REDREAMING THE PLAINS

www.redreaming.info

An exegesis and durable record (interactive CD)

submitted in fulfilment of the requirements for the degree of

Masters of Social Science by project mode

[PLEASE NOTE: THIS PROJECT IS NOW ARCHIVED BY THE NATIONAL LIBRARY OR AUSTRALIA'S PANDORA PROJECT. THE LINKS IN THIS DOCUMENT ARE NO LONGER LIVE. MF, 26 May 2013]

Merrill Findlay

Environment & Planning Program

School of Social Science and Planning

Design and Social Context Portfolio

RMIT University

October 2005

DECLARATION

I certify that, except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program; and any editorial work, paid or unpaid, carried out by a third party is acknowledged.

Signature:

Name: Merrill Findlay

Date: 1 October 2005

DEFINITIONS

Redreaming the plains: an ever-growing web of stories about social and ecological sustainability on the planet's plains and native grasslands. This project was designed to nurture and support more creative and integrative thinking about social and ecological sustainability. Source: www.redreaming.info

***Exegesis*:** an explanation or critical interpretation of a text, traditionally of a holy scripture in any of the world's major religious traditions. The art of exegesis has been revived in contemporary hermeneutic philosophy and cultural studies, especially in response to the work of Emmanuel Levinas (1906-1995). From the Greek *exegeisthai*, to explain, and *hegeistha*, to lead. [1]

GUIDING PRINCIPLES

1. Everything is connected to everything else.

Barry Commoner's First Law of Ecology

2. Everything is deeply intertwingled.

Ted Nelson, who coined the word *hypertext*

1 Sources: Shorter Oxford English Dictionary, Clarendon Press, Oxford, 1980; Merriam-WebsterOnline; Wikipedia; and Online Etymology Dictionary. All accessed 28 March 2005.

3. ... every text takes shape as a mosaic of citations, every text is the absorption and transformation of other texts.

Julia Kristeva, 1969, *Semeiotikè: recherches pour une sémanalyse*

4. We live lives based upon selected fictions.

Lawrence Durrell, 1958, 'Balthazar', *Alexandria Quartet*

ACKNOWLEDGEMENTS

My thanks to my colleagues in the School of Social Science and Planning, RMIT University, who supported my work and have courageously given me space to experiment and test the boundaries and conventions of academe while I completed this project. In particular, I thank my supervisor, Dr Ruth Lane, for her patience, her editorial insights, and her broad and democratic vision of what constitutes knowledge, scholarship and learning in the twenty-first century.

CONTENTS

PREAMBLE

Redreaming the Plains is an ever-growing dynamic database[2] of stories set in some of the planet's most damaged places, at a time biologists have designated the sixth major extinction event in the history of life (Chapin et al., 2000, p. 234). The project 'began', in a narrative sense, when I crossed West Gate Bridge for the first time in the 1980s and gazed out across the vast plain that sprawls around the western rim of Port Phillip Bay. Before me were the consequences of more than 150 years of modernity: the polluted Yarra and Maribyrnong Rivers and their port; the tank-farms which supported Melbourne's oil and petro-chemical industries, the Newport power plant spewing CO_2 into the atmosphere; the smokestacks, power pylons, highways and the rigid grid of suburbia stretching off to the horizon to meet the degraded farmlands beyond.

From a narratological perspective this view is the embodiment, enactment or reification of all the stories that have been narrated on this plain since John Batman and John Pascoe Fawkner and their crews sailed up the Yarra in 1835 to 're-compose' a landscape that had already been deeply storied for millennia. The outcomes of these nineteenth and twentieth century narratives now threaten the quality of our own survival, and the diversity of life on Earth (Reid et al. 2005). As a writer, as a storyteller, I can be neither neutral nor 'objective' about these outcomes: indeed, I impose my own values upon the world whenever I edit the chaos of existence into stories (Yamane 2000; Ricoeur 1984), and/or make decisions about the content of *Redeaming the plains* itself. As William Cronon reminds us, "To try to escape the value judgements that accompany storytelling is to miss the point of history itself, for the stories we tell, like the questions we ask, are all finally about value" (1992, p. 1376).

2 Cultural theorist, Lev Manovich, suggests that New Media databases in which the interface is separated from the data itself, as it is in *Redreaming*, may represent "the new symbolic form of a computer age …. A new way to structure our experience of ourselves and the world" (Manovich 2000, electronic version).

REDREAMING: THE NAME

Redreaming, the name, is richly polyvalent. *Dreaming* (without the prefix) is a biological phenomenon all humans experience in narrative form while we are asleep (Deslauriers and Cordts 1995; Hartmann 2003), but the word also carries other meanings. In Australia *Dreaming* (with a capital 'D') is associated with Aboriginal cosmologies (Bell 2002; David 2002); while in other contexts *dreaming* (*without* the capital) evokes myriad alternative associations, from Freudian, Jungian or Lacanian understandings of the 'Unconscious'; to ideals of justice, freedom and equality as expressed by Martin Luther King in his 1963 'dream' speech (King 2003, electronic version), or the reductively normative Australian Dream of a house and family in suburbia, as evoked by Prime Minister John Howard, to the garden-variety hopes, daydreams, visions, quests and reveries we all imagine, speak and savour in our waking lives. In this metaphorical sense 'ecological sustainability' is also a dream, an aspiration, an uncertain quest.

DREAMING AS SCIENCE

From a 'Western' scientific perspective a dream is a biological event which "occurs just above the point where electrochemistry turns into psychology" (States 1993, p. 5). Such events are experienced in narrative form, although not necessarily as coherent linear stories (States 1993, p. 79), and are associated with Rapid Eye Movement (REM) sleep (American Psychoanalytic Association 1999). Researchers don't fully understand either the biochemistry or the evolutionary purpose of dreaming, although they have proposed many often-conflicting hypothesises (Deslauriers and Cordts 1995) to support assorted claims that "dreams process memory, act as sentinels, fine-tune our vigilance/fear systems, reduce tension, create counterfactual simulations, perform self-therapy, self-formation or neuronal dumping, rehearse our survival and predation routines, and so on" (States, 2003, electronic version). As

Bert States reminds us, however, "we have no measuring devices for determining how—or if—these so-called functions influence our behavior *because we dream*" (2003).

One of the most respectable of the many dream hypotheses, the Contemporary Theory of Dreaming, proposes that dreams are a means of "weaving new material into the memory system in a way that both reduces emotional arousal and is adaptive in helping us cope with further trauma or stressful events" (Hartmann, 2003, electronic version). The proponents, Ernest Hartmann et al., position dreaming at one end of a continuum of mental functioning extending from "focused waking activity", to "daydreaming", and finally to dreaming proper, a state in which "mental activity becomes less focused, looser, more global and more imagistic" (Hartmann 2003, electronic version). In this state our minds make connections which can be surprising, even apparently absurd. Such hyper-connectivity can lead to unexpected insights which may have a bearing on the way we see the world and act in it (Hartmann 1996, electronic version).

DREAMS AS 'NON-SCIENCE'

For millennia people have believed that dream narratives are prophetic, and all societies have supported classes of seers, prophets or shamans to interpret them. In this context dreams may be seen as "vivid, vital, meaning-rich" events which "provide a direct experience with highly numinous energies" (Doniger and Bulkley 1993, electronic version). The earliest documentation of such interpretive 'dream work' includes divinations inscribed on a 4 000 year old Egyptian papyrus[3] (Encyclopædia Britannica 2005, electronic version); ancient Hindu, Buddhist and Jain texts from South Asia (Young 1999); and Aristotle's *On Prophesying by Dreams* (Aristotle 2000, electronic version). Dream narratives remain symbolically potent for

3 The Chester Beatty Papyrus 3 recovered from Deir el-Medina, Egypt, and now in the British Museum, ESA 10682, dated to 1992-1786 BCE (Digital Egypt, 2003, University College, London. See http://www.digitalegypt.ucl.ac.uk/writing/library/dem.html , accessed August 2005)

many people, as a quick scan of the shelves in any New Age bookshop demonstrates, and in all the world's major religions great significance is still attached to them (Doniger and Bulkley 1993, electronic version). Stories about Queen Maya's conception dream prophesying the rebirth of the Buddha (Young 1999), Joseph's dreams as recounted in the biblical Old Testament (Genesis 37, 5-11) and his later interpretations of the Egyptian Pharaoh's dreams (Genesis 40, 41), and the Prophet Mohammed's Night Journey (The Koran, Sura 17), for example, are familiar to billions of believers throughout the world.

Dreams and dreaming also remain integral to the religious experience of Aboriginal Australians (Bell 2002; David 2002; Keen 2004; Rose 2004), notwithstanding the fact that 'Dreamtime' is a colonial construct (David 2002, p.2). The term was first used in *Through Larapinta Land,* Baldwin Spencer's narrative about the 1894 Horn Expedition into the McDonnell Ranges of South Australia. According to Spencer, the term was coined by Frank Gillen, the Alice Springs Postmaster and Special Magistrate who played a role in Horn Expedition (David 2002, p.15). Dreaming, or Dreamtime, now signifies a diverse set of narratives which, as "lore and law", still connect many contemporary Australians of Aboriginal descent with all the other entities in their universe. As David describes it, the Dreaming is "an existence that is defined by the relationships of everything that is and that was":

> The Dreaming at once gives birth to, directs, clarifies, legitimates, defines and explains a world of relationships, giving identity to the people who engage not just *with* but *in* the world (David 2002, p. 18).

As such, the Dreaming is "at once beyond time and continuous yet transformative, always presencing the past, the present and the future" (David 2002, p. 206).

In recent times 'Dreamtime' has acquired more global meanings, even for Aboriginal Australians, as the following warning from Charles Perkins in 1988 testifies:

> You whitefellas have gotta have your own dreamtime stories. If you bury 'em, you'll have no past, won't know where you have come from and won't know how to find your way into the future (in King 2005, electronic version).

THE *RE* OF THIS DREAMING

These diverse *Dreamings* are an outcome of our species' narrative imagination, an innate capacity which allows us to interpret the past, understand the present and project ourselves into the future. Dreams 'begin' as lived experience, the fuzzy, nonlinear, imagistic and barely understood biological phenomena we 'have' in our sleep. We can gain no direct access to these dreams-as-experiences, but once they are 'laid down' in our brains as memories, we can interpret them and re-narrate them as stories (Kilroe 2000, electronic version). And as stories, dreams have the narrative power to change the world.

My view from West Gate Bridge of ships and highways, tank farms, factories and sprawling suburbs can thus be understood as the enacted, or embodied *dreams* of past and present generations. But these hegemonic Euro-dreams about how people 'should' live upon this plain, upon this planet, have now become toxic, and the futures they are leading us towards have become life-threatening.[4] Thse old dreams need re-dreaming so that one day the view from

4 At the time of writing, and despite all the public rhetoric about 'sustainability', arsenic has been leaching into the Maribyrnong River at Yarraville, oil products are leaking into the river from Mobil tanks nearby, and people are being warned about eating fish from the river estuary (Fyfe. 2005, electronic version).

the bridge may be transformed into one that can be described as 'ecologically sustainable' – or so I believed when I first gazed out across Victoria's basalt plain from the top of the West Gate.

More than a decade on, and notwithstanding the many 'sustainability' narratives that are already being enacted, I fear that those old Euro-dreams remain dauntingly all-powerful. Unless they are radically re-emplotted, 're-dreamt' and re-narrated, unless they become new "lore and law" (David 2002, p. 18), the view from the top of the bridge a hundred years hence will be of a twenty-first century as an all-too-rapid extinction event (Meyer 2004; Wackernagel et al. 2002; Toyne and Farley 2000; Macintosh and Wilkinson 2005). As a writer, as a citizen, as a human being and moral agent, I want to do what I can to ensure that this worst-case scenario is not fulfilled.

ABSTRACT

The New Media database, *Redreaming the plains*, was conceived and developed in response to the moral imperative of biodiversity loss and ecological degradation. In this context, the view from the top of Melbourne's West Gate Bridge across the eastern rim of Victoria's basalt plain was paradigmatic. 'Sustainability' scientists, resource managers and land stewards might now interpret this view as a hierarchy of nested socio-ecological systems in which human and non-human entities are interacting in complex, even chaotic ways, but as a writer and cultural practitioner, I see it as the localised enactment, embodiment or reification of all the 'stories' that have been narrated within this bioregion since the British invasion of 1835. But regardless of our differing perspectives, those of us who subscribe to the contemporary quest, or 'dream', of ecological sustainability face the same challenge of reducing anthropomorphic impacts on indigenous ecological communities by changing human behaviour. As a writer, as a moral agent, I have reflexively interrogated myself about my own role in this process: *How can I story 'sustainability' in ways that are true to my understandings of the complexity of socio-ecological interactions, and still effect change in the world?*

My loaded question raises complex issues about the limits of narrative modes of representation, or mimesis, about agency, and about the relationships between 'stories', cognition, identity and human behaviour. While no definitive answers are possible, this post-disciplinary exploration solidly grounds my praxis, and *Redreaming the plains* itself, in contemporary literary theory, narrative psychology, cognitive science, philosophy and 'post-normal' science, and confirms the power of stories to change human behaviour over time – but in ways that remain ambiguous, unpredictable and uncertain.

1.0 QUESTION AND CONTEXT

Redreaming the plains is an on-going practice-based inquiry and creative intervention conceived and developed by a socially engaged writer for a small futures organisation, Imagine The Future Inc. Even though what I do is analogous to action research, this project was not driven by formal research questions in the 'social science' tradition, and to retrospectively construct it as 'social science' for the purpose of this exegesis would, I believe, be to deny the integrity of my own *praxis* as an artsworker; debase the creative processes involved in the project's conception and implementation; and de-legitimise the many other ways of knowing (Lyotard 1984) which still flourish *beyond* the walls of academe, and, dare I say, even sometimes *within* them. Nevertheless, in conceiving and developing this project, I was seeking answers to many 'social science'-type questions about the relationship between narrative, cognition and human action; about the limits of narrative representation or mimesis; and about my own role and responsibilities as a writer and editor at this critical time in the history of life on earth (Chapin et al., 2000).

Now, more than a decade after the first project proposals were submitted to funding bodies, these many questions can be reduced to just one: *How can I story 'sustainability' in ways that are true to my understandings of the complexity of socio-ecological interactions, and yet effect change in the world?*

My seemingly straightforward question raises extraordinarily complex issues about mimesis[5] or representation,[6] and agency, which span a multitude of discursive communities with their own histories and literatures. It is beyond the scope of this exegesis to attempt a definitive answer: instead, I offer what is, of necessity, a 'post-disciplinary'[7] exploration of some of the relevant concerns (Wolmark and Gates-Stuart 2004; Sayer 1999), and a provisional synthesis, as I seek to elucidate, contextualise and understand *Redreaming the plains* from my own perspective as a cultural practitioner.

1.1 PERSONAL IS POLITICAL

Redreaming the plains is part of a long narrative practice, or *praxis* in the Aristotlean sense: a values-based creative engagement, rather than a value-neutral *techne* (Miller 1991; Freire, 1970). The narratives I've produced for publication over the last thirty years, my still-all-too-small oeuvre, exist as material evidence of my journey and, in part, define my own subject position in relation to this project. In an archaeological sense, these stories form assemblages of verifiable 'things' which can be read as a 'storyline',[8] in both the literary sense of a narrative

5 Mimesis: imitation or representation.

6 Representation: "That which stands for, refers to or denotes something or the relation between a thing and that which stands for or denotes it" (Eliasmith 2004).

Distributed representation: "A distributed representation is one in which meaning is not captured by a single symbolic unit, but rather arises from the interaction of a set of units, normally in a network of some sort" (Eliasmith, 2004b).

7 "Post-disciplinary studies emerge when scholars forget about disciplines and whether ideas can be identified with any particular one; they identify with learning rather than with disciplines. They follow ideas and connections wherever they lead instead of following them only as far as the border of their discipline. It doesn't mean dilettantism or eclecticism, ending up doing a lot of things badly. It differs from those things precisely because it requires us to follow connections" (Sayer 1999).

8 The word 'storyline' is an intertextual reference to 'songlines' and to other composite 'line' metaphors –headlines, timelines, by-lines and leylines, for example -- as well as the more conventional use of the term in literary contexts to signify the plot of a narrative.

plot, and metaphorically as a line tracing my journey through space and time; perhaps even as a 'song-line' (David 2002, p.69), or as this project's 'line-of-descent'.

An 'oeuvre' is not *simply* an assemblage of artefacts, of course, as many theorists have pointed out; and ever since Roland Barthes called for the "overthrow of the myth" in his 1968 essay, The *Death of the Author*, the notion of the 'Author' has remained problematic. Barthes privileged the reader rather than the 'author' by arguing that a text "is made of multiple writings, drawn from many cultures" which unite in the mind of the *reader*, who "is simply that *someone* who holds together in a single field all the traces by which the written text is constituted" (Barthes 1977, p 148). In this context both 'authors' and readers can be understood as subject positions within the text itself. In autobiographical writings, the subject 'I' who performs what Foucault calls the "author function" (Foucault 1977, electronic version), is especially problematic (Roos 2004; Sclater 2003; Crossley 2003). Nevertheless, the many 'artefacts' authored by *this* narrating subject and published under my name, or by-line, can be seen not only as spatio-temporal co-ordinates on the map of the physical terrain I have crossed, but as space-time coordinates on a map of the consciousness *Redreaming the plains* emerged from. These stories can be interpreted as forensic evidence of my own values, subjectivity (Ratner 2002) and preunderstandings;[9] my standpoint, positionality and the range of performativities from and through which this project has evolved. 'My' texts can also be read as 'me' continually reconstituting 'myself' (Ricoeur, 1986, p.132; Sclater, 2003, p. 327; Crossley, 2003, p. 290) and simultaneously contributing to the discursive reconstitution of the communities 'I' am part of

9 Bruno David explains preunderstanding as follows:"Preunderstanding concerns the initial conceptual conditions through which people interpret their world. It concerns a world whose presence – whose pre-sense – is already known through the historicity of one's own being. All things appear to us through the system of meanings already at work in the cultural framework from which we approach the world. Our knowledge of new things therefore only ever occurs through our pre-existing world-views, through what we already 'know' and experience as the truth of the world" (David 2002, p.3).

(Sclater, 2003, p. 327). In a Nietzschian sense,[10] my personal history, as interpreted from my 'storyline', is part of *Redreaming the plains*' genealogy (Nietzsche 1887), or 'line-of-descent', and is thus inextricably interwoven with the project.

1.2 A STORYLINE

'Beginnings', like most other demarcations, are arbitrary, as any storyteller knows, but let's agree, for the moment, that 'my' storyline 'begins' in the second half of the twentieth century within the catchment of the Lachlan River in central New South Wales, where my family has been farming for generations (Findlay 1988). This is the land of my belonging (Plumwood 2002; Read 2000; Leach 2002), a place to which I am bonded in a way that can only be described as spiritual. I simply *love* the farm and the inland river plains of New South Wales (Findlay 2005).

Sometime in the mid-1960s my line crosses the Blue Mountains to a Sydney boarding school and lingers there until the early '70s when, as a naïve but already politicised eighteen-year-old, I eschewed tertiary education for a 'bohemian' life in Potts Point and Paddington at a time of extraordinary cultural transformation in Australia.[11] My track re-crosses the Blue Mountains mid-decade when I returned to 'the bush' as a reporter for the Forbes Advocate, and authored

10 I cannot let this reference to Nietzsche pass without commenting on the discomfort I experience in reading many of his narratives. When I first read his work more than thirty years ago I found his anti-essentialism and perspectivism liberating, and still do, but I remain deeply troubled by his racism and ethnocentrism, as exemplified by his anti-Semitic references to the Aryan "conqueror and master race" and his insistence that Celts, as fair-skinned blonds, are superior to "dark, black-haired aboriginal" peoples, for example. I also find aspects of his Will to Power or Superman concept, along with his uncompromisingly patriarchal, even misogynistic assumptions, disturbing. In these biases I am a woman of my times, while Nietzsche, I'm afraid, was much more than a man of his!

11 While I 'eschewed' tertiary education immediately after I left school (with a Commonwealth scholarship), I enrolled at several universities during the 1970s and '80s, including what is now Sydney's University of Technology, New England University, Murdoch and La Trobe Universites, and the University of Melbourne, to begin courses in archaeology, literary studies, philosophy, photography and Arabic.

countless column-inches about the minutiae of life in a small country town. The line then strays down the south coast of NSW, meanders along the Murray River into South Australia, and traverses the Nullabor to Western Australia where I freelanced for Perth magazines and newspapers on issues ranging from live sheep export (Findlay 1981a) and coastal living (Findlay 1981b), to R&R visits by the US Seventh Fleet (Findlay 1981c) and the development of the Pilbara region of WA's northwest (Findlay 1982). But I also pursued my own arts practice during this time. One of the more interesting artefacts from the Western Australian assemblage is my first book, *Carnarvon: reflections of a country town* (Findlay 1984), that was produced while I was Artist-In-Residence in the Gascoyne region of the state's north-west (Arts Council of Western Australia 1983).

In 1984 my storyline heads back to the 'eastern states'. Artefacts from this period include a paper presented to the Victorian Ministry for the Arts community artists training program about my Gascoyne Project (Findlay 1985), and a 'working paper' on community arts practice commissioned by Arts Victoria's Community Arts Resource Centre and published by the Victorian Ministry for the Arts (Findlay 1986); plus diverse 'propaganda' pieces for various 'good cause' employers, such as the United Nations Association (Findlay 1987), the Australian Conservation Foundation (Australian Conservation Foundation c.1988; Toyne 1991), and the Victorian Archaeological Survey (Findlay 1991a), as well as features for the environmental and mainstream press (Findlay 1988).

In the late 1980s my story-line detours to the Republic of Sudan and Eritrea in the Horn of Africa. Relics from this expedition include briefing papers written in Khartoum for the Eritrean Relief Association, and a swag of feature articles on the war and social revolution in Eritrea that I witnessed as the guest of the Eritrean People's Liberation Front (Findlay 1989a; Findlay 1989b;

Findlay 1989c; Findlay 1990a). In 1991 the line again leaves Australia to cross the Pacific Ocean to Montreal where I re-connected with Eritrean issues, and then to New York where I petitioned the UN Special Committee on Decolonisation on behalf of the Australian Council For Overseas Aid (now the Australian Council for International Development) and the East Timor Talks Campaign (Findlay 1991a; Findlay 1991b; Findlay and Scott 1992). The track leaves North America via Vancouver where I met with the principals of the Environment News Service for which I was freelancing as the Australian correspondent; then crosses the Pacific again in 1992 to reappear in New York and other American cities where I continued my engagement with the East Timorese community and their advocates (Imagine The Future Inc 1993).

Back in Australia the line meanders from Melbourne (Findlay 1990d) to Lake Mungo (Findlay 1990c), to my home village of Bogan Gate where I campaigned with locals against a proposed national toxic waste incinerator (Findlay 1991), for example; and later from Melbourne to Mer, or Murray Island, in the Torres Strait for the reburial of Eddie Mabo (Findlay 1996a), and south to Big Dog Island in Bass Strait for the annual mutton bird harvest (Findlay 1998).

Throughout these years I was also exploring other narrative genres, however. One of these experiments became my first literary fiction, *Republic of Women* (Findlay 1999). Another became Imagine The Future Inc, the small cultural development and futures organisation I conceived soon after my return from the Horn of Africa (Imagine The Future Inc 2004; Findlay 1994a; Findlay 1993; Findlay 1996b), and the ecoversity. ITF is now the publisher and owner of *Redreaming the plains* (Imagine The Future Inc 2002a).[12] Artefacts from my ITF assemblage

12 The name Imagine The Future Inc was inspired by a phrase attributed to American scholar and peace activist, Elise Boulding, that I encountered in a report on the 1987 UNESCO conference, 'Peace in the minds of men' (sic), I commissioned for *We the Peoples*, a small magazine I founded for the United Nations Association of Australia (Victoria). The author, Keith Suter, quoted part of the ritual Conference Declaration in which Boulding's words were used: "Humans cannot work for a future they cannot imagine. Therefore, the task of this Congress has been to

include ecoversity publications, such as *Cappuccino Papers* (Findlay et al., 1995); a presentation to the Altona Sustainable Development Congress at which I committed my organisation to what would become *Redreaming the plains* (Findlay 1994a); Imagine The Future Inc's web site established in 1995 (Imagine The Future Inc 2004); a report to the Federal Government on Victoria's Response to the Prime Minister's Urban Design Taskforce, an event I facilitated and co-hosted for ITF and partner organisations (Imagine The Future Inc 1996); and an article drawing on this event for *Issues*, a magazine published by the Australian Council for Education (Findlay 1996b), for example; plus numerous funding submissions for ITF projects, including *Redreaming the plains* (Imagine The Future Inc 2002c).

My move to RMIT University at the end of the '90s is marked by a scatter of artefacts, including a report on environmental literacy I co-authored (Findlay and Thomas 2000), an overview of ESD in Australia (Findlay 2000a), and a feature promoting the 'greening' of academia (Findlay 2000b), as well as *Redreaming the plains* itself, which was installed on an RMIT server from 2001.[13]

But this subject 'I' is a restless soul, so in 2000 my storyline crosses the Indian Ocean and the Mediterranean to touch down again in Barcelona, Spain, where I was a guest writer at the Centre for Australian Studies, Departament de Filologia Anglesa i Alemanya, Universitat de Barcelona. The eclectic scatter from the Spanish assemblage includes a 'non-paper' on *Republic of Women* presented at a conference in Barcelona, 'Changing Geographies: Australia and the Millennium' (Findlay 2000c); a story on the cultural heritage value of Spanish merino sheep

devise visions in which all can have faith" (UNESCO 1987). These words have influenced my praxis ever since (Findlay. Merrill. 1993).

[13] Indeed, it was the need for a permanent server for the project's web content which motivated my decision to align myself with RMIT!

for the Australian Association of Stud Merino Breeders (as thanks for the support the Association gave me with some field research in Estremadura) (Findlay 2001); and six preliminary chapters of a new work-in-progress published in the peer-reviewed literary journal *Eucalypt* (Findlay 2002c). The following year, 2001, my storyline again leaves Australia to reappear in Istanbul and Çatalhöyük, a Neolithic archaeological site in southern Anatolia. It then heads northwest to Budapest in Hungary and to the Romanian city of Brazov in Transylvania. Evidence of this sojourn includes a book chapter based on a futures workshop I gave at the Budapest Futures Course at a Hungarian university (Findlay 2002a); a commissioned essay for the British journal *Futures* on the 2001 World Futures Studies Federation conference in Transylvania (Findlay 2002b); a paper for a forthcoming special double issue of *Futures* I'm guest editing[14] (Findlay 2006); and a new work-in-progress, *Song of the reed flute*, which draws on field research I did in Turkey and Eastern Europe.

More recent spatio-temporal twists in this storyline, or narrative plot, are marked by a long catalogue essay for a retrospective exhibition of the work of Vietnamese Australian artist Le Van Tai published in *Tien Ve*, a Vietnamese language 'virtual cultural centre' for the global Vietnamese diaspora (Findlay 2004b); my continued engagements with more recent refugees and asylum seekers (Findlay 2004a); an essay for *Futures* about the creek that flows through my family's farm (Findlay 2005); and this exegesis, an artefact authored just fifty kilometres from the property I grew up on, and a few blocks from the office of the *Forbes Advocate* where I began my professional writing career … and so this wandering line returns to its beginning to become a full circle: "We shall not cease from exploration, and the end of all our exploring will be to arrive where we started" (Eliot 2005, electronic version).

14 See 'Redreaming Australia: the next two hundred years' at http://www.redreaming.info/DisplayStory.asp?id=201.

This 'storyline' plots my journey, as a storyteller, a cultural practitioner, through some of the most challenging issues of our time: the evolving relationships between indigenous and non-indigenous Australians; the impact of Euro-farming in the continent's inland; the threat of unrestrained urban development; climate change; war and social revolution; toxic waste disposal; biodiversity loss and conservation; American hegemony and neo-imperialism; the nuclear threat; decolonisation and self-determination; immigration, multiculturalism and identity politics; resource management; feminism; and, of course, 'sustainability'. The 'line' zigzags from the local to the global and back to the intimately local again, and with each move this subject 'I' is exposed to yet more transformative ideas and technologies. It would be easy to conclude that something like *Redreaming the plains* was 'inevitable' given the narratives I have been exposed to and have internalised, re-narrated and enacted throughout my adult life. But any sense of linear causality is an artefact of the "procedures of emplotment" (Ricoeur 1984, p.161) I have exploited in constructing this true 'fiction'. The temporal ordering of events into a 'storyline', or plot, allows them to be read as a causally connected sequence of events leading inexorably to narrative fulfilment -- but 'real life' is far more complex, non-linear and unpredictable than any single 'storyline' can 'capture', and there are many other narrative threads from which *Redreaming the plains* is spun.

1.3 OTHER THREADS OF SIGNIFICANCE

So, having played with the idea of a 'line' – as in storyline, songline, by-line and Nietzschian line-of-descent – I'd like to change my working metaphor to one that more truly represents the interconnectivities and complexities of this project and the complex 'socio-ecological systems' it mimics. This conceptual shift is informed by Barry Commoner's First Law of Ecology ('Everything is connected to everything else'); current understandings of the interconnectivities

and complexities of ecosystem processes (Gilman 2000; Waltner-Toews et al. 2004); models of human cognition as "a set of interlocking, socially distributed processes" (Herman 2000); Clifford Geertz's "webs of significance";[15] Felix Guattari's *Three Ecologies* (2000)*;* Ted Nelson's assertion that "Everything is deeply intertwingled";[16] Julia Kristeva's intertextuality ("... every text takes shape as a mosaic of citations, every text is the absorption and transformation of other texts"[17]); chaos and complexity theory (Holland 1998; Gleick 1987; Argyros 1992); and the "unthinkable complexity" of cyberspace[18] in which *Redeaming the plains* is experienced. I'm searching for a metaphor which evokes these multiple associations in a way that a one-dimensional linear 'storyline' cannot. The most apt candidate, a 'web', is already shabby and tired from overuse, but it will have to suffice.

In the context of *Redreaming the plains* a number of the narrative threads in this multi-dimensional web are more causally significant than others. These include the metanarratives of 'Sustainable Development' as mainstreamed through the UN system from the late 1980s; bioregional narratives from the 1970s; the internet and the World Wide Web itself; the Commonwealth government's policy responses to new information technologies and the economic opportunities they presented; the dotcom boom and bust cycle of the late 1990s; and 'new' scientific stories about complexity and chaos which challenged Newtonian narratives about linear causality, certainty and predictability (Moon 1992; Resnick 1991; Salthe 2005).

15 Clifford Geertz, 1973, in *Thick Description:Towards an Interpretive Theory of Culture*, NY, Basic Books.

16 Theodor Holm Nelson, *Literary Machines*, self published in 1993.

17 Julia Kristeva, 1969, *Semeiotikè: recherches pour une sémanalyse*

18 William Gibson coined the word 'cyberspace' in his 1984 novel *Neuromancer*. He defines it as follows: "A consensual hallucination experienced daily by billions of legitimate operators, in every nation...A graphical representation of data abstracted from the banks of every computer in the human system. Unthinkable complexity. Lines of light ranged in the non-space of the mind, clusters and constellations of data. Like city lights, receding..." See www.georgetown.edu/faculty/irvinem/technoculture/pomosf.html

1.3.1 Chaos and Complexity theory

Sometime in the late 1980s I read *Chaos: making a new science*, James Gleick's 1987 publication about the sensitivity to initial conditions of complex dynamical systems,[19] a phenomenon popularly known as the Butterfly Effect;[20] and soon I too was writing about chaos, complexity, and the flutterings of butterflies' wings (Findlay 1994c).[21] While the behaviour over time of complex *non-living* systems, such as storms or smoke columns, can be represented mathematically as equations and other computations (Ott 1993; Reichl 1992; Moon 1992), the behaviour of complex *living* systems, such as cells, organs, organisms, communities and larger ecological and social collectivities, cannot generally be represented so precisely, in part because so many of their constituent processes are ambiguous and poorly understood (Adami 2002, p.1085; Ulanowicz 2004; Barbault et al. 2003). Gallopin et al. identify the characteristics of such socio-ecological systems as "non-linearity, plurality of perspectives, emergence of properties, self-organization, multiplicity of scales, and irreducible uncertainty" (2001, p.219). In the context of this project, perhaps the most relevant feature of complex living systems is that they cannot be adequately 'captured' by any single narrative. Any attempt to represent interactions within or between socio-ecological systems requires multiple descriptions narrated from different

19 "A system is an assemblage of inter-related elements comprising a unified whole. From the Latin and Greek, the term "system" meant to combine, to set up, to place together. …A system typically consists of components (or elements) which are connected together in order to facilitate the flow of information, matter or energy. The term is often used to describe a set of entities which interact, and for which a mathematical model can often be constructed" (Wikipedia, accessed 5 September 2005). See http://en.wikipedia.org/wiki/System.

20 An evocative metaphor embodying "the notion that a butterfly stirring the air today in Peking can transform storm systems next month in New York," as Gleick described it in *Chaos: the making of a new science* (1987).

21 While I was completing this document I received a heartening email from a teacher at a business college in Maryland, USA, about my forgotten 'butterfly' text. He wrote: "I was surfing for inspiration … this morning and came across your essay during a search on the butterfly effect for a lecture on personal responsibility (specifically about how small actions – positive or negative – have far-reaching results). I felt absolutely compelled to email you to say how riveted to my computer screen I was as I devoured every word. Just so you know folks are still reading this piece you wrote in 1994. You give me much food for thought that I can share with my students" (Pers. com, 3 September 2005).

points-of-view (Barbault et al. 2003, electronic version; Gallopin et al. 2001, p.7). And each of these narrations can be "only partially true" (Grizzi and Chiriva-Internati 2005).

1.3.2 Sustainability stories

Redreaming the plains emerged at a time when 'Sustainable Development' was being institutionalised through the United Nations system following the formal adoption of the Report of the World Commission on Environment and Development, or Brundtland Report, by the General Assembly in 1987 (WCED 1990). The Australian government responded to its new international obligations with a discussion paper, *Ecologically Sustainable Development* (Commonwealth of Australia 1990), to which the environment movement replied with its own critique and explication of ESD (Hare 1990; Findlay 2000a). This process coincided with the negotiations which led to the UN Declaration on Environment and Development and the non-legally binding Statement of Forest Principles, the UN Framework Convention on Climate Change, the UN Convention on Biological Diversity, and Agenda 21 (United Nations 2003). I was a peripheral participant/observer in these processes through my consultancy work with the Australian Conservation Foundation and the United Nations Association, and so internalised these narratives, or at least the more 'ecological' threads of them. But I also embraced alternative, more radical narratives about people's relationships with place and other species.

1.4.3 Bioregionalism: *a geographical terrain and a terrain of consciousness*

One of the most engaging alternative discourses to the Brundtland Report's business-as-usual model of 'Sustainable Development' was (and is) bioregionalism, a political philosophy and

radical ecological social movement which emerged in North America in the 1970s (Taylor 2005; Metzner 1995) when environmental activists were seeking more holistic ways of conceptualising their relationships with their local environments (Berg 2002; Evanoff 1998; Alexander 1996; Sale 2002). David McCloskey has since defined the movement thus:

> The bioregional idea is not about the environment in general, but about specific life-places that we inhabit on a daily basis. It starts not with the uniformity of space, but from the unique character of regional landscapes and seasons. It is not the abstract god's-eye view from outer space that we need, but rather the grounded, authentic, local knowledge which comes from personal experience and collective commitment (McCloskey 1999, electronic version).

Kirkpatrick Sale, another of the early bioregionalists, has since borrowed the Spanish word *querencia* to signify this intimate experience of place. As Sales notes, *querencia* can be translated as 'love of home',

> but colloquially it means much more than that too, as I came to learn. Querencia is the deep sense of inner well-being that comes from knowing a particular place on the Earth; its daily and seasonal patterns, its fruits and scents, its soils and birdsongs. A place where, whenever you return to it, your soul releases an inner sigh of recognition and realisation (Sale 2002, electronic version).

In this sense, *querencia* perfectly evokes my own emotional bond with the inland plains I grew up on and to which I continually return.

The term *bioregion* entered mainstream thinking from 1976 when The Ecologist published 'Reinhabiting California', an article by bioregionalist Peter Berg and field biologist Raymond Dasmann who defined bioregions as:

> …geographic areas having common characteristics of soil, watershed, climate, native plants and animals that exist within the whole planetary biosphere as unique and contributive parts.... A bioregion refers both to geographical terrain and a terrain of consciousness -- to a place and the ideas that have developed about how to live in that place.... A bioregion can be determined initially by use of climatology, physiography, animal and plant geography, natural history and other descriptive natural sciences. The final boundaries of a bioregion. however. are best described by the people who have lived within it, through human recognition of the realities of living in place... there is a distinctive resonance among living things and the factors that influence them which occurs specifically within each separate part of the planet. Discovering and describing that resonance is a way to describe a bioregion (Berg & Dasmann 1978, cited in McCloskey 1999, electronic version).

Dasmann, a senior ecologist with IUCN[22] at the time, was himself seeking more effective ways of mapping the Earth's "biotic provinces" as part of his organisation's commitment to protecting endangered species and their habitats. Now, decades on, many bioregional principles have been integrated not only into IUCN's conservation philosophy and policies (Dudley et al. 1998), but also into those of other international conservation organisations, including the World Wildlife Fund (World Wildlife Fund 2005). Australian, US and Canadian government agencies adopted a modified bioregional approach to biodiversity conservation from the early 1990s, but in this new 'scientific' context bioregions were reductively described as "broadscale mapping units for

22 The organisation was known as the International Union for the Conservation of Nature and Natural Resources at the time, but is now known as the World Conservation Union, although it retains the acronym IUCN.

biodiversity planning" (Department of Primary Industries 2002, electronic version), or "a landscape based approach to classifying the land surface" (Cummings and Hardy 2000, p.5). The subtleties implicit in the definition of a bioregion as a "geographical terrain and a terrain of consciousness" were being lost.

By 1994 the Interim Biogeographic Regionalisation of Australia had been finalised and eighty 'interim' national bioregions had been identified, including Victoria's basalt plain,[23] the initial setting for *Redreaming the plains*. The number of bioregions within Australia has since been extended to 85 on the basis of more recent data (Cummings and Hardy 2000). Fortunately my own exposure to bioregionalism preceded the stripping of the political and emotive values from the concept, but it was these values that I wanted to bring to *Redreaming the plains* when I set its first iterations within the very permeable boundaries of a specific "geographical terrain and … terrain of consciousness" which had already been deeply storied for at least two thousand generations.

1.4.4 World Wide Web and hypertext

What we now know as the World Wide Web was 'invented' in 1989 by CERN physicist Tim Berners-Lee as a "distributed hypertext system" (Berners-Lee 1990, electronic version), and publicly released in 1992 (Berners-Lee 1992; Ball et al. 1999, electronic versions). The first graphical user-interface, Mosaic, was developed by the National Center for Supercomputing Applications at the University of Illinois and made available globally for educational use from the early nineties (National Center for Supercomputing Applications 2000, electronic version), but few Australians could access the Web until late 1993 when AAANet, the private data network

23 See http://www.dpi.vic.gov.au/dpi/vro/vrosite.nsf/pages/veg_managemt_volcanic_plain.

established by the Australian Vice Chancellors' Committee in 1989, facilitated the distribution of appropriate software through universities (Clarke 2004, electronic version). People associated with ITF became 'netizens' from 1991 when we opened an email account with Pegasus Networks, a grassroots organisation based in Byron Bay, NSW, which had been providing a national public dial-up link to the global Internet 'backbone' from September 1989 as part of a confederation of techno-activists committed to supporting progressive non-government organisations and community advocates in Southeast Asia and the Pacific (Peter 1999, p.1; Garton 1996, electronic versions). Pegasus was linked to AAANet in 1991 under a sponsorship arrangement with the University of Melbourne.

ITF established an on-line presence from the early 1990s with the support of a group of young internet activists. By 1994, the year in which I announced what would become *Redreaming the plains* at the Altona Sustainability Congress, the Web was firmly enough established to warrant a first international WWW conference in Geneva (CERN 1994, electronic version); and Netscape Navigator was replacing Mosaic as the preferred user-interface. I was using Netscape's web-authoring component, Netscape Composer, from this time to publish on-line content, and was simultaneously developing basic HTML (Hypertext Mark-up Language) skills. From 1995, when we registered the domain name ecoversity.org.au, ITF had a dedicated site hosted free of charge by Vicnet, Victoria's community server and internet service provider.[24] My decision to implement *Redreaming the plains* as a digital project followed naturally from my increasing familiarity with the World Wide Web through the ITF network.

24 Vicnet was an early in-kind sponsor of *Painting the future real* and continued to host www.ecoversity.org.au until early 2001, when all content was migrated to an RMIT server.

1.4.5 Revisiting hypertext

The word 'hypertext' is attributed to Ted Nelson who defined it in the 1960s as "nonsequential writing", but the general concept was outlined in 1945 by Vannevar Bush as a way of indexing, retrieving and distributing knowledge that mimicked the associative connections the human brain makes (Bush 1994, electronic version). Tim Berners-Lee's proposal for "a distributed hypertext system" is seen by many commentators as the fulfilment of Bush's vision. Hypertext is now understood as:

> … the presentation of information as a linked network of nodes which readers are free to navigate in a non-linear fashion. It allows for multiple authors. a blurring of the author and reader functions, extended works with diffuse boundaries, and multiple reading paths (Keep et al. 1995a, electronic version).

My own introduction to hypertext was through Hypercard, a "data management" software package which accompanied Apple Macintosh computers in the 1980s, but I didn't fully appreciate its creative potential until writer Paul Kane[25] introduced me to *Storyspace*, a hypertext software "environment" (Keep et al. 1995b) that he and his colleagues at Brown University were using to author extended interactive narratives. This experience coincided with my immersion in the emerging 'ESD' narratives and global and national policy responses to 'sustainable development', and my growing interest in Chaos and Complexity narratives.

25 Paul Kane was a visiting scholar at Monash University at the time. Confirmed in an email from Chris Worth, Head. School of English, Communications and Performance Studies, Monash University, dated January 19, 2005.

My discovery of hypertext was exhilarating. I felt that it allowed me to author interactive texts which not only mimicked the associative way my mind worked, but also the interconnectivities, multi-linearities, complexities and rhizomic behaviour I observed and experienced in 'real life'. Many literary theorists, most notably George Landow, were noting similar convergences of theory and technologies at this time (Landow 1997; Wong and Storkerson 1997; Gilman 2000).

1.4.6 Creative Nation

The Web also had much broader socio-economic and political impacts of course, most of which are now well documented. The federal government responded to some of these in its 1994 cultural policy white paper, *Creative Nation* (Commonwealth of Australia 1994a), which included a chapter on the policy implications of the IT and emerging multimedia, or New Media industries. In this document the Commonwealth committed itself to supporting the production of new Australian 'multimedia' content through the Australian Film Commission and other already existing institutions, and to establishing Co-operative Multimedia Centres (CMCs) in each state (Commonwealth of Australia 1994b). Both these decisions were to become important for Imagine The Future Inc. and for this project.

Victoria's new CMC, e-MERGE, was opened in July 1996 by "the world's first Minister for Multimedia", Alan Stockdale, in the historic Tea House in Clarendon Street, South Bank. The Centre's stated objective was to "offer education, training and professional services, access to state-of-the-art equipment and facilities, access to leading-edge research and development, and assistance with the handling of issues such as intellectual property and product testing and evaluation" to aspiring New Media producers. Even though ITF's commitment to free and open access did not fit comfortably with the then-Kennett administration's neo-liberal agenda, I

braved e-MERGE events in the hope of benefiting from some of the "services", and sought direct support from the e-MERGE network in developing and funding the first stage of *Redreaming the plains*.

1.5 Zeitgeist of the Nineties

Redreaming the plains emerged from my personal engagement with some of the major issues of the 1980s and 1990s, and within a broader socio-political context in which the corporate and community sectors, and all levels of government (global, regional, national and local) were responding to 'Sustainable Development' discourses, the emergence of the networked knowledge economy and the disembodied "I link therefore I am" thrill of the World Wide Web (Amerika 2001). The established narratives of the time were also being challenged by new scientific 'stores' about interactions within complex socio-ecological systems. But the moral imperative remained: humanity's relationship with the biophysical world, and in particular, with the biological communities which support the planet's "vital life processes" (World Commission on Environment and Development 1990, p.191). For me, this latter 'story' remained paramount.

2.0 RATIONALE

Sustainability discourses are framed within General Systems Theory (Heylighen and Joslyn 1992), a "general science of 'wholeness'", as biologist Ludwig von Bertalanffy described it when he first applied systems thinking to biological interactions (Bertalanffy 2001, electronic version). The basic scientific unit within which Earth's "vital life processes" (World Commission on Environment and Development 1990, p.191) are now theorised is the ecosystem, a construct defined as "a dynamic complex of plant, animal, and microorganism communities and the nonliving environment interacting as a functional unit" (Reid et al. 2005, p.v). Ecosystems are inherently complex and interactions within them may also be chaotic (Gleick 1987; Grizzi and Chiriva-Internati 2005; Standish 2001; Coveney and Highfield 1995; Funtowicz and Ravetz 2005). Any attempt to 'capture' their behaviour in a single linear narrative must, of necessity, be therefore mind-dumbingly reductive.

But sustainability narratives are not *about* ecosystems *per se*.: they are about we humans and our impacts on the ecosystems *we* are part of (and on this overly hominized planet there are now no ecosystems that are *un*affected by human behaviour). We are the narrators and co-authors of these narratives, as well as their protagonists. Scientists, 'resource managers', custodians and others concerned with human impacts on biological communities are increasingly realising this and are re-interpreting their roles as 'managers' not of 'the environment', but of human behaviour within *socio*-ecological systems (Waltner-Toews et al. 2004 & 2003; Allison and Hobbs 2004), and in contexts in which the "facts are uncertain, values are in dispute, stakes are high and decisions are urgent" (Strand 2002, electronic version).

Modelling (or representing) the complex biophysical and social interactions that occur within these abstracted constructs is still in its infancy (Adami 2002), and in all fields scientists are seeking more integrative approaches and new ways of modelling systemic processes (Barbault et al. 2003). Indeed, Silvio Funtowicz and Jerry Ravetz draw on the oft-cited *Blind Men and the Elephant* fable[26] to illustrate the challenges theorists and practitioners alike currently experience in attempting to represent both social *and* biological 'reality'. This ancient story about a group of blind men interpreting a pachyderm from their own micro-perspectives

> reminds us that every observer and analyst of a complex system operates with certain criteria of selection of phenomena, at a certain scale-level, and with certain built-in values and commitments. The result of their separate observations and analyses are not at all "purely subjective" or arbitrary; but none of them singly can encompass the whole system (Funtowicz and Ravetz 2005).

The need for multiple narratives authored from diverse and non-equivalent perspectives to "encompass" a full set of interactions within "the whole system" is now widely recognised by sustainability theorists, but for me, as a socially engaged storyteller, representing[27] the 'whole elephant' remains problematic. Hence my composite research question about representation, or mimesis: *How can I story 'sustainability' in ways that are true to my understandings of the complexity of socio-ecological interactions, and yet effect change in the world?*

Attempting to represent 'the whole elephant' in ways which 'capture' the complexity of the interactions within socio-ecological systems is challenging enough, but my composite question

26 This parable illustrates the moral power of traditional narratives over time. It appears in the Hindu, Buddhist and Jain canon, and reappeared in the works of the Muslim theologian Muhammad al-Ghazzali (1058-1128 CE), the mystic Aziz ibn-Muhammad-I Nasafi, and the medieval Persian poets Sana'i of Ghazni and Jalal ud-din-i-Rumi, for example. The version most often cited in 'the West' is by the C19th American poet, John Godfrey Saxe.

27 See page 2.

raises broader issues about the relationship between narrative, cognition, human behaviour, intention and moral agency that have challenged philosophers, social theorists and cognitive scientists for generations. It is these issues, rather than the 'science' of sustainability and policy responses to it that, in the context of this project, I'm most interested in as a writer. My particular concerns are as follows:

- the status of 'stories' as knowledge;
- the limits of traditional 'Western' narrative configurations and the 'crisis of representation';
- the relationship between stories and human behaviour; and
- the relationship between intention, as expressed in narrative, moral agency, and effecting change in the world.

I'll address each of these issues separately and return to them in Section 4.

2.1 NARRATIVE AS KNOWLEDGE

In his seminal work, *The Postmodern Condition: A Report on Knowledge,* Jean-François Lyotard insisted that "scientific knowledge does not represent the totality of knowledge", since people also engage in other ways of knowing which he identified as "narrative in the interests of simplicity" (Lyotard 1984, p. 5). The etymological roots of *narrative* – Greek *gnosis*, Latin *gnarus* and *narro* from the Sanskrit *gna* – suggest that narrative modes of representation have been understood as ways of knowing and "cognizing the world" (Herman 2000, electronic version) since ancient times: the Sanskrit root *Gna* can be translated as 'know' (White 1987. p. 215); g*narus,* as 'knowing', 'acquaint with', 'expert', or 'skilful'; *narro* as 'relate' or 'tell'; and *gnosis* as

"knowing through observation or experience" (Pagels 1981, in Yamane 2000, p. 183); or as "a mode of knowledge emerging from action, a knowledge which is embedded not just in the stories we tell our children or to while away our leisure but in the orders by which we live our lives" (Mitchell 1981, in Yamane 2000, p. 183).

As humanity embarks on our quest for sustainability, 'stories' are belatedly being accorded the global respect they deserve as ways of knowing the world, even amongst scientists, policy developers, resource managers and land stewards who are increasingly recognising that their brief is not to study and manage 'the environment', as if people were external to it, but to engage with, or manage, human behaviour and its consequences within complex 'socio-ecological systems'. In this new context stories, as narrated from multiple and non-equivalent perspectives, are seen as situated knowledge which embodies the range of values and beliefs motivating human interactions with the biosphere (Waltner-Toews et al. 2003; Allison and Hobbs 2004).

This belated recognition of 'narrative knowledge' within 'Western' scientific communities was affirmed by Walter Reid, Director of the UN's Millennium Ecosystem Assessment, in a presentation to the UN Permanent Forum on Indigenous Issues in May 2005: "'Scientific' assessments, which privilege scientific knowledge over other types of knowledge, will now give way to 'knowledge assessments' that recognize the value and legitimacy of many forms of knowledge held by different groups of people", he said (Reid 2005, electronic version). Such a commitment is indicative of the profound shifts that have occurred within scientific communities since Lyotard made his *Report* in 1979, and are a formal affirmation by a 'Western'-trained scientist of the value of the knowledge Lyotard identified as 'narrative'.

2.2 WHAT IS NARRATIVE/STORY?

"We dream in narrative, day-dream in narrative, remember, anticipate, hope, despair, believe, doubt, plan, revise, criticize, gossip, learn, hate, and love by narrative," British critic Barbara Hardy confirmed (in Rodrigues 2002, electronic version): and Roland Barthes broadened global conversations about representation by insisting that narrative "can be supported by articulated speech, oral or written, by image, fixed or moving, by gesture, and by the organized mixture of all these substances; it is present in myth, legend, fable, tale, tragedy, comedy, epic, history, pantomime, painting... stained-glass window, cinema, comic book, news item, conversation" (Barthes 1994, in Kilroe 2000, electronic version). New generations of theorists have extended narrative's reach even further but, even today, the map of narrative theory, or narratology, includes many back alleys, cul-de-sacs and contested zones in which old arguments remain unresolved.

Within classical 'Western' narratology a story, or narrative, has been commonly understood as a representation of causally linked actions, or events, that are temporally organised into a beginning, middle and ending, through the device of a plot (Aristotle 2000; Ricoeur 1984). Such a definition might seem all-inclusive, but for much of the last century literary theorists have differentiated between 'stories', 'narratives', 'discourses', 'literature' and 'texts', and have passionately defended their own understandings of these apparently different modes on the basis of grammar, voice, characterisation, plot, subject matter, or some other arbitrary characteristic (White 1987b; Selden 1989; Miller 2001). Today, however, 'story', 'narrative', 'discourse' and 'text' can generally be used interchangeably (Abbott 2000), as I have used them this project; and, as Martin Kreiswirth observes, "*narrative* and its more homely variety *story*, as both terms for and modes of rational discursive practice, have come to displace *argument* and

explanation in a whole range of recent philosophic, theoretical, and cross-disciplinary contexts" (Kreiswirth 1992, p. 637).

A number of specialised usages of these terms remain, however. In the field of quantitative and qualitative social science research, for example, 'narrative' and 'story' retain different meanings (Polkinghorne 1995; Frank 2002). 'Narrative' is often used to refer to "any data that are in the form of natural discourse or speech," or "any text that consists of complete sentences linked into a coherent and integrated statement", as opposed to other data sets, such as the 'short answer' and the 'numerical'. *Narrative* is also used in qualitative research to refer to both "the form of the collected body of data", and the completed publication. Within this research context, 'stories' are understood to be "a special type of discourse production" in which events and life experiences are configured through a plot (Polkinghorne 1995, p.7), and as such, they provide primary evidence of human behaviour and of people's subjective experience which cannot be observed directly. Narrative representations of experience are thus "limited portraits" rather than full descriptions of what actually occurs. Catherine Kohler Riessman argues that:

> Simply stated, we are interpreting and creating texts at every juncture, letting symbols stand for or take the place of primary experience, to which we have no access . . . All we have is talk and texts that represent reality partially, selectively, and imperfectly (Kohler Riessman 2001, electronic version).

In the context of social science research, these imperfect representations can be viewed as "surrogate object-measures" and/or as "situated performances" (Boje 1998, electronic version).

In academic contexts the word 'literature' signifies the sum of all published research on particular subjects, but in less specific contexts it also refers to a 'canon' of privileged stories, or 'great literature', and/or to the contemporary genres of literary fiction and literary non-fiction. According to Russian 'textologist', Juri Lotman, literature in this sense, is authored in more highly encoded, information-rich language than other narrative genres (White 1987a, p. 42). H. Porter Abbott notes, however, that today "Our sense of literature is rather that of a space where words, worlds, and ideas are at play" (Abbott 2000, p.266) than of the richness of the language employed.

Amid this diversity of understandings Brian Richardson has identified "four basic approaches" to theorising narrative modes of representation, which he lists as 'temporal', 'causal', 'minimal' and 'transactional'. Scholars who favour the first approach see narrative as primarily a temporal ordering of events; those who prefer the second approach claim that there must be some "causal connection" between events represented in a narrative; supporters of the 'minimal' approach accept "that any statement of action or event is *ipso facto* a narrative, since it implies a transformation or transition from an earlier to a later state"; while followers of the 'transactional' position argue that "narrative is simply a way of reading a text, rather than a feature or essence found in a text" itself (Richardson 2000, p. 169). For those who prefer the latter approaches narrative representations include the full range of cultural artefacts from landscapes, fashion garments and pottery shards, to literary fiction, still or moving images and algebraic formulae, such as $E=MC^2$, or any of the equations used to represent chaotic behaviour in complex systems. In this broader sense stories can be understood as

> a replayed event, an expression of identity, a cultural trace - or a trace of something that's not there. What a story says and does can be taken as cognitive or aesthetic re-enactment, an effort at

> personal understanding or social inscription, or emotional defense. A story can be read as addressed to its present audience or to a much broader audience of past, present and future figures, real and imagined (Squire 2000, p. 18).

Alternatively, a narrative can be

> conceptualized as a hypothesis about the nature of an existing slice of reality or about the potential consequences of certain variations on a model of the world. Inasmuch as narratives tend to be shared, they perform on an intersubjective cultural level what our central nervous system does at the level of the individual (Argyros 1992, pp. 667-8).

This diversity of understandings in contemporary theoretical discourses about narrative follows from the new questions that were asked about the nature of language and meaning in the second half of the twentieth century (Richardson 2000; Rigney 1992; Squire 2000; Kreiswirth 1992). Jacques Derrida, after Heidegger, exposed the inherent instability of the relationship between sign, signified and signifier and the interpretive "processes *always already* operative in a text" (Sim 1998, p. 227), for example; while his compatriot, Michel Foucault, demonstrated that narrative modes of representation were material practices which "systematically form the objects of which they speak" (Foucault 1972, electronic version). Stories can be now theorised, therefore, as "political and ideological practices" and "as much a part of the material texture of reality as bombs and factories, wars and revolutions" (Currie 1998, p. 90); or, from a more phenomenological perspective, as "a way of simultaneously constructing and reconstructing both 'the individual' and 'the social'" (Sclater 2003, p. 328).

The focus has thus shifted in literary theory from narrow definitions of what stories *are*, to broader conversations about what stories *become*. Land and water degradation, biodiversity loss, anthropogenic Climate Change and other environmental pathologies can thus be legitimately interpreted as the enactment, reification or embodiment of narratives, including civilisational metanarratives; and/or the diverse narratives which 'sustain' nations, communities, families and other collectivities (Featherstone 1996, pp 46-47); and/or as government policies, blueprints and strategic plans; and/or as family and personal life-stories "negotiated in the context of narratives told by the communities in which we live" (Rappaport 2000, p.6).

2.3 NARRATIVE, INTENTION AND MORAL PURPOSE

Human action is driven by intention, as Max Weber observed; and intention presupposes that people have a sense of purpose, or "psychological desire to accomplish goals" (Shermer 2005, electronic version) inherited from our hominid ancestors (Dennett 1993). This innate capacity for intentional action is connected with our narrative imagination with which we define goals and imagine their future outcomes (Carr 1986). From a narratological perspective this sense of purpose is embodied in the classical beginning-middle-ending configuration of narratives. A story's purpose, or the protagonist's goals, are stated at the beginning of a story; the events unfold in a causally connected sequence in the body, or middle of the story; and the goal is achieved or fulfilled in the ending (White 1987, p. 21; Ricoeur 1984; Dauenhauer 2002). Ricoeur claims that such a teleological ordering of events allows readers to make moral judgements about the story's referents, regardless of whether the story is "true" or "imaginary" (Ricoeur 1984, pp. 66-67). This all-important "moral ordering" (Yamane 2000, p. 183) is effected through what Ricoeur calls the "procedures of emplotment" (1984, p.161) which he defines as "the operation that draws a configuration out of a simple succession" (Ricoeur 1984, p. 65). According

to Ricoeur emplotment gives a narrative its moral dimension by "grasping together" disparate incidents into "the unity of one temporal whole" (Ricoeur 1984, p. 66-67), a configuration that is completed in the minds of the readers (Ricoeur 1991 in Squire 2000; Barthes 1977).

Emplotment also gives a narrative its coherence or "followability", the quality which permits readers to track the "story-line" (Ricoeur 1984, p. 164) from one episode to the next in the expectation that it will reach a satisfying "end point" or closure. "To understand the story is to understand how and why the successive episodes led to this conclusion," Ricoeur claims (1984, pp.66-67).

In the context of *Redreaming the plains*, a project in which readers can navigate their own paths through a database of stories and/or zig-zag to and from them by clicking on embedded hyperlinks, such issues are of special concern because readers may never reach an 'ending' in which the moral purpose of the narrative is made explicit. What does this mean for the way readers interpret hypertexts in the virtual world of cyberspace? I will return to this question in Section 4.

2.4 NARRATIVE. COGNITION AND HUMAN BEHAVIOUR

Greek rhetorician Isocrates acknowledged 2 500 years ago that humanity's capacity for storytelling differentiated us from other species and enabled us to construct cities, laws and the arts (Isocrates 1894, electronic version) and to generally transform the world. The word Isocrates used was *logos* which his nineteenth century translator, J.H. Freese, interpreted as "the faculty of discourse". But *logos* can also be translated as 'word', 'speech' and 'reason' (Harper 2001), or as 'narrative imagination' (Hardy 1975). We who have inherited many of our

traditions and institutions from Isocrates' ancient Greeks would agree that our capacity for 'discourse' has enabled us to transform the world; but we might also insist that we ourselves are also transformed by the stories we tell. In co-authoring, narrating and enacting narratives we co-create ourselves.

2.4.1 The narrative self

As seen through the lens of social constructionism, one of the 'grand narratives' of the second half of the 20th century, the 'self' is contingent upon the narratives that people, or 'subjects', are exposed to and participate in through their social relationships (Sclater 2003; Singer 2004; Dennett 1993; Rappaport 2000; Currie 1998; Crossley 2003; Gergen 1998; Rigney 1992). Both the 'individual' and 'the social' can thus be understood as being continuously 'constructed' through the embodied social practice of narrative (or discourse). Within this paradigm selfhood, or subjectivity, can be understood as "a dynamic state of always-becoming" (Sclater 2003, p.328).

Within social constructionist epistemes the 'non-social' biological dimensions of 'selfhood', such as the body, brain, physical environment and even consciousness itself, have been bracketed (Gergen 1998), ignored (Roos and Rotkirch 2002), endlessly deferred, and/or dismissed as part of 'nature', which has been interpreted as culture's 'Other' (Eagleton 2000). But within the more hermeneutic and phenomenological approaches that are being increasingly affirmed across the 'social sciences' and the 'humanities' the social and biological components of the 'self', both 'culture' *and* 'nature', 'mind' *and* 'matter', are now conceptualised as "inseparable" (Roos and Rotkirch 2002; Brown 1999) rather than oppositional to reveal some very helpful insights about selfhood, social interactions, and our relationships with the 'Others' who are part of our wider

environments. Such holistic ideas also fit comfortably with recent hypotheses developed within the 'life sciences', cognitive science and psychiatry.

Evolutionary biologist and cognitive scientist Daniel Dennett, for example, sees the 'self' as an "extended phenotype",[28] an abstracted self-representation "grown" by the human brain from the narratives we're exposed to throughout our lives (Dennett 1991, p. 430). Dennett suggests that, in evolutionary terms, the purpose of the narrative self is to represent ourselves to others (Dennett 1993, p.417). He claims that "like spider webs, our tales are *spun by us*; our human consciousness, and our narrative selfhood is their *product*, not their *source*" (p. 430). Unlike a spider's web, however, 'narrative selfhood' is a fiction, and it is in constant flux as new stories are appropriated and new events are experienced by the 'self' to be transformed into memories, stored in the brain, recalled and 'emplotted' as personal narratives.

Certain aspects of Dennett's hypothesis are contested, but his model of narrative identity, or selfhood, conforms with contemporary understandings in psychiatry, psychoanalysis and psychology, in which our species is seen as a "fiction-making animal, one defined by fantasies and fictions" (Brooks 1994, p.108). The work of cognitive scientists such as Dennett also supports the thinking of philosophers such as Alasdair MacIntyre, Martha Nussbaum, David Carr, Paul Ricoeur, Richard Rorty and others, for whom "human psychology has an essentially narrative structure" (Crossley 2003, p.291); and underpins the work of certain literary theorists, such as David Herman, for whom cognition is "a set of interlocking, socially distributed processes"

28 Dennett borrows this concept from Richard Dawkins who describes a phenotype as an organism's "manifested attributes", a product of the combined influences of its genetic inheritance (genotype) and its environment. Dawkins argues that these "manifested attributes" do not stop at organisms' skin, but include the artefacts it manufactures, such as shells, burrows, nests, hives, webs, or dams in the case of beavers. In Dennett (1992) and (1993), and Cosma (2000).

(Herman 2000, electronic version), rather than a capacity of individual human brains. Herman insists that, because language and narrative are so fundamental to human cognition, his own fields of linguistics and narrative studies "should be classed among the cognitive sciences" (2000). The general consensus amongst these theorists can be summed up in a single simple sentence: "We become who we are through telling stories about our lives and living the stories we tell" (Andrews 2000, in Sclater 2003, p.317).

2.4.2 Narrating and re-narrating the Self

The paradigm shift in theorising the relationship between narrative, cognition and behaviour is part of what Rom Harré calls the Second Cognitive Revolution (Harré 1996, electronic version). Scholars and practitioners who are part of this 'revolution' focus their attention on the mental processes through which people 'story' themselves and integrate new narratives into their 'personal stories', or 'subjectivities', to change the way they interpret the world and act in it. In this context the stories people tell about themselves may be indicative of their mental wellbeing. People who can tell coherent, consistent stories about themselves tend to be considered mentally healthy, for example, while those who fail the coherency/consistency test, according to either their own judgements or the assessments of others, might be encouraged to seek what Peter Brooks calls "a curative narrative construction" or "recomposition". In this "operation" a psychoanalyst attempts to re-emplot the events of the analysand's life and to "understand the force of desire that speaks in and through" the stories she narrates about herself (1994, p. 49). Brooks suggests that such 'recomposition' gives patients "an enhanced understanding of the present" – which could lead to behavioural change – by exposing "histories of the past that have been blocked from consciousness" (1994, p.48). Sociologist David Yamane observes that such "biographical reconstruction, or re-narrativization of one's life" is also associated with religious conversion and other epiphanal experiences (Yamane 2000, p.185).

2.4.3 Re-narrating communities

Julian Rappaport, a narrative psychologist, confirms that the cognitive processes through which people author their personal life-stories are universal, and that, as a species, we create the story that is 'me' by appropriating narratives from the communities we are part of *and* by integrating our own "idiosyncratic experiences" in this story (Rappaport 2000, p.4). One way to precipitate personal and social change, therefore, is to introduce *new* narratives into a community's repertoire, and/or to re-emplot already-familiar stories through a process that is analogous to Brooks' "curative narrative construction", or "recomposition" (Brooks 1994, p.49).

Rappaport's interest is in empowering marginalised groups within communities, and to do this he has developed a methodology in which he differentiates between *personal stories*. *community narratives* and "dominant cultural narratives" (Rappaport 2000, p.4). He defines a *personal story* as "an individual's cognitive representation or social communication of events", as "negotiated in the context of narratives told by the communities in which we live." *Community stories* are those narratives shared by a group and are typically "about where they come from, who they are, and who they will, or want to be".[29] These stories are communicated "through social interaction, texts, pictures, performances, and rituals", and are "the surrounding substance of our social world". Like personal stories, they can be either empowering or repressive, destructive or life-affirming, depending on their ideological content and the social position of the individuals who internalise them.[30] Rappaport's "dominant cultural narratives" are the "overlearned stories" people are exposed to "through mass media or other large social

29 The parallels between Rappaport's "community narratives" and Lyotard's *petit recits*, or local stories, is obvious.

30 Rappaport reminds us that access to a community's empowering narratives, and the right to tell one's own story is often linked to social status.

and cultural institutions and social networks" (Rappaport 2000, p.4). These are the *grand narratives* (after Lyotard) from which nations, cultures, even empires and 'civilizations' are constructed.

To illustrate how already-familiar narratives can be re-emplotted to empower marginalised groups Julian Rappaport cites Phyllis Trible's deconstructive re-narration,[31] from a feminist perspective, of the biblical and koranic story of Hagar, the Egyptian slave who 'belonged' to Sarah, the childless wife of the patriarchal prophet Abraham. The primary events of this story are as follows: Sarah realises she won't be able to produce the heir her husband wants to continue his patriarchal line; she 'gives' Hagar to him to as her surrogate; a son, Ishmael, is born from this union; Sarah later gives birth to her own child, Isaac; she mistreats Hagar and Ishmael; and they are sent into exile. In traditional narrations these well-known events are told from Abraham's point of view to justify patriarchy, to legitimate tribal origins, and to claim a 'divine right' to a 'promised land'; but in Trible's re-narration the same events are told from Hagar's perspective to reveal "the terror and the suffering of all oppressed and exploited women" (Rappaport 2000, p.2).

For Rappaport and Trible this 'recomposition' is an example of how "tales of terror" can be transformed into empowering "tales of joy", even when the 'original' versions remain in circulation to justify or legitimate damaging, even violent practices, such as the subordination or women, or the continuation of ancient tribal feuds between those who claim descent from Abraham through Sarah's son, Isaac (Jews), and those who claim descent from Abraham through Hagar's son, Ishmael (Muslims). There are many parallel examples of ancient narratives being

31 Phyllis Trible, 1984, *Texts of terror: Literary-feminists readings of biblical narratives*, Fortress Press, Philadelphia.

told in their traditional form to maintain oppressive (or environmentally damaging) regimes, and being concurrently re-emplotted in new ways to drive social change, as postcolonial, feminist, ecocritical and queer scholars and literary practitioners have shown (Rusen 2004; Said 1993; Eagleton 1990; Simons 2004; Hall 1999; Johnson 2002; Argyros 1992). A number of renarrations of familiar stories have been included in *Redreaming the plains* – but, as David Carr warns, stories must be "believed or accepted" if people are to enact or live them (Carr 1986, pp.128-130) and, as writers, we have no way of ensuring this!

2.4.4 Re-narrating organisations

Another narrative approach to social change which has emerged from such 'stories-in-context' practices in the fields of narrative or discursive psychology is 'storytelling organization theory', or 'STO theory' (Boje 1998; Boje 2003, electronic versions). From this perspective organisations are understood as being constituted by stories in the same way subjects, communities, nations and civilisations are. Management, workers and customers are thus conceptualised as both the co-authors of stories about the organisation, and the co-creators of the organisation itself.

David Boje observes that many stories told within organisations are 'hegemonic', a term he defines as "the hierarchical domination of one story over another in ways that are outside active awareness" (Boje 1998, electronic version). Such asymmetries have a great bearing on how stories about organisations are interpreted and re-narrated, especially in times of change when familiar narratives are being contested and replaced by new ones. At such times people associated with the organisation undergoing change may experience unsettling feelings of confusion and uncertainty until the new narratives are accepted, Boje notes.

The principles of 'STO theory' have been embraced by dozens of high profile corporate change consultants who spruik storytelling with such missionary zeal that it is now considered a mainstream approach to transforming corporate cultures (Seglin 2000; Denning 2004). One of the leading practitioners is Steve Denning, a former director of 'knowledge management' at the World Bank, who promotes what he calls the "springboard story" (Denning 2000a, electronic version) which, he claims, "can pick up even a change-resistant organization by the scruff of the neck and hurl it into the future" (Denning 2003, electronic version). Such stories are configured with a clear beginning, middle and ending, and are narrated from the point-of-view of a single protagonist whose actions are both immediately relevant and "prototypical of the organization's business". According to Denning, they must also be "eerily familiar", yet novel enough to engage people's interest; they must be "recent, and at least in part true", and they must "embody the change idea as fully as possible". Most importantly, however, they "must have a happy ending" (Denning 2000b; Denning 2000c, electronic versions) to elicit the dopamine-driven "warm and floaty feeling" that Denning claims is "the perfect frame of mind to be thinking about a new future, a new identity for yourself or your organization" (Denning 2003, electronic version).

I have to admit that I too have authored stories with endings people respond to in emotional ways, including at least one that is published in *Redreaming the plains* (Findlay 1994b). I also recently published another story with a happy ending authored by a strategic planner with Rowan MacKenzie. In some ways these 'Redreamings' conform to Denning's seductive recipe, but unfortunately I can find no empirical evidence to support claims that institutional change can be successfully implemented and *sustained* with the kind of storytelling strategies he and other organisational change consultants promote.

2.5 THE 'CRISIS OF REPRESENTATION'

While many storytellers unquestioningly accept classical narrative configurations, others recognise, with historian William Cronon, that

> the very authority with which narrative presents its vision of reality is achieved by obscuring large portions of that reality. Narrative succeeds to the extent that it hides the discontinuities, ellipses, and contradictory experiences that would undermine the intended meaning of its story (1992, pp. 1349-1350).

Writers across many genres have long sought to subvert the reductionism, essentialism and logocentrism embodied in classical narrative representations, however (Argyros 1992). Fyodor Dostoevsky is often cited in this context because, as literary theorist Mikhail Bakhtin observed, he included "[a] plurality of independent and unmerged voices and consciousnesses, a genuine polyphony of fully valid voices"[32] in his novels (Bakhtin in The Literary Encylopedia 2001, electronic version). Frustration with the limits of classical narrative modes had reached such intensity by the closing decades of the twentieth century that it was interpreted as a broadly-based 'crisis of representation' (Pluciennik 1999; Richardson 2000; Morton 1993; Calas and Smircich 1999). This crisis was and is experienced by those who seek to represent past events, such as historians and archaeologists; by those concerned about the present, including social theorists and life scientists; by strategic planners, forecasters and others involved in policy development who seek to model possible futures; and by storytellers, such as myself, who set our narratives in whatever temporal dimensions are appropriate for our purposes.

32 Mikhail Bakhtin, *Problems of Dostoevsky's Poetics*, first published in 1929.

2.5.1 Representing the past

Past events reveal themselves to human consciousness in incoherent, inconsistent, incomplete and inconclusive ways as memories, shards, scattered documents and other traces that require intensive 'processing' before they become 'history' (White 1987a; Hall 1992). Jerome McGann describes the 'reality' of the past as "a field of indeterminacies, with movements to be seen running across lateral and recursive lines as well as linearly, and by strange diagonals and various curves, tangents, and even within random patterns" (in Richardson 2000, p.171). Such complexity presents self-reflexive historians, archaeologists and other scholars who seek to 'truthfully'[33] represent the past with irresolvable dilemmas: indeed, some feel that the 'truth-value' of their research is compromised when it is represented in narrative mode (Munslow 1997; White 1984; White 1987b) because, as Brian Richardson argues, "all seamless, streamlined historical accounts that follow a teleological pattern and lead to a conclusion that is both satisfying and inevitable" are "palpably untrue" (Richardson 2000, p.171). David Perkins proposes that an encyclopaedia of random events (in Richardson 2000, p.172) might be a more 'truthful' way of representing the past, while Richardson himself suggests that the chronicle, "with its minimal causality, openness to multiple stories, and abandonment of teleological trajectories", might be a more appropriate symbolic form to represent "the purposive clutter and unpredictable successions of the polymorphous past" (2000, pp. 172-3). New Media theorists, such as Lev Manovich, champion the "spatialized narrative" (2000, electronic version), in which multiple fields of events are presented to the reader within a single field, and New Media databases (such as *Redreaming the plains*), which present readers with parallel "narrative streams", as alternatives to the single linear sequences of events of traditional narratives

33 I use the terms 'truth-value', 'truthfully' and other contested terms, such as 'real world', without qualification simply because it is beyond the scope of this project to explore the full range of philosophical issues associated with them.

(Manovich 2000; Bizzocchi 2005; Manovich 2003, electronic versions). For Manovich the database is especially appealing because it "represents the world as a list of items and it refuses to order this list", unlike a narrative which "creates a cause-and-effect trajectory" (2000, electronic version). The tyranny of subjectified editorial decisions about what is included and excluded in databases is the same as for any other symbolic forms, however.

Archaeologist Mark Pluciennik and others have sought to represent the "fluidity of interpretation" of the past and/or to subvert "the dominance and authority of single-authored and single-voiced texts" with multiple voices and diverse narrative strands, or with "non-consensual collective pieces" that foreground voices which might otherwise be silenced. Such texts might include an 'afterword' or 'epilogue' instead of "anything so final, positiv(ist), or totalizing as a 'conclusion'" (Pluciennik 1999, p. 666), although the events that are included in these texts are just as subject to the authors' editorial decisions as they are in more classical narratives. Pluciennik notes, however, that he has found hypertext useful for subverting linear readings and authorial authority, as well as for engaging new readers – as I have.

2.5.2 Representing the present

Discomfort with linear narratives is also experienced by those who seek to represent people's experience of the 'present' in which, as Mark Pluciennik observes (after Deleuze and Guattari) "our journeys have become circular or spiral in nature, our thoughts rhizomic …. and linear certainties no longer act as a measure of progress" (Pluciennik 1999, p.666). Some writers have responded to this "postmodern condition" (Lyotard 1984) by abandoning coherence altogether to author 'anti-narratives' as a way of representing the "fragmentation, discontinuities, partial and temporary understandings, and the lack of fixed meanings" they experience (Pluciennik 1999, p.667).

But there are still other reasons for contemporary storytellers to reject linear modes of narrative representation. Some radical feminist writers claim linearity embodies patriarchal, phallocentric ways of being and have advocated, instead, a disruptive *l'ecriture feminine*, for example; while a number of Neo-Marxists have condemned narrative *per se* for embodying and reinforcing notions of capitalist dominance by emphasising the exploits of 'protagonists' over subsidiary referents (Argyros 1992, p.660). Yet other storytellers reject linear narratives because they embody 'Western' models of causality and temporality, as do Enlightenment metanarratives of 'Progress', for example, or the Biblical trajectory which 'begins' with an act of divine Creation and proceeds, through a Day of Judgement, to a future in which only true-believers can be saved. These 'discontents' argue that 'Western' teleologies, or the linear narratives in which they are embodied, delegitimise other belief systems in which time and causality are conceptualised in radically different ways (Sharifian 2003); and exclude the 'Others' who are embedded within these different belief systems (Pegrum 1996). Such 'Others' include indigenous Australians for whom time is 'circular' and events may be emplotted "according to their relative importance for the individual and his or her respective community" (Janca and Bullen 2003, p.40), or according to the logic of more localised cosmologies and traditions (Muecke 2000; Muecke 2004; Rose 2004), for example. Other 'Others' for whom linear narratives may be problematic include the Aymara people of Bolivia who conceptualise time as *nayrapacha*, or 'past-as-future' (Greene 2004; UNESCO 2001, electronic versions); or Hindus, Jains and Buddhists who traditionally conceive their lives cyclically in terms of *karma* and *samsara* (Flew 1979).

I sympathise with all these positions. In my own fiction I have experimented with non-linear, multi-linear and polyphonic modes because I have wanted to mimic the chaotic way the past is presented to consciousness in the present as memories and random thoughts; the connections

our minds make during dreams; and the way apparently random stimuli evoke a sense of the future in the present (Findlay 2005; Findlay 1999). Paul Ricoeur, following the medieval African Neoplatonist, Augustine, conceptualises this subjective experience of time as the "three-fold present": the present of past events we experience as memories; the present of present events as they are perceived; and the present of the future we experience as hopes and expectations (Ricoeur 1983, p.11). But, for me, Augustine and Ricoeur's neat 'three-fold' equation sanitises the messiness of our subjective experience of temporality, and the complexities, non-linearities and interconnectivities of the biological and social processes which stimulate and give meaning to our dreams, memories, imaginings and lived experiences in the ever-shifting 'now'.

2.5.3 Representing complex social and biophysical phenomena

Scientists and others seeking to model, or represent, biophysical and social phenomena also find classical linear narrative modes frustratingly inadequate, since no single narrative can 'capture' the interconnectivities, interdependencies, nonlinear dynamics, self-organisation, random bifurcations, entangled causal chains (Boden 2000, p.117) and "'[c]ascading effects over time" (Elman 2005. p.116) they observe or impute in complex systems. How does one 'truthfully' represent the interactions between the 100×10^{12} cells of a single conscious adult person (Elman 2005, p.115), for example; or even the interactions within a constituent part, such as her brain with its 10^{11} neurons and 10^{15} connections between neurons which somehow generate the experience of consciousness (Coveney and Highfield 1995, p. 283)? Reflexive scientists who seek to represent such interactivities over time may feel as compromised as some historians do when they use linear narratives. For all scientists concerned about the 'truth-value' of their research the challenge of representing the 'whole elephant', however they define her, remains. But 'sustainability' scientists face the even greater challenge of situating that pachyderm in her

broader and even more complex social, political and ecological contexts (Funtowicz and Ravetz 2005). And no single story can bear such a load.

2.5.4 Representing the future

In many discursive communities stories about the future, aka scenarios, are considered useful cognitive tools for guiding choices and actions in the present (Erickson and Miller 2004): indeed, evolutionary psychologists claim that such fictions provide 'game plans' or 'simulations' that people can draw when they experience similar circumstances in their 'real' lives. Exposure to a range of futures scenarios might also promote the "mental flexibility" that individuals and communities need to successfully adapt to new conditions (Pinker 1997 cited in Dutton 2004). But representing possible futures in narrative mode is no less problematic than emplotting events and experiences that are set in the past or the present – unless, of course, the narrators and readers belong to 'fundamentalist' communities who believe certain teleological trajectories are pre-ordained, and/or that the future can be predicted. For the rest of us no single narrative about the future will suffice for the reasons Paul Raskin et al. offer:

> Global futures cannot be predicted due to three types of indeterminacy: ignorance, surprise and volution.[34] First, incomplete information on the current state of the system and the forces governing its dynamics leads to a statistical dispersion over possible future states. Second, even if precise information were available, complex systems are known to exhibit turbulent behaviour, extreme sensitivity to initial conditions and branching behaviours at critical thresholds – the possibilities for novelty and emergent phenomena render prediction impossible. Finally, the

34 Volution is a rolling, spiralling or revolving motion, and in zoology, the whorl of a spiral shell.

> future is unknowable because it is subject to human choices that have not yet been made (Raskin et al. 2002, p.13).

Despite the acknowledged 'unknowability' of the future, the use of futures scenarios is now *de rigueur* at all levels of policy development and planning in both the public and private sectors.

Scenario planning was pioneered in the corporate sector by Royal Dutch Shell in the early 1970s[35] as a way of 'grappling' with the socio-ecological complexities of what Shell's Geb Davis calls the global "problématique" (Davis 2002) . Proponents claim that scenarios, as narrated from different and non-equivalent perspectives, broaden people's understandings of the possible and provide useful insights into the way values affect human choices (Raskin et al. 2002, p.14). Critics argue, however, that scenarios are of limited use because they are not easily transposed into action (Popper et al. 2005; Erickson and Miller 2004; Holl et al. 2002). Nevertheless, four global scenarios were developed for the UN's Millennium Ecosystem Assessment Report to "explore the unpredictable features of change in drivers and ecosystem services" (Reid et al. 2005, p.26), for example; while in a more local context multiple scenarios have been authored to "identify opportunities and challenges not presently apparent" in the Western Australia's degraded wheat belt (O'Connor et al. 2005, p. 563). By utilising such stories to present the logical outcomes of human actions and to embody different and non-equivalent values, scenario planners are implicitly affirming the power of stories to change the way people think and act in the world and simultaneously acknowledging that no single narrative can

35 One of the early TINA scenarios explored what might happen if oil supplies were disrupted. This scenario was developed at a time when any interruption to oil supplies seemed extremely unlikely, but when the first 'oil shock' hit in the 1970s Shell executives were able to respond ahead of other managers because, as Davis comments, "we were already thinking about what most others in the industry had deemed unthinkable" (Davis 2002).

represent the range of possible interactions that may occur over time in complex socio-ecological systems.

2.6 THE CRISIS IS 'REAL'

Many people respond with deep emotional satisfaction to well written linear narratives, but for those of us who want to do more than replicate normative ways of thinking, or trigger dopamine rewards with enticing plots and neatly resolved endings, such narratives remain problematic, even dangerously reductive. Those of us who acknowledge the complexity, deep uncertainty and ambiguity of 'real life' are, however, still haunted by that 'elephant' of the Indian fable (Funtowicz and Ravetz 2005) …

contents

3.0 OUTCOMES

Redreaming the plains was conceived and developed as a response to my own concern about human impacts on the biosphere, and my feelings of powerlessness, as a cultural practitioner, to influence change. I consciously set the project within a particular bioregion. Victoria's basalt plain, to affirm "grounded, authentic, local knowledge which comes from personal experience and collective commitment" (McCloskey 1999, electronic version), rather than the globalised generalisations of the Sustainable Development narratives of the time. Like the early bioregionalists I believed that a grounded and emotional connection to place was an important motivating factor in driving collective action to reverse environmental degradation and habitat loss. This belief has guided all my editorial and creative decisions about the project's content.

Redreaming the plains has evolved over three distinct stages. The first, known as *Painting the future real*, was developed between 1994 and '97 and produced a set of in-depth interviews with residents of the target bioregion; a series of composite digital images inscribed into the virtual 'skins' of an interactive 'possum skin cloak'; and other interactive content as published on-line from 1995. The second stage, which was undertaken between 1998 and 2002, delivered a dynamic database and web site populated with more than 100 commissioned stories from four writers[36], a set of animations, and over 300 images. New non-

36 The four initial writers were Le Van Tai, Jenny Lee, Graeme Kinross-Smith and Merrill Findlay.

fiction, fiction and poetry, the first sound file, many more still images, and a series of video files were added to the database in Stage III.

3.1 STAGE 1:1994-1997

The first stage of what is now *Redreaming the plains* was proposed at the 1994 Altona Sustainability Congress, an event held, appropriately enough, within the shadow of a petrochemical complex and oil refinery. I'd been invited to speak about 'something inspirational', so drew on the work of Dutch sociologist, Fred Polak, who argued in the 1950s that certain narratives, or 'images' about the future "act as magnets on our behaviour in the present" to effect social change (Polak 1961, in Findlay 1994b, electronic version). I suggested that a new and hopeful vision of the future had now emerged, that it had a name – ecological sustainability – and that we were all now responding to it, even though we didn't yet fully understand what 'ecological sustainability' meant, or even if it were possible (Findlay 1994b).

3.1.1 *Painting the future real*

Painting the future real, the name I gave to the first stage of what is now known as *Redreaming the plains*, was inspired both by Polak's ideas about 'images' of the future driving change in the present, and by a Swedish project called *Painting the future*,[37] in which artist Gunnar Brusewitz and environmental scientist Lars Emmelin collaborated to visually model development options

37 I read about this project in a special issue of Scientific American entitled *Managing Planet Earth*, published in September 1989, when I was a consultant with the Australian Conservation Foundation.

within familiar Swedish landscapes (Erickson and Miller 2004. p.12; Hassan and Jorgensen 2004; Holl et al. 2002). The objective of ITF's project, as stated in the funding proposal and promotional material, was "to collaboratively research and develop a set of positive images about the future of the basaltic plain between the Yarra River and Geelong"[38] to inspire social change. These images were to "reflect both community aspirations for the future and the most progressive global thinking about ecological, social and economic sustainability" (Imagine The Future Inc 1997a). According to an article published by Victoria University in June 1996 the aim of the project was "to assist the community to think positively and creatively about the future so that we can solve many of the social, economic and ecological problems we face in the present".[39]

By early 1995 I had raised a total cash budget of $35 000 from the Australia Council's Community Environment Arts and Development (CEAD) Unit ($15 000); the Federal Government's Department of Housing and Regional Development ($10 000); and the Sidney Myer Fund ($10 000). In-kind contributions included research assistants' salaries that were paid through various schemes run by the Department of Education, Employment and Training; internet access and other amenities provided by Victoria University; office support from the Australian Conservation Foundation; and many other services, such as scanning, that were provided by partner institutions as the project progressed.

I made a decision to 'go digital' with the project in 1995 to exploit the potential of the World Wide Web for reasons discussed in Section 1.3, and advertised for a computer artist in October/November of that year. The successful applicant, Csaba Szamosy, began work on 19

38 Imagine The Future Inc, Project leaflet, ITF, February 1995.

39 'New multi-media project imagines the future of Melbourne's West', in *Nexus*, June 24, 1996, p.3, Victoria University.

January 1996. His brief was to deliver a single composite digital image, or series of composites, 'about' an ecologically and socially sustainable agro-urban-industrial system in the bioregion between the Maribyrnong River and the Bellarine Peninsula within the life time of a child born today.[40] Other members of the project team included research assistant Richard Lee; illustrator Rebecca Kaye; technical consultants Adam Tiller and Justina Curtis; youth worker Carmen Stewart, with whom I was simultaneously developing ITF's youth futures program. *Re-imagining your neighbourhood*; researcher Fillipa Shubb (ACF volunteer); and research and administrative assistants Janet Ho, Kirsty Wilson and Su Tran, who came to the project as job experience placements from the Western Young People's Independent Network's Land, Environment Action Program (LEAP) funded through the Commonwealth Employment Service. I was the project director/team leader, manager, writer, fundraiser and promoter.

3.1.2 Research process

The project images were to "reflect both community aspirations for the future and the most progressive global thinking about ecological, social and economic sustainability", but while I was relatively familiar with the "progressive global thinking" at that time through my ecoversity work, I knew little about the aspirations for the future of people who lived within the target bioregion. The budget didn't allow for any comprehensive social research, so I opted for informal field research with my cameras and a series of semi-structured in-depth interviews with a cross-section of local residents.[41] The interview questions were developed in consultation with social analyst Irving Saulwick and were designed to "understand what kind of future society people want to live in, and how such an imagined future might be bought about", as the introductory

40 First Schedule to the contract between Csaba Szamosy and Imagine The Future Inc, January 1996.

41 See http://www.ecoversity.org.au/pfr/aboutpfr.htm#interview.

comments at the beginning of the questionnaire stated.[42] Twenty-one people were selected through ITF's networks and were interviewed by either myself or by my co-workers. All interviews were taped, and some were transcribed, edited in consultation with the interviewees, and posted on the project's web site after clearance forms were signed. Preliminary analysis of the interview content was fed back into the community through articles published in the university press and other publications (Findlay 1996b).

As might be expected there were many script changes between the conception and completion of *Painting the future real*. By May 1996 we had reconceptualised the project to include representations of the bioregion's pasts and presents as well as its possible futures, for example. This shift allowed us to explicitly acknowledge "initial conditions",[43] including the bioregion's pre-Contact heritage, the British invasion and colonisation and the industrialisation of the basalt plain in the nineteenth and twentieth centuries, for example.

While the interviews were being conducted and processed research assistant Richard Lee and I were also collecting contemporary and historic images to be used in the digital composites. We selected more than 400 from the many hundreds we viewed, even though we were not sure how they would be used. I was hoping that the artist would engage with the people and landscapes of the bioregion and with the content of the interviews to develop his own design concept, but this didn't happen. When Richard Lee returned from the Living Museum of the West with a drawing of a possum skin cloak we knew we had found the design concept we were looking for though, or it had found us.

42 Preamble to the *Painting the future real* questionnaire, ITF May 1996. See http://www.ecoversity.org.au/pfr/aboutpfr.htm#questions

43 A reference to Chaos Theory and the 'butterfly effect' (Gleick 1987).

Marsupial skin cloaks were, and still are manufactured by indigenous peoples throughout south eastern Australia for both protection from the cold and for symbolic purposes. Traditionally the skins were sewn together with animal sinew or plant fibre, incised with symbolic designs and coloured with ochre and charcoal (Museum of Victoria 2001; Imagine The Future Inc 2002d). For us the cloak concept provided an ontologically holistic metaphor (Leduc 2002) about human relationships with 'nature' which could be interpreted in many different ways: as being wrapped or embedded in 'nature'; or as being dependent on ecological communities for comfort and nourishment, for example. It also evoked Aboriginal Dreaming as being "at once beyond time and continuous yet transformative, always presencing the past, the present and the future" (David 2002, p.206).

This design concept allowed me to define a series of 18 'dreamings' about the bioregion's pasts, presents and possible futures as holons,[44] or nested 'socio-ecological systems', which were to be digitally 'inscribed' into virtual 'possum skins'. I wrote storylines, or scripts, for each of these 'skins' based on the available images, the interview content and other research data, and Csaba Szamosy followed these as he 'inscribed' the 'dreamings' into the re-interpeted 'skins' and 'stitched' the skins together into a single 'cloak'.

The drawing we were using as a template was of a cloak that had been collected near Echuca on the Murray River and was therefore probably manufactured by Yorta Yorta rather than Kulin people. I discussed this cloak's provenance with our indigenous heritage adviser, Bill Nicholson,

44 A term coined by Arthur Koestler to signify entities which can be considered to be both wholes in themselves and parts of larger entities (in Waltner-Toews 2003, p 23.)

Chairperson of the Wurundjeri Tribal Land Compensation and Cultural Heritage Council, and with Mark Grist, the Indigenous Studies curator at Museum Victoria, and suggested that they might be able to provide us with verifiably Kulin artefacts in the Museum's collection that we could use as models to authentically represent the cultural continuity of the Kulin nation. The project artist and I met our advisers in the basement storerooms of the old Museum in Swanston Street and, with them, selected a shield carved with a uniform zig-zag design and dated to either pre-Contact times, or to a time before Kulin people experienced the full impact of British colonisation. Szamosy copied the design under supervision and later reinterpreted it, but on the understanding that the design remained the property of the Kulin people and was subject to a moral rights agreement. For me, feeding 'lost' cultural content back into contemporary Kulin communities in this way was one of the most valuable and unexpected outcomes of the project.

3.1.3 Project web site

The initial interactive *Painting the future real* content was published on ITF's web site, www.ecoversity.org.au, on 28 May 1996 in time for the project's pre-launch.[45] These first graphics were designed by project artists Rebecca Kaye and Csaba Szamosy to my briefs and incorporated texts espousing the project's global, national and local dimensions. The initial image-mapping was done by Justina Curtis, but by late June 1996 I was able to code the interactivity myself. The digital possum skin cloak was posted online by December 1996.[46] The last changes made to the original *Painting the future real* web site seems to have been in late

45 The original content has been re-published as web archives in 2004 on http://www.ecoversity.org.au/pfr/pfr.htm.

46 Intellectual property licences for all images used, and permissions to use and modify them, are on file within the Environment & Planning Program, RMIT University, and were cleared by ITF's solicitor as part of Stage II of Redreaming the plains.

May 1997. An archived version of these pages has since been republished on www.ecoversity.org.au.

3.1.4 Completion of Stage I

The outcome of Stage I was very different from my expectations in 1994, of course. While the final composite images were certainly 'about' the eastern rim of Victoria's basalt plain, in that all the individual images used were created within the bioregion and authentically represented it, they were not only about 'the future' of the plain, and not only about 'ecological sustainability'. Instead, the 18 'skins' were 'inscribed' with images representing the bioregion's pasts, presents and possible futures, and emphasised its cultural as well as its biological diversity. In this sense, it represented both "a geographical terrain and a terrain of consciousness" (Berg and Dassman 1978, in McCloskey 1999, electronic version). Read as a whole, the virtual cloak could thus be interpreted as a 'map' of the bioregion; as an all-encompassing 'Dreaming' in which people are connected with all other entities in ways that subvert 'Western' temporalities; or as 18 separate sets of situated knowledge; or, if read from left to right in the 'Western' tradition, as multi-stranded stories about interactions within complex 'socio-ecological systems' from the time of the first occupation of the bioregion an estimated two thousand generations ago, through present time, into a possible future in which the plain's native biological diversity has been restored or reconstituted by people from many different backgrounds. Any deconstructive reading of these images will inevitably reveal many omissions, silences and ambiguities, however. A number of these I still especially regret.

3.2 STAGE II – 1997-2002

The next logical step (for a writer!) was to 'weave' verbal narratives into the virtual possum skin cloak. I therefore spent much of 1997 networking, meeting potential sponsors, writing funding submissions and composing exceedingly creative budgets for Stage II of what, by this stage, was being called *Redreaming the plain*.[47] By the end of 1997 I had written four major submissions, and all of them had been rejected. But one day I found a message on Imagine The Future Inc's answering machine inviting me to ring the New Media Unit of the Australian Film Commission, one of the funding bodies charged with distributing the Federal Government's Creative Nation funding. The project officer had heard about ITF's work through the eMERGE network and was interested in discussing it. I returned her call, described our proposed project, and immediately despatched a copy of a submission that had recently been rejected by the Literature Board of the Australia Council and Arts Victoria as the basis for further discussion.

The Literature Board/Arts Victoria proposal was for "a pilot creative hypertext partnership" involving "five prominent writers who live on the plain and know it well." Each of the writers was to develop "an original work or inter-related set of works about the past, present and future of their region" (Imagine The Future Inc 1997b) for online publication. The proposal was of interest to the AFC, but it needed extensive rewriting to conform to the expectations of a funding body whose primary responsibility was to the film industry. *Redreaming the plains* now required a producer, director, production manager, solicitor and accountant, cash flow charts, and several production bank accounts, as well as the writers and designers who were to actually produce the 'interactive multimedia assets' and the basic web infrastructure.

47 The project was initially called *Redreaming the plain* (singular) to refer specifically to Victoria's basalt plain, but a general ITF meeting in 2004 voted unanimously to call it *Redreaming the plains* (plural), to give it a more global relevance.

Negotiating the new arrangements for what was to become AFC's Project 7208 was tedious, time consuming and, for me, very challenging because of my lack of expertise in this area. But after months of unpaid labour ITF received the largest single grant made by the Australian Film Commission for a multimedia project in the financial year 1998/99: a total of $86,700 (Australian Film Commission 1998/99, Appendix G). Our initial subcontractors included the two web developers and four writers, Le Van Tai, Jenny Lee, Graeme Kinross-Smith and myself. I was also the project's director/producer and commissioning editor; and Jenny Lee was the text editor. (I made many attempts to engage an indigenous writer, but this was not possible.)

Unfortunately ITF's relationship with the AFC coincided with the so-called dotcom boom (Wikipedia 2005) when Victoria's information technology and telecommunications industries, including the emerging 'multimedia' sector, were experiencing what was politely called a "skills deficit" (Donovan 2004, electronic version), not only in technical areas, but also in basic business competencies. Although the first web developers I subcontracted presented an innovative design concept for a static HTML web site and worked hard to support the three writers who were using this medium for the first time, their professional conduct soon became very problematic. My ITF colleagues and I tried a number of times to resolve particular conflicts, but the relationship broke down in 1999. ITF later severed its association with this business altogether and it ceased to exist.

By the time we were ready to subcontract our second group of web designers new online database options had become available to 'capture' content, store it for publication, and display it on dynamic web pages rather than in static HTML format. The company we chose was licensed to use SQL Server 2000, a Microsoft data infrastructure product utilising the browser capabilities of Windows Explorer. ITF's treasurer and project accountant, Gwen Zammit, and I negotiated

what we thought was a good deal, but such was the volatility of the IT industry at this time that this second design company was purchased by another 'dotcom start-up', Atomic Media, and also ceased to exist before the *Redreaming* database was completed and installed. The *Redreaming* infrastructure was finally installed on an RMIT server by Atomic Media with the support of our pro-bono IT consultant, Ian Tebbitt. I completed the less technically demanding work of populating the database with the commissioned texts, inserting the hyperlinks, sourcing images from photo libraries, confirming Intellectual Property (IP) licences, and negotiating ongoing support with technical staff at RMIT.

The new *Redreaming the plains* 'went live' in June 2001, but was almost immediately disabled by a global cyber-attack on 'Western' sites and data networks that ran Microsoft products, and the familiar front page was replaced with a very direct political message in bright red upper-case letters – 'FUCK THE USA'. I learned later that Chinese 'hacktivits' had launched this attack in response to a collision between a US EP-3 spy plane and a Chinese fighter jet 100 km south of China's Hainan Island (Kalathil and Boas 2001, p. 10). The Chinese plane crashed into the South China Sea, but the pilot of the EP-3 was able to make an emergency landing at a Chinese military airbase on Hainan where his plane was impounded (Suarez 2001). Commentators have since alleged that the cyber-attack which disabled *Redreaming the plains* was sponsored by the Chinese government to influence bilateral negotiations about the fate of the EP-3, its crew and the data stored in its on-board computers. Fortunately none of the *Redreaming* data was lost in the incident and RMIT's IT staff were able to quickly restore the site's original front page, but the incident alerted IT managers everywhere to the vulnerabilities of servers running Microsoft products. For me it confirmed the inherent unpredictability, nonlinearity and interconnectivity of the complex global 'system' *Redeaming the plains* was now part of.

The site suffered a second cyber-attack several months after the Chinese incident, and a third in 2002 which was more serious, because RMIT's SQL Server auto-back-up system was not functioning properly. Data was deleted from the mainframe and an out-of-date back-up was used to restore it – which meant that many months of my work was irretrievably lost. And so I rebuilt *Redeaming the plains* yet again.

The Australian Film Commission's Project 7208 was finally completed in November 2002. Of the 21 projects the AFC funded through the Creative Nation multimedia investment fund in 1998/99, *Redreaming the plains* was the *only* one to be finished.[48] Against all the odds ITF had fulfilled its contractual obligations to produce "An interactive web site containing the work of writers and others engaged in exploring the cultural and ecological past, present and future of Victoria's basalt plain." The final outcome was not the static HTMTL site budgeted for, but a dynamic database that functioned as an open-access multidisciplinary e-journal (ISSN 1447 3461) and virtual gallery. When we signed off with the AFC the database was populated with 19 bilingual stories in English and Vietnamese by Le Van Tai, along with a linked series of his animated 'concrete poems' and traditional poetry; 24 stories by Geelong writer Graeme Kinross-Smith; 41 by historian Jenny Lee; and 37 by me, plus eight explanatory 'in-house' texts I authored for Imagine The Future Inc. The database content also included over 300 digitised photographs contributed by the writers, by Stage I partners, or acquired from various image libraries, including the La Trobe Collection at the State Library of Victoria, with all the appropriate IP licences and clearances; and the 18 composite images created in 1996/97 as part of the virtual possum skin cloak which was, by then, on permanent exhibition in the

48 Personal communication with an 'inside source', August 2004.

Redreaming gallery. The entire site has been archived from this time by the National Library of Australia's Pandora Project "for posterity" (Cameron 1997; Australian National Library 2004).

3.3 STAGE III: 2003-06

From 2002 I conducted a number of unfunded experiments to test the project's potential for further development. In the first of these I solicited new content through the World Futures Studies Federation list-serve[49] and received one response, a thought provoking essay from Richard L. Meier, a distinguished scholar, planner and emeritus professor within the College for Environmental Design at UC Berkeley. Meier was old enough to be more interested in changing the world than being published in prestigious academic journals, so it didn't matter to him that *Redreaming the plains* was an unknown open-access on-line publication.

My next experiment was to solicit work from scholars within the School of Social Science and Planning at RMIT in the belief that they might be interested in making their work more widely accessible. I reconfigured *Redreaming the plains* to conform to DEST's Academic Data Collection process and established an editorial panel and the capacity to implement a peer review process, thinking that this might encourage scholars to submit work for publication – but to date I have not received a single submission from academics at RMIT, although a number of postgraduate students I have taught have expressed interest in having their final essays published on-line. Unfortunately I have not yet had the resources to follow this up.

3.3.1 Plains fiction/ Plains poetry

49 I have been a Fellow of the World Futures Studies Federation since 2000.

My third experiment, to solicit new content through the Victorian Writers Centre, was much more successful. In early 2003 a short article calling for original stories set in or about Victoria's basalt plain, was published in the Victorian Writers Centre's newsletter. The first submission arrived in early May, a short story by then-unpublished writer, Jenny Hickinbotham. I contacted the author and workshopped her story with her over coffee in a city cafe. The final version was posted on-line on 13 May 2003 in a new data category I called Plains fiction. The following night *Redreaming* recorded over 30 separate visits from Hickinbotham family and friends as they celebrated Jenny's first publication. I received and published three more short stories set in Victoria, and one from a writer living on the Great Plains of the United States over the next year. The most recently published fiction, a short story set in a sustainable future within the now-degraded Corangamite area, was submitted by strategic planner Rowan MacKenzie and posted online on 1 July 2005.

From mid-2003 I also unexpectedly received ten submissions in quick succession from Geelong poets after an Australian poet in Austin, Texas, recommended *Redreaming* to them by email, and so I opened yet another category in the database: Plains poetry. The most recently submitted poem, one by Geelong poet Ted Reilly, was posted in July 2005.

3.3.2 Boundless plains to share

In June 2003 I conducted a fourth experiment to create on-line space for people from non-English speaking backgrounds, including asylum seekers and refugees, some of whom were incarcerated in an Immigration Detention Centre on Victoria's basalt plain not far from the Maribyrnong River. This initiative, The Homeland Project, was 'inspired' by the words of Australia's national anthem: *For those who've come across the seas / We've boundless plains to*

share (DFAT 2004). Iranian-born playwright, Mammad Aidani, contributed the first story, a dramatic monologue; and the second was submitted by a young Hazara man, Rahmat, who had been detained at Woomera Detention Centre on another plain. I linked Rahmat's text to other on-line publications, such the February 2001 Human Rights Watch report, *Massacres of Hazaras in Afghanistan*, the Amnesty International 2003 Report, *Out of site. out of mind: the fate of Afghan returnees*, and various dossiers on the American invasion, to add veracity to his narrative. I have since linked Le Van Tai's bilingual stories about his journey from Vietnam to Australia to the Homeland Project, along with a sound file of an ABC radio feature about Le's life in which an actor reads from his *Redreaming* narratives. These texts contrast the way 'boat people' were welcomed in the 1980s with their treatment in the first years of the twenty-first century.

3.3.3 Plains video: first moving pictures

The Homeland Project also provided an opportunity to add the first digital video files to *Redreaming the plains*. These were shot by Fiona MacDowall during Journey on the Wind, a tour of rural Victoria by refugees and asylum seekers we both participated in. MacDowall edited her material into ten short files which were prepared for on-line publication by Ramesh Ayyer at RMIT.[50] The content includes footage of ethnic Hazara asylum seekers from Afghanistan, Dinkas from Southern Sudan, and an Oromo from Ethiopia discussing their experiences, plus interviews with members of Rural Australians for Refugees in Horsham and Hamilton on the western rim of Victoria's basalt plain.[51]

50 Fiona MacDowall, 2003, *Light a candle* and other video clips. See http://www.redreaming.info/DisplayStory.asp?id=172.

51 See the photo archives from this trip on http://www.redreaming.info/Assets/JourneyGallery2003/HomelandProject-Intro.htm.

3.4 OUTCOMES SUMMARY

Redreaming the plains is now a "docuverse" (Landow 1997) of interconnected stories about the pasts, presents and possible futures of Victoria's basalt plain and other plains bioregions, or 'terrains of consciouness' around the planet. The narratives include text-based fiction, nonfiction, poetry; sound and video files; animations, digitised drawings and paintings; photographs and the composite 'dreamings' of the virtual possum skin cloak created in 1995/96. These stories are authored in many different voices and from many non-equivalent positions, but the perspectives they represent and the values they embody are far from all-inclusive. Biophysical processes are highlighted in many of them in ways that emphasise anthropogenic change over time; while in other stories historical events that have been neglected or consciously deleted from public memory are re-narrated, and/or individuals or groups who have been silenced in mainstream narratives are foregrounded as active protagonists in ways that parallel Phyllis Trible's deconstructive re-narration of Hagar's story, as cited in Section 2.4.3. Several of these subaltern voices can be heard *literally*, as in the ABC interview with Le Van Tai, and the video files featuring asylum seekers who participated in Journey on the Wind. With the possible exception of the possum skin cloak and Mammad Aidani's monologue, all the stories are configured as classical linear narratives with a beginning or introduction, middle, and ending or conclusion. In this sense they embody 'Western' teleologies, *but* they need not be read in this way. Readers can navigate their own paths through the *Redreaming* "docuverse", or in and out of it, to co-author their own recombinant stories. They can enter the database from the front page by following the embedded links, or by clicking on a drop-down menu; or they can enter at any page via Google or other search engines to follow their own paths through the narratives. The cognitive implications of such choices will be explored in the next section.

The project's various outcomes have broadly fulfilled the objectives stated in the funding submissions. They have also generally remained consistent with both ITF's philosophy and my own vision, even though they are very different from anything I could have imagined in the early 1990s. For me personally, *Redreaming the plains* has been a very rugged journey with many troublesome, even painful twists and turns in the plot and too many uncertainties. In this sense, the project embodies the very properties of the complex systems I was seeking to represent! Its future therefore remains both uncertain and unpredictable.

4.0 SYNTHESIS AND DISCUSSION

Redreaming the plains was conceived in response to the moral imperative of anthropogenic species loss and environmental degradation. In this context the view from the top of West Gate Bridge was paradigmatic. As I gazed out across the degraded basalt plain I asked myself what could I do, as a writer, to help transform that view: *How could I story 'sustainability' in ways that are true to my understandings of the complexity of socio-ecological interactions, and yet effect change in the world?*

For me the view from the bridge was the aggregation of 170 years of enacted or embodied narratives, although resource managers, conservation biologists and other land stewards would be more likely to see it as socio-ecological systems of diverse human and non-human entities interacting in complex, even chaotic ways. For all of us who subscribe to the metanarratives of 'ecological sustainability', however, the primary goal is to reduce anthropogenic impacts on indigenous biological communities by changing human behaviour. But my loaded question about representing complexity *and* effecting social change presents a number of seemingly irresolvable dilemmas, because the behaviour of complex systems, whether defined at a macro or micro scale, does not conform to the conventions of classical narrative representation as it has been theorised in the 'West' for over 2 000 years (Aristotle 2000; Ricoeur 1984). 'Real life' is characterised by non-linear dynamics, emergence, self-organisation, random bifurcations, entangled causal chains (Boden 2000, p.117), and "[c]ascading effects over time" (Elman 2005, p.11), while traditionally configured stories are characterised by clearly defined boundaries, linear causality, and neat 'endings' in which stated goals or purposes are fulfilled and all the internal contradictions are resolved (White 1987a; White 1987; Ricoeur 1984; Dauenhauer 2002).! And it is apparently from such teleological trajectories and narrative

closures that readers make their moral judgements about the story's referents (Ricoeur 1984, pp. 66-67). And their moral judgements may have a bearing on their future behaviour …

In the context of *Redreaming the plains*, a project with an explicit moral agenda, one could pragmatically argue that traditional linear modes of narrative representation are preferable to non-traditional ones that more 'truthfully' represent complex systems. And I can't deny that many readers find traditional linear narratives intensely satisfying and unproblematic, and that countless writers across all genres are highly skilled at producing stories to fulfil this 'consumer demand'. But, as I have shown, there are also many of us who remain uncomfortable about representing 'the real world' in this way. Reflexive scholars in diverse discursive communities feel that that their research is compromised when it is represented as 'stories', because they recognise, with Brian Richardson, that "all seamless, streamlined historical accounts that follow a teleological pattern and lead to a conclusion that is both satisfying and inevitable" are "palpably untrue" (Richardson 2000, p.171). Even many fiction writers, for whom the truth-value of their work is not necessarily paramount, resist the seductions of linear narratives for reasons I've already briefly addressed. In the context of *this* project, the most germane objections to storying the 'real world' in linear mode come from scientists attempting to model the interconnectivities of socio-ecological systems, and from strategic planners seeking to represent the multiple indeterminacies we might face in the future. For all of us, whatever our preferred genre, the challenge of representing the 'whole elephant' remains all too real.

Literary writers from at least the times of Murasaki Shikibu[52] and Miguel de Cervantes[53] have intuitively recognised the limits of traditional stories, and have used a range of literary strategies to more fully represent 'real world' interactivities and the associative ways the human imagination works. Such strategies, some of which I have utilised myself in both 'fiction' and 'non-fiction', include sub-plots, polyphonous voices and multiple points-of-views, all of which are evident in canonical literary works and contribute to the richness of the experience of reading them. In more recent times writers have experimented with 'anti-narratives', diverse and interweaving narrative strands, and *l'ecriture feminine*, for example; and/or have abandoned the formal conventions of 'beginnings' and 'endings' to more accurately mimic the indeterminacies and ambiguities they experience in 'real life'. Other narrative dissidents have proposed alternative symbolic forms to overcome the limitations of narrative representation. These alternatives include the chronicle "with its minimal causality, openness to multiple stories, and abandonment of teleological trajectories" (Richardson 2000); the encyclopedia (Perkins, in Richardson 2000, p.172); the "spatialized narrative" in which multiple stories are presented in the same viewing spaces, as on possum skin cloaks, medieval triptychs and many web home pages; and the electronic database (Manovich 2000, electronic version). And, of course, practitioners and theorists alike have embraced hypertext as a way of subverting the teleological trajectories of linear narratives. Indeed, Lev Manovich suggests that hypertext allow readers to experience a new kind of narrative, a <<hyper-narrative>> which he defines as "the sum of multiple trajectories". Within such hyper-narratives, a linear story is only "one, among many other possible trajectories" (Manovich 2000, electronic version).

52 Murasaki's novel, *The Tale of Genji,* is considered the earliest existent novel and the first novel by a woman. It is set in Japan's Heian Court in the 10th and 11th centuries, and is believed to have been completed "in something like its present form" in the early 11th century (Seidensticker 1981).

53 *Don Quixote de la Mancha* by Miguel de Cervantes Saavedra is considered the first European novel. The author was a contemporary of William Shakespeare. Both authors died in April 1616.

In the context of *Redreaming the plains* I have used hypertext, or <<hyper-narrative>>, as a way of consciously mimicking the nonlinear interconnectivities of complex socio-ecological systems, and the twisted, random paths our own minds follow, especially when we are dreaming or thinking creatively. But a large body of literature critiquing hypertext has now emerged. A number of theorists argue that, by adding hyperlinks to narratives, writers are sacrificing their own 'author-ity', and empowering readers to become co-authors as they navigate their own paths through and in and out of the interactive lexia (Landow 1997) to create their own recombinant narratives. Another concern is that readers may never experience 'narrative closure', in which case the moral meaning, as apparently 'revealed' in a story's 'ending' (Ricoeur 1984), may be endlessly deferred. Both of these criticisms are as true of interactive Web-based media as they are of non-web based texts: people thumb through books, newspapers and magazines to read sentences at random; we channel surf on television and radio; and, like our hominid ancestors, we walk away from and return to storytelling sessions around the fire or family hearth, however this symbol of family or community togetherness is now understood. And, as many theorists have observed, the way readers interpret texts is influenced not only by the content of the texts themselves, but also by readers' receptivities, their pre-understandings and the prior experience. We each construct meaning in ways that defy simplistic explanations.

As a writer I celebrate this 'de-centring' of authorial responsibility; and for me the renewed focus on readers as meaning-makers is one of the many democratising benefits of hypertext and the Web. But the *Redreaming* narratives offer readers only a limited number of navigation choices. They can consume individual stories from 'beginning' to 'end' on-screen; they can <click> to another story within the database via an embedded link, or by using the drop-down menu, or by returning to the front page and choosing a different pathway; they can leave *Redreaming the*

plains via a link to an external site and then return to the database after reading the linked 'story'; or they can leave the database altogether. Readers can also choose to print individual narratives to read as linear texts on paper (and anecdotal evidence suggests that they regularly do this) in the same way that stories have been read since the printing press was invented, or even since the first symbolic marks were made in clay tablets, or even earlier, on cave walls. Readers' experience of the database's interactive content can thus be very varied, as can their interpretations of the stories themselves.

4.1 EFFECTING CHANGE

Many *writers*, especially those of us who have internalised the values of 'social and ecological sustainability', want to not only represent the 'real world' in our work, but also to change the way people think and act in it. As I have shown, there is now a broad consensus that human behaviour has a narrative dimension and that our very sense-of-self, and the social collectivities we are part of – families, communities, organisations and nations – are narrative formations. Effecting social change and changing behaviour can thus be considered a narrative, or discursive practice.

The intervention strategies developed by narrative psychologists such as Julian Rappaport and David Boje are helpful in this context. Both have demonstrated that social change can be facilitated by introducing new narratives into communities' repertoires, and/or by re-narrating already familiar stories from different points-of-view to embody new values. Psychoanalysts use similar techniques at an individual level to effect what Peter Brooks calls "curative narrative construction", or "recomposition" (Brooks 1994, p.48), a process that is analogous to the "biographical reconstruction or re-narrativization" people experience as religious conversions

and other epiphanal events (Yamane 2000, p.185). High profile corporate change practitioner Steve Denning espouses similar storytelling interventions, and confidently boasts that his favoured genre "can pick up even a change-resistant organization by the scruff of the neck and hurl it into the future" (Denning 2003, electronic version). Although I have found no critical evaluations of the longer term efficacy of these methodologies I have no doubt that they 'work' for some people at least some of the time.

The stories that are part of the *Redreaming* database are authored from many different and non-equivalent perspectives; they are set in diverse times and places; they embody a broad range of the values; they all represent knowledge that is situated in particular bioregions; and certain details will be "eerily familiar" to 'locals' who inhabit the same or similar 'terrains of consciousness'. For some readers, *some* stories will be 'new'; for other readers they will be re-interpretations of already familiar narratives; and for yet others the *Redreaming* content will be so familiar that it is banal and boring. As they <click> their way through the database and in and out of it, readers may or may not make moral judgements about the content, and they may or may not believe the stories they read, yet their exposure to them, however brief, and the connections they make in the 'consensual hallucination' of cyberspace, have the potential to inspire creative, even life-changing insights, and/or 'conversion events' (Yamane 2000, p.185) to change the way they think and act in the world. But whether or not readers believe the *Redreaming* stories and internalise and enact them, a trace will remain to inform their readings of subsequent texts and their interpretations of future experiences and events. *Redreaming the plains* thus has the *potential* to effect individual and social change, although any causal relationship between exposure to *Redreaming* narratives and behavioural change might be impossible to establish, just as it is impossible to empirically 'measure' how, or if dreams-as-biological-events influence our behaviour in our waking life (States 2003, electronic version).

Few people would doubt, however, that dreams-as-*stories* are symbolically very potent in either driving social change or maintaining the *status quo*.

The basic infrastructure of *Redreaming the plains*, a dynamic database in which the interface is separated from the data itself, may also be culturally significant. Film theorist Lev Manovich sees the New Media database as 'the new symbolic form of a computer age …. A new way to structure our experience of ourselves and the world' (Manovich 2000, electronic version). Artist Mark Amerika calls this 'new way' of experiencing ourselves and the world "hypertextual consciousness" (Amerika 2001, p. 28) – but this intriguing notion is for *another* story.

4.2 YES, NO AND MAYBE

So -- have I answered my loaded question? Yes and No. The *Redreaming* <<hyper-narratives>> can certainly be read in ways that mimic the complexity embodied in the concept of 'sustainability', and they are certainly authored from different and non-equivalent perspectives to more completely represent the 'whole elephant', but readers will interpret and internalise them in ways that are beyond my authorial control. The moral potency of the stories I have some responsibility for is therefore uncertain, as is the future. As a writer, I cannot predict *how*, or even *if* 'my' stories, or the stories I have published on *Redreaming the plains*, will influence people's behaviour. But as a moral agent myself, as a writer, I have at least tried …. That is all I can truthfully say.

AFTERWORD

I often find my 'faith' in the power of narratives to effect change difficult to sustain – which is tantamount to admitting that what I have been doing all these years is fatuous, self-indulgent and useless in the face of the threats that motivated me to 'begin' *Redreaming the plains*. Any optimism I once felt that the environmental movement, for example, could 'save the world' has now evaporated, and I am not alone in this loss. In an interview in Japan in 1998 Peter Berg, one of the founders of the political philosophy of bioregionalism, gave words to my own fears:

> Environmentalism had always been the handmaiden of late industrial society. It was a way to preserve the material benefits of industrial products and processes while mitigating the effect of developing those products and carrying out those processes (Evanoff 1998, electronic version).

(And I was complicit this, as my storyline reveals.)

Many others have expressed similar disappointment with the mainstream environment movement and the 'sustainability' industry in general. Philosopher Arun Gare, for example, observes that "Despite four decades of effort, destruction of the global environment is accelerating" and mainstream concern about the environment has diminished rather than increased (Gare 2001, electronic version). Several recent reports published by the Australia Institute (Toyne and Farley 2000; Macintosh and Wilkinson 2005) confirm Gare's claims. But his faith in "the transformative power of stories" remains. Like me, he cites David Carr (1986) and Alasdair MacIntyre, for example, to support his conclusion that "individual and social actions are lived stories" (Gare 2001, electronic version). In a later publication he adopts the historical

materialism of Stephen Bunker to examine the way the "global environmental crisis" is being exploited by global elites "to appropriate for themselves the world's diminishing resources, augmenting their power to do so while further undermining the power of the weak to oppose them" (Gare 2004, electronic version).

The narratives of Neoliberalism and the rapacious capitalism they 'sustain' are, of course, obvious targets, but unfortunately Neoliberalism is not the only ideology that is associated with ecological destruction, as Jared Diamond (2005) and anthropologist Kay Milton (1996) have convincingly argued. What we are up against, I believe, is the *realpolitik* of social change that Machiavelli documented five hundred years ago, the deeply embedded, perhaps even innate human resistance to any "new order of things" (Machiavelli 2004, electronic version). But we are also up against the limits of the 'sustainability' practitioners and theorists themselves who have not ventured beyond their own disciplinary boundaries to consider the relationship between stories, cognition and human agency. They have literally forgotten the plot: that ecosystems cannot be polluted, degraded or destroyed, that species cannot be driven to extinction unless the stories the perpetrators are exposed to, internalise and re-narrate give them moral licence to commit such ecocide.

As Cronon, Rappaport, Boje, Brooks, Denning, Yamane and others have shown social change can, in theory, be facilitated by the introduction of new narratives into a community's repertoires and/or by the re-emplotment of already-familiar ones (Brooks 1994; Denning 2003; Rappaport 2000; Boje 2003; Yamane 2000; Cronon 1992). Any storyteller, myself included, has a role in these processes – though the success of narrative interventions to consciously drive change cannot assured (Adams 2003). But while I was completing *this* story, I received an email from two psychologists at Xanten Institute of Systemic Research in Germany inviting Imagine

the Future Inc, the publisher of *Redreaming the plains*, to join a global movement of social activists. The authors, Jo Becker and Gertrud Sivalingam, affirmed the hope that – most days -- still motivates my own praxis:

> Social commitment rarely has immediate effects. Intellectual energy, however, does not get lost when it is passed on to other people. Every idea, every action leaves traces with the listeners and the audience; it becomes part of their treasure of memories and experience. They will be able - often much later - to create new ideas which otherwise would not have been generated, or influence actions which otherwise would have developed differently (Becker and Sivalingam 2005, electronic version).

These are encouraging words, but the super-realist observation Niccolo Machiavelli penned nearly five hundred years ago still haunts me: "there is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things" (Machiavelli 2004, electronic version). And amid this uncertainty, I am left with one 'sure thing': that unless mainstream narratives change the view from the bridge a hundred years hence …

REFERENCES

Abbott, HP, 2000, What do we mean when we say 'narrative literature?' Looking for answers across disciplinary borders, *Style* 34:2, Summer 2000, pp. 260-273.

Adami, C, 2002, What is complexity? *BioEssays* 24, pp. 1085-1094.

Adams, JD, 2003, Successful Change: paying attention to the intangibles, in *OD Practitioner* 35:4, http://www.eartheart-ent.com/docs/SuccessfulChange1.pdf.

Alexander, D, 1996, Bioregionalism: The Need for a Firmer Theoretical Foundation, in *Trumpeter* 3:3, online http://trumpeter.athabascau.ca/content/v13.3/alexander.html, viewed June 2005.

Allison, HE & Hobbs, RJ, 2004, Resilience, adaptive capacity, and the Lock-in Trap of the Western Australian agricultural region, *Ecology and Society* 9: online http://www.ecologyandsociety.org/vol9/iss1/art3.

American Psychoanalytic Association, 1999, Current Ideas about REM Sleep, Dreams and Dreaming: Confirmations of Psychoanalytic Ideas about Dreams, AAA, New York. http://www.apsa.org/pubinfo/remqa.htm, viewed 6 February, 2005.

Amerika, M, 2001, *How to be an internet artist*, ALT-X Digital Arts Foundation, Boulder.

Argyros, A, 1992, Narrative and Chaos, *New Literary History* 23, pp. 659-673.

Aristotle, 2000, *On Prophesying by Dreams*, The Internet Classics Archive, Web Atomics, MIT,http://classics.mit,edu/Aristotle/prophesying.html, viewed 6 February 2005.

Aristotle, 2000, *Poetics*, The Internet Classics Archive, Web Atomics, MIT, http://classics.mit.edu/Aristotle/poetics.mb.txt, viewed 6 February 2005.

Arts Council of Western Australia, 1983, Merrill Findlay: The Gascoyne Project, in *Country Copy,* September 1993, Perth, p. 2.

Australian Conservation Foundation, c,1988, We share a dream, ACF, Melbourne.

Australian Film Commission, 1998/99, Annual Report, AFC, Sydney, http://www.afc.gov.au/archive/annrep/ar98_99/pdfs/98afcar16.pdf, viewed 21 January 2005.

Australian National Library, 2004, Pandora - Australia's web archive: a summary of progress, ANL, Canberra, http://www.nla.gov.au/policy/plan/pandora.html, viewed 21 January 2005.

Ball, Patricia, Iraca, JF & Iraca, S, 1999, Internet timeline, Hyperlearning Center, George Mason University, USA, http://cne.gmu.edu/itcore/internet/timeline.html, viewed 15 January 2005.

Barbault, R, Guégan, JF, Hoshi, M, Mounolou, JC, van Baalen, M, Wake, M. & Younès, T, 2003, Integrative biology and complexity of natural systems: Keys to addressing emerging challenges, *Biology International* 44, June 2003, online http://www.iubs.org/test/bioint/1.htm.

Barthes, Roland, 1977, The Death of the Author, in *Image-Music-Text,* Fontana/Collins, pp.142-148.

Becker, J, and Sivalingam, G, 2005, Netzkraft Movement, Xanten: Institute of Systemic Research, Xanten, http://www.netzkraft.net, viewed 23 August 2005.

Bell, D, 2002, Person and place: Making meaning of the art of Australian indigenous women, in *Feminist Studies* 28:1, Spring 2002, pp. 95 127.

Berg, P, 2002, Bioregionalism (Defined and Updated 2002), *Planet Drum*, Planet Drum Foundation, San Francisco, http://www.planetdrum.org/bioregionalism_defined.htm,viewed 3 April 2005.

Berners-Lee, T, 1990, Information management: a proposal, CERN, http://www.w3.org/History/1989/proposal.html, viewed 13 January 2005.

Berners-Lee, T, 1992, World Wide Web Initiative - Executive Summary, CERN, http://www.w3.org/Summary.html, viewed 13 January 2005.

Bertalanffy, L, 2001, *Perspectives of General Systems Theory*: excerpts, International Society for the System Sciences, http://www.isss.org/quotelvb.htm, viewed 15 July 2005.

Bizzocchi, J, 2005, Run, Lola, Run: Films as narrative database, in *MiT4 The work of stories: proceedings of the fourth media in transition conference*, May 6-8, 2005, MIT, Cambridge, MA, http://web.mit.edu/comm-forum/mit4/subs/mit4_abstracts.html, viewed 1 August 2005.

Boden, MA, 2000, Autopoiesis and Life, *Cognitive Science Quarterly* 1, pp. 117-145.

Boje, DM, 1998, The Postmodern Turn from Stories-as-Objects to Stories-in-Context Methods, *1998 Research Methods Forum* 3, Fall 1998, Academy of Management Online, Pace University, http://www.aom.pace.edu/rmd/1998_forum_postmodern_stories.html, viewed 22 February 2005.

Boje, DM, 2003, Storytelling Organizations, NMSU Publishing Services, New Mexico State University, http://cbae.nmsu.edu/~dboje/storytellingorg.html, viewed 11 January 2005.

Brooks, Peter, 1994, *Psychoanalysis and storytelling*, Blackwell, Cambridge, MA.

Brown, DE, 1999, Human nature and history, *History and Theory* 38, pp.138-157.

Bush, Vannevar, 1994, *As We May Think* (electronic version), Universität des Saarlandes, Saarbrücken, http://www.psuni-sbde/~duchier/pub/vbush/vbush-allshtml, viewed 20 August 2004.

Calas, MB, Smircich, L,1999, Past postmodernism? Reflections and tentative directions, *The Academy of Management Review* 24, pp.649-671.

Cameron, J, 1997, Pandora Project, National Library of Australia, Canberra http://www.nla.gov.au/policy/plan/pandora.html, viewed 21 January 2005.

Carr, D, 1986, Narrative and the Real World: An Argument for Continuity, *History and Theory* 25, pp.117-131.

CERN, 1994, First International Conference on the World-Wide Web, May 25-26-27 1994, http://www94.web.cern.ch/WWW94, viewed 3 July 2005.

Chapin, FS, Zavaleta, ES, Eviner, VT, Naylor, RL, Vitousek, PM, Reynolds, HL, Hooper, DL, Lavorel, S, Dala, OE, Hobbie,SE, Mach, MC, & Diaz, S, 2000, 'Consequences of changing biodiversity', *Nature*, 11 May 2000, Vol 405 No 6783 pp 234-242.

Clark, R, Elliott, E, & Todd, J, (eds) 2001, Polyphonic novel, *The Literary Encyclopedia*, The Literary Encylopedia Company, London. ,http://www.litencyc.com/php/stopics.php?rec=true&UID=876, viewed 4 August, 2005.

Clarke, R, 2004, The origin and nature of the internet in Australia, Department of Computer Science, Australian National University, Canberra, http://www.anu.edu.au/people/Roger.Clarke/II/OzI04.html, viewed 3 July 2004.

Commonwealth of Australia, 1990, *Ecologically Sustainable Development: A Commonwealth Discussion Paper, June 1990*, Australian Government Publishers, Canberra.

Commonwealth of Australia, 1994a, Creative Nation: Commonwealth Cultural Policy October 1994, National Library of Australia, Canberra, http://www.nla.gov.au/creative.nation/contents.html, viewed 16 January 2005.

Commonwealth of Australia, 1994b, Multimedia: cultural production in an electronic age, National Library of Australia, Canberra http://www.nla.gov.au/creative.nation/multimed.html, viewed 16 January 2005.

Coveney, P, & Highfield, R, 1995, *Frontiers of Complexity: the search for order in a chaotic world*, Faber & Faber, London.

Cronon, W, 1992, A place for stories: nature, history and narrative, *The Journal of American History* 78:4, pp.1347-1376.

Crossley, ML, 2003, Formulating Narrative Psychology: the limitations of contemporary social constructionism, *Narrative Inquiry* 13:2, pp.287-300.

Cummings, B, & Hardy, A, 2000, Revision of the Interim Biogeographic Regionalisation for Australia (IBRA) and development of version 5,1: Summary Report, National Reserves System Section (NRS), Environment Australia, Canberra, http://www.deh.gov.au/parks/nrs/ibra/version5-1/summary-report/pubs/ibrav5-summary-report.doc, viewed 2 April 2005.

Currie, M, 1998, *Postmodern narrative theory*, St Martins Press, New York.

Dauenhauer, B, 2002, *Paul Ricoeur*, The Stanford Encyclopedia of Philosophy, Metaphysics Research Lab, Center for the Study of Language and Information, Stanford University, http://plato.stanford.edu/archives/win2002/entries/ricoeur/, viewed 5 January 2005.

David, B, 2002, *Landscapes, Rock-Art and the Dreaming: an archaeology of preunderstanding*, Leicester University Press, London and New York.

Davis, G, 2002, Scenarios as a tool for the 21st century: presentation to the Probing the future conference, Strathclyde University, July 2002, Shell Group External Affairs Department, Shell Centre, London. See http://www.pik-

potsdam.de/avec/peyresq2003/talks/0918/leemans/background_literature/davis_how_does_shell_do_scenarios.pdf, viewed August 2005.

Dennett, DC, 1992, The Self as a Center of Narrative Gravity, in Kessel, F, Cole, P, & Johnson, D, (eds) *Self and Consciousness: Multiple Perspectives*, Erlbaum, Hillsdale, New Jersey.

Dennett, DC, 1993, *Consciousness Explained*, Viking Books, London.

Denning, S, 2000a, Introduction: Storytelling for Organizations [Electronic version], *The Springboard: How Storytelling Ignites Action in Knowledge-Era Organizations,* Butterworth Heinemann, http://www.stevedenning.com/intro.htm, viewed 12 April 2005.

Denning, S, 2000b, Knowledge management Slide #36, http://www.stevedenning.com/Slide36a.html, viewed 12 April 2005.

Denning, S, 2000c, Knowledge management Slide #38, http://www.stevedenning.com/Slide38a.html, viewed 12 April 2005.

Denning, S, 2004,Telling Tales, *Harvard Business Review* 82:5, pp.122-127.

Denning, Steve, 2003, Springboard storytelling, in *Third Smithsonian Symposium*, Smithsonian Associates, Washington DC, http://www.creatingthe21stcentury.org/SpringboardStory.html, viewed 12 April 2005.

Department of Primary Industries, 2002, Bioregions of Victoria, *Victorian Resources online*, Victorian Government, Melbourne http://www.dpi.vic.gov.au/dpi/vro/vrosite.nsf/pages/biodiversity_bioregions_vic, accessed 3 April 2005.

Deslauriers, D, & Cordts, J, 1995, Dreams and Current Concerns: A Narrative Co-Constitutive Approach, *Dreaming* 5:5, http://www.asdreams.org/journal/articles/5-4deslauriers.htm, viewed 8 April, 2005.

Department of Foreign Affairs and Trade, 2004, *The Australian National Anthem*, Commonwealth of Australia, Canberra, http://www.dfat.gov.au/facts/nat_anthem.html, viewed 10 February 2005.

Diamond, J, 2005, *Collapse: How Societies Choose To Fail Or Survive*, Penguin Books.

Doniger, W, & Kelly Bulkley, 1993, Why Study Dreams? A Religious Studies Perspective, *Dreaming* 3:1, http://www.asdreams.org/journal/articles/3-1_bulkley.htm, viewed 8 April 2005.

Donovan, B, 2004, Is there a skills shortage? Multimedia Victoria, Government of Victoria, Melbourne, http://www.mmv.vic.gov.au/CA256985002E8DB7/All/9DFD2EB57B14FA114A256A7D001385DE?OpenDocument&1=80Resource_Centre~&2=40Feature+Article~&3=12Archive02~, viewed 16 June 2004.

Dudley, N, Stolton, S, Gilmour, D, Jeanrenaud, JP, Phillips, A, & Rosabal, P,1998, The implications of IUCN's protected area categories for forest conservation: A joint IUCN and WWG Discussion Paper, *Protected Areas for a New Millenium Working Papers*: IUCN, http://www.iucn.org/themes/forests/protectedareas/workingpapers.html, accessed 3 April, 2005.

Dutton, D, 2004, The pleasures of fiction, *Philosophy and Literature* 28:2, pp.453-66.

Eagleton, T, 1990, Nationalism: Irony and commitment, in Eagleton,T, Jameson, F; Said, EW, (eds) *Nationalism, colonialism and literature*, University of Minneapolis Press, Minneapolis.

Eagleton, T, 2000, *The idea of culture*, Blackwell Publishers, UK.

Eliasmith, C, 2004, Representation, *Dictionary of Philosophy of Mind*, University of Waterloo, Canada, http://philosophy,uwaterloo,ca/MindDict/, viewed 8 August, 2005.

Eliasmith, C, 2004b, Distributed representation, *Dictionary of Philosophy of Mind*, University of Waterloo, Canada, http://philosophy.uwaterloo.ca/MindDict/distributedrepresentation.html, viewed 8 August 2005.

Eliot, T.S. 2005, Little Gidding, *The Four Quartets*, Wikipedia, http://en.wikiquote.org/wiki/The_Four_Quartets#Little_Gidding_.281942.29, viewed August 2005.

Elman, Jeffrey L, 2005, Connectionist models of cognitive development: where next? *Trends in Cognitive Sciences* 9:3, pp.111-117.

Encyclopædia Britannica, 2005, 'dream' in *Encyclopædia Britannica Premium Service*, http://www.britannica.com/eb/article?tocId=38749, viewed 11 January 2005.

Erickson, P, and Miller, C, 2004, *Models, scenarios, and the future of nature: new forms of knowledge in Global Environmental Assessments*, University of Wisconsin, Madison, http://www.sts.wisc.edu/events/erickson_bb_2004.pdf.

Evanoff, R, 1998, Bioregionalism Comes to Japan: An Interview with Peter Berg, *Japan Environment Monitor -- E-Mail Edition* 4:97, http://www.sustainable-city.org/intervws/berg.htm, viewed 2005.

Featherstone, M, 1996, Localism, Globalism, and Cultural Identity, in Wilson, R, & Dissanayale, W, (eds) *Global/Local: Cultural Production and the Transnational Imaginary*, Duke University Press, Durham and London, pp, 46-77.

Findlay, M, 1981 Freo You Stink, *Sunday Independent*, Perth.

— 1981b, Coastal Living, *About Homes in Perth Year Book 1981-82,* December 1981, pp 148-153.

— 1981c, 0ver paid, over sexed and over here: American Sailors in Perth, *About Town magazine*, Swan Publishing, December 1981. See http://users.tce.rmit.edu.au/e21811/merrillfindlay/nonfiction/AmericanInvasion.htm , viewed August 2005.

— 1982, Journey into the Pilbara, *About Town magazine*, Swan Publishing.

— 1984, *Carnarvon: reflections of a country town*, Shire of Carnarvon, Carnarvon, WA.

— 1985, The Gascoyne Project: Artists tools for community research, in *Artists in the community training program*, Victorian Ministry for the Arts, Melbourne.

— 1986, *Why Document?* Arts Victoria, Melbourne.

— 1987, *Peace child: a study guide for schools, Australian edition*, Peace Child Australia/UNAA, Melbourne.

— 1988, Greening the family farm, *Habitat Australia*, ACF, February 1988. See http://users.tce.rmit.edu.au/e21811/merrillfindlay/nonfiction/farm.html, viewed August 2005

— 1989a, Working miracles in the wilds of Eritrea, *The West Australian*, *Big Weekend*, July 7 1989, Perth.

— 1989b, Eritrean families wage another war, *The Canberra Times*, *Mid-Week Magazine*, Wedneday June 7, Canberra, p. 26. See http://users.tce.rmit.edu.au/e21811/merrillfindlay/nonfiction/eritrea_ctimes.html, viewed August 2005.

— 1989c, Eritrea: the miracle, *Habitat Australia,* December 1989, pp. 24-29. See http://users.tce.rmit.edu.au/e21811/merrillfindlay/nonfiction/eritrea_hab.html, viewed August 2005.

— 1990a, Liberation with a blackboard, *The West Australian*, Perth, Monday June 11, 1990, p. 58.

— 1990c, Climate Change: Culture Change, *Habitat Australia,* October 1990. See http://users.tce.rmit.edu.au/e21811/merrillfindlay/nonfiction/mungo.html, viewed August 2005.

— 1990d, Unearthing a city's past, *Habitat Australia,* August 1990, pp.29-31. See http://users.tce.rmit.edu.au/e21811/merrillfindlay/nonfiction/littlelon.html, viewed August 2005.

— 1991, Sunset on high temperature incineration, Bogan Gate, Self-published with Greenpeace Australia, Melbourne and Sydney. See http://users.tce.rmit.edu.au/e21811/merrillfindlay/nonfiction/notox.html, viewed August 2005.

— 1991a, East Timor: it's time to talk, presentation to the UN Special Committee on Decolonisation in New York, August 7, 1991, on behalf of ACFOA and East Timor Talks Campaign. See http://users.tce.rmit.edu.au/e21811/merrillfindlay/nonfiction/timor_un.html, viewed 14 January, 2005.

— 1991b, East Timor: the story so far, East Timor Talks Campaign, Melbourne. See http://users.tce.rmit.edu.au/e21811/merrillfindlay/nonfiction/timortalks.html, viewed 14 January, 2005.

— 1993, Imagining Imagine The Future, *Habitat Australia,* May 1993, Melbourne, See http://www.ecoversity.org.au/publications/imagining_itf.htm, viewed 14 January 2005.

— 1994a, Imagining Imagine The Future, in Kelly, W, (ed) *Violence to non-violence: individual perspectives, communal voices*, Harwood Academic Publishers/Craftsman House, Melbourne.

— 1994b, The power of positive imaginings, *Altona Sustainable Development Congress Proceedings*, Brimbank Council. See http://www.ecoversity.org.au/publications/PositiveImaginings.htm, viewed 14 January 2005.

— 1994c, On the flutterings of butterflies wings: presentation to the Future of Work workshop, Australian Institute for Human Resources, Brisbane, November 14, 1994, Imagine The Future Inc, Melbourne. See http://www.ecoversity.org.au/pfr/flutteringspt1.htm, viewed August 2005.

— 1996a, Eddie Mabo Comes Home, *Good Weekend* June 1 1996, pp. 41-47. See http://users.tce.rmit.edu.au/e21811/merrillfindlay/nonfiction/mabo.html, viewed August 2005.

— 1996b, Imagining a sustainable city, *Issues* 36, August 1996, pp. 16-21. See http://www.ecoversity.org.au/publications/SustainableCities1996.htm, viewed August 2005.

— 1998, The timeless bond between birds and people on Big Dog Island, in *The Age*, Saturday Extra, 22 August, 1998, Melbourne. See http://users.tce.rmit.edu.au/e21811/merrillfindlay/nonfiction/big_dog.html, viewed August 2005.

— 1999, *Republic of Women*, UQP, St Lucia. See http://users.tce.rmit.edu.au/e21811/merrillfindlay/fiction/republic.html, viewed August 2005.

— 2000a, Ecologically Sustainable Development in Australia: the last ten years, *National Parks Journal* 44:5, Oct 2000. See http://dazed.org/npa/npj/200010/Octfeatures-ESD1.htm, viewed August 2005.

— 2000b, Greening academia, *Openline* 8:4, June 2000, RMIT University. See http://users.tce.rmit.edu.au/e21811/merrillfindlay/nonfiction/greening.html, viewed 14 January 2005.

— 2000c, Literature as a tourist asset: not-a-paper presented at Changing Geographies: Australia and the millennium conference, Australian Studies Centre, 1st Universitat de Barcelona, 2-4 February 2000. See http://users.tce.rmit.edu.au/e21811/merrillfindlay/nonfiction/barcelona.html, viewed August 2005.

— 2001, Merinos as cultural heritage, *Top Sire,* Australian Stud Merino Breeders Association, 2001. See http://users.tce.rmit.edu.au/e21811/merrillfindlay/nonfiction/spanish_merinos.htm, viewed 14 January 2005.

— 2002a, Back-casting wild otters and sturgeon into the Danube River, in Novaky, E, Gaspar, T, & Tyukodi, G, *Changing Values-Forming New Societies, Budapest Futures Course 2001*, Futures Studies Centre, Budapest University of Economic Sciences and Public Administration and UNESCO, Budapest. See http://www.ecoversity.org.au/ecoversity/forums/budapest.htm, viewed 14 January, 2005.

— 2002b, Complex questions for futures studies, *Futures* 34:2, pp. 205-212. See http://www.ecoversity.org.au/publications/wfsf_report.htm, viewed 14 January 2005.

— 2002c, Merino: extracts from a work in progress, *Eucalypt* 2, pp. 24-64, September 2002. See http://users.tce.rmit.edu.au/e21811/merrillfindlay/fiction/Merino/merino_I.htm, viewed August 2005.

— 2004a, Journey on the Wind, *Redreaming the plains*, Melbourne: Imagine The Future Inc, http://www.redreaming.info/DisplayStory.asp?id=172, viewed August 2005.

— 2004b, Square Earth: a catalogue essay, Tienve, http://www,tienve,org/home/visualarts/viewVisualArts,do?action=viewArtwork&artworkId=1774, viewed 14 January, 2005.

— 2005, Romancing the stone on Gunningbland Creek: a reflective essay, *Futures* 37:8, October 2005, pp. 893-903. See http://users.tce.rmit.edu.au/e21811/merrillfindlay/nonfiction/Findlay2005-RomancingTheGrindstone.pdf, viewed August 2005.

— 2006, River Stories: genealogies of a threatened community (or sensitivity to initial conditions), *Futures* Special Issue: Redreaming Australia, publication pending. See http://www.redreaming.info/DisplayStory.asp?id=201, viewed August 2005.

Findlay, M, Lee, J, McGindle, L, James, P, Niner, S, Buckton, M, and Howe, J, 1995, *Cappuccino Papers*, Imagine The Future Inc, Melbourne. See http://www.ecoversity.org.au/publications/cappuccino_papers.htm, viewed August 2005.

Findlay, M, & Scott, D, 1992, Evidence on behalf of the East Timor Talks Campaign, in *Joint Committee on Foreign Affairs, Defence and Trade (Reference: Australia's relations with Indonesia*, Commonwealth of Australia, Melbourne, pp. 54-74.

Findlay, M, & Thomas, I, 2000, Environmental literacy at RMIT: a report, Environment & Planning Program, RMIT University, Melbourne.

Flew, A, (ed) 1979, *A Dictionary of Philosophy*, Pan Macmillan, London.

Foucault, M, 1972, Archaeology of Knowledge: Chapter 3, The Formation of Objects [electronic version], Foucault.info, http://foucault.info/documents/archaeologyOfKnowledge/foucault.archaeologyOfKnowledge.ch-o3.html, viewed 21 February.

Foucault, M, 1977, The author function [electronic version], foucault.info, http://foucault.info/documents/foucault.authorFunction.en.html, viewed 21 February, 2005.

Frank, AW, 2002, Why Study People's Stories? The Dialogical Ethics of Narrative Analysis, *International Journal of Qualitative Methods* 1:1, http://www.ualberta.ca/~iiqm/backissues/1_1Final/html/Frankeng.html, viewed 10 January 2005.

Freire, Paulo, 1970, *Pedagogy of the Oppressed,* Seabury Press, New York.

Funtowicz, S, & Ravetz, J, 2005, Post-Normal Science: Environmental Policy under Conditions of Complexity, NUSAP, London, http://www.nusap.net/sections.php?op=viewarticle&artid=13, viewed 1 August 2005.

Gallopin, GC, Funtowicz, S, O'Connor, M, & Ravetz, J, 2001, Science for the twenty-first century: from social contract to scientific core, *International Journal of Social Science* 168, pp.219-229. See http://sustsci.harvard.edu/keydocs/fulltext/gg_sci21century_ijss.pdf, viewed August 2005.

Gare, A, 2001, Narratives and the ethics and politics of environmentalism: the transformative power of stories, *Theory and science* 2:1, http://theoryandscience.icaap.org/content/vol002.001/04gare.html, viewed 2 May 2005.

Gare, A, 2004, Defending Democracy Against Neo-Liberalism:Process Philosophy, Democracy and the Environment, *Concrescence: The Australasian Journal for Process Thought* 5, http://farleighcom.ozstaging.com/ajpt_papers/vol05/ajpt_v05-13_gare.htm, viewed 2 May 2005.

Garton, A, 1996, Networking for broadcasters, *Australian Broadcasters Association Conference proceedings*, Melbourne, http://www.c2o.org/reports/Paper_Networking_Broadcasters.pdf, viewed 12 July 2004.

Gergen, KJ, 1998, Narrative, Moral Identity and Historical Consciousness: a Social Constructionist Account, Department of Psychology, Swarthmore College, Swarthmore, PA, http://www.swarthmore.edu/SocSci/kgergen1/web/page.phtml?id=manu3&st=manuscripts&hf=1, viewed August 2005.

Gilman, R, 1993, The Next Great Turning: A growing awareness of our interconnections could revolutionize our culture, *In Context: a quarterly of humane sustainable culture* 34, Winter 1993. Electronic version http://www.context.org/ICLIB/IC34/Gilman.htm, last updated 29 June 2000, viewed 2 May 2005.

Gleick, J, 1987, *Chaos: making a new science*, Cardinal, London & New York.

Greene, RA, 2004, The postcolonial becomes colonial, *Modern Language Quarterly* 65:3, pp. 423-441.

Grizzi, F, & Chiriva-Internati, M, 2005, The complexity of anatomical systems, *Theoretical Biology and Medical Modelling* 2:26, 19 July 2005, http://www.tbiomed.com/content/pdf/1742-4682-2-26.pdf, viewed 10 August 2005.

Hall, J, 1992, Where history and sociology meet: forms of discourse and sociohistorical enquiry, *Sociological Theory* 10:2, pp 164-193.

Hall, S, 1999, Whose heritage? Un-settling 'The Heritage', Re-imagining the Post-nation, *Third Text* 49, Winter 1999-2000, pp.3-13.

Hardy, B, 1975, *Tellers and listeners: the narrative imagination*, Athlone, London.

Hare, W, 1990, *Ecologically Sustainable Development*, Australian Conservation Foundation, Melbourne.

Harper, D, 2001, Online Etymology Dictionary, Lancaster, http://www.etymonline.com, viewed 14 January 2005.

Harré, R, 1996, The rediscovery of the human mind, in Uichol, K, *Proceedings: 50th anniversary conference of the Korean Psychological Association*, Chung-ang University, Seoul, Korea and Department of Psychology, Massey University, New Zealand, http://www.massey.ac.nz/~alock/virtual/korea.htm, viewed 3 April 2005.

Hartmann, E, 1996, Outline for a Theory on the Nature and Functions of Dreaming, *Dreaming: Journal of the Association for the Study of Dreams,* 6:2, http://www.asdreams.org/journal/articles/6-2hartmann.htm, viewed 10 January, 2005.

Hartmann, E, 2003, Why do we dream? Scientific American, 14 July 2003, http://www.sciam.com/askexpert_question.cfm?articleID=00072867-D925-1F0E-97AE80A84189EEDF, viewed 16 July 2005.

Hassan, R, & K Jorgensen, 2004, Computer visualisations in planning: the case of Nablus, in *1st ASCADD International Conference: e-Design in Architecture*, Dhahran, Saudi Arabia: KFUPM.

Herman, David, 2000, Narratology as a cognitive science, *Image [&] Narrative* 1, September 2000, http://www.imageandnarrative.be/narratology/davidherman.htm, viewed 16 July 2005.

Heylighen, F, and Joslyn, C, 1992, What is systems theory? in *Principia cybernetica web*, Brussels, Principia cybernetica, http://pespmc1.vub.ac.be/SYSTHEOR.html, viewed 13 January 2005.

Holl, A, Anderson, E, Rygnestad, H, Dalgaard, T, Johansson, TD, Sorensen, EM, & Nilsson, K, 2002, Scenario analyses for cultural landscape development: a Danish, interdisciplinary research project, *Danish Journal of Geography, Special Issue 3*, pp. 1-12, http://www.geogr.ku.dk/dkgs/image/pub_pdf/sp_gt/sp3/01.pdf, viewed 14 January 2005.

Holland, JH, 1998, *Emergence: from chaos to order*, Reading, Helix Books, Reading, Massachusetts.

Imagine The Future Inc, 1993, Crossing cultures: intervening in East Timor's futures, *The tabloid*, Winter 1993. See http://www.ecoversity.org.au/publications/youth_ambassadors1993.htm, viewed 10 June, 2005.

— 1996, What's good urban design? ITF, Melbourne, http://www.ecoversity.org.au/ecoversity/forums/1996-UrbanDesign.htm, viewed 10 June 2005.

— 1997a, Report to the CEAD Unit of the Australia Council on 'Painting the future real', Melbourne, July 1997.

— 1997b, Redreaming the plain: application for funding to the Literature Board of the Australia Council and Arts Victoria.

— 2002a, About Redreaming the plains, ITF, Melbourne, http://www.ecoversity.org.au/pfr/redreaming.htm, viewed 1 August 2005.

— 2002c, Redreaming the plains: About the project, *Redreaming the plains,* ITF, Melbourne, http://www.redreaming.info/DisplayStory.asp?id=4, viewed 14 January 2005.

— 2002d, Digital possum skin cloak: virtual exhibition catalogue, *Redreaming the plains*, ITF, Melbourne, http://www.redreaming.info/DisplayStory.asp?id=160, viewed 14 January 2005.

— 2004, ITF home page, Melbourne: ITF, http://wwwecoversity.org.au/, viewed 14 January 2005.

Isocrates, 1894, Nicocles, or The Cyprians, The J. A. Freese Translation [electronic version], Peitho's web, http://classicpersuasion.org/pw/isocrates/pwisoc3.htm, viewed 10 June 2005.

Janca, A, & Bullen, C, 2003, The Aboriginal concept of time and its mental health implications, *Australasian Psychiatry* 11:s1, p.49, October 2003.

Johnson, D, 2002, *Lighting the way: reconciliation stories*, The Federation Press, Leichhardt.

Kalathil, S, and Boas, TC, 2001, The Internet and state control in authoritarian regimes: China, Cuba and the Counterrevolution, Global Policy Program, no 21, *Information Revolution and World Politics Project,* Carnegie Endowment for International Peace, Washington, www.ceip.org/files/pdf/21KalathilBoas.pdf, viewed 20 January 2005.

Keen, I, 2004, *Aboriginal Economy & Society: Australia at the threshold of colonisation*, Oxford University Press, Oxford and New York.

Keep, C, McLaughlin, T, & Parmar, R, 1995a, Hypertext, *The Electronic Labyrinth*, Institute of Advanced Technologies in the Humanities, University of Virginia, http://www3.iath.virginia.edu/elab/hfl0037.html , viewed 20 January, 2005.

— 1995b, Storyspace, *The Electronic Labyrinth*, Institute of Advanced Technologies in the Humanities, University of Virginia, http://www3.iath.virginia.edu/elab/hfl0023.html , viewed 20 January, 2005.

Kilroe, P, 2000, The Dream as Text, The Dream as Narrative, *Dreaming* 10:3, http://www.asdreams.org/journal/articles/10-3_kilroe.htm, viewed 16 July 2005.

King, J, 2005, Tale of two histories, *Sydney Morning Herald*, 16 January 2005, http://www.smh.com.au/news/National/A-tale-of-two-histories/2005/01/16/1105810768834.html, viewed 17 January, 2005.

King, ML, 2003, I Have a Dream Speech, *The US Constitution Online*, Washington, http://www.usconstitution.net/dream.html, viewed 16 July 2005.

Kohler Riessman, C, 2001, Narrative analysis, in Nair, RB, (ed) *Narrative Gravity: Conversation, Cognition, Culture*, SDU lingua2001, Digilante.net, http://digilante.net/cgi-bin/teq.pl?%20%20Oddities%2f&%2e%2fSDU%20lingua%32%30%30%31%2fNarrative%20Analysis, viewed 18 August 2005.

Kreiswirth, M, 1992, Trusting the Tale: the Narrativist Turn in the Human Sciences, *New Literary History* 23:3, pp. 629-657.

Landow, GP, 1997, *Hypertext 2,0, The Convergence of Contemporary Critical Theory and Technology*, Baltimore: John Hopkins University Press,

Leach, N, 2002, Belonging: towards a theory of identification with space, in Hillier, J, Rooksby, E, (eds) *Habitus: a sense of place*, Ashgate Publishing, UK, pp. 281-295.

Leduc, L, 2002, Holism and Reductionism in Ecological Science, *Journal of Environmental Peace*, 1, http://www.library.utoronto.ca/iip/journal/MAIN1/holismreductionism.htm, viewed August 2005.

Lyotard, JF, 1984, *The Postmodern Condition: a report on knowledge*: Manchester University Press.

Machiavelli, N, 2004, Chapter VI: Concerning New Principalities Which Are Acquired By One's Own Arms and Ability, *The Prince*, [electronic version], University of Adelaide Electronic Texts Collection, Adelaide,

http://etext.library.adelaide.edu.au/m/machiavelli/niccolo/m149p/chapter6.html, viewed 10 June 2005.

Macintosh, A, and Wilkinson, D, 2005, *Environment Protection and Biodiversity Conservation Act: a five year assessment - Discussion paper 81*, The Australia Institute, Canberra.

Manovich, L, 2000, Database as symbolic form, *Interact* 1: http://www.interact.com.pt/interact1/index.html, viewed 5 August 2005.

Manovich, L, 2003, Media, Software, and Meta-media, *Dichtung-digital*, http://www.dichtung-digital.org/2003/3-manovich.htm, viewed 5 August 2005.

McCloskey, DD, 1999, A Bioregion is a Life-Place, Green Screens, May 1999, http://www.olywa.net/speech/may99/mccloskey.html, viewed August 2004.

Metzner, R, 1995, The Place and the Story: Where Ecopsychology and Bioregionalism Meet, *Trumpeter*, 12.3, http://trumpeter.athabascau.ca/content/v12.3/metzner.html, viewed August 2005.

Meyer, SM, 2004, End of the wild [electronic version], *Boston Review*, April/May 2004, http://www.bostonreview.net/BR29.2/meyer.html, viewed November 2004.

Miller, JH, 2001, Narrative: Critical terms for literary study, in Nair, RB, (ed) *Narrative Gravity: Conversation, Cognition, Culture*, http://digilante.net/cgi-bin/teq.pl?%20%20Oddities%2f&%2e%2fSDU%20lingua%32%30%30%31%2fNarrative, viewed 18 August 2005.

Miller, TP, 1991, Treating professional writing as social praxis, *Jac* 11, electronic version, http://jac.gsu.edu/jac/11.1/Articles/3.htm, viewed 5 May 2004.

Milton, K, 1996, *Environmentalism and Cultural Theory: exploring the role of anthropology in environmental discourse*, Routledge, London and New York.

Moon, FC, 1992, *Chaotic and Fractal Dynamics: an introduction for applied scientists and engineers*, John Wiley & Sons.

Morton, D, 1993, The crisis of narrative in the postnarratalogical era: Paul Goodman's The Empire City as (Post) Modern Intervention, *New Literary History* 24:2, pp.407-424.

Muecke, S, 2000, Challenges to Perform: History, Passion and the Imagination, in *Challenging Australian history: discovering new narratives*, National Library of Australia, Canberra, http://www.nla.gov.au/events/history/papers/Stephen_Muecke.html, viewed 10 January 2005.

Muecke, S, 2004, *Ancient & Modern: time, culture and indigenous philosophy*, Sydney: UNSW Press,

Munslow, A, 1997, Deconstructing History, in *Electronic seminars in history: British History in the Twentieth Century seminar group 07/01/97*, Institute of Historical Research, UK, http://www.history.ac.uk/projects/elec/sem5.html, viewed 24 February, 2005.

Museum of Victoria, 2001, Possum Skin Cloaks: Information Sheet no, 10329, Melbourne, http://www.museum.vic.gov.au/Infosheets/10329.pdf, viewed 7 February, 2005.

National Center for Supercomputing Applications, 2000, NCSA Mosaic home page, University of Illinois, http://archive.ncsa.uiuc.edu/SDG/Software/Mosaic/NCSAMosaicHome.html, viewed 16 January 2005.

Nietzsche, 1887, On the genealogy of morals: preface and first essay [electronic version], The Nietzsche Channel, http://www.geocities.com/thenietzschechannel/onthe.htm, viewed 14 May, 2004.

O'Connor, MH, McFarlane, M, Fisher, J, MacRae, D, & Lefroy, T, 2005, The Avon River Basin in 2050: scenario planning in the Western Australian Wheatbelt, *Australian Journal of Agricultural Research* 56:6, pp.563–580.

Ott, E, 1993, *Chaos in Dynamical Systems*, Cambridge University Press.

Pegrum, M, 1996, Stop All The Clocks: The Postmodern Assault on Time, *Mots Pluriels* 1:1, http://www.arts.uwa.edu,au/MotsPluriels/MP197mp.html, viewed 30 March 2005.

Peter, I, 1999, A Brief History of Pegasus Network, including A Short history of the Internet in Australia, *Community Communications Online*, http://www.c2o.org/reports/Short_History_Internet_Aust.pdf, viewed 3 July 2004.

Pluciennik, M, 1999, Archaeological narratives and other ways of telling, *Current Anthropology,* 40:5, pp.653-678.

Plumwood, V, 2002, Belonging, naming and decolonisation, in Hillier, J, & Rooksby, E, (eds) *Habitus: a sense of place*, Ashgate Publishing, pp, 354-374.

Polak, F, 1961, *The Image of the future : enlightening the past, orientating the present, forecasting the future*, Sythoff, Leyden .

Polkinghorne, DE, 1995, Narrative configuration in qualitative analysis, in Amos, HJ, & Wisniewski, R, (eds) *Life history and narrative*, Falmer Press, London.

Popper, SW, Lempert, RJ, & Bankes, SC, 2005, Shaping the Future, *Scientific American,* 13 April 2005, [electronic version], http://www.sciam.com/print_version.cfm?articleID=000935E5-CCA0-1238-8CA083414B7FFE9F, viewed 14 April, 2005.

Rappaport, J, 2000, Community narratives: Tales of terror and joy, *American Journal of Community Psychology* 28:1, February 2000, pp.1-24.

Raskin, P, Banuri, T, Gallopin, G, Gutman, P, Hammond, A, Kates, R, & Swart, R, 2002, *The Great Transition: The Promise And Lure Of The Times Ahead, A Report of the Global Scenario Group*, Stockholm Environment Institute, Boston.

Ratner, C, 2002, Subjectivity and Objectivity in Qualitative Methodology, *Forum:Qualitative Research* Volume 3:3, http://www.qualitative-research.net/fqs-texte/3-02/3-02ratner-e.htm, 19 May 2004.

Read, P, 2000, *Belonging: Australians, Place and Aboriginal Ownership*, Cambridge University Press, Australia.

Reichl, LE, 1992, *The Transition To Chaos In Conservative Classical Systems: Quantum Manifestations*, Spring-Verlag.

Reid, WV, 2005, Presentation at the UN Permanent Forum on Indigenous Issues, May 18, 2005, UN Environment Program, Millennium Ecosystem Assessment, New York, http://www.millenniumassessment.org/en/Article.aspx?id=65, viewed 15 August 2005.

Reid, WV, Mooney, HA, Cropper, A, Capistrano, D, Carpenter, SR, Chopra, K, Dasgupta, P, Dietz, T, Kumar, A, et al, 2005, Millennium Ecosystem Assessment Synthesis Report: prepublication final draft, United Nations Environment Program, New York.

Resnick, M, 1991, *Turtles, Termites and Traffic Jams: explorations in massively parallel microworlds*, MIT Press.

Richardson, B, 2000, 'Recent Concepts of Narrative and the Narratives of Narrative Theory', *Style* 34:2, Summer 2000, pp. 169-175.

Ricoeur, P, 1984, *Time and Narrative Vol 1*, University of Chicago Press, Chicago and London.

Ricoeur, P, 1986, *Time and Narrative Vol 3*, Chicago University Press, Chicago and London.

Rigney, A, 1992, 'The point of stories: on narrative communication and its cognitive functions', *Poetics Today* 13:2, pp.263-283.

Rodriguez, A. 2002, 'Redefining our understanding of Narrative', The Qualitative Report, 7:!, March 2002, http://www.nova.edu/ssss/QR/QR7-1/rodriguez.html, viewed 8 August 2005.

Roos, J,P, 2004, The True Life Revisited: Autobiography and Referentiality after the Posts, Department of Social Policy, University of Helsinki, Helsinki, http://www.valt.helsinki.fi/staff/jproos/truelife.html, viewed 13 January 2005.

Roos, JP, Rotkirch, A, 2002, Habitus, Evolution and the End of Social Constructionism, *Working Group 21 Teori och metodutveckling, Nordic Sociology Conference Reykjavik, 15-17August 2002, Reykjavik*, Department of Social Policy University of Helsinki, http://www.valt.helsinki.fi/staff/jproos/Reykjavik.htm, viewed 18 February, 2005.

Rose, DB, 2004, *Reports from a Wild Country: ethics for decolonisation*, UNSW Press, Sydney.

Rusen, J, 2004, How to Overcome Ethnocentrism: Approaches to a Culture of Recognition by History in the Twenty-first Century, *History and Theory* 43, pp. 118-129.

Said, E, 1993, *Culture and Imperialism*, Vintage/Random House.

Sale, K, 2002, There's no place like home: The benefits of bioregionalism, *The Ecologist* 22, February 2002, http://www.theecologist.org/archive_article.html?article=229&category=65, viewed 17 January 2005.

Salthe, SN, 2005, The natural philosophy of ecology: developmental systems ecology, *Ecological Complexity* 2, pp.1-19.

Sayer, A, 1999, Long live postdisciplinary studies: Sociology and the curse of disciplinary parochialism/imperialism, *British Sociological Association Conference*, April 1999,

Glasgow: Lancaster University, http://www.lancs.ac.uk/fss/sociology/papers/sayer-long-live-postdisciplinary-studies.pdf, viewed 10 August 2005.

Sclater, SD, 2003, What is the subject? *Narrative Inquiry* 13:2, pp. 317-330.

Seglin, JL, 2000, The Right Thing: Storytelling Only Works if Tales Are True, *New York Times online*, p. 4, Late edition, November 19, 2000, New York.

Selden, R, 1989, *A reader's guide to contemporary literary theory*, Harvester Wheatshaft, UK.

Shalizi, C, 2000, The Extended Phenotype: The Long Reach of the Gene, *Bactra review* 115, http://cscs.umich.edu/~crshalizi/reviews/extended-phenotype/, viewed 1 February 2005.

Sharifian, F, 2003, On Cultural Conceptualisations, *Journal of Cognition and Culture,* 3:3, pp 187-207, September 1 2003.

Shermer, M, 2005, The Soul of Science, *American Scientist Online,* 93:2, March-April 2005, http://www.americanscientist.org/template/AssetDetail/assetid/40803?&print=yes&print=yes, viewed April 2005.

Sim, S, (ed), 1998, *The Icon critical dictionary of postmodern thought*, Icon Books, Cambridge.

Simons, J, (ed), 2004, *Contemporary Critical Theorists: from Lacan to Said*, Edinburgh University Press, Edinburgh.

Singer, J, 2004, Narrative identity and meaning making across the adult lifespan: an introduction, *Journal of Personality* 72:3, pp. 437-459.

Squire, C, 2000, Reading narratives, *NRWIP,* Centre for Narrative Research, School of Social Sciences, University of East London http://www.uel.ac.uk/cnr/documents/CNRWIPJune04Squire.doc, viewed 4 February 2005.

Standish, RK, 2001, On complexity and emergence, *Complexity International* 09, http://www.complexity.org.au/ci/vol09/standi09, viewed 10 August 2005.

States, BO, 1993, *Dreaming and storytelling*, Cornell University Press, Ithica and London.

States, BO, 2003, Dreams, Art and Virtual Worldmaking, *Dreaming* 13:1, March 13, 2003, http://www.asdreams.org/journal/articles/13-1_states.htm, viewed 8 August 2005.

Strand, R, 2002, What is Post-Normal Science? *NORCAT: Complexity, Scientific Uncertainty and Public Participation in Environmental and Landscape Governance*, Bergen: Centre for the Study of the Sciences and the Humanities, University of Bergen, Norway, http://www.uib.no/svt/norcat/project/project_theorymethods.htm, viewed 10 August 2005.

Suarez, R, 2001, International incident: online focus, in *Newshour with Jim Lehrer*, PBS, US, http://www.pbs.org/newshour/bb/asia/jan-june01/plane_4-2.html, viewed 20 January, 2005.

Taylor, B, 2005, Bioregionalism and the North American Bioregional Congress, in *The Encyclopedia of Religion and Nature*, Continuum International, US, http://www.religionandnature.com/ern/sample/Taylor,Bron--Bioreg+NABC.pdf, viewed 8 April 2005.

Toyne, Phillip, 1991, *The Environment Movement and its Role in Changing Australian Society*: *1990 Charles Joseph La Trobe Memorial Lecture*, Monash University, Melbourne.

Toyne, P, and Farley, R, 2000, *A decade of landcare: Looking backward, looking forward*, The Australia Institute, Canberra.

Ulanowicz, RE, 2004, On the nature of ecodynamics, *Ecological Complexity* 1:4, December 2004, pp. 341-354.

UNESCO, 2001, Programa de Formación en Educación Intercultural Bilingüe para los Países Andinos [Intercultural Bilingual Education Training Programme for the Andean Countries] (PROEIB-ANDES), UNESCO, http://www.ibe.unesco.org/International/ICE/46english/46ws3e.htm, viewed 29 December 2004.

United Nations, 2003, Agenda 21: Preamble, UN Department of Economic and Social Affairs, New York, http://www.un.org/esa/sustdev/documents/agenda21/english/agenda21chapter1.htm, viewed 15 July 2004.

Wackernagel, M, Schulz, NB, Deumling, D, Linares, AC, Jenkins, M, et al 2002, Tracking the ecological overshoot of the human economy, *Proceedings of the National Academy of Sciences of the United States of America* 10, 10.1073/pnas.142033699, 27 June 2002.

Waltner-Toews, D, Kay, JJ, Neudoerffer, C & Gitau, T, 2003, Perspective Changes Everything: managing ecosystems from the inside out, *Frontiers in Ecology and the Environment* 1:1, pp. 23-30.

Waltner-Toews, D, Kay, JJ, Murray, TP, & Nuedoerffer, C, 2004, Adaptive Methodology for Ecosystem Sustainability and Health (AMESH): An Introduction, in Midgley, G, & Ochoa-Arias, AE, (eds) *Community Operational Research: Systems Thinking for Community Development*, Kluwer/Plenum Press, New York.

White, H, 1984, The Question of Narrative in Contemporary Historical Theory, *History and Theory* 23:1, pp. 1-33.

White, H, (ed) 1987a, *The Content of the Form: Narrative Discourse and Historical Representation*, Johns Hopkins University Press, Baltimore and London.

White, H, 1987b, The value of narrativity in the representation of reality, in *The Content of the Form: narrative discourse and historical representation*, Johns Hopkins University Press, Baltimore, pp, 1-25.

Wikipedia: the free encyclopedia, 2005, Dotcom, Wikimedia, http://en.wikipedia.org/wiki/Dot.com_bust, viewed 17 January, 2005.

Wolmark, J, & Gates-Stuart, E, 2004, Cultural hybrids, post-disciplinary digital practices and new research frameworks: Testing the limits, in Biggs, S, Braddock, S, et al, *Proceedings PIXELRAIDERS2 CD,* Sheffield Hallam University, Sheffield, http://eprints.anu.edu.au/archive/00002568/, viewed 1 August 2005.

Wong, J, & Storkerson, P, 1997, Hypertext and the art of memory, *Visible Language,* 31-2: pp.126-157.

World Commission on Environment and Development, 1990, *Our Common Future: Australian edition*, OUP, Melbourne.

World Wildlife Fund, 2005, Conservation Science: Ecoregion Conservation, World Wildlife Fund, Washington, http://www.worldwildlife.org/science/ecoregions.cfm, viewed 3 April, 2005.

Yamane, D, 2000, Narrative and religious experience, *Sociology of Religion,* Summer 2000, 61:2, pp. 171-189.

Young, S, 1999, *Dreaming in the Lotus: Buddhist Dream Narrative, Imagery & Practice*, Wisdom Publications, Boston.

APPENDICES

STORIES PUBLISHED TO 2002

Contributor	Category	Title
Imagine The Future Inc	About 'Redreaming the plain'	'Redreaming' launch: 3 December 2002
Imagine The Future Inc	About 'Redreaming the plain'	About the project
Australian Conservation Foundation	About 'Redreaming the plain'	Celebrating a collaborative vision
Imagine The Future Inc	About 'Redreaming the plain'	Editorial Panel
Imagine The Future Inc	About 'Redreaming the plain'	Editorial Policy
Imagine The Future Inc	About 'Redreaming the plain'	People involved
Imagine The Future Inc	About 'Redreaming the plain'	Project partners
Imagine The Future Inc	About 'Redreaming the plain'	Style Manual for submissions to 'Redreaming the plain'

Imagine The Future Inc	*Gallery	Digital possum skin cloak
Merrill Findlay	Flora	*Flowers of the basalt plain
Merrill Findlay	Flora	Will the Small Golden Moths Orchid survive?
Merrill Findlay	Volcanics	Victoria's basalt plain
Merrill Findlay	Volcanics	Volcanoes of Victoria's basalt plain
Merrill Findlay	Fauna	Altona Skipper Butterfly
Merrill Findlay	Fauna	Birds of Victoria's coastal wetlands
Merrill Findlay	Fauna	Birds of Victoria's volcanic lakes
Merrill Findlay	Fauna	Eastern Barred Bandicoot
Merrill Findlay	Fauna	Striped Legless Lizard
Merrill Findlay	Fauna	The very endangered Orange-bellied Parrot
Merrill Findlay	Habitats	*Freshwater wetlands
Merrill Findlay	Habitats	*Marine habitats: where the lava meets the sea
Merrill Findlay	Habitats	*Native grassland communities
Merrill Findlay	Habitats	*Rehabilitating habitats: rehabilitating the world

Merrill Findlay	Habitats	*Saltwater wetlands
Merrill Findlay	Habitats	Brolga Wetlands and Grasslands Protection Program
Merrill Findlay	Habitats	Truganina Swamp. a protected wetland
Merrill Findlay	Lakes. rivers. creeks. swamps	Buddha on the Maribyrnong
Merrill Findlay	People	*First contacts: when two cultures meet
Merrill Findlay	People	*Ways of seeing Victoria's basalt plain
Merrill Findlay	Invasion and colonisation	Batman's 'Treaty' with the Kulin nation
Merrill Findlay	Indigenous communities	*First Peoples of Victoria's basalt plain
Merrill Findlay	Indigenous communities	Freshwater feasts
Merrill Findlay	Settler communities	*Peopling the plain
Merrill Findlay	Settler communities	India in Footscray
Merrill Findlay	Settler communities	Tet: celebrating the New Year 2543
Merrill Findlay	Sustainable futures	*Models for the future
Merrill Findlay	Sustainable futures	Ecologically sustainable development (ESD) principles
Merrill Findlay	Sustainable futures	The power of positive imaginings
Merrill Findlay	Rural	*Arrival of sheep and cattle to the plain

Merrill Findlay	Rural	*Fruit and vegetables of the basalt plain
Merrill Findlay	Rural	*Ploughing the basalt plain
Merrill Findlay	Rural	Salinity. land degradation and the sad story of Lake Corangamite
Merrill Findlay	Urban	*Industrialising Victoria's basalt plain
Merrill Findlay	Urban	*Urbanising the plain
Merrill Findlay	Urban	*Working on Victoria's basalt plain
Matthew Flinders	Invasion and colonisation	Matthew Flinders' first contact with the traditional owners of basalt plain
Graeme Kinross-Smith	Physical features	The Whole Plain Story
Graeme Kinross-Smith	Volcanics	Floating Islands of Stoneyford
Graeme Kinross-Smith	Volcanics	Mount Leura and Mount Sugarloaf
Graeme Kinross-Smith	Volcanics	Mount Noorat
Graeme Kinross-Smith	Volcanics	Shooting Mount Noorat
Graeme Kinross-Smith	Volcanics	Volcanic Discovery Trail
Graeme Kinross-Smith	Fauna	Vulpes vulpes. the European fox
Graeme Kinross-Smith	Fauna	Who introduced foxes onto the plain?
Graeme Kinross-Smith	Fauna	Who introduced rabbits?

Graeme Kinross-Smith	Habitats	Derrimut grasslands
Graeme Kinross-Smith	Lakes. rivers. creeks. swamps	Crater lakes: Bullen Merri. Gnotuk and Keilambete
Graeme Kinross-Smith	Indigenous communities	'Australian Aborigines - Language and customs ...' 1881
Graeme Kinross-Smith	Individuals	Alan Marshall of Noorat
Graeme Kinross-Smith	Individuals	Geelong's Redoubtable Foster Fyans
Graeme Kinross-Smith	Individuals	James Dawson and Djargurd wurrung people
Graeme Kinross-Smith	Individuals	Margaret Kiddle and her 'Men of yesterday'
Graeme Kinross-Smith	Individuals	Niel Black of Glenormiston
Graeme Kinross-Smith	Settler communities	Acclimatization Society of Victoria
Graeme Kinross-Smith	Settler communities	Drystone walls across the plain
Graeme Kinross-Smith	Urban	Western Ring Road
Graeme Kinross-Smith	Cities and suburbs	Corio Bay and the Port of Geelong
Graeme Kinross-Smith	Cities and suburbs	Geelong North and South: a tale of two cities?
Graeme Kinross-Smith	Cities and suburbs	Greater Geelong
Graeme Kinross-Smith	Towns and villages	Camperdown

Jenny Lee	Bays and coastlines	Port Phillip Bay: a recently drowned river valley
Jenny Lee	Habitats	Batman's Swamp
Jenny Lee	Habitats	Destruction of the grasslands: an eyewitness account. 1851
Jenny Lee	Places	What's in a name?
Jenny Lee	Lakes. rivers. creeks. swamps	Maribrynong River: dispossession. degradation. rehabilitation
Jenny Lee	Lakes. rivers. creeks. swamps	Moonee Ponds Creek
Jenny Lee	Lakes. rivers. creeks. swamps	Mount Emu Creek massacre site
Jenny Lee	Lakes. rivers. creeks. swamps	Naming the Maribyrnong
Jenny Lee	Lakes. rivers. creeks. swamps	Werribee River
Jenny Lee	Landmarks	Lily Street Lookout
Jenny Lee	Landmarks	Solomons Ford on the Maribyrnong
Jenny Lee	Invasion and colonisation	Squatters: entrenching power and wealth
Jenny Lee	Indigenous communities	Cumbungi or bulrush (Typha spp)

Jenny Lee	Indigenous communities	Fish Traps and Drainage Systems
Jenny Lee	Indigenous communities	Murnong or yam daisy. staple food plant
Jenny Lee	Indigenous communities	Stone ovens and oven mounds
Jenny Lee	Individuals	Charles Grimes
Jenny Lee	Individuals	George Augustus Robinson (1788-1866)
Jenny Lee	Individuals	Hamilton Hume (1797-1873)
Jenny Lee	Individuals	John Batman (1801-1839)
Jenny Lee	Individuals	John Helder Wedge (1793-1872)
Jenny Lee	Individuals	John Pascoe Fawkner (1792-1869)
Jenny Lee	Individuals	Joseph Tice Gellibrand (c.1792-1837)
Jenny Lee	Individuals	William Hovell (1786-1875)
Jenny Lee	Rural	Selectors vs squatters: C19th Land Reform
Jenny Lee	Cities and suburbs	Braybrook and Sunshine
Jenny Lee	Cities and suburbs	Broadmeadows
Jenny Lee	Cities and suburbs	Brunswick
Jenny Lee	Cities and suburbs	Coburg
Jenny Lee	Cities and suburbs	Footscray

Jenny Lee	Cities and suburbs	Keilor
Jenny Lee	Cities and suburbs	Pascoe Vale
Jenny Lee	Cities and suburbs	Tullamarine: the suburb. the airport. the man
Jenny Lee	Cities and suburbs	Werribee
Jenny Lee	Cities and suburbs	Yarraville
Jenny Lee	Towns and villages	Bacchus Marsh
Jenny Lee	Towns and villages	Beveridge
Jenny Lee	Towns and villages	Colac
Jenny Lee	Towns and villages	Port Fairy
Jenny Lee	Towns and villages	Portland: whalers. squatters and the Kilcarer gundidj
Jenny Lee	Towns and villages	Warrnambool
Le Van Tai	Le Van Tai's stories: Vietnam to Footscray	01: My house is burnt
Le Van Tai	Le Van Tai's stories: Vietnam to Footscray	02: Two friends
Le Van Tai	Le Van Tai's stories: Vietnam to Footscray	03: A wound with two bullets

Le Van Tai	Le Van Tai's stories: Vietnam to Footscray	04: No-one wins. no-one loses
Le Van Tai	Le Van Tai's stories: Vietnam to Footscray	05: Step on another's land
Le Van Tai	Le Van Tai's stories: Vietnam to Footscray	06: Burnt paintings. broken brushes
Le Van Tai	Le Van Tai's stories: Vietnam to Footscray	07: Fifty-eight days at sea
Le Van Tai	Le Van Tai's stories: Vietnam to Footscray	08: Born again
Le Van Tai	Le Van Tai's stories: Vietnam to Footscray	09: Refugee no. 36
Le Van Tai	Le Van Tai's stories: Vietnam to Footscray	10: Uprooted plant. made in Vietnam
Le Van Tai	Le Van Tai's stories: Vietnam to Footscray	11: Hello. goodbye and run
Le Van Tai	Le Van Tai's stories: Vietnam to Footscray	12: Eleven years of separation
Le Van Tai	Le Van Tai's stories: Vietnam to Footscray	13: One life. two countries
Le Van Tai	Le Van Tai's stories: Vietnam to Footscray	14: Reunion

Le Van Tai	Le Van Tai's stories: Vietnam to Footscray	15: Vietnamese spring roll
Le Van Tai	Le Van Tai's stories: Vietnam to Footscray	16: When the children are better than their father
Le Van Tai	Le Van Tai's stories: Vietnam to Footscray	17: A dream house in a street of lovers
Le Van Tai	Le Van Tai's stories: Vietnam to Footscray	18: Looking ahead
Le Van Tai	Le Van Tai's stories: Vietnam to Footscray	19: Mirroring my shadow in Melbourne's west

Back to the contents

REDREAMING THE PLAINS: STORIES PUBLISHED 2002-2005

Contributor	Category	Title
Rahmat	Homeland Project	Rahmat's story: the personal experience of an Afghan asylum seeker
Mammad Aidani	Homeland Project	A few steps ... not here ... not there
John Bartlett	Plains poetry	Barre-Warre
Gabrielle Bridges	Plains fiction	Dark Eyes Smiling
Gabrielle Bridges	Plains fiction	The Flag
Lyn Chatham	Plains poetry	In the Shadow of the Elephant 1970
Merrill Findlay	Homeland Project	Journey on the wind
Jenny Hickinbotham	Plains fiction	Milking bull-ants at Anakie Gorge
Jenny Hickinbotham	Plains fiction	Witch Volcano
Susan Kruss	Plains poetry	Distribution of light
Susan Kruss	Plains poetry	Reunion
Rowan MacKenzie	Sustainable futures	Corangamite Water 2100 – the last 100 years

Richard L. Meier	Sustainable futures	Energising truly green metropolises in drought-prone areas
Edward Reilly	Plains poetry	Crossing the Border
Edward Reilly	Plains poetry	In a still moment
Brendan Ryan	Plains poetry	Catching A Train To Intimacy
Brendan Ryan	Plains poetry	Paddock Behind The House
Brendan Ryan	Plains poetry	Two farmers
G. David Schwartz	Plains fiction	Incident on the Ferris Wheel
Paul Skec	Plains poetry	141. there & back again: port fairy folk festival