the intent, the approach, the challenge. I went to the class at Tamaki the day before the performance and I said “who’s coming?” and three hands go up. I said “okay” and I talked through the Pacific and Māori connections with the environment: “I’m here sitting with you, I’m from the same place as you. Are you really a Pacific Islander if you can sit and let your river be like

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44 See Garrard’s (2007) article on the relationship between ecocriticism and education for sustainability.
this?” They like a bit of heat and so there was “Yeah I’m Samoan”, “Yeah I’m Tongan”. By the end of the class they were like “yeah” and all thirty turned up.

One of the biggest reasons for me to engage in this process was to assist the existing restoration work of this and other polluted environments. Through events like The River Talks I’ve got a way that will really turn people on to what organisations like Wai Care are doing. Some tasks call for numbers, like Wai Care’s tree planting days. They need to plant thousands of trees and we could support their work, not by talking about them but by having them totally integrated in the conversation with the river. You turn up to these tree planting days and there will be only five people, just the residents there who live in the house next door and next door. It’s about finding a way to engage people appropriately. We’ve just finished planting along the river on Saturday. Katherine, from Wai Care, was in tears. She said, “I’ve never has this experience before, to go from this point (of performance) to actually literally planting trees with a hundred people.”

So that kind of outcome was the purpose of The River Meeting. People said, “Now what Tamati?” And I said back to them, “what do you want? This is a dialogue now, it’s not follow the leader.” We used the Open Space format, so I didn’t dictate the agenda, I framed the question: “how do we bring beauty and life, life and beauty back to the Omaru River?” People expected to be told what action to take, but I was asking how do we take action and that was a challenge to them. That is the work of a director as well. You have to work with what the actors bring to the performance not dictate their movement.

Molly: So, you delegate responsibility to the participants?

Tamati: Yes, so like at the end of The River Talks we had a short hui when anyone can take the microphone and speak. I’m sharing the locus by saying “it’s a shared space now”. Other people have come into the space, young people, business leaders, and those people are just taking the mike off me. And now the young people want to do a project to get people to think about where they put their rubbish, and the business association want to work on better rubbish disposal in the business district. But I can’t be all over those projects. I have a particular role, and so does my work. If it’s within creative and community engagement, cultural development, that’s where I’m at. Everything else can sort of do what it needs to do. And then others have heard about
the work. Groups from Rotorua and the east coast want to do similar projects. Now, I can come down and share the work but it’s the people there that will need to speak in the piece and their artists, historians, scientists that will need to do it.

Figure 9: The River Talks performance hui, 2013

**Molly:** Is it possible to say what the most important focus in a performance project like this is? Artistic quality, the community involvement or…the sort of political activist side of it?

**Tamati:** I would say that underpinning all of these things is the care, care for creating a hospitable space in which dialogue can take place. A carefully constructed performance work like this can link people who never would have sat in the same space together, it can create a magic zone, create these ties, these invisible ties which are essential. This means care for the art, for the community and for the process by which an outcome is achieved, all those different approaches matter at an equal level to me. The piece needs to be able to speak in all of these different languages and so do
I as the director. But at the same time, I don’t know what is going to be produced, in terms of the art works, changes within the community or in terms of what will be achieved for this river or other rivers.

The culturally based structure of this performance stitched together many conflicting views and experiences. For the duration of the performance indigenous Māori worldviews were dominant. Tamati Patuwai (Ngāti Whātua) led this perspective through the structuring of the event as a spiritual meeting to which all were invited, (but perhaps problematically absolved of individual environmental responsibility). The performance provided an implicit challenge and counter to the prevailing view of the “environment as resource” in New Zealand pākehā culture. But Māori perspectives may also be subject to the commercial and social pressures involved in the present neoliberal management and attitude to land and waters. A bill to develop one quarter of the Point England Reserve (the site of The River Talks) for 300 new houses was recently passed. The opportunity to develop the land for housing is to be offered to Ngāti Paoa Group Investments Limited, as a “critical factor” in reaching a settlement after eight years of Treaty negotiations between the Māori iwi Ngāti Paoa and the Crown (The Local Government and Environment Committee Report, 2017). The report notes the fears of submitters that the development could cause further water degradation. A significant factor in the pollution of the Omaru is the overflow of sewage due to an outmoded system of combined stormwater and sewage pipes that overflow in heavy rain; a problem with infrastructure which affects the entire system of central Auckland’s waterways.45

The contradictions and conflicts within The River Talks could not be teased out within the event itself, but (we hope) begin to become apparent in the dialogue we have recreated in this paper. For instance, the perspectives of Western science are not easily reconciled with a holistic and spiritual view of the environment and community inclusiveness can temporarily obscure important debates and conflicts. The performance did not attempt an overarching political analysis of how the river had become polluted nor did it provide a coherent plan for action. But the experience of another worldview provided an ontological challenge—although largely implicit and felt—rather than fully worked through and articulated. Through enacting a shift

45 The information about the “Point England Enabling Bill” was added to the published paper in 2017.
of attention to the river, as a participant, an emotional connection was created and sustained which seemed palpable in the mood and the willingness of people to stay and talk. While a direct political voice was muted, there was a sense of community feeling: all the audience members received “a mantle of responsibility” for the clean up of the river and during the hui they were asked to pledge some form of action. Of course, a planting day, in isolation, has little hope of impacting on the long term health of the river which is connected to a city which is committed to loosely regulated urban growth and carbon-based forms of energy and transport. Much of the emphasis of sustainability in New Zealand centres on issues of conservation rather than urban sustainability (see review by the Parliamentary Commissioner for the Environment 1998). The Omaru River cannot really be restored to the pastoral ideal of a rural food source in isolation from its urban setting but this could not be admitted within the parameters of the performance which sought to enlist enthusiastic community support. The most recent performance in February 2015 raised many of the same issues as that of 2013. At what point will audiences ask why the river is not yet restored? Ecocriticism offers analytical frames and models for thinking about how texts represent environmental ideas, values and aspirations and can unpick the dissonances in environmental discourse. This analytical work needs to be included alongside the emotional and the practical response to environmental issues. Ecocritical analysis might be part of the performance but might also take place in the way that performances are read and discussed. This paper is one attempt to respond to the call for theatre and performance studies to engage with ecocriticism as an important turn within literary studies (Arons and May, 2012). In this way The River Talks performance can be read as just the start of a kōrero about ecological action and community activism rather than being judged as a fully rounded answer.

[We drew the discussion to a close, knowing that we would talk again. I hoped that the recorder had worked—it felt like we had been immersed in the discussion in a way that would be hard to replay. Molly attempted to draw up the broken blind. We left the room with it hanging awkwardly, at an angle.]
Commentary

Adding Materials to the Mix: Water Sustainability, Ecocriticism and Ecocritical Pedagogy

The paper above is “about” the process of understanding the viewpoint expressed by a Māori practitioner in relation to the arts, the environment and community engagement as a form of teaching and learning. This perspective is set within “available” Māori perspectives on the environment and related to postcolonial ecocritical approaches. The success of The River Talks as an event that creates ecological engagement rests largely on the powerful articulation and experience of an alternative worldview in relation to the natural world—the spiritual, aesthetic, emotional and intellectual sensibilities are literally “called out” by the structure and the performance. In Chapter Two I argued for the importance of a range of future scenarios in designing the curriculum, this paper calls attention to the importance of representing a range of available environmental identities within the curriculum and in particular the legitimacy and strength of Māori environmental identities within the Aotearoa New Zealand context (although these identities are also under pressure in a neoliberal context). The concept of “environmental identity” is further explored in Chapter Five.

What is not made explicit in the paper is the significance of the materiality of the arts event, by which I mean the location, the materials used for the artworks and the entities, both human and more-than-human, that made up the experience and the narrative. The significance of the river was foregrounded, of course, but the combination of a material and discursive mix created an aesthetic and ethics of sustainability which read as thoroughly “authentic” and trustworthy. The theoretical insights of material ecocriticism explicitly aim to read these collocations of matter and text together as “storied” and having an interdependent agency in the world (Iovino & Oppermann, 2014, pp.1-2). Material ecocriticism “examines matter in text and as a text” (p.2) and draws attention to the way that texts are situated in a more-than-human world that also acts. This is a significant development of the realist turn in first wave ecocriticism which argued for greater attention to the referent of nature, specifically the endangered world which an “ecocritical text” represents. (So romantic poetry is really or primarily about nature not the human imagination.) In the ecocritical “material turn”, the material world is read with, and in relation to, the textual world,
insisting that human agency is only one part of the picture. The key difference is that matter is held to tell a story, directing a narrative towards a particular outcome (which may work with, or against, other teleological forces). The Fukushima nuclear leak comes to mind here; whatever stories are being told about the nuclear plant and its safety, or otherwise, the material matter of radiation will tell its own story in the ocean, the fish and the sushi that we eat.

In illustrating the importance of this theoretical perspective I am going to set *The River Talks* in contrast with another arts event which focussed on the material element of water: *Fluid City*. I was involved with *Fluid City* as a contributing researcher in 2014. The first iteration of the project involved a water-themed art installation and dance performance which took place on Auckland’s main harbour front on the 22nd March, 2012 to coincide with World Water Day. This was a high profile location that attracted a wide range of intentional and passing visitors. There was another iteration of the *Fluid City* concept on the Rosebank peninsula in 2013 and then an education-based project which culminated in an installation event at James Cook High School which took place on the 16th October, 2014. My involvement began in January 2014, and the location of James Cook High School came out of the research relationship that I had established at the school in my earlier research project which was the focus of Chapter Three in this thesis (Matthewman, 2013).

In beginning a *material* ecocritical reading of *Fluid City*, I am interested in how the metaphorical and the material collide in both the process and the performance of the artwork. Like its subject—water—the *Fluid City* project changed its form from one incarnation to another while retaining a consistent underlying formula or structure, represented by three “vessels”. The three vessels/ reservoirs/ containers/ waterbutts that were constructed to form the mobile installation are open to metaphoric play, but they also become physical containers for stories, images, film, poems, test tubes of scientific samples, watery writings and imaginings. Ecocriticism has a generally expressed ethos of commitment to interdisciplinary ways of working, bringing together practices of reading with practices in ecology—at least in theory and through writing about texts and cultural forms. Collectively, the vessels offer a clear invitation to practice interdisciplinary thinking and playful meaning-making about the ecological issue of water. They invite material customisation to local contexts drawing in local data and stories on site—whether from the Waitemata harbour front, the Rosebank walkway, or the Manukau harbour inlets near James...
Cook. For our educational project this involved taking images from local sites and researching the local issues about water sustainability—such as the ongoing pollution of the local Weymouth beach.

The aesthetic of sustainable mobility is self-consciously displayed as the six foot plastic vessels arrive at the performance location on trailers towed by performers on bicycles. This was a feature of all the performances creating a quirky, wobbly opening to the events. But this is a purely symbolic gesture. The bicycles and vessels are unloaded from a large truck hidden a short distance from the area of the performance site. (In planning a future incarnation it was even mooted that the vessels could be taken by plane to Prague.) The actors then mount their bicycles and wobble through the milling crowd, performing their commitment to sustainable transport options for a few metres, despite the evident difficulty of riding with a large plastic container full of expensive (and non recyclable) equipment in tow (see Figure 10).

Figure 10: Performing sustainable transport, Fluid City, 2014

So here we collide with an unreconciliable contradiction between metaphor and matter. As a new researcher/performer in this context it was made very material to me (although not to the audience) that performance, (unlike ecocritical reading) is a relatively carbon heavy activity (Arons & May, 2012). I was informed in an email
from the *Fluid City* designer that sustainability was not part of the original design brief—so the materials, although locally produced, were part of the usual process of carbon design and production.

We never had the carbon footprint as part of the design brief so in a design material sense this was not considered at all. However the fact that the mobility of the project was achieved through the bicycles was a very conscious design move to place the project in the realm of a light footprint in terms of transport and the city.

(Kathy Waghorn, *Fluid City* designer, email, 8th June, 2014.)

The plastic containers with all the technological trimmings (of microphones, audio equipment, microscopes) carry a calculable carbon cost as well as drawing on a publically funded budget which could have been spent on other forms of sustainability action (the truck and specialist movers cost $10,000 to hire). Inevitably when you have to transport something heavy, or delicate, or precious, over distance, you are much less likely to use a bicycle than a car. In this case, using a bicycle to transport tall vessels of delicate equipment was patently and visibly ridiculous. This created a surreal, slightly comic image, part futuristic, part retro. Theories of performance informed by ecocriticism challenge us to acknowledge theatre as an “ecological actor” and to, “cease producing work that privileges the metaphoric over the material to such an extent that the plight of the material gets lost in the spectacle itself” (Arons & May, 2012, p.6). In retrospect, drawing attention to these contradictions might have raised more thought-provoking ideas about sustainability than trying to obscure them. Why is alternative transport so hard to do in a city like Auckland? As a woman, the intention to cycle home from a mild night out will be greeted by concern and offers of lifts—with “good” reason given the dangers of city biking. The contradiction between the metaphorical and the material could make the point that we can become “locked in” to unsustainable habits of mind and action by complex material interactions of urban planning, transport routes, timetables and deadlines as much as by attitudes, ethos and values (Urry, 2011).

However, the carbon offset should have been that this sustainability project had a positive ecological effect in the material world. For *Fluid City* at James Cook we ran three workshops on dance, photography and poetry, with 7-10 students in each
workshop, with the intention that they would produce material to contribute to the vessels. Only four students contributed material to the vessels (three poems) and four photographs. For the *Fluid City* performance at James Cook, students from two classes doing Health and PE, were released to interact with the vessels and students were invited to visit in their lunch hour. One vessel involved viewing images of the Manakau harbour (this was a “one person at a time” activity so engagement was necessarily brief), another vessel demonstrated testing the water of the local stream, with microscopes provided to look at the micro-organisms. The third vessel contained audio recordings of poems about water at six listening stations with microphones, where, after listening for a while students were invited to contribute their own water story or a poem on a card. The images, taken by the professional photographer employed by the project, successfully captured visible engagement, but my impression was that this was relatively fleeting for most students. At best there was time and space for students to spend 5-10 minutes at each vessel. Few students voluntarily visited during their lunch hour and fewer stayed long.

*The River Talks* demanded extended engagement not just at the time (the first performance and hui ran on by at least an hour beyond a two hour slot) and was followed up with emails to members of the audience calling for further actions in the campaign after the event. It was also low budget and low carbon—apart from the carbon cost of the audience travel (this was a local event and attracted a predominantly local audience). *The River Talks* event has been held every year since, keeping the issue within the public focus (the most recent performance was in March 2017). The performances have had locally positive *material* as well as symbolic effects including planting and rubbish clean up days, education events and community action schemes—although admittedly the river pollution also goes on. The impact of *Fluid City* is less visible and is a matter only for conjecture.

**A Pedagogy of Stupid Optimism?**

This is where we come up against the second contradiction: the problems of sustainability do not match the solutions offered. In *The River Talks* the call to restore the river seems increasingly unrealistic when the river is connected to a whole city

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46 Keri Facer in an interview for the New Zealand educational journal *set* juxtaposes the challenge of global warming with the inadequate response of recycling (*set*, 2014). In her blog she argues for an ‘educated optimism’ (Facer, 2017).
with an increasingly overloaded and outmoded infrastructure for water. Yet The River Talks event has raised the profile of the wider issues even as the local river was given a significant planting makeover with nearly 1500 native trees.

In Fluid City the problem of solutions was even more stark, partly as the messages about “water in general” were so diffuse. Rather than being thoroughly located in place, the vessels (alien and “mobile”) clearly came from somewhere else and our attempt to connect with local knowledge was the result of some web searches and some brief site visits rather than a deep historical knowledge of place. The messages of Fluid City seemed disconnected too: “Don’t wash your car on the pavement—the water goes straight into the storm drain and into the seas and the rivers.” “Don’t waste water; energy is used to clean and pump it.” “Use eco products in your household cleaning.” “Use grey water (contaminated only by eco-products) for your plants, they don’t mind and it saves water.” “Get involved in planting along river banks—it looks better and it helps stop erosion and effluent.” “Buy organic milk—those dairy farmers need to clean up their act, the effluent from cows is not treated before it hits the streams.” “If you own a small business follow the (non-statutory) guidelines for not polluting the storm drains with the waste products from manufacturing and building.”

At the time I remember reading a news report that the ice sheet across the western Antarctic is melting and that nothing now can stop it. That particular tipping point has been reached and although sea-level rise is likely to take place slowly over the next two hundred years it will lead inevitably to a one metre increase and a possible rise of three to five metres. This will mean many millions of people will be swamped by water, washed away by it, even as the world’s water reserves dry up. New Zealand has been identified as at risk in the latest IPCC report (2014) from sea level rise and flooding. Living in Auckland, people continue to be complacent. This is a car-based city. We can wash our cars on the grass instead of on the pavement. We can drive away from our urban problems to a nature reserve. Maybe, we see cracks in the complacency appearing, under a growing recognition that flooding events, storms, perhaps even earthquakes, are increasingly likely in a time of climate change—just as rampant and poorly regulated development puts pressure on a creaking infrastructure. Recent flooding events in Auckland have drawn attention to the problems of concreting where the water used to drain into trees, plants and earth. March 2017 was the third wettest month since records began.
The lessons and messages in *Fluid City* were on a different scale to the reality of the problem. This is also generally true of EfS, which in Aotearoa New Zealand is focused on action competence—knowing how to take appropriate action. The trouble is that the actions that students have the power to take seem so small in terms of the larger changes that need to be made in relation to the whole global system. Even in relation to the city system. Why do the storm drains empty straight into the waterways? Why do we need to mass produce milk and meat—which incidentally takes up so much more water than agriculture? Why does every house in Auckland need to build a drive that can take two cars? Why do we need two cars? Why one? And why are you washing it on your driveway? The problem involves a whole system of which water is only a part. According to Palmer (1998, p.58) the list of priority solutions to environmental problems are as follows (in approximate order of importance): slowing population growth; reducing poverty and inequalities; making agriculture sustainable; protecting forests and other habitats; making energy use sustainable; making water use sustainable and reducing waste generation.

But water is as good a place to start as any when thinking about sustainability and the system as a whole. Lawrence Buell writes about how rivers are have been represented in literature as the “signatures of metropolitan character” (2001, p.265); the health of our city and our world can be read in the water. The waste of our cities and our consuming lifestyles can be read in the water (as in the “line of dirty washing” by *The River Talks* artist Elspeth Fougeres). The problem is how we “write” back. In relation to *Fluid City* we have to admit to the very modest aim of the ripple effect of beginning to make connections between water and wider issues of sustainability and hoping that students will be alert to these issues in the future. Really what is needed is political analysis and political and social transformation. To start with we need to make space to help students to understand how water connects with broader issues of urban sustainability and the political choices that are made about how a city is constructed. This is where ecocriticism and postmodern performance collide and clash. It is hard to believe that developing “liquid perception” will have a material impact on the issues that we face. So how does *Fluid City* develop a pedagogy of hope?

posthumously, wrote about ecology as part of his vision of transformative critical pedagogy. Hicks advocates a pedagogy of hope which is clear about identifying the resources of hope that teachers and students can draw upon. These include the resourcefulness of nature, the artful creativity of human beings, humour, relationships and community connectivity. He also advocates the collection and sharing of stories of success. He defines hope as realistic—it is grounded in the realities of the problem but active in being able to find ways in which to go on—even if the outcome might seem very distant and unattainable. These actions might be seen as “small acts of repair” (Bottoms & Goulish, 2013).

My interest in this chapter has been in the intersection of three concepts: material ecocriticism, ecocritical pedagogy and the potential of the arts within the interdisciplinary arts project of The River Talks and Fluid City. Ecocriticism has defined itself in relation to a concern with how we represent the existence of a material and more-than-human world, a world that is not just constructed in language and felt in human bodies. Theatre academic Teresa May has pointed out that there has been a limited ecocritical response to theatre and performance in contrast to the establishment of ecocriticism within literary studies. She argues that ecocritical analysis of theatre and performance should be in reciprocal relationship with attempts to develop a concept of “ecodramaturgy” in practice (May, 2007). Ecocriticism has a wide cultural sweep, but dramatists and practitioners are only recently engaging with the challenge it represents to the dominance of postmodernism in Performance Studies (Arons & May, 2011). Like literary ecocritics, practitioners and theorists involved in ecodramaturgy tend to ask anxious questions about the practical value of their creative work in relation to ecology. This calls into question Baz Kershaw’s apparent preference for playful, small-scale performative interventions over larger-scale, more direct forms of successful activism (Bottoms, 2010).

The lessons that I take from my involvement in these arts performance projects are that material realities matter. I mean this in relation to being honest about the limits of the research and the pedagogy, but also in relation to an aspiration to bring the material into the mix within the research methodology and writing. Schools are material places which operate within particular environmental, social and cultural conditions. Schools are also places of human interaction and “performance” where texts are interrogated and written. An ecocritical reading of the classroom involves the
intersection of place, environment, cultures, peoples, individuals and texts—it is both material and textual.

These arts projects have taken my classroom research on ecocriticism in the curriculum in Aotearoa New Zealand in a new material direction which gives more conscious attention to the interconnections of politics, persons, place, event and text. This is reflected in methodology as well as in the ecocritical connections of English with the Arts. In the final chapter I will be considering how environmental identities and a specifically ecocritical literacy can be informed within work in English. This will also be related to the political implications of different models of teaching an ecocritical school English.
CHAPTER FIVE

New Departures—from Ecocritical English to Eco-critical Literacy

I won’t tell you where the place is, the dark mesh of the woods meeting the unmarked strip of light—
ghost-ridden crossroads, leafmold paradise:
I know already who wants to buy it, sell it, make it disappear.

And I won’t tell you where it is, so why do I tell you anything? Because you still listen, because in times like these
to have you listen at all, it’s necessary
to talk about trees.

—Adrienne Rich, In Times Like These

In primary schools in the UK, and in New Zealand, children no longer write stories in their English books. Of course, they may still write stories, or more frequently “recounts”, but typically these will be written in an exercise book, or printed out for a portfolio, with the title “Literacy”. At secondary level, students still study “English”, but increasingly English teachers bear the brunt of government pressure to raise literacy standards. Literacy may not have (quite) replaced English in secondary schools but literacy, or literacies, have become a focus of intense scrutiny and anxiety. A quiet, but effective, coup has taken place.

I am uneasy about what might be lost in this transition—the literary, the poetic, the creative, the imaginary, the spiritual and affective dimensions of English (see Medway, 2005). In short, those immaterial aspects that are an essential part of what David Stevens and Nicholas McGuinn call, “the art of teaching English” (2004). Chapter Four of this thesis was located in an understanding of English as connected with artistic practices with immaterial as well as material effects. In this chapter, I attempt to reconcile the tension between my own view of English and that of a view of English as literacy, and to situate both within an ecocritical frame. The substantive contribution of this chapter’s introduction is to set out the concept of “3D Eco-Literacy” which is at the centre of an ongoing research project, funded by the TLRI.
(Teaching Learning and Research Initiative)\(^{47}\) called *Tuhia ki te Ao—Write to the Natural World* (Matthewman, 2016). The chapter introduction is followed by two publications which were written in the first year of the project and both draw on (albeit with different emphases) the concept of Eco-Literacy linked to environmental identity. This chapter concludes with a shorter commentary that leads into Chapter Six and the discussion and conclusion of the thesis as a whole.

**Founding/Funding the Research**

I have noted my unease about the English “turn to literacy”. However, I was pushed towards making literacy the focus of my research by the unavoidable realities of educational research funding in New Zealand. In 2014 I proposed a research project to the TLRI. This was for a subject-based approach to sustainability education which arose from the ecocritical English and Arts project at James Cook High School (2012-2013). The premise was that subject identities and perspectives within learning areas\(^{48}\) must be valued as distinctive sources of knowledge and practice for the New Zealand “future focus” theme of sustainability to realise its potential.

This 2014 TLRI proposal was shortlisted with “medium strategic significance” and it was not funded in the second round. I tried again in 2015 with a revised version of the proposal which was again, shortlisted, and again, rated as “medium strategic significance”. At this revision point I changed the focus to raising achievement in literacy, which I knew to be a priority for the TLRI funders and for the teachers that I had been working with at James Cook High School. The new version of the proposal was duly funded by the TLRI and was deemed to be of “high strategic significance”. This illustrates the premium placed on literacy within the government funding streams compared with the possibilities for funding in the field of EfS. More importantly it indicates how much pressure schools, and schools of education, are under to deliver literacy results. In this institutional and policy context English teachers need a confident and secure appreciation of their role in the development of students’ literacy rather than being subject to the pressures of managerial and instrumental approaches. Therefore, although my initial motivation for changing the emphasis from “learning

\(^{47}\) This is a competitive New Zealand government funded initiative that seeks to promote collaboration between academic researchers and educational practitioners.

\(^{48}\) “Learning area” is the term used in the New Zealand national curriculum for school subjects which are grouped in the document as English, The Arts (Drama, Visual Arts, Music and Dance), Learning Languages, Mathematics and Statistics, Science, Social Sciences and Technology.
areas” to literacy was shamelessly pragmatic, the process of re-conceptualising the research proposal was an opportunity to argue for a holistic approach to literacy as well as generating new connections for an ecocritical approach to English.

3D Eco-Literacy
The revision forced a (dis)continuity with ecocriticism as a literary theory and a turn towards the concept of critical literacy. My reading of Barbara Comber’s Literacies, Place and Pedagogies of Possibility (2015) directed me to the contribution of critical literacy models to situating literacy pedagogy within cultures, environments and the politics of place. I was particularly drawn to Bill Green’s “3D Literacy” (Green, 1988; Green & Beavis; 2012) as a flexible model of literacy. I had already used this model as a teacher educator in the UK when trying to counter the instrumental effects of the Literacy Strategy on student teachers who were routinely delivering decontextualised lessons on nouns, verbs and adjectives. Also significant in selecting this model was the work that Green has done in connecting literacies to rural education and environmental projects (Green & Corbett, 2013; Nixon, Comber & Cormack, 2007).

I will explain my interpretation of Green’s model in some detail as this has become a central guide for planning and teaching in the TLRI research project and for my thinking about ecocritical literacy more widely. Green acknowledges the importance of technical competence but strategically situates that competence in relation to cultural meaning and the social and political uses of literacy. Literacy is represented in three interconnected dimensions that Green names operational, cultural and critical. The operational dimension focuses on competence in the technical production of a variety of forms of writing and design in a range of contexts (which would include, for instance, learning about nouns, verbs and adjectives). This dimension is essential but needs to be situated in meaningful contexts.

Meaning is emphasised in the cultural dimension which refers to competence in relation to real situations. The focus is on knowing how to apply and how to select from the different cultural forms and practices available to communicate effectively in any given situation. In this dimension Green references the US educator E.D.Hirsch’s concept of cultural literacy as essential knowledge for participation in the meaning-making practices of a particular society and culture (1987). Green reframes Hirsch’s elitist stance to encourage thinking about an inclusive range of cultural texts and meaning making processes. In turn I call attention to the environmental importance of
textual meaning making by naming this as enviro-cultural literacy. The “enviro” prefix is intended to prompt a connection between interpreting and producing cultural texts and developing knowledge of, and a language for, place and environments. My interpretation of this dimension includes attention to “cultural heritage” and texts that have particular resonance for the environment, as in Buell’s (1995) promotion of a nature canon. In New Zealand a canon of texts for study is not specified but this dimension can prompt thinking and discussion about the range and quality of texts used in the classroom and their enviro-cultural value. For example, what do we think of as valuable cultural and environmental texts worth sharing as part of a common heritage?

The critical dimension involves knowing how these cultural forms and practices are themselves selective, value-laden, ideological and constrained (both in terms of who selects “the canon” and in terms of the ideology within texts). This raises critical questions which are linked with the cultural dimension such as: who is the “we” who decides which texts are worth sharing? And whose cultural heritage and place dominates? Critical literacy originates from Paulo Freire’s wider concept of critical pedagogy rooted in combatting political injustice and social inequalities. Within critical pedagogy and the more political manifestations of critical literacy the analysis of how powerful groups and interests seek to maintain the status quo aims at revealing the spaces and potential for contestation and social transformation (Shor, 1999). Critical literacy opens up an obvious space for eco-social justice to enter. I have added the “eco” prefix to draw attention to this potential. The “eco” prefix is intended to evoke ecocriticism (as textual practice) and ecology as a way of thinking about all living things as interdependent. Hence the eco-critical dimension of literacy draws attention to the ecological and political implications of textual practice within enviro-cultural contexts. Reading eco-critically involves analysis and evaluation of the cultural and ecological values and interests in texts while eco-critical writing and creation of texts aims at transformation of these values, interests and given cultural forms within an ecological, ethical frame. Although the eco-critical dimension is the most challenging, educators might choose to start with critical questions about texts and power. Reframing ecocritical English as eco-critical literacy has the advantage of making explicit connection with the social and environmental justice concerns of critical literacy. It can also connect with the concerns of teachers who are worried about how to raise literacy standards. Eco-critical is intended to signal not just a
thematic concern with the environment but also to the way that texts represent nature and the environment from the perspective of particular interests. For instance, how can students have the confidence to experiment with changing and challenging the literacy forms, models and practices that they are given within an ecological frame?

From Multimodal to Multisensory
Green’s concept of 3D Literacy is situated within a sociocultural view of literacy: a view of literacy practices as social, evolving and linked to culture and place rather than individual, psychological and monolithic. Indeed, in the conclusion to Green’s co-edited book *Literacy in 3D* (2012) is an invitation to change and add to the model. The model is inherently open and has already been applied in relation to the rapid changes in the use of new technologies, new media and the concept of multiliteracies and multimodal literacy (see the accounts in Green & Beavis, 2012). Multimodality as a theory originates with the work of semiotician and new media theorist Gunther Kress. Kress (2010) theorises how meaning is made in screen-based communication which uses multiple modes (such as visual imagery, audio soundtracks and written banners) which work to create meaning both separately and simultaneously. Any model of literacy must now account for digital contexts and genres, but the value, for me, of the theory of multimodality is that it opens up a metalanguage for talking about meaning making in the world as well as on screen (see Kress, 2000; Kress, et al, 2005). Multimodality was introduced as part of The New London Group multiliteracies project (1996) and has since been revised to include seven modes of making meaning: written, visual, spatial, tactile, gestural, audio and oral that can all operate in combination (Kalantzis & Cope, 2012, p.193). I would argue that attention to multimodal literacy pedagogy can lead educators back to the importance of connecting to the full range of sensory experience within the situated, physical, ecological world as well as in the digital world. For example, the most cited text for critical literacy, Paulo Freire’s account of “reading the word and the world” is full of ecological sensibility and sensory response (Freire & Macedo, 1987). Freire recalls learning to read in a lush and fertile natural world. Naming this world was a process of recognising the elements of the natural world that he experienced around him located in a particular place—his Brazilian backyard “encircled by trees” which seemed full of mangos at different stages of ripeness, rich with the sounds of birds
(tanager, flycatcher, thrush), the scent of flowers (rose and jasmine) and the activities of opossums, chickens and a pet dog called Joli.

I use the concept of multimodality to acknowledge both the importance of understanding screen-based communication and the wider concept of multisensory experience of the world. The screen can be another “window” for engagement with the physical world. The importance of multimodality within current understandings of literacies is referenced in the 3D Eco-Literacy model (see Figure 1 and Table 1 in this chapter).

Within the multiliteracies agenda the emphasis on multimodal communication in relation to technology and screen-based learning is only one part of the equation. The other side is the emphasis on the increasing diversity in social, cultural and linguistic lifeworlds. A related significance of multimodality theory is that cultures attach relative values to particular modes within communicative practices and discourse forms and genres. For instance, in Māori culture the oral mode of language, the gestural and the audio are emphasised in discursive practices such as speechmaking, waiata and ritual greetings, haka (dance), challenges and farewells.

A recognition of the value of other modes of making meaning and a greater range of discourse forms can challenge the dominant cultural emphasis on written language with its tendency to sideline embodied ways of making meaning. For instance, the oral form of the pepeha has been used as a guide and prelude to multimodal meaning making within the English and Arts units in the TLRI project (see the examples that follow in the publications and commentary).

Attention to responding to cultural forms and practices opens up literacy pedagogy to engagement with a diversity of linguistic and multimodal forms of communication and symbolic representations (see in particular Figures 2-4 at the end of this chapter). David Abrams’ in *The Spell of the Sensuous* (1996) documents how indigenous, pre-literate cultures have a strong affinity to the contours of the land and the sensual expressions of nature read through spatial, visual, tactile, gestural and auditory cues and expressed through oral language, art and performance. Abrams presents multiple cultural examples of an ongoing dialogue between the human and the “more-than-human” as the environment is read for meaning which in turn prompts meaningful speech and song. A vivid example is that of the Aboriginal dreamtime stories. Abrams suggests that these stories can seem to be eviscerated and unsatisfactory in written form precisely because they are abstracted from their original
location and practice. The stories were intended to be spoken/sung to the landscape as a dialogue to be completed only by the answering meaning of the place itself. The transition from an oral to a written culture breaks that tight connection as Abram explains “writing down oral stories renders them separable for the first time, from the actual places where the events in those stories occurred” (p.183). In the process the stories and myths lose their oral and performative character and “forfeit as well their intimate links to the more-than-human earth” (p.184). Thus the deep meaning and value of place can be lost as the real place becomes a literary “setting”.

Of course there can be no return to a preliterate culture. I am using Abram to argue instead for an openness to the multimodal sensuality of place through the guided sensual experience of place, walking, drawing, writing, mapping and taking pictures. This multimodal literacy can reconnect us both to our own places and to other places. Ecocritics argue that writing and media that arise out of the sensual experience of place can reconnect readers to that original moment, even if this is “secondhand” (Bate, 2000; Buell 2001). Writing and multimodal creation can also expand our view of the world out from the small place that we inhabit to take a broader planetary perspective (Clark, 2015; Heise, 2008). This is the particular theme of the second publication in this chapter, “From Place to Planet: The Role of the Language Arts in Reading Environmental Identities from the UK to New Zealand”.

**Eco-Literacy as Knowledge**

I need at this point to make a distinction between knowledge in literacy and literacy as knowledge because of the abundance of terms for ecoliteracy already in use. Literacy is always related to forms of knowledge. However the word literacy has also come to mean a particular type of knowledge related to a particular discourse (as in emotional or financial literacy). Literacy as knowledge of, about, and for the environment is variously termed “environmental literacy”, “ecological literacy” (Orr, 2004), sustainability literacy (Stibbe, 2009) or ecoliteracy (see Kahn, 2010). For example, Andrew Stables (2003) has also adapted Green’s 3D Literacy categories to environmental literacy but in the sense of knowledge and practices rather than textual practices. Thus, operational environmental literacy might involve being able to read and understand simple environmental instructions, or recognise and name landforms or environmental features; cultural environmental literacy might entail being able to recognise the cultural significance of a particular place or plant within the national
culture or for particular cultural groups; finally, critical environmental literacy might involve being able to recognise the ideologies that circulate about issues such as green consumerism or the idea that there are easy technical fixes to environmental problems. Clearly, different learning areas are likely to emphasise different forms of environmental literacy with textual implications. Thus, Social Sciences is essential for developing students’ operational literacy in relation to mapping the environment, though it also raises questions of different cultural interpretations of place. English has the potential to develop students’ language for places and environments and arts may involve understanding the properties of natural materials and settings in creating environmental art.

While the concept of ecoliteracy as a form of knowledge, is valuable and necessary, my emerging definition of Eco-Literacy is specifically related to the representation of nature, environments and ecology in the communication and production of texts which may be oral, written, visual, performative or in multimodal form. My perspective on Eco-Literacy is therefore informed by ecocriticism with its particular attention to, and theorisation of, how text and world intersect. This ecocritical perspective therefore continues to inform my perspective on literacy as illustrated in the publications.

The Concept of Environmental Identity

Whilst Eco-Literacy is the main focus in the first paper included in this chapter, the second paper starts from an exploration of environmental identities and how these can be developed within English. It is frequently argued that an individual’s literacy development is closely linked to the development of their identity (Abrams & Rowsell, 2011; Gee, 2000; Ferdman, 1990). Whilst this is often positive, it is also the case that literacy can be an imposition of a particular view of culture, environment and values on the identity of non-dominant groups (Au, 2004; Ferdman, 1990; Stewart, 2014). Awareness of literacy as a cultural project is put forward in Ministry of Education documents as an essential dimension of teacher professional development in “culturally responsive pedagogy”. This is promoted through the key policy document Ka Hikitea, “Māori students do much better when education reflects and values their identity, language and culture” (MoE, 2013, p. 6). Clearly, students bring to the learning situation their own ideas and concepts about nature, places and environments that have been shaped by their own experiences, backgrounds and
cultural worldviews. The whole school experience and teachers in learning areas may respond to, and build upon, students’ own emerging environmental identities. Teacher awareness of the environmental dimension of cultural identities could be an under-represented aspect of “culturally responsive pedagogy” (Ritchie, Duhn, Rau & Craw, 2010).

Ideas about the relationship of environment and ecology with literacy and cultural identity are explored in the two publications which follow, written in the first year of the TLRI project work. The first publication is for a professional teaching journal Set: Research Information for Teachers (Matthewman, Rewi & Britton, in press) and focuses on 3D Eco-Literacy and the second publication (Matthewman, 2017) takes up the question of cultural and environmental identities and appears in an edited collection, Students, Places and Identities in English and the Arts (Stevens & Lockney, 2017).
Publication 7: Locating Eco-critical Literacy in Secondary English

Abstract
In a time of environmental crisis we need a language to speak for nature. In our TLRI project Tuhia ki te Ao—Write to the natural world, we have been working with teachers to develop “3D Literacy” practices responsive to both culture and environment and located in a rich language and ecology of place. This paper will discuss vignettes from two teachers in two schools who experimented with creating ecological units of work for their Year 9 English classes (ages 13-14). The analysis of these vignettes leads to recommendations for how critical literacy can become eco-critical literacy.

Key Points
Classroom strategies for developing a language of place, and for nature, are discussed in relation to classroom vignettes; Green’s 3D Literacy model is adapted to promote reflective planning and critical dialogue about the relationship of culture and environment; Enviro-cultural literacy in English focusses on how authors use different strategies for representing nature and environment; Eco-critical literacy involves understanding texts within environmental contexts for informed critique and creation of texts that represent “nature”.

Introduction
New Zealand has “not achieved” in relation to environmental performance according to the OECD report 2017. New Zealand’s intensive growth is “approaching its environmental limits” with increasing carbon emissions, pollution of freshwater and serious threats to biodiversity (OECD, 2017, n.p.). The pristine image (and the reality) of New Zealand’s environment is being degraded. Responses are required at multiple scales of social organisation, including within education. How can we teach with an awareness of how literacy shapes attitudes and actions in relation to place, nature and environmental futures?

Recently, writers in the arts and in linguistics have protested a gradual silencing of nature and the language of nature; an erasure of the discourse of the

49 NCEA credits in New Zealand are reported as either “achieved” or “not achieved”.

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natural world (Macfarlane, 2015; Stibbe, 2015). If engagement with nature thins then so too does the language. A striking example is the excision of nature vocabulary from the Junior Oxford dictionary and its replacement by technological terms. Robert Macfarlane, an award winning nature writer lists the deletions which included: dandelion, fern, heron, kingfisher, nectar, newt, pasture and willow to be replaced by attachment, blog, broadband, bullet-point, celebrity, cut-and-paste, MP3 player and voice-mail (Macfarlane, 2015a).

Is this just a straightforward reflection of the social reality of children’s lives as “adept ecologists of the technoscape?” (Macfarlane, 2015b, p.3). But language shapes us, just as we shape language. For example, does the dominant discourse of New Zealand’s pristine environment help or hinder us in engaging with the reality of the country’s environmental degradation? If we lose a language for nature then we begin to forget the richness of the natural world. Conversely, if we understand the landscape and language of a place we “look out for it”—both in the sense of noticing its unique features and in the sense of protecting it from harm (Stibbe, 2015). A number of poets went on to protest the dictionary excisions arguing for a precision of ecological language with which to express (and protect) the richness of nature.

In the research project Tuhia ki te Ao—Write to the natural world, 50 two English teachers: Newton Rewi, James Cook High School, and Ros Britton, Hobsonville Point Secondary School, are developing a more ecological and environmental model of literacy which addresses the human cultural relationship to the natural world—a “3D Literacy”.

3D Literacy
Bill Green’s model of literacy is a holistic way of representing literacy practices which challenges a purely skills-based or “operational” approach. The operational dimension of literacy for English would include the technical terminology needed for discussing and analysing texts and knowing how to use conventions for representing meaning. Of course this is important, but on its own it is a diminished approach to literacy learning. Green’s concept of “3D Literacy” describes three dimensions of literacy that should be interlinked in pedagogical practice: operational, cultural and

50 Matthewman, 2016. Funded by the New Zealand government’s Teaching and Learning Research Initiative.
critical (Green, 1988; Green & Beavis, 2012). Our project team have adapted Green’s model to explicitly reference environment and ecology as well as culture so that the model becomes “operational, enviro-cultural and eco-critical”. Green’s model has helped us to think about the social, cultural and environmental contexts and effects of literacy in particular locations. The adapted model is shown below as three interconnected “korus” (see Figure 11).
Figure 11: 3D Eco-Literacy Model (adapted from Green, 1988)
Ros and Newton have added to this model in the course of their planning and teaching of ecological units for their Year 9 classes. The vignettes of their work from the first year of the project attempt to capture the messiness of classrooms, along with some of the doubts and questions that micro-planning decisions raise. At this stage, we do not present settled “findings” or polished products of perfect practice. Instead, we begin a conversation about why it is worth thinking about literacy as linked to the ecological and environmental, as well as the more usual collocation with the cultural and technological. In particular, we consider the process of developing eco-critical literacy in English lessons. The vignettes and commentaries on practices are written from Sasha’s researcher perspective but these draw heavily on our team meetings and post-lesson discussions. They are the outcomes of collaborative work.

**A Tale of South Auckland Secondary Schooling**

The first vignette is set in James Cook High School, South Auckland.

I drive past the now familiar wooden bungalows and fences in Manurewa. It seems quiet. At the school I check in with the imposing but soft-spoken security officer. He directs me to reception as there is building work across the normal entrance. I sign in and sit down beside the white police officer who is also waiting and adjusting his radio. Newton collects me, and, as ever, he is a friendly and positive presence. He fills me in on the class as we walk through and around the blocks of buildings. The class have been difficult and he tells me he will need to reinforce expectations with them. I sit in the classroom and wait while he directs students into a line outside. This takes some time. I feel the struggle going on—the clash of wills, the bubbling energy, confidence and backchat of the class. Newton is getting there steadily. His voice is persistent, reasonable. I look around. A blue plastic chair with a broken serrated back is perched on the table at the back. The walls are mainly bare. There is a poster about punctuation peeling away. The entire lesson is written up across three whiteboards in Newton’s close, neat, handwriting. I can’t read it from the back and make a mental note to get my eyes tested. I go closer. The lesson aim, “do now”, the success criteria, a first activity and one set of comprehension questions, and a writing frame with underlined gaps for a “how does it make you feel” response to a poem. I note that there is no equipment set up in the room. No TV, no projector or screen, no computer in the corner, no set of laptops or iPADS, no bookshelves with books, not
even an OHP. The class file in, quieter than last lesson when I was here and thankfully, this time, they are not eating vivid blue candy. I am the only apparently “white” person apart from Newton, who I know is of Māori heritage. One student asks me “what is your culture?” and as I fumble my answer I reflect that I would have expected the simpler question of “where are you from?” Newton refers students to the board; reminds them of expectations and timings. After the first settling activity (“write down four things that are natural and four that are manmade”), he hands out a poem called “Milking Before Dawn” and refers them to the questions on the board which build in difficulty from identifying the colour of the cows (presumably to get them to read the text) to exploring the inferential question of why the poet writes about the cowshed as “an island of light and warmth” (Dallas, 2001, p.414). At no point in the lesson do students share ideas as a whole class but Newton is constantly busy: circulating, supporting and redirecting to the task on the board. Towards the end he hands out slips of paper and insists that they write one sentence in answer to the question about what the poem tells us about culture and environment in New Zealand before they leave the room.

So what does this story tell us about culture and environment in one school in Aotearoa New Zealand? Perhaps the first thing to say is that the digital age has not yet arrived in this decile 1 school in Manurewa, South Auckland. Secondly, it is clear from initial student interviews that the environment is a low priority in relation to an interest in culture. Students do not readily connect their cultural interest and their social concerns to the environment. For example, one student, Maya51 strongly identifies as Māori. She is clear about not having much personal interest in the natural world, “I feel like educational wise I don’t know that much about nature but I could probably learn, but I feel like my heart will, well, I wouldn’t really be passionate about it.” But when prompted she knows the whakatauki about preserving flax and has a sense perhaps of “Mauri” when she says “I feel like everything has a spirit in some kind of way”. She does not connect her art work on whakapapa with developing knowledge of environment and place saying that it is “all about culture” although clearly there are environmental connections.

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51 All student names have been changed.
Culture is seen as key to identity as reflected in the interview with Maya or the student’s direct question to me about my culture in the lesson. However, shared work as a class is hard to manage, so a process of building knowledge about environment and culture together is difficult. Over several lessons Newton teaches this very challenging group of 25 students through providing written tasks which are to be individually completed, usually in the form of writing frames. As a management and learning technique he adopts the strategy of insisting upon “exit cards” to ensure that all complete at least some work during the lesson. School trips are not on the agenda and although we discuss possible creative writing related to the environment in the grounds of the school this does not happen as Newton is concerned about possible behaviour management issues. I’d like to be clear that from my perspective as an experienced teacher educator, Newton is a thoughtful and intelligent teacher with a deep sense of commitment to his students. I observed his teaching the previous year with this age group and saw him using a range of interactive and multimodal strategies. In modeling “environmental identity” to the class he selected images of Auckland city and the poor, begging and sleeping rough, which show a different view to the tourist picture of the affluent city. He also has a deep affinity to place—to Southland as part of his pepeha and he selected images and his own poetry to convey this to students. His pedagogy had shifted into a defensive mode in relation to this class and the particular conditions of the school at the time, which was going through a difficult transition stage after the departure of both the Principal and a well-respected deputy.

The conditions for both the teacher and the students were not ideal for encouraging “an expanded view of literacy” (Au, 2004, p.7). Literacy pedagogy relied on the written mode rather than a range of modes of making meaning, such as talk or visual displays, while the students and teacher were confined to a cramped and ill-equipped classroom. What would be possible in opening this practice up to enact an eco-critical lesson sequence? Newton and I discuss lobbying for better resources and a visible projector screen as a first move—the technology offering a window on the world beyond the classroom walls. For instance, we discuss that the poem “Milking Before Dawn” could be compared with the recent advert for Fonterra milk in which

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52 It should be noted that at the time of revising this article (2017) there has been significant refurbishment of the classrooms and school environment including a new computer suite.
Richie McCaw interviews a farming couple at 4.31am (Bridgemen, 2016). Questions to first engage students might include: “who had milk for breakfast?” and “who do you know who has to be up before dawn for work?” Newton’s primary aim was to help students to understand different perspectives on the land—in this case the poet seems to represent the farmer’s perspective and intimacy with the land and his animals in “an island of light and warmth” (Dallas, 2012, p.414).

Crouched on the stool, hearing only the beat
The monotonous heat and hiss of the smooth machines,
The choking gasp of the cups and rattle of hooves,
How easy to fall asleep again, to think
Of the man in the city asleep; he does not feel
The night encircle him, the grasp of mud.

This positive perspective also needs some eco-critical interrogation in relation to the current environmental context of the pollution of waterways by dairy farming. Secondly, the poem needs to be located—where is this happening? Ruth Dallas, the poet, spent her life in rural Southland, Otago. What are the possible landscapes as “the hills in the east return”? Maps and images would help to make this more vivid.

Interestingly many of the students in their “exit cards” had read the poem as being about Māori—specifically because of the close relationship to the land that is represented. In truth, there is no evidence in the poem for either a Pākehā or Māori speaker. But Newton, as a former history teacher, in the post-lesson discussion considered that context gives another lens for helping students to develop a reading. For instance, does the reading change when you know that Ruth Dallas had her childhood poems published on the “Little Pākehās” Page in the Southland Daily News? Or that Dallas also worked as a milk tester during World War II? Have the students assumed that the speaker is male? Harold Bloom (1997) suggests that all readings are creative misreadings. “Misreadings” are not a problem, rather they are an opportunity for thinking through how meanings are made and with what authority. Locke and Cleary (2011) show how the strategic layered introduction of contexts and inter-texts can be integral to critical literacy practice as students build toward an informed reading of the text. This is very different to the post-modern critical literacy approach of treating all answers as equally valid [within the parameter that “we would
not allow students to maintain readings that might be harmful to others” (Sandretto, 2011, p.225). But does the final authority always lie with the teacher who polices racist or sexist readings? Or maybe anti-environmentalist readings? Literary theory tells us that authority for meaning may lie with the reader, the text or the context (Moss, 2000). Balancing and assessing these claims to authority is a process of developing a valid reading and an understanding of how we read texts from different perspectives. How does adding some context change our reading? How does thinking about what the text says, and how the text says it, shift the perspective again? These are critical tools for making an informed reading rather than an interpretation based only on feeling and gut reaction. (Although gut reaction might be a good place to start.) In this case the initial assumption of a Māori speaker prompted a discussion that Pākehā can also hold ecological perspectives which can mean a close relationship to the land. The contexts that might inform the students’ readings are environmental as well as cultural such as the debate over dairy pollution and methane, Ruth Dallas’s relationship to Southland, her Pākehā cultural heritage and her work in the dairy industry.

Newton and I decided that an English field trip would support students to understand the links between historical, literary and environmental contexts. Significant organisation between us went into a field trip in 2017 to Mount Eden/Maungawhau. For this trip students read the legend of Ponga and Puhihuia set on Maungawhau in preparation for writing their own place-based ecological myth. But that is another story; but one which arose from this first phase of struggle with the notion of an environmentally informed version of English. This story of the possibilities of field trips was also originally located on the other side of the city.53

Hobsonville Point Secondary School: “A World Apart”54
Hobsonville Point teachers shared the Maungawhau trip idea at one of our team meetings. I was briefed about the trip to Mount Eden/ Maungawhau, as follows:

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53 A discussion of the James Cook trip to the Epsom Marae and Maungawhau are planned to be the subject of another article.

54 This phrase is taken from the land development company publicity.
Tomorrow will be guided by Ngati Whatua Orakei so they will be leading the students in discussion around the volcanic cones, the Māori view of their significance and the changing land use in this area. We then want to them to write some poetry for the remaining two weeks that focuses on either the volcanic cones, the coastal walkway that we visited last week or another area of interest. In terms of Social Science they will be considering the viewpoints and values they are expressing in the poem (our learning objective for this term) and thinking about kaitiakitanga. (Social Sciences Teacher, email briefing, 2016)

The Mount Eden/Maungawhau trip was just one part of a range of stimulating experiences for writing which were offered beyond the classroom in this high decile school. The following vignette indicates the technology-based modern environment for learning (and the disparity in opportunities between the two schools):

The school is located in an area of ongoing building and development. There is a new shopping centre and “luxury” and “affordable” housing estates. The school appears very large and architecturally modern with a striking red roof and bold angles. Inside it is open plan with a cafe style dining area, colourful seating areas, learning corners and break out rooms. There are displays of work on the walls and fluorescent lights are at angles. It feels a bit like a new shopping mall.

I am ten minutes late, having misjudged the heavy traffic. I move rapidly up the wide staircase and through the colourful, light and airy spaces. There is a sense that learning could be going on anywhere along the corridor and in the break out spaces, or among the seemingly random arrangements of students sitting casually on lounge style furniture. In a large open space, Ros is finishing addressing a crowd of about 50 students—it seems to be administrative information.

Ros begins to orient the students to the topic which is written up on the board “to explore and make sense of our environmental identity” with reference to Māori concepts of Whenua, Pepeha and Tūrangawaewae referring back to the work on identity that was posted up for them online earlier in the term. Ros explains and glosses these terms “as how do we anchor ourselves to the land and find a place to stand?”
Ros keeps the task very open without specific modelling. Students are given an hour to surf the Internet to research their chosen place in preparation for writing an ecopoem. They have an online worksheet to fill out for the purpose. The poetry will be based on the model introduced in two separate workshop inputs by “Spoken Word” poets. She rereads the model poem which begins “Piha is good times” and involves connecting to all the five senses as she highlights. Students are encouraged to draw on their experiences from visiting Mount Eden or the Hobsonville walkway. Students are fairly leisurely in their approach to the task, some listening to music as they search, interspersed with texting and talking. Eli is writing about Maungawhau, he says that he is not interested in “going outside” so the trip helps him to find a place to write about. I turn to Leia55 who has decided to write about “a forest”. I query this. Any forest in particular? But she is very definite—just a forest.

I am interested in Leia’s use of the forest as symbol and her resistance to the task of writing about a specific place. In interview she clearly articulates her sense of “a forest” as symbolising her ecological relationship and feeling as she explains: “it’s not like one forest that I love, it’s just all of them—it is forests in general.”

However, Ros and I talk about whether a challenge to be more specific about the ecology of place might have helped her to lift the poem out of generic cliché such as “it sounds like birds softly chirping and wind brushing through leaves, like the whisper of nature calling you deeper into the forest”—What type of trees? Why are these trees significant? In a later lesson Ros uses Hone Tuwhare’s poem “Norfolk Pines on Pakiri Beach” to model close attention to a particular tree (Tuwhare, 1997, p.32). Ros brings in books about New Zealand trees and plants aiming to build environmental literacy in the sense of connecting the specific ecology of place with the representation of an “environmental” poet. Hone Tuwhare, often thought of as a committed cultural writer, has written a number of directly environmental poems and many more that are infused with a sensual response to the natural world (Shewry, 2011). On the other hand, there is an argument to say that this student knows her own mind and has a sense of planet not just a sense of a particular place. In reaching towards a generic symbol she may be articulating this ecological sense. This strategy can be powerful and could be met with other examples of literature which work in this

55 All student names have been changed.
way such as Tuwhare’s “No ordinary Sun” (Tuwhare, 1993, p.28) where a tree symbolises the destruction of the nuclear bomb or Robert Frost’s much anthologised “The Road Not Taken” where “Two roads diverged in a yellow wood” symbolising the life choices that we make (Frost, 2001, p.105).

Two roads diverged in a yellow wood  
And sorry I could not travel both  
and be one traveller. Long I stood.

Indeed, the opening of Rachel Carson’s Silent Spring, credited with launching the environmental movement, opens with a similar use of generic symbol (Carson, 1962). Carson was a respected scientist but in Silent Spring she deliberately used the power of imagery to write “a fable for tomorrow” describing a town in the heart of America, once a thriving farming community but now stricken by a “strange blight” (p.21):

There was a strange silence. The birds, for example – where had they gone? Many people spoke of them, puzzled and disturbed. The feeding stations in the backyards were deserted. The few birds seen anywhere were moribund; they trembled violently and could not fly. (p.22)

The power of her writing is that it condenses many real, local instances to create a generic symbol of ecological collapse:

This town does not actually exist... I know of no community that has experienced all the misfortunes I describe. Yet every one of these disasters has actually happened somewhere. (p.22)

As a result of this ground-breaking book, the risks of pesticides were brought to widespread public consciousness, prompting the ban of DDT (a classic example of eco-critical literacy in practice). Of course this particular fight is an ongoing process (consider the links made between pesticides and bee colony collapse).
Of course the use of general terms for landscape can be less than strategic. Robert Macfarlane connects an impoverishment of a language for landscape and ecology to a lack of engagement with the natural world:

It is clear that we increasingly make do with an impoverished language for landscape. The substitutions made in the *Oxford Junior Dictionary* – the outdoor and the natural being displaced by the indoor and the virtual – are a small but significant symptom of the simulated screen life many of us live. The terrain beyond the city fringe is chiefly understood in terms of large generic units (“field”, “hill”, “valley”, “wood”). It has become a blandscape. (Macfarlane, 2015)

This analysis suggests the importance of building an enviro-cultural literacy sensitive to the linguistic representation of place and ecology. Of course, there is an argument to be made here for the specifics of place (as Macfarlane argues) and the symbolic resonance of generic words like “forest” or “hill” (as used in the examples of *The Road Not Taken* and *Silent Spring*) as both being powerful strategies of representation.

Enviro-cultural literacy refers to knowledge of texts and cultural forms which represent the natural and cultural world. Critiquing and transforming this process of representation is the eco-critical dimension of literacy (for instance, we might recognise that Leia’s decision to write an ecopoem about “a forest” rather than a particular place, was serving her strategic eco-critical intent). She explains:

I don’t care about just our country. I care about every country because nature keeps us alive and it keeps the whole world less polluted. I guess you say nature doesn’t really have a voice to kind of just stop it. I am in a position where I can raise awareness. (Interview with Leia, 2016)

Ecological knowledge is part of eco-critical literacy but for English it is brought out in relation to texts. For instance, in both possibilities of a textual response to the student’s poem about a forest (the specific and the symbolic), the teacher would aim to expand the student’s enviro-cultural literacy (knowledge of texts and forms) through introducing them to strong literary models that represent the environment in
powerful ways. This connects with research findings in New Zealand which suggest that students need more opportunities to engage with a range of extended texts (Wilson, McNaughton & Zhu, 2017). In relation to a specifically ecological focus this might support Lawrence Buell’s argument for an environmental “canon” but adapted to the school context (Buell, 1995). English teachers may be unfamiliar with taking an eco-critical line of study in their planning. Therefore teachers need to be offered engaging models of ecocritical texts, readings and lesson sequences and a major aspect of the project’s work is to develop these.

**Developing Located Eco-critical Literacy**

These contrasting vignettes serve to emphasise that learning literacy is political and ecological not just in terms of the practices but in terms of the environment in which learning takes place. An expanded approach to literacy which connects to knowledge, to places, to cultures can become shut down in the face of the difficulties of managing children and limited resources restricting the energy and opportunity for innovation and fieldwork. However, in a situation where the classroom management issues are minimal, the technology instantly available and there are resources to spread out—not just in the classroom spaces but out into the community then the conditions for learning literacy are highly favourable even if the actual teaching input in lessons is similar. In relation to the benefits of field trips I suggest that school managers should support teachers to aim beyond the confines of the classroom. But even within the confines of the classroom English teachers are well placed to develop an eco-critical literacy appropriate to an endangered ecosystem.

Firstly, this would mean developing a literacy pedagogy that pays precise attention to authors and texts as located in places and environments as well as in culture. Hone Tuwhare’s work is suffused with references to the New Zealand ecology and his sensual enjoyment of the natural world through all the senses whether he is enjoying a feed of mussels or admiring the (non-native) beauty of the Norfolk pines on Pakiri beach. Reading his work ecocritically repays attention to environmental contexts as well to ecological literacy.

Secondly, teachers could seek out opportunities to make connections between real places and students’ literacy practices. This would mean seeing the multimodal and multisensory opportunities for learning literacy not just in relation to technology but in relation to “real” interaction with the natural world.
Thirdly, in thinking about how different cultures represent their relationship to the natural world the emphasis should be on critical and nuanced understanding of how texts shape environmental attitudes, values and identities (see Wood, 2007). This can help to develop both local environmental identities and global place identities.

Recent critical literacy approaches have argued that literacy’s transformational potential extends to the environmental dimension (Comber, 2015, Green & Beavis, 2012, Matthewman, 2010). Our aspiration in the project is to counter the erasure of nature from students’ lives and to write nature back into curriculum.
From Here to There

The environmental crisis is now a prominent theme in literature, media, and non-fiction and more recently in theatre. This is the cultural arena where environmental identities are tried on and tested and by writers, readers and audiences. Teachers of the language arts have a vital role in mediating environmental identities through their engagement in this discourse and debate. There are many possible avenues to follow (see Matthewman, 2010) but the representation of place is a good place to start, not least in relation to its currency and value in educational discourse (see Comber, 2015 and Gruenewald & Smith, 2008). In this chapter I will examine the ways that teachers in New Zealand secondary schools have worked to inform environmental identities through a focus on place and belonging. I began writing about the connections between English and environment as a teacher educator in the UK. My move to New Zealand has highlighted for me how a sense of place and identity is central to an interpretation of texts.

Cockney Translation

When I read Andrew Motion’s poem “Sparrow” in 2004 and designed a lesson activity to use with Year 7 (ages 11-12) students in Bristol, UK, my focus was on the bird and its habitat while the sense of place was taken for granted (Motion, 2004, p.143). I followed Motion’s account of his poem which talks about place in general terms as “country”or “town” (Burnside & Riorden, 2004, p.246). However, when I used this poem as part of a professional development day with Auckland teachers in New Zealand in 2015, the interconnection between culture and ecology and the specificity of place was brought into sharper focus. In the next section I will outline the moves in the lesson sequence as it was framed in the UK and follow by an account of how this evolved in relation to the nature and culture of New Zealand.

The first move in the sequence was to withhold the title but to notice that each line is an act of naming, a noun phrase which follows the form of the Anglo-Saxon “kenning”— something is being named—what is it? These range from the descriptive,
“puddle bather” to the punning “hedgerow flasher” to the lyrical “heaven filler”—all set out in the form of a rythmic, rhyming list:

No longer
country clubber,
barn bouncer,
hedgerow flasher,
bran dipper,
puddle bather,
dust bowler,
stubble scrounger,
dew nibbler,
creeper sleeper,
dung dobbler.
No longer

(Motion, p.143)

Conveniently there are thirty of these kennings which can be distributed around the average class and analysed individually and in pairs to draw out clues and connotations to guessing the creature. Thoughts in relation to the kennings were collated on the board under headings such as: “characteristics of the species”; “habitats”; and “human attitudes to the species”. This was usually a good point to reveal that the lines make up a whole poem leading into a performance with students standing in a circle to read out their lines (in numbered order) with the teacher voicing the refrain “No longer”. Students had probably already begun to make guesses at the species and this was encouraged in relation to the teaching point that “this is a species that has adapted to live alongside humans in multiple environments—both urban and rural.” Before the answer of “sparrow” was either guessed, or finally revealed by the teacher, the possibility of a range of various birds and creatures such as spiders, rats and pigeons had been considered. The significance of the refrain “no longer” is brought into focus once the sparrow has been considered as a familiar bird held in some affection by the poet. Why no longer? What has happened to the sparrow? What have we lost? What is the purpose and value of this “ecopoem” which appeared in the anthology Wild Reckoning (Burnside & Riorden, 2004)? This anthology
commemorated the fortieth anniversary of the publication *Silent Spring*, the seminal text of the environmental movement (Carson, 1962). For older students the sparrow poem segued well into a reading of the opening fable in *Silent Spring* which describes a small town in America where nature has been steadily poisoned and where no birds sing. A creative alternative was to research their choice of an endangered species as a prelude to writing their own kenning poem. Teaching the poem to student teachers of English I suggested that pupils could write an ecocritical introduction to the poem for an environmental publication based on their research into the disappearance of the sparrow.

But in New Zealand, sparrows are plentiful. When I arrived in Auckland I was pleased to see masses of them everywhere, jumping onto urban cafe tables, squabbling in the kanuka trees or flocking for bread in my “backyard”. Clearly the refrain “no longer” did not apply here. Also, when I came to teach the poem in New Zealand I realised more acutely that rather than “capturing the sparrowness of sparrows wherever they are (or are not any more)” the sparrow in Motion’s poem is viewed through the lens of Englishness and lives in English places (Burnside & Riorden, p.246). Expressions such as “cocky bugger”, “hedgerow flasher”, “stubble scrounger” and even “country clubber” need glossing, as these reflect the idioms of English speech and English scenes—there are no hedgerows in New Zealand and the only stubble to be seen around Auckland is of the designer variety. Rather than being a problem, this difference is a point of interest raising a new set of questions: how would the poem change if it was written about sparrows in New Zealand? What lines would need to be altered? What lines could be added? One teacher commented that sparrows in New Zealand count as pests because as scavengers they compete more successfully for scraps than the native bird scavengers. This New Zealand environmental perspective could be set against environmental perspectives which suggest that other environmental focuses such as habitat loss are more important (Inger et al, 2015; Peach, Vincent, Fowler & Grice, 2008). Of course the elegiac tone of the poem does not make sense in New Zealand in relation to the abundance of sparrows, but at one time, not so long ago, it would not have made sense in England. “The best-documented change has occurred in London where numbers of breeding sparrows declined by 60% between 1994 and 2004” (Raven, Noble & Baillie, 2005 in Peach et al, 2008, p. 1). This might be especially poignant as sparrows were part of a London identity and argot—the “cockney sparrer”—an underfed city child. Moreover
the decline of the sparrow has been linked to the “great thinning” of the insect population in Britain (Summers-Smith, 2003). Nature writer Michael McCarthy’s book, The Moth Snowstorm: Nature and Joy (2015) describes the rapid disappearance of British wildlife since the Second World War, which is closely linked to the intensification of farming and the use of pesticides, herbicides and fertilisers. McCarthy writes, “The country I was born into, possessed something wonderful it absolutely possesses no longer: natural abundance…Blessed, unregarded abundance has been destroyed.” His most sobering example is the blizzard of insects that used to obscure the windscreen of the car on a summer’s evening in England, a phenomenon that will only be remembered by people over the age of fifty. This example makes the teaching point of how rapidly the ecology can change and natural taonga (treasures) can be lost, requiring awareness of threats and the importance of protection not just of species, but of ecosystems. It is easy to transfer the activity to a bird in danger of extinction in New Zealand—unfortunately there are plenty of critical and endangered species to choose from—the most familiar ones being the kiwi (all five species), takahe, black Robin and the kea. But these have been endangered for some time, perhaps more sinister is the recent rapid decline of the once numerous New Zealand black billed and red billed gulls.

Of course the significance of the lesson sequence on “Sparrow” is lost if all the cultural, environmental and ecological context is stripped away in the rush to guess, or to perform, or to write. This is the basis for an ecological lesson sequence rather than a stand alone lesson, and it would work well as part of a cross-curricular collaboration. Teaching this sequence ecocritically requires the teacher to impart and to manage knowledge and research into environmental issues in relation to the text. But good English teachers have always researched and prepared the contexts of texts—knowing that a strong interpretation is informed by knowledge—rather than leaving students with only their own hunches, guesses and feelings. The difference is that “the environment” is not listed as one of the contexts to consider in criteria for School English. Motion’s stated aim in writing the poem is environmental: “to invite readers to consider the plight of all kinds of endangered species – the humble as well as the exotic” (Burnside & Riorden, 2004, p.246). In teaching “Sparrow” in relation to a sense of place teachers can inform the local environmental identities of students with a sense of pride and wonder. For instance, when asked about significant wildlife in New Zealand which could be equivalent to the sparrow, one student quipped
derisively “well we”ve got a flightless bird.” This could have been countered with “Yes, and do you know why the kiwi is unique to New Zealand and has become the defining symbol of our culture?” This could be followed by, “How many other native species do we have?”

Environmental Identities

In New Zealand I have been leading a two year research project Tuhia ki te Ao—Write to the natural world (Matthewman, 2016) which is focusing on the ways that teachers can engage ecocritically with texts so as to inform students’ environmental identities.

Within the project we have used the term “environmental identities” to refer to the shifting mix of knowledge, understanding, values and attitudes that people hold about their relationship to the natural world, their understanding of their physical place in the world and the relationship between their culture and nature. Environmental identities may be shaped by a wide variety of influences including the mass media and the everyday acts of living within a culture. We seek to emphasise in the project that environmental identities are not fixed but they develop and change over time, and are affected by physical and social location. Underpinning the project is the idea that school subjects are important sources of feelings, knowledge and values that can inform and draw on environmental identities. Clayton (2003) emphasises the “sense of connection to some part of the non-human natural environment, based on history, emotional attachment, and/or similarity, that affects the ways in which we perceive and act toward the world” (p.45). From this we derive four aspects of environmental identity to consider in our planning: a sense of place and belonging, attitudes to animals and plants, involvement in group activities related to the environment and a sense of the natural world as interconnected. Crompton & Kasser (2009) argue that, “it is at this level of values and identity that environmental communication must aim since only a change of identity can make a real difference to people’s behaviour” (p.7). This sits easily with the focus in English on “personal growth,” albeit from a less familiar angle.

56 There are 70,000 native species of plants and animals and many of these, like the kiwi, are endemic. (Brockie, 2016)
Another continuity arises from within the wider discipline of English in relation to the significant addition of ecocriticism to the canon of literary criticism.\(^57\) Put simply, ecocriticism studies the relationship between the physical environment and cultural representations. Lawrence Buell (2001), one of the most influential ecocritics, also draws a link between identity and environmental action. He examines a range of literary representations of environmental issues alongside reviews of prominent historical environmental case studies (such as love canal and the Exxon Valdez) which lead him to conclude that “an awakened sense of physical location and of belonging to some sort of place-based community have a great deal to do with activating environmental concern” (p. 56). Initial work in our project Tuhia ki te Ao has gravitated towards articulating place and belonging in relation to the themes that teachers have chosen to pursue in their work. In the context of New Zealand the question of who belongs and who most or really belongs is both fraught and sensitive. Cultural protocol decrees that greetings must be given in a certain order, first to Māori (as the first people), then to the colonial islands in order of their historical connection. Formal meetings in our education department begin with a welcome in Māori with the speaker stating his or her place and ancestry (the “pepeha”). These expressions of a hierarchy of belonging mean that individuals from any culture (including Māori) are already inserted into a discursive history of post-colonial territorial disputes. Belonging in Aotearoa New Zealand involves negotiating your part in sedimented layers of history and protocol which can feel exclusive and hierarchical whoever you are. Our research shows that students have affiliations and views of place and environment which are part of their cultural identity and which are embedded or implicit within cultural literacy practices. Conversely, alienation from the natural environment and the experience of displacement through migration or through changes to home environments can cause a profound sense of dissonance (Nixon, 2011). To attempt to counter this alienation, the school curriculum, and the teaching and learning that take place in subjects, has the potential to inform, draw on and help explicitly develop students’ environmental identities in positive ways.

Environmental identity is not just a matter of dimensions of environmental concern but involves cultural mediation and labelling. Students are exposed to

\(^{57}\)Ecocriticism is now an established field with entries in the major introductions to literacy criticism and theory (see for example Barry, 2002).
available constructions of environmental identity in the media, literature and the
culture of everyday life. In New Zealand these can be recognised as: Māori
kaitiakitanga; pākehā settler; New Zealand conservationist; New Zealand 100% Pure;
and the global eco-being. These environmental identities may be provisionally
sketched as follows:

**Māori Kaitiakitanga.** This indigenous perspective holds that Māori have a
literal ancestry and kinship to the natural world (Mataama & Temara, 2010). This is
expressed through myths and stories of relationship and belonging to the land. Māori
groups (iwi and hapū) have particular historical connections to land areas and they
have the status of *kaitiaki*—guardians with an inherited obligation to protect the land.
While the status of kaitiaki is often appropriated in mainstream environmental
discourse the meaning of this word is held to be sacred and appropriate only to Māori
as people of the land (Mutu, 2010). But as many Māori are now urban dwellers with
broken links to the land this may be an equally difficult identity to inhabit for most
Māori as well as for Pākehā. However, it offers an important and high status
alternative to a resource based view of the environment.

**Pākehā settler identity.** Pākehā (Non-Māori or more commonly used in
relation to New Zealanders of European descent) have long ties to farming reflecting
the historical importance of New Zealand agriculture to Britain. This may be
represented as a caring and productive relationship (Stephenson, 2010). It is of course
a contested environmental position as the waterways are increasingly polluted by
dairy farming and fertiliser and pesticide run off. As former All Black captain and
“national hero”, Richie McCaw said in a recent advert for the milk company Fonterra
that, “people say that farmers don’t care much about the land” and then he listens,
nodding, to the farming couple who explain their efforts to protect, plant and
regenerate. This identity of working your land is very strong in New Zealand and is
present in many a suburban backyard cum smallholding. Homes are referred to
routinely as “properties” in general conversation and improvement of both land and
property is part of a deepseated belief in ownership, progress and development.
“Bring on the weekend” is the advertising slogan of DIY giant Mitre 10 reflecting and
contracting a kiwi obsession with weekend improvement projects. The Pākehā settler
identity can be actively anti-environmental and individualistic and be expressed in the
belief that property owners should have unregulated control over the natural features of their land with the right to chop down mature, and even rare, native trees.

**New Zealand conservationist.** This identity is dominant within education and aligned to the New Zealand Department of Conservation. It is focussed on the protection of native species. New Zealand has a delicate ecosystem highly vulnerable to foreign fauna and flora. The solution is radically anti-alien with poison dropped to kill pests in remote forest areas, strict biosecurity and gated “pure zones”. It is a dominant attitude to nature that views any non native, even if innocuous, as suspect, or at least valueless. “It’s non native” means it can be easily dismissed, culled or chopped down. Planting days and “working bees” to clear weeds are common activities in rural and semi-rural primary schools but are less prevalent in secondary schools where the main focus is on high stakes assessment.

**New Zealand = 100% Pure.** This is the view of New Zealand that is most likely to be available to British readers through the famous advertising campaign: “The 100% Pure New Zealand brand has defined how our country and our exports are viewed across the globe” (Ministry of Tourism, 2016). It is an identity that embraces the recreational potential of New Zealand’s natural spaces and accepts uncritically the notion of New Zealand as environmentally enlightened and blessed; as one Social Sciences teacher in the project commented, “we still have a lot of nature compared to other countries”. The concept of Kaitiakitanga is juxtaposed with the values of the market: “The product we are selling is New Zealand itself—the people, the places, the food, the wine, the experiences.” (ibid) The main problem with this identity is that it can lead to a complacent celebration of landscape and amenities without an awareness that the environment is a process and is under threat (see Matthewman, 2013 for discussion).

**The global eco-being:** this is a more general environmental identity which involves shopping second hand, growing food, taking sustainable transport options, eating vegetarian or at least organic, and being involved in environmental campaigns. However, given that this is a global middle class identity, air travel is likely to be a blind spot. Embracing this identity may earn you the dismissive epithet of “greenie”
or “hippy” which is a common response in New Zealand to anything which threatens the “commonsense” of maximising the resource potential of the land.

The problem is that these identities may not seem especially attractive or available to urban and suburban children many of whom are immigrants who not fully enculturated into being “New Zealanders”. And evidently there are problematic and contradictory elements in all of these positions. These identities have all been raised in our project classroom observations largely as implicit “givens” rather than as positions to be explored and critiqued. For example in Social Sciences the teacher listed up essentialised comments about Māori made by students such as: “land is sacred to them”, “they are very traditional and respect their land”, “The land is like family to them” which was contrasted with a destructive Pākehā viewpoint, “we don’t think of the consequences”. These views were left uncontested creating a problematic in-group versus out-group identity which can work against constructive behaviours (Crompton & Kasser, 2009). In this construction of environmental identities the environment remains someone else’s responsibility (Māori) or conversely someone else’s fault (Pākehā). A resonant example is the often studied play Waiora in which the Pākehā mill owner, Steve, surveys the view and says to Hone, his Māori foreman:

It’s a beautiful place here, eh? You could do a lot with it. That land over there – you could pick it up for a song. Burn it off, plant pine and in 30 years’ time you could mill it. Make a fortune…the Maoris I know they’d probably get up on that hill and watch the sunset. (Kouka, 1997, p.81).

It is challenging to move students on from stereotypes to consider that identities are not fixed and are always nuanced—and this would be possible and available in this play through a sensitive reading of the character of Hone. Working towards a more nuanced and critical understanding of the complexity of environmental identities is an important function and potential of close reading of text and place in relation to environmental context. However it requires strong teacher

mediation in leading debate and discussion and offering alternative perspectives and readings. For instance, students were introduced to a recognisably “New Age” definition of an ecopoem on YouTube which led one student to respond that ecopoems are written by “greenies” and another to offer that it sounded like “the sort of thing that hippies would write”. The YouTube representation of eco-poetry could have been contrasted with a more political definition such as that available in the anthology *Earthshattering* (Astley, 2007). Working with a strong example, such as “Sparrow” or *Waiora*, allows the teacher to prepare to discuss the differences between cultural perspectives on environmental issues. Learning to be ecocritical means being aware of the identities that are available and represented and debating the contradictions and problems in a global as well as a national context.

**Environmental Knowledge**

One of the major challenges for teachers in the project has been judging how to introduce ecological knowledge to be integral to the activity and consistent with the subject discipline. Students may be unaware of what they need to know or how to research and this is reflected in the vignette that follows:

*A feeling for somewhere…*

*It is July and a chilly winter’s day (for Auckland). Students huddle outside a portacabin classroom but once inside, it is stiflingly hot and Newton comments that he has had to complain about the heating. The room is cramped and dark and the computers have a heavy look. Students sit down and the familiar complaints about slow log in begin. Newton is busy settling the class and dealing with issues. It becomes clear that several of the computers are not working or have no Internet access. The students with working computers know what they have to do and are scrolling and selecting images from the Internet. There are maps, flags, pictures of beaches, waterfalls, Marae⁵⁹, food, a couple of city scenes. Newton prompts “It’s got to be about you. Remember we talked about culture, where you live... where your family is from.” Later he interjects, “Remember that idea of sustainability—how is that perspective in your culture?” and again picking up on an individual question he*

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⁵⁹A māori meeting house.
reminds the class “what does sustainability mean? How will we keep the environment for future generations? Like, how do we sustain a conversation—keep it going?”

Diane is working on her PowerPoint presentation. She has chosen iconic tourist scenes of the Coromandel: a picture of the famous railway and an image of the viewpoint tower. I am surprised when she says that she has never been on the train or to the viewpoint. “It’s just a picture of the environment.” She selects an image of a beach in Coromandel. To her, this represents the beach where her father and grandfather built their own bach60 although she can’t remember where exactly in the Coromandel this is or give any place names. She says that she goes on holiday there every year and has good memories of it. Danni works in a fairly leisurely but focused way on compiling her three slides. She has a discussion with her partner about what the task is about:

“It’s culture!”

“No, it’s environment!”

“It’s a bit of both.”

They confirm this with Newton who tries to draw out how her work connects to sustainability. He asks her about how she would feel about the beach if there were buildings there.

This vignette illustrates a common feature of our observations and discussions with students at the school about their favoured places which are often located far from where they live. Diane clearly has a long history with her place in the Coromandel and a deep feeling for it as she describes how her father has taken up the task of working on and renovating the family bach, built by her grandfather. To her, the precise location does not seem to matter, while the images are generic and symbolic, representing her imaginary sense of the Coromandel in relation to her small, and special place within it. It is far from the urban and often edgy setting of South Auckland.

While this feeling for place is important in terms of environmental identity, our aspiration in the project is to begin to deepen this work through attention to the interconnections of place, text and context. In the second iteration of this work the teacher plans for students to be introduced to the form of the “pepeha” and to write

60Traditionally a wooden holiday home by the sea.
place-based haiku connecting text and image. The pepeha requires the ritual naming of geographical, cultural and ancestral connections relating to self. This is a prompt to finding out about the place that you connect with—your place to stand on the earth (Tūrangawaewae). There are many ways to do this but you would usually begin by naming your mountain, your river and your harbour before naming your tribal and family affiliations. It is a Māori form for an introduction but it can also be a resonant form for Pākehā (non-Māori) and it may be adapted to suit personal circumstances. The structure creates an opportunity for learning the Māori language version (Te Reo) and could also be an opportunity for working in other languages. It was notable that when students prepared for this, only one, out of the sample group of twelve, could name a mountain and a river, while their knowledge of family and ancestry was much more developed. This reflects the strong focus on cultural identity in New Zealand but suggests that the ecological dimension of this identity has not been part of these students’ experiences as Gruenewald (2008) states “environmental education in schools is rare and rarely intersects with culturally responsive teaching” (p.144). He suggests that the failure to know about the unique places in our lives is to remain in “a disturbing sort of ignorance” (p.143). More poetically Wendell Berry writes: “Not knowing where you are, you can lose your soul or your soil, your life or your way home.” (Berry, 1983, p. 103 in Buell, 2001, p.75).

The material impact of the school environment and culture is significant in relation to developing and informing connections to the local place. The connection between positive experiences of nature and place and environmental identity is well documented (see Gruenewald, 2003). However, James Cook school is set in a low socio-economic area and it is difficult and costly (without parental contributions) to arrange field trips—so none took place. Also, students typically don’t have mobile phones or access to digital cameras to take original images and have to work on old computers that are not regularly maintained.

In contrast, during the same period of six-week observation at Hobsonville Point school in a high income catchment area, the target year 9 class (13-14 years old) went on four field trips in the Auckland area and took part in two poetry workshops on different days led by writers. This disparity in opportunity between the two schools has been unexpectedly stark in the project while the demands in terms of tasks set have been remarkably similar. However, during the period of observation it has been the ability of the second school to afford experiences out of the classroom which has
been the major point of difference for students’ learning rather than the superior resources and technology. For example, the following vignette from the second school suggests the potential of the field trip as part of work on setting and location in Drama.

**Comparing locations from then to now**

*It is the day of the trip to Takapuna beach. Leigh has prepared a set of activities for the students to complete as part of the field trip for drama. In activity one, students are asked to read the opening monologue from *The End of the Golden Weather* (Mason, 1962), highlighting descriptions of the landscape in the text, finding and photographing the locations and then noting how they have changed from the description in the play. Activity two, involves looking for the places where a series of photos from the 1940s-1960s were taken, and again noting how the location has changed over time. Activity three, asks students to investigate a newly built playground on the small reserve next to the beach (which used to be a regular performance space for the play) and reflect on who has been affected by this change in land use.*

*On the bus students chat and text but some read the extract from the play. The script begins with a long monologue from a narrator remembering this place from his childhood and reflecting on the changes that have been wrought there from European settlement to the setting in the 1930’s. Students spill out onto the beach. They take pictures using their phones of viewpoints mentioned in the script. The teacher has put together a set of old photos of the same location. Students seem excited by the challenge of matching their photos to the ones from the past.*

*Back in the drama studio the next day, students discuss the ways that the place has changed over time referring to the play, their own images and the old photos. The teacher directs their attention to the new astro-turf playground which has replaced the grassy performance space used by the playwright. They are asked to consider in their groups how to produce this script to give a sense of the layers of environmental change and the ecological impact of people on the place. Some students plan to use their slide show as a backdrop, others are prompted to consider an interrupting narrator who adds in comments about the present in relation to the play’s portrayal of the past. One student group is attempting to create parallel scenes, one group is representing the environment as it is now, and another group as it is represented in*
the play. In directing their script they are asked to take an environmental angle on the performance.

This combination of the playscript with its explicit theme of environmental change in the opening monologue and the school’s proximity to the setting location (also historically a performance site for the play) is a perfect opportunity to develop ecocritical literacy. Ecocritical literacy requires a critical understanding of how texts represent particular ecological interests. The shared model allows the teacher to draw attention to the ecological issues that the text raises in relation to the ecological issues presented at the location. A shared model of place for study has the advantage of building students’ place awareness rather than leaving them stuck in a place that they already connect with (but may know little about). Learning how to read a place and knowing that places are in process and changing tends to relate to geography, while English and the Arts are focussed on the work of representation and the feelings, values and emotions which make space become place. However, the process of place making happens as much through this active mediation of “texts, images and instruments” as through real experience (Massey & Thrift, 2003, p. 292). In this unit we see the potential for both experience and mediation to work together as students explore the representation of the environment as a process reflecting on the multiple changes and shifts in the real and fictional location and their ecological significance. Given our observations of the value of the field trip when working with place, the project is planning to support a field trip for James Cook High School in relation to their work on pepeha, haiku and image.

**Conclusion: Moving from Place to Planet**

We have introduced teachers on the project to a three part heuristic model drawn from geographers’ conceptualisations of place: place as a bounded container; place as part of a web of relations and place as a centre of flows (see Massey & Thrift, 2003).

A sense of place as bounded can be discerned in the student Diane’s feeling for a bach situated “somewhere” in the Coromandel. Knowing “your” place better is a starting point but students also need an understanding of how places relate to each other comparing the different ecologies and attitudes to place in relation to texts such as “Sparrow” and other texts which represent nature, the land, the sea, animals and cities. Most texts provoke questions about our relationship to the natural world and
have implications for sustainability of place. In the Takapuna example, place is represented as a centre of flows as the play describes the influx of settlers, and the ecological changes that have occurred in relation to cultural change. Arguably students need to develop both a sense of place (as in their place or their Tūrangawaewae) and a sense of planet, as they look beyond the confines of their own place to see the environment as a complex and interconnected process (Heise, 2008). At James Cook the students who had explored their own place also learned about the plight of the pacific island of Kiribati in Social Sciences as part of the project. A majority of the students have family links to the Pacific and they wrote impassioned and carefully structured letters to the Prime Minister John Key about the human impact of climate change on this place. This extends imaginations outwards from the dominant New Zealand environmental identities which are strongly centred on New Zealand as a bounded place, with a unique fauna and flora requiring protection from the threats of outside. But as a student once said to his environmentalist lecturer: “it’s hard to care about the environment when someone’s foot is on your neck” (Gruenewald, 2008, p.145). Social disparities and opportunities have been marked in relation to the two schools and it is important to make explicit the links between social and environmental justice as in the case of Kiribati. Helping students to develop a robust and critical environmental identity requires an eco-critical literacy approach within all subjects as a dimension of critical literacy. This means that texts are seen not only as serving particular human interests but also ecological purposes and interests. The hope is that eco-critical literacy can support students to become powerful advocates for their places, communities, trees, animals, insects, birds, plants and sparrows while also caring for wider communities and the fragile planet that supports us all in a web of living beings.
Commentary
Challenging Writing and Iterative Process

These papers provide insights into the process of working through the challenges of developing ecological units for English supported by the model of 3D Eco-Literacy, an ecocritical orientation to text and a commitment to developing positive environmental identities.

The teachers represented in these papers have moved on to another phase of development in their practice in recent units. Newton, at this point in the writing of the thesis is teaching a creative writing unit with the theme of Auckland as an eco-city of the future and Ros has been working on a collaboration with art for students to create treasure boxes of art and eco-poetry. The work from Ros’s unit is still being collated for analysis but my observations suggest that this is the best expression and evidence I have seen so far of the rich potential of linking the concepts of cultural and environmental identity within an ecocritical orientation.

Students were all given the same size of box which they decorated and filled with “treasures” (art and poetry) to represent their cultural and environmental identities. In keeping with a concern for materiality these were “upcycled” from used “My Food Bag” fridge boxes supplied by staff and community members. In several of these treasure boxes a blend of environmental and cultural identities are expressed and represented such as Korean and Kiwi, Māori and Dutch, German and New Zealand, Indian and New Zealand. Di Cavallo, the art teacher explained that the content of the work was prompted by the pepeha structure of naming your mountain, river, harbour, waka (boat) and tribe. The structure was adapted to ask students to represent the features of their place and culture that have special meaning to them. Students were encouraged to research the natural “flora and fauna” of their chosen place. The artworks display an unusual integration of attachments to urban and “natural” features of the environment with 3D models and coloured images and abstract designs of animals, birds, trees, and flowers used to represent and symbolise cultural identity and/or included because of an emotional, ecological connection. Steva, for example, includes cornflowers to show her German environmental identity, and Tina uses a mixture of roses and ferns in her design to represent her English and kiwi heritage. These are bold 3D examples of multimodal design (see Figure 12).
The English teacher, Ros has worked to develop students’ ecological literacy, encouraging them to name the trees, plants and animals and to find out the precise location of their favoured place located on a map which is integrated as a layer of the design in each box. At the end of the unit the work was displayed as an exhibition on the walls with an accompanying artist’s statement which Ros modelled in relation to her Welsh, cultural and environmental identity. Students’ artist statements were written very rapidly and printed out during a double period preparing for the display but clearly the students were not stuck for ideas about what to put and were keen to explain the provenance of their artwork. Some of these statements show emergent ecocritical reflection on the process and express a clear sense that their identity has
been positively shaped by the work. Here is an extract from one student which is representative of a high level of personal investment in the creative work (although some sentence proofing is yet to take place).

**Being Me in Whitianga**

This is my box at the roots there is a map not just any map it’s a map of the most amazing place ever it’s a place I call home its Whitianga it features the icecream truck, the boats at sea and the big oak tree I used to climb all the way up and freak out my mum! Then we have my poster card that’s about a myth of the tongan king and his two wives we have bold blue waves and the strong tree trunk and the washed effect of the leaves with the fox flying over the tree. Next we have a music note a treble clef with words to a special song. Now a print of a fern and a pacific flower that join together to create a cross. There is mail [letters and poems] with all my writing about plants, people, words and their affects, colours, places and more this is my box with the most special things that I love. (See Figure 13.)

![Figure 13: “Being me in Whitianga”, Treasure Box](image-url)
The analysis of the treasure boxes is in process and I am reviewing the three observations and the records and images of the work. The next stage is to work with the Art and English teachers to explore the rich palimpsest of each treasure box and to reflect on how each element was prompted from the teachers’ perspective. This will in turn generate questions to ask the students in interviews that will explore the boxes from their viewpoints. The final analysis and writing is planned to be a collaborative process between the teachers and team researchers (in Art and English) drawing also on students’ own analysis of their process.

No doubt there will be more to say about the treasure boxes (and the future city stories) after the analysis phase. The treasure box unit is mentioned here as an indication of the multimodal ecological potential of the work as it develops through an iterative process. However the thesis study is a defined and closed period. The next chapter formally discusses the work presented in the thesis as a whole and draws together the ideas in relation to the implications for policy and practice.
CHAPTER SIX: DISCUSSION
Fifty Shades of Green: Challenging the Rule of Grey Capitalism

Little or nothing.
So many of us!
So many of us!

We are shelves, we are
Tables, we are meek
We are edible,

Nudgers and shovers.
In spite of ourselves.
Our kind multiplies:

We shall by morning
Inherit the earth
Our foot’s in the door.

—Plath, *Mushrooms*

At the end of the thesis my thoughts return full circle to thinking about the possibilities for an ecocritical English, in between the cultures and places of England and Aotearoa New Zealand.

This thesis has argued for, and demonstrated, the value of a particular vision of an ecological and environmental English linked to culture through the analysis of classroom texts and practices. Therefore in my discussion of the thesis I will step back from literacy and return to English to proceed as follows: First, I will revisit the intellectual case for an ecocritical English from the eco-linguistic perspective raised in the last chapter. I follow by giving a more explicit and extended account of the political implications of teaching ecocritically in relation to models of English. To finish, I will look ahead to next steps in the ongoing research agenda and gather together the key concepts of an ecocritical English within a familiar framework.

Re-stating the Intellectual Case for an Ecocritical English

My intellectual position on English and literacy throughout this thesis reflects the arguments of ecocritics at tertiary level that literary criticism which does not take into
account the implications of the environmental crisis and the Anthropocene are looking increasingly anachronistic (Clark, 2015). In the academy, ecocriticism is now a literary force to be reckoned with, to the extent that attention to the representation of concepts such as nature, climate change and the Anthropocene has influenced the work of critics who do not identify specifically as “ecocritics”.

Meanwhile, an ecological or environmental dimension to English remains far from a mainstream position within school English teaching. A brief survey of introductory books published on school English teaching in the last ten years found only one sustained discussion of an ecological role for English (in Stevens & Turvey, 2012). At the same time, in the broad educational field of sustainability there are frequent calls for ecological knowledge as an essential “literacy” perhaps as an attempt to claim some of the status for the field of EfS that is accorded to literacy.

In arguing for an ecocritical turn in secondary English teaching I am very aware of the problem of curriculum overload. As a central spoke in the curriculum wheel, English is particularly susceptible to demands to deliver “more”. For instance, English teachers now carry the main responsibility of engaging with “new literacies” related to the bewildering range of digital technologies. Given these pressures, is it fair to add to the burden of busy English teachers who already have a remit to prepare children for the economic and literacy demands of the future? But the future can come in many guises as Urry shows us in What is the Future? (2016). In the light of the unsettling scenarios put forward in recent social theory what could be a more relevant issue for all educators than the fate of the planet?

English is about stories in many different forms. These stories preserve our past, capture our present and shape our future. Arran Stibbe, in a persuasive and scholarly analysis of environmental discourses, suggests that we need new “stories to live by” (Stibbe, 2015, p.2). Echoing Lakoff and Johnson’s (1985) work on metaphors, Stibbe defines “stories-we-live-by” as “cognitive structures” akin to “myths, paradigms, refrains and root metaphors” that exist “in the minds of multiple individuals across a culture” (p.6). These stories represent dominant ways of seeing the world that become taken for granted and largely invisible. Stibbe focusses on revealing and contesting the dominant stories relating to ecology that appear “indirectly between the lines of the texts that circulate” (p.5). These stories involve the taken for granted acceptance of economic growth, technological progress, nature as resource, nature as separate and the centrality of human perspectives. Stibbe takes
up the challenge from Paul Kingsnorth, founder of the Dark Mountain Project and “a recovering environmentalist”, to find new stories. The original Dark Mountain manifesto identified “a crisis of stories” and called on writers, artists “and anyone else who played with the imagination for some semblance of a living” to try to write new stories for changed times (Kingsnorth, 2017, p.4). Both Stibbe’s concept of stories or ideologies “between the lines” and Kingsnorth’s sense of a community of writers and artists creating stories to represent and make sense of a new relationship to the Earth, speak to me as a teacher of English and a teacher of English teachers. For English is the place where children learn to read and write stories. The environmental crisis has become a grand narrative that is inescapable, ubiquitous, but at the same time strangely and uncomfortably relegated to the periphery vision and concern of mainstream work and cultural life in the consumer society. As a narrative with many threads, twists, ruptures, contradictions and uncertainties, the tropes of nature, ecology and the environment require multiple approaches and interpretations. English allows the expression of ethical, emotional and aesthetic responses without requiring that a set body of environmental knowledge be covered—because almost any text raises environmental questions. The first step is for teachers to be more aware of the environment as part of their locus of concern — the legitimate corollary of culture or more theoretically fused and viewed as “natureculture”. Readings and activities linked to the texts studied in English and produced for teachers could be informed by an ecocritical awareness just as they currently reflect legitimate concerns over race, culture and gender. “A Way of Talking” by Patricia Grace and Whale Rider discussed in Chapter Three and Waiora in Chapter Four are particular examples of New Zealand “school texts” that could support environmental thinking alongside cultural understanding. But finding texts representing the environment is not a problem—the real challenge is to learn to read what these texts tell us about how nature is viewed, how human relationships to nature are depicted, what sense and care of environment is offered or disregarded. A related concern is the way that animals are used in stories to think about how particular humans and organisations of humans treat each other and the natural world. These are some of the approaches drawn from ecocriticism that can open up the text to environmental and ecological questioning.

Some will argue that ecocriticism is esoteric, too complex for students below senior level. Clearly, it is possible to translate ecocriticism to approaches and activities in the English classroom—if this is seen as relevant and important. Chapters
Two and Three considered ways in which the environment and ecology can be included within the curriculum with a particular focus on the role of English teachers.

**Stating the Political Dimension of Ecocritical English**

I realise that it is not enough to simply state the intellectual case for an ecocritical English. The curriculum is a site of political struggle: every school subject (explicitly or implicitly) adopts a position on the environment. In Chapter Two I argued that school curricula have assumed the continuation of capitalism and its premise and promise of an expanding carbon economy. But green social theory suggests multiple future scenarios with the “business as usual” scenario the most disastrous prospect for the majority of people. The future we are preparing for may be neither possible (in the context of environmental limits) nor preferable (it will only work for a privileged elite). The educational response to futures is insufficient. As I have suggested, teachers have been progressively limited in their capacity to respond to social issues and political debates, as education has been geared to produce human capital and human capitalists. “Grey capitalism” entails an active occlusion of green perspectives. In the persona of Donald Trump this process is taken to the extreme in an active contestation of environmental scientific consensus and a reversal of political action in relation to environmental protection and climate change. Within education, the environment is a crisis that remains safely bracketed off and marginalised to allow the dominance of grey capitalism to extend across and within the curriculum. Subjects that were originally forged in a carbon mindset are being recast ever more rigidly in the image of capital. Over the last twenty years subject cultures have been increasingly moving towards a neoliberal mindset within a capitalist curriculum context.

In this part of the chapter I want to draw together the work on models of English in Chapter Three with green social theory and the post-carbon social theory in Chapter Two. I will explore how the activities and processes that are designed by teachers within particular models of English and literacy have explicit or implicit connections with particular shades of grey or green socio-political thought. Can teachers subvert the grey hegemony to recognize the potential of greener futures within English? I will use the heuristic of “shades of green” drawing on the
categories put forward by Damien White, Alan Rudy and Brian Gareau in
_Environments, Natures and Social Theory: Towards a Critical Hybridity_ (2015).

First, I want to reiterate the point about “carbon” subjects. School subjects
developed with, and were part of, carbon-based capitalist development (see Chapter
Two). They operate with a strongly anthropocentric model in which the concept of
limits to growth and consequences for the environment and for other species are
greyed out. The development of mass schooling was linked with industrialisation and
the change from a predominantly rural to an urban society so that the curriculum
embodies ideas about progress, economic growth and consumerism both implicitly
and explicitly.

Perhaps English and the Arts, with their origins in the Romantic distaste for
industrialisation and urbanisation, might be seen as counter movements to the carbon
curriculum (see Chapters Two and Three). But on both sides of the world English has
been successfully co-opted into the capitalist educational project. From a subject that
contained radical potential, English has been systematically eviscerated. A striking
anecdote, for me, came from a teacher friend in Auckland, who described a staff
meeting to present departmental visions for tackling the achievement of all students.
The slogan presented by the English department to the rest of the staff was presented,
apparently without irony, as “no credit left behind”. Such a slogan reflects the
following underlying and malignant managerial processes: the fragmentation of the
English curriculum based on obtaining a portfolio of credits rather than a developing
and coherent experience of English; an erasure of children (it puns on the US policy
of “No Child Left Behind”); finally it presupposes a school culture based on
accountability and results in which schools and teachers are judged on data sets,
which are frequently presented without a trace of human nuance. This slogan is the
result of thinking about the subject as servicing the efficient production of human
capital. It likely leads to the kind of planning that is based around working towards
the most achievable assessment credit by any means necessary rather than fulfilling
any broader purpose of the English teacher as a cultural intermediary and guide while
This is a long way from English teachers as the “preachers of culture” (Matthieson,
1975). It is a grey capitalist position for English.

Clearly a societal response to grey capitalism and the environmental crisis
needs to involve more than individual attempts to “green up” and make lifestyle
adjustments. If we take seriously the implications of post carbon and green social theory then a lifestyle approach will result in “business as usual” followed by environmental and social collapse. So what are the green options and how might they be reflected in actual curriculum work in the English learning area?

In the section that follows I explain the categories of green social theory and relate these to versions of English and the 3D Eco-Literacy model. This is a playfully serious move which involves some processes of necessary simplification and exaggeration.

Shades of Grey and Green in the Cox Models and 3D Eco-Literacy

Dark Grey Capitalism

Dark grey capitalism denies a human cause to climate change and argues for a reduction in environmental protection to allow the economy to grow while ratcheting up investment in energy dense technologies and perhaps investing in carbon capture or some geo-engineering. The argument is that the best defense against climate crisis is to have a strong economy able to redesign, repair and rebuild. Before Donald Trump’s inauguration as President of America it might have been possible to write about a growing international consensus on the need to protect the environment. The Environmental Protection Agency is set to sustain the biggest cut of any federal agency in the White House 2018 budget, as Trump seeks to clear away regulations that he claims are hobbling U.S. oil drillers, coal miners and farmers. Trump is widely reported as saying that climate change research is a waste of money. Meanwhile in the UK, European environmental legislation is being undone in relation to Brexit as the UK prepares to protect its own fragile economic interests in a competitive mindset rather than protecting the fragile environment as part of a cooperative conglomerate.

A grey capitalist version of English is depressingly familiar—it is the daily drill of linguistic features and digital skills. Under grey capitalism English is recast as communication or just literacy (or maybe literacies). In this regime the aims of English become narrowly personalised and focused on individual achievement in grades or on adult needs for work rather than encompassing a broader social vision or an ethos of “personal growth”. An idea of the sociocultural mission of English is embedded in a “cultural heritage” or a “cultural analysis” version of English; all of which are predicated on engagement with knowledge and a rich array of texts. But in
a grey capitalist version of English students do not need to read whole texts because it is much more economical to study extracts to elicit linguistic features. Students need to learn useful skills of Internet searching and web design, and they should be filling out worksheets, forms and writing CVs, reports and recounts. Any political or social debate is seen as potentially biased and inappropriate. This perspective means ignoring green perspectives or ring fencing them in a curriculum slot which has nothing to do with anything else—as in the occasional untroubling maintenance of a school vegetable garden. This fits with a narrow “adult needs” model of English which seems similar to the “version of English” described by Locke as “rhetorical competence” (2015a pp.18-23). The operational dimension of literacy is emphasised but could involve enviro-cultural literacy depending on whether the teacher holds an open or a narrow view of what an adult needs to develop in terms of literacy.

**Neoliberal “Bright Green” Ecology.**

This “bright green” position puts faith in the power of green design and smart, clean, technology to solve environmental problems and to mitigate and adapt to the effects of climate change. Combined with a neoliberal ideology, faith is also put in the market as a generator of solutions with claims that the economy can be successfully “greened” with a combination of innovative technology, geo-engineering and perhaps some fortress cities. This position can be summed up as “green neoliberalism coupled with technological optimism will see us through” (White et al, 2015, p.178).

“Bright green” is already a dominant position within “design and technology” in schools that have taken up the challenge of green design. But what would a “bright green” English look like? Surely it would involve cheerful stories of future success involving the reading of utopian texts full of smart technology such as *The World We Made: Alex McKay’s Story from 2050* (discussed in Chapter Two). In a “bright green” English classroom New Media would dominate and children would spend entire “lessons” surfing the net (see the vignette on Hobsonville Point in Chapter Five). Students would produce portfolios of random and “personalised” outcomes such as blogs, websites and utopian short stories. They would create clever adverts for green products and the most innovative would write and design a digital game “to save the planet”. There would be few challenges to, or mentions of, the current political system and campaigns.
This fits quite neatly with the New Zealand future focus discussed in Chapter Two. I have linked this with a “cross-curricular” model of English which does not place much value on subject content but emphasises skills and competencies within a neoliberal framing of 21st century learning based on enterprise and technology. It promotes a digital future that is unquestioning and uncritical and perhaps “stupidly optimistic” so would be unlikely develop eco-critical literacy. Effectively, this green position represents the scenario of “business as usual” but with a green technology boost.

**Ecocentricism (Green to Dark Green)**

Taking an ecocentric perspective means viewing nature as independently and intrinsically valuable, rather than merely valuable as a resource for humans. Nature is believed to hold rights equal to, or beyond human rights, as in the rights accorded to the Whanganui River. The strongest political expression of this position may be seen in the activism of “Earth First!” which uses forms of direct action to sabotage large scale projects that threaten the rights of the Earth. I link this position to a “cultural heritage” model of English as “literature is the most sophisticated example of the process by which we come to grasp our own environment, especially our human environment, with its complex and ambiguous values” (Brooks & Warren, 1976, p.9 in Locke, 2015a, p.17). Although Cleenath Brooks and Robert Penn Warren privilege culture, their work sits within a Leavisite tradition of valuing literature’s connection to organic rural community and the recognition that English contributes to an understanding of urban environmental aesthetics (Leavis & Thompson, 1933). Locke sees this as an elitist position but a contemporary approach to “cultural heritage” can be inclusive of a range of key cultural texts and authors (as in the enviro-cultural dimension of 3D Eco-Literacy). In Chapter Five, Leia’s poem about a forest moves towards an expression of a deep ecology perspective through an attempt to give nature a voice in the face of environmental threats. My discussion of her poem suggests that attention to strong models from “cultural heritage” would help to develop her writing (rather than only relying on the model from the spoken word poets: “Piha is good times”). The literacy dimension emphasised through ecocentrism and “cultural heritage” is enviro-cultural but this may develop into an eco-critical understanding of how texts are strategic or ideological in the way that they represent nature. On a
lighter green note, ecocentrism might mean reconnecting with wild nature, place and culture through pepeha, art and poetry.

From Dark Green to Very, Very, Dark (or Visiting the Dark Mountain).
To visit the Dark Mountain is to realise that a massive social shift is necessary, but also impossible, which results in a defeatist outlook that awaits social and environmental collapse, while preparing for the worst with a survivalist mentality. This started out as dark, radical, green and became Paul Kingsnorth’s “Dark Mountain Manifesto”. What would a “Dark Mountain English” look like? As I indicated earlier in this chapter the “Dark Mountain” position fits rather well with English. It is after all about slowing down, reconnecting with the changed Earth and reading and telling stories of mourning, survival and resilience. English departments have long been obsessed with teaching disaster and dystopia. Whole networks of texts were built around the theme of nuclear war (Z for Zachariah, Brother in the Land, When the Wind Blows, Threads) while the playscript (with teaching activities for Key Stage 3 and GCSE) of The Road (Penhall, 2011) is based on one of the most harrowing apocalyptic books that I have ever read (McCarthy, 2006). So, a “Dark Mountain English” might mean reading The Road, performing Samuel Beckett’s Endgame, retelling Angela Carter’s dark fairy tales and writing post-pastoral poetry or elegies to nature. The art of oral storytelling would be revived to comfort us in the dark nights to come. This “very dark” position has not got much to say about how to achieve political sustainability—after all the assumption is that the system is not sustainable and will collapse. So although “Dark Mountain” is an ecocentric world view, the effect politically may be to allow business to proceed as usual until the system collapses. Engaging with this position might be seen as a form of “personal growth” in relation to a new environmental world order, and it may or may not include an ecocritical orientation. Certainly this position could be supported by a range of “cultural heritage” texts.

Reconciliation Ecology (or Murky Green)
“Reconciliation ecology” recognises the potential of changes in social and political structures, exploring alternative forms of society, work and leisure. Hybrid worldviews and knowledge from different cultures are drawn upon as sources of strength and resilience. Rather than mourning the “end of nature” (McKibben, 1990)
and the loss of features of the natural world, “Reconciliation ecology” embraces the concept of “hybrid natures” as represented in nature/technology/human/culture fusions. This perspective tends to look for democratic, local, communal and collaborative solutions enabled by digital technology. But digital technology is part of transformation rather than enhancing the continuation of existing social structures and habits.

I call this shade “murky green” because I am uncertain (along with everyone else) about what this hybrid vision may amount to in practice. What would a murky green English look like? Tentatively, I imagine students writing carefully researched poems of ecological protest, relearning and reconnecting to myths that speak of their cultural connection to the environment, creating rich autobiographies of their connection to place, integrating words and art. Students might read the satirical utopian/dystopian vision of Margaret Atwood’s *The Flood*. Reading this book might be followed by writing a story set in the eco-city of the future (bright green), but complicated by the threats, compromises and dangers that lurk in that utopia (rather more murky). Or in a hybrid fashion they might choose a Māori myth to “modernise” and rewrite for an urban and sustainable future. Students might deconstruct the film *Avatar* or make a documentary about emerging posthuman identities. The dimension of eco-critical literacy is central to this green perspective which requires critical cultural negotiation of multiple and hybrid viewpoints. Critical literacy seems embedded in a “cultural analysis” model of English which seeks to determine the ideological underpinning of the text.

The table below outlines my thinking about the relationship between green social theory, models of English and dimensions of 3D Eco-Literacy. It would be possible to arrange the table differently. For instance, “personal growth” could be appropriate to an “ecocentric” perspective, but in this instance I like the “Dark Mountain” idea of emotional preparation for a changed world. Equally, although “Dark Mountain” might benefit from the ethical and critical lens of “cultural analysis”, the complications and contradictions of “reconciliation ecology” demand a critical approach. In short, the table is intended to be used to provoke discussion and reflection rather than to finally settle the matter.
<table>
<thead>
<tr>
<th>Green socio-political orientation (White et al) with English texts, activities and processes</th>
<th>Models of English (DES, 1989, Locke, 2015)</th>
<th>Literacy dimensions (adapted from Green, 1988)</th>
</tr>
</thead>
</table>
| **Grey Capitalism:** business as usual. | **Adult needs** focuses on communication outside the school: it emphasises the responsibility of English teachers to prepare children for the language demands of adult life, including the workplace, in a fast-changing world. | **Operational** Knowing how to identify and use the technical features of writing and multimodal design.  
**Operational/enviro-cultural** Learning a variety of forms for making meaning in and for enviro-cultural contexts and purposes. To recognise, select from and apply available cultural forms and practices for cultural and environmental effect. |
| Exemplar texts: Adverts, websites, extracts.  
Filling out forms and writing frames.  
Writing reports and recounts.  
CVs and application letters.  
Producing advertising and designing websites. | **Rhetorical competence**, formal mastery of textual practices, pragmatic competence and social adeptness (Locke, 2015) | |
| **Bright Green:** business as usual but with green technology. | **Cross-curricular view** focuses on the school: it emphasises that all teachers have a responsibility to help children with the language demands of different subjects on the school curriculum. | **Operational/enviro-cultural** Knowing how to identify and use the technical features of writing and multimodal design. Learning a variety of forms for making meaning in and for enviro-cultural contexts and purposes. |
| Exemplar texts: *The World We Made*, nature blogs  
Reading and writing utopias.  
Producing green adverts.  
Creating digital games to save the planet.  
Designing websites on green topics. | | |
| **Green Ecocentric:** the intrinsic value of nature and wildness | **Cultural heritage** emphasises the responsibility of schools to lead children to an appreciation of those works of literature that have been widely regarded as amongst the finest in the language. | **Enviro-cultural** Knowing how to identify and use the technical features of writing and multimodal design. Learning a variety of forms for making meaning in and for enviro-cultural contexts and purposes. |
| Exemplar texts: *Silent Spring, Landmarks*.  
Reading, writing and speaking eco-poetry, post-pastoral poetry and drama. | | |
| **Dark mountain:** emotional preparation for a changed world | **Personal growth** focuses on the child: it emphasises the relationship between language and learning in the individual child, and the role of literature in developing children's imaginative and aesthetic lives. | **Operational/enviro-cultural** Knowing how to identify and use the technical features of writing and multimodal design. Learning a variety of forms for making meaning in and for enviro-cultural contexts and purposes. |
| Exemplar texts: *The Road, King Lear*  
Reading, viewing, writing and performing tragedy, apocalypse and dystopia.  
Telling stories of resilience and survival. | | |
| **Reconciliation Ecology (Murky Green):** working with hybrid natures for social transformation | **Cultural analysis** emphasises the role of English in helping children towards a critical understanding of the world and cultural environment in which they live. Children should know about the processes by which meanings are conveyed, and about the ways in which print and other media carry values. | **Eco-critical** Knowing how cultural forms and practices are themselves already selective, value laden, ideological and constrained. Understanding how these forms and representations might be critiqued, contested and transformed for different purposes, interests and contexts. |
| Exemplar texts: *The Flood, Avatar*, post-nature documentaries  
Reading and viewing post-human science fiction and writing compromised satirical utopias.  
Reading and writing modern myths and “new” nature writing and representation. | | |

Table 2: Green Social Theory, the Cox Models and 3D Eco-Literacy
Towards an Ecocritical English

An ecocritical English might draw on all the models of English at various times but with an overarching ecocritical orientation. For instance, “cultural heritage” texts would be read ecocritically, “adult needs” would include awareness of environmental campaign writing, “personal growth” would include environmental identities, a “cross-curricular” version would work with other subjects on environmental projects, and a “cultural analysis” view would develop understanding of environmental representations in the media. Locke advocates a “critical eclecticism” and argues that, “such eclecticism would not privilege any version of English per se, but would be aware of the extent to which each is characterised by a particular ideological underpinning” (2015a, p.25). In this case I have considered the environmental ideological underpinning of the models of English in relation to how that might play out within activities and texts.

In his final work Paulo Freire (2015) drew an explicit link, not just between social and environmental justice (which is still a view of the environment as resource, albeit one to be better and more equitably maintained), but between a “fundamental” and ecological ethics including “respect for the life of human beings, the life of other animals, of birds, and for the life of rivers and forests” (p.47) and educational practice:

I do not believe in loving among women and men, among human beings, if we do not become capable of loving the world. Ecology has gained tremendous importance at the end of this century. It must be present in any educational practice of a radical, critical, and liberating nature. (p.47)

As I have noted Freire’s ecological sensibility was a presence in his account of learning to read “the word and the world” which is regularly cited in relation to critical literacy (Freire & Macedo, 1987). The ecological potential of critical literacy is already a possibility but is seldom made explicit in the interpretations of critical literacy that are in play within current practice. Critical literacy tends to be represented in anthropocentric terms even when the topic for transformation and action is the environment.
Take the example of a unit of work described in a chapter published in *Masterclass in English Education* (Locke, 2015b). The unit involves the students in the production of a “multimodal” nature-trail pamphlet in New Zealand. It would be difficult to imagine a more perfect correlation between English and environment. The unit of work involves “cracking the code” of this genre through the analysis of a model of an informative nature-trail map/guide, a field trip to a site and group work to collaborate on the information. The unit culminates in the design of a guide to “sell the idea of the bush”. Appearing in a book aimed at an international audience, there is no sense that the place (the Auckland region in New Zealand) exerts a peculiar pressure on the way that the environment is represented. But an insider/outsider might note the inclusion of “aliens” as a possible topic for the annotated guide. These aliens are not the Martian kind but non-native plants. The inclusion of the topic of aliens reflects a dominant conservation concern within the fragile New Zealand ecosystem. A cultural orientation to place is also embedded in the task brief “to sell the idea of the bush” which recalls the tourist industry’s campaign to sell the New Zealand landscape as “100% pure” and the entry on culture refers to Māori connections to the land. None of these discourses are raised. Instead the focus of the activity is on the multimodal and grammatical design of the leaflet. The nature trail topic is just a topic to enhance rhetorical competence (producing a guide to a museum would involve the same skillset).

I am not arguing that every unit in English should have a direct environmental or ecological focus (although if there is an ecological theme it would be good to make the most of it). Instead I am arguing for an “ecocritical English” that develops a sense of place and planet, critiques and creates future visions, negotiates diverse enviro-cultural identities, imagines the world from the perspective of the more-than-human and fosters a precise language and design repertoire with which to represent the interests of natural world. Just as the idea of culture runs through pretty much everything in English, so the environment and sense of place does also, but often without explicit attention. Noticing the environment requires a determined shift of attention, an acknowledgement of the role of the English teacher as mediating both culture and environment.
CONCLUSION
Looking Forward/Looking Back

In my beginning is my end. In succession
Houses rise and fall, crumble, are extended,
Are removed, destroyed, restored, or in their place
Is an open field, or a factory, or a by-pass.
Old stone to new building, old timber to new fires,
Old fires to ashes, and ashes to the earth
Which is already flesh, fur and faeces,
Bone of man and beast, cornstalk and leaf.
Houses live and die: there is a time for building
And a time for living and for generation
And a time for the wind to break the loosened pane
And to shake the wainscot where the field-mouse trots
And to shake the tattered arras woven with a silent motto.

TS Eliot—“East Coker”

Research does not stop at the point when the thesis ends. The thesis has presented and reviewed a body of work produced over a four-year period but the research project Tuhia ki te Ao still has over seven months to run. The end of the thesis represents a point of evaluation and judgement; a kind of marshalling and polishing of conceptual tools and resources ready for the next phase. In this concluding section I will begin with future directions for the research before returning to gather up the ideas and conceptual tools that have been worked on during the thesis study.

Looking Forward and Connecting Out

This thesis has been about conceptualising ecocritical English but the research aims more widely. Originally, Green’s model (1988) aimed at theorising literacy across the curriculum and in relation to different learning areas. In the TLRI project team we have found the model to be both flexible and generative for all three learning areas in the project. We have used the initial analysis of Eco-Literacy in relation to English to build exemplars for Arts and Social Sciences (see Table 3).
<table>
<thead>
<tr>
<th>Literacy Dimension</th>
<th>Content literacy: English learning examples</th>
<th>Content literacy: Arts learning examples</th>
<th>Content literacy: Social Sciences learning examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operational:</strong> Knowing how to identify and use the technical features of writing and multimodal design.</td>
<td>Word level learning: spelling, (morphology; homonyms). Sentence level learning: punctuation, grammar, linguistic and rhetorical techniques. Text level learning: form, layout, coherence, cohesion. Design learning: multimodal features appropriate to form and context.</td>
<td>Drama techniques e.g. monologue, narrator. Artistic processes and techniques e.g. print making: woodcarving.</td>
<td>Reading and creating maps, graphs and diagrams. Naming features of landscape. Learning meanings of key disciplinary terminology e.g. stakeholders, scale.</td>
</tr>
<tr>
<td><strong>Enviro-cultural:</strong> Knowing how to recognise, select from and apply available cultural forms and practices for cultural and environmental effect.</td>
<td>Learning about how words, sentence constructions, idioms and forms relate to environment and culture. E.g. te reo; waiata, pepeha, sonnet, haiku. Learning about a range of key textual forms, practices, texts and authors and awareness of their relationship to, and representation of, place, culture and environment e.g. pastoral, tragedy, whakatauki. Knowledge of key cultural texts/authors e.g. Shakespeare; Grace; Wendt; Tuwhare; Frame, Wedde, including environmental texts: e.g. Carson, Snyder. Ability to write and design for audience, purpose, context and genre in a range of forms which represent aspects of culture and environment e.g. eco-poesy.</td>
<td>Learning about how art is located in cultures and places. Learning about key figures in artistic movements for their representation of, and impact on, culture and environment. Imitation of the style of key artists including environmental artists.</td>
<td>Learning how to read/interpret a variety of environments and environmental issues in relation to different perspectives. Learning how to read, interpret and create typical non-fiction documents for social sciences e.g. geographical essay; environmental report.</td>
</tr>
<tr>
<td><strong>Eco-critical:</strong> Knowing how cultural forms and practices are themselves already selective, value laden, ideological and constrained. Understanding how these forms and representations might be critiqued, contested and transformed for different purposes, interests and contexts.</td>
<td>Critical analysis, comparison, framing, argument and evaluation of texts in relation to their enviro-cultural contexts, significance and value. Discrimination and discernment in relation to the uses of linguistic and rhetorical features and textual forms to create environmental and cultural effects/effects. Creation and/or transformation of textual forms to achieve enviro-cultural effects/affects.</td>
<td>Critical analysis, comparison framing, argument and evaluation of artistic works in relation to their cultural and environmental significance and value. Discrimination and discernment in relation to the uses of artistic techniques and forms to create environmental and cultural effects/effects. Creation and/or transformation of artistic forms to achieve enviro-cultural effects/affects.</td>
<td>Critical analysis, comparison, framing and evaluation of Social Sciences documents in relation to their cultural and environmental significance and value. Discrimination and discernment in relation to the use of Social Sciences evidence and knowledge to represent and debate environmental and cultural effects/affects. Creative use of Social Sciences evidence and knowledge to achieve enviro-cultural effects/affects.</td>
</tr>
</tbody>
</table>

Table 3: 3D Eco-Literacy in English, the Arts and Social Sciences
The table indicates how the model of 3D Eco-Literacy can inform the curriculum beyond English. This work is at an early stage of the analysis. Particular modes of making meaning are foregrounded within each learning area (Kress, 2010; Jewitt, 2003) and in the team we are interested in the implications for enviro-cultural literacy practices. For example, within Social Sciences the geographical mapping of place is central whereas English privileges a more personal representation of place. The performance and display aspects of the Arts have a distinctly outward facing orientation so that place and space can be discussed in a public arena.

The different cultures of the subjects have implications for how environmental identities are informed in relation to knowledge, aesthetic appreciation, moral sensibility, relationships to human and non-human together with civic action and responsibility.

Within English the rich links between language and ecology have emerged as full of possibilities. The place literacy being developed by the “new nature writers” will be likely to offer further suggestive opportunities for informing the work of English teachers. The concept of “reconciliation ecology” gathers significance within a growing awareness of the Anthropocene and an orientation towards a posthuman, hybrid, compromised but hopeful future.

Looking Back to Move Forward

I return now to my opening research questions as a guide for drawing together some threads of ecocritical English. The questions were: what is the potential of a model of ecocritical English for teaching and learning in secondary schools? Followed by, what theoretical and practical tools would help to develop this model?

How do we move forward from the point where we first began, disturbing, if only a little, the still point of the turning world? I have argued that ecocritical English can inform environmental identities and develop a language for place, planet and the more-than-human world. One outcome has been a model of 3D Eco-Literacy as a “tool” to support the development of approaches and activities for ecocritical English. But as I reflect on the tables, models and categories I stumble upon an Anthropocene anachronism: Why are English educators still deferring to the Cox models twenty eight years after their publication? Has nothing changed?
Perhaps it is time to rewrite these models or more radically to put forward entirely new ones to guide a future generation of English teachers in the context of the Anthropocene?

Obviously the Cox models retain explanatory and pedagogic power. The models were originally descriptive of approaches to English teaching in the UK, but their effect has been to change the nature of practice in schools. Educators are typically urged to take an eclectic approach to the models, reconsidering their own biases and widening their repertoires for teaching (Fleming & Stevens, 2015; Locke, 2015a).

In what follows I outline what an ecocritical “Cox Framework” might look like, drawing on the findings of the thesis. This is offered in the spirit of opening the conversation.

**An Ecocritical Revision of the Cox Models**

**“Living Identities”** replaces “personal growth”. In an increasingly diverse world students will need to inhabit many living identities in different contexts, cultures and environments. Experiences and experimentation with language, story, poetry, drama and multimodal meaning making are central to the process of developing multiple and fluid narratives of ourselves. Through engaging with language and texts, students will reflect on, and represent the past, present and future visions of their lives. This will include reflection on the contemporary pressures and ruptures of migration and climate change. The imaginative, moral, aesthetic and spiritual aspects of learning are essential to the processes of English within the exploration and development of cultural, environmental, and digital identities. Students would be supported to make powerful connections between their cultural identities and environmental beliefs, attitudes and responses.

**“Cross-cultural Negotiator”** or perhaps “Border Crossing” replaces Cox’s “cross-curricular view”. Subject “cultures” offer different perspectives on the world. Students need to be supported to recognise these, become literate in them, and, where possible, make creative connections between them. This model responds to the challenge set by the multiliteracies agenda that students need to operate in and negotiate different linguistic and cultural registers within and across a range of
cultural and environmental contexts and world views. It therefore builds on the concept of “Living Identities” but with a more collaborative, public and social orientation to communication and textual practice. The New London Group (1996, p.69) once boldly claimed that this was the only hope for world peace but this may also be a small step towards negotiation for local environments and the planet.

“Literate Citizen” replaces “adult needs”. “Adult needs” always sounded horribly functional. English for literate citizenship recognises that English is not just about preparation for the workplace but about participation in democratic processes and involvement in finding new ways of living in sustainable communities. The world of work may change radically in the future, either with new technologies or social shifts related to climate change. As the environment changes, so literate participation in community efforts for mitigation and resilience become essential skills. The competency skills of spoken, written and design rhetoric used with power and precision are essential to participation in cultural and environmental contexts.

“Located Literatures” replaces “cultural heritage” without the elitist and nationalist associations that made progressive educators feel uneasy. In this model students should develop understandings of how texts represent the human and more-than-human in different locations in time and place. How do literary and cultural texts represent culture, environment, place and planet? What cultural and environmental contexts of past, present and future support the study of the texts? Students should be encouraged to connect to their local place through textual study as well as looking outward to different places and cultures and towards a concept of the planet. Literature also carries connotations of value. Students will consider what texts are of lasting value and for whom.

“Critic and Conscience” replaces “cultural analysis”. Texts, literatures and practices should be subjected to critical, ethical and moral scrutiny including media, new media and digital communication. This is where critical and eco-critical literacy are situated as students consider how texts represent powerful and political interests in relation to culture and environment. They will learn to be critical readers and transformers of these representational practices to become agents of the future. This is the moral heart of English.
Ending

At the beginning of this thesis I had a theoretical understanding of English teaching as always located in a place and culture. By the end I have an understanding of why this matters deeply, and how place and culture are viscerally played out in classrooms. On a personal level, the transition from one culture and environment of English to another has fundamentally changed my identity as a teacher and researcher. On a professional level, these personal insights have led to findings, developments and implications for classroom and policy contexts. The implication of understanding English as located not just in culture, but also in a particular place and environment, suggests that teachers should be attentive to all three concepts.

To the nine ecocritical principles derived from ecocriticism and introduced at the beginning of this thesis I would now add a tenth principle: “Ecocritics look towards the future in the context of the Anthropocene”. This principle arises out of recent ecocritical work which re-reads texts in relation to the major change of consciousness that is both required, and forced upon us, by the Anthropocene as a “threshold concept”. I am thinking in particular of the work of Timothy Clark (2015) in revising and reviewing the practice of ecocritical reading in the light of the Anthropocene. It is this ecocritical principle (and the literature behind it) that connects to the ideas of “reconciliation ecology” and might further inform a future focused ecocritical English.

I hope for an ecocritical English in line with the murky green of not knowing where we are headed. I am not against the pragmatic position of trying on different shades of green and all the versions of English as necessary, although I favour an overarching ecocritical perspective. Ethically and politically the future must be kept open and plural. The teachers, artists and educators whose work is reported in the study have explored ways of doing this in schools, drawing inspiration from ecocritical principles and contributing to a model of literacy which highlights ecology and environment. In the Anthropocene any vision of ecocritical English must now recognise the double jeopardy and paradox of our dependence on the planet and our dominance in the ecology of living beings. With that recognition of moral and political responsibility, and existential vulnerability, comes the possibility of educational participation in hopeful change for a more sustainable future.
Therefore am I still
A lover of the meadows and the woods
And mountains; and of all that we behold
From this green earth; and of all the mighty world
Of eye, and ear, – both what they half create,
And what perceive; well pleased to recognise
In nature and the language of the sense
The anchor of my purest thoughts, the nurse,
The guide, the guardian of my heart, and soul
Of all my moral being.

(Wordsworth, 1984, p.134)


I have used the APA (American Psychological Association) version 6 system of referencing which is conventional for social sciences journals in New Zealand. It has some odd features, such as not capitalising the titles of books but capitalising the titles of journals. (However, in the main text the titles are capitalised.)


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