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An exploration of relationships between environmental change and place identity: An analysis of personal stories from the south coast of Western Australia

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AN EXPLORATION OF RELATIONSHIPS
BETWEEN ENVIRONMENTAL CHANGE
AND PLACE IDENTITY:
An analysis of personal stories
from the south coast of Western Australia

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A Thesis Submitted in Partial Fulfillment of the
Requirements for Award of

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Edith Cowan University.

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USE OF THESIS

The Use of Thesis statement is not included in this version of the thesis.

FOREWORD

This project has been very important and extremely challenging for me. It is based in a discipline, psychology, of which I have had no previous experience. The concepts I have been investigating and the methodology I have used took me the good part of my Honour's year to understand. Analysing stories from people's lives revealed increasing complexities and I have been totally overwhelmed by the amount of data I have had to comprehend.

I have also realised the importance of these people's stories and the implication of their experiences for environmental management. Making this link tangible has been one of my greatest difficulties and one of the most important aspects of this project. In my write-up I have endeavoured to do justice to the efforts I have put in over the last year and to do justice to the people who have shared their stories. Reaching this stage has been very important to me and I also believe I owe it to the people whose lives it represents.

I believe in this work and believe it is a very important area of research. I am grateful for the support of the School of Natural Sciences, and for the opportunity to share my interpretations.

ABSTRACT

The complex relationships between people and places have been investigated by philosophic and scientific writers of the 19th and 20th centuries and more recently by researchers within the discipline of environmental psychology. A plethora of concepts have been developed to describe the relationship between people and their environments, including place identity and place attachment. Complex relationships exist between place identity, place attachment and the physical environment. Despite this, research situated within the discipline of environmental management, which addresses changes within the biophysical environment, rarely considers the psychological impacts of such change on individuals interacting within those environments. This study investigates the relationship between environmental change and place identity and attachment.

An indepth qualitative study design was adopted in order to gain a holistic and context bound representation of the phenomenon under study. This study utilised an existing collection of transcribed interviews, originally collected for the purposes of a documentary investigating the environmental and social impacts of broadacre farming on community members from the south coast of Western Australia. Thematic content analysis was employed in this study, to identify emergent themes and construct an understanding of the meanings attributed to individual experiences.

A number of complex and intertwined themes emerged from analysis and were loosely categorised around the overarching themes of personal conceptualisations of the environment, environmental meanings in a community context and environmental condition and interactions with place. Analysis revealed participants instilled highly personal meanings within the environment. Places became vehicles for learning and personal growth, they represented family continuity, provided places of spiritual significance and emotional regulation and the recognition of environmental changes encouraged participants to reassess perspectives and values. The development of values within the community was also an important issue identified by participants. The complexity and breadth of community attitudes towards the environment was reflected upon by participants, as was the influence of environmental values within social relationships. An array of complex and interconnected themes encompassing the issue of

environmental condition emerged from analysis. Participants described emotive reactions to environmental change, specifically the clearing of native vegetation. First hand experiences of degradation were significant events in people's lives, while conserving the environment fostered feelings of achievement and satisfaction.

The findings of this study support the proposition that places act as more than mere backdrops to experience, as participants described complex and intimate relationships with their environments. The constructs of place identity and place attachment did not adequately represent the environmental meanings and values expressed by participants. Environmental interactions were instead conceptualised as 'relationships with the environment'. These findings have important implications for environmental management. Places emerged from the transcripts as 'processes', meaning that through experiential relationships with the environment, places acquired new meanings over time. Meanings infused within an environment influenced interactions within it. Environmental managers need to consider individual conceptualisations of place and the perspective with which people approach their interaction with the land, in order to understand the motivations behind community involvement, or lack of, in environmental conservation initiatives.

DECLARATION

I certify that this thesis does not, to the best of my knowledge and belief:

(i)   incorporate without acknowledge any material previously submitted for a degree or diploma in any institution of higher education;

(ii) contain any material previously published or written by another person except where due reference is made in the text; or

(iii) contain any defamatory material.

Signature ▮▮▮▮▮▮▮▮▮▮...

Date........14/4/03...

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ACKNOWLEDGEMENTS

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CHAPTER 1

INTRODUCTION

1.1 Research Background

Interest in the complex relationships between people and places spans centuries and cultures (Stokols, 1990). It has philosophic roots in early religious traditions and has been examined by philosophic and scientific writers of the 19th and 20th centuries (Stokols, 1990). More recently, environmental psychology has emerged as a distinctive research area, in which many efforts have been made to conceptualise the relationship a person has with their physical surroundings (Lalli, 1992).

Environmental psychology is concerned with understanding the dynamics between four dimensions: people, psychological processes, environmental problems and places (Gifford, 1998). Numerous concepts have been developed to articulate the relationship between these concepts, the most general being Sense of Place (SOP) (Jorgensen & Stedman, 2001). A SOP develops from the interaction between the physical characteristics of a setting and the activities and conceptions of people acting within the setting (Canter, 1997). SOP is not present within a physical setting itself, but represents human interpretations of the setting, or meanings attached to a setting by a person or persons (Jorgensen & Stedman, 2001). As such, this concept provides a valuable framework in which to explore the relationship between the biophysical environment and its inhabitants (Horwitz, Lindsay & O'Connor, 2002).

SOP is an overarching concept, encompassing other concepts within environmental psychology concerned with human relationships to physical settings or places (Jorgensen & Stedman, 2001). A wealth of terms have been used to describe involvement with the physical environment at an individual level, such as place identity (Proshansky, Fabian & Kaminoff, 1983), place attachment (Altman & Low, 1992) and place dependence (Stokols & Shumaker, 1981), although the key focus has been on place identity and place attachment. An individual's subjective perception of their environment, or their SOP, is

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dualistic in nature, with interpretive perspectives *on* the environment and emotional reactions *to* the environment being integrated and expressed as environmental meanings (Hummon, 1992). In essence, places are constructed cognitively and emotively. Place identity represents the cognitive domain within which place is incorporated into identity, while place attachment represents the affective or emotional component (Jorgensen & Stedman, 2001).

The following section provides a detailed review of the literature regarding place identity and place attachment. The processes by which places become incorporated into identity are discussed, as are the development of place attachments. The review then focuses on literature concerned with the ways in which places become meaningful to people, and considers the meanings of place within the contexts of place identity and attachment. The review also highlights the lack of integration between research which investigates the relationship between people and their environment, and research within the context of environmental management.

1.2 Literature Review

1.2.1 Place Identity

Researchers from several disciplines, including psychology and social geography, have argued that people and places can be connected through identity and that meanings of places can develop in such a way they become central to people's identities (Rose, 1995). Place identity embodies the idea that 'who we are' is intimately related to 'where we are' (Dixon & Durrheim, 2000). In their seminal paper on place identity, Proshanksy et al. (1983) recognise the significance of one's relationship to physical settings in the development of self identity, describing the concept as 'a potpourri of memories, conceptions, interpretations, ideas and related feelings about specific physical settings as well as types of settings' (p.60). Place identity is considered a substructure of self identity theories and is compared to other self identity constructs such as gender or ethnic identity (Lalli, 1992). However, researchers have recently suggested that rather than there being a separate 'place identity', place underpins all aspects of self and social identity (Twigger-Ross & Uzzell, 1996). Twigger-Ross and Uzzell (1996) present evidence for the use of place in the maintenance and development of an individual's identity. In doing so, the

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authors acknowledge place as a salient part of identity, rather than a mere 'setting' in which identity is developed (Twigger-Ross & Uzzell, 1996).

Proshanksy et al. (1983) are critical of traditional self theories that assume the self to be a constant, stable and unified system. The authors highlight the failure of such theories to acknowledge the significant influence environmental changes have with regard to self identity (Proshanksy et al., 1983). Proshansky et al. (1983) call for an 'ecological approach' to the study of self identity, recognising place identity is characterised by growth and change in response to a changing physical and social world. However, 'natural' environments within which individual and social interactions occur, are not mentioned. The neglect of this aspect of the environment is reflected by the single imperative question the authors identify, with regard to the development of self-identity: 'What are the effects of the built environment?' (Proshansky et al., 1983, p.57).

Proshansky et al. (1983) identify specific cognitive functions of place identity, serving to integrate place and identity. The first of these is the recognition function, in which an individual recognises the day to day continuity of their environment, in turn verifying their own continuity (Proshansky et al., 1983). The second function is the meaning function, which indicates to the person how to act (Lalli, 1992). The expressive-requirement function refers to the compatibility of an environment with an individual's preferences and needs within that environment and is related to the mediating change function, which determines the degree to which an environment can be adapted to better suit one's needs (Proshansky et al., 1983). To recognise changes within an environment and to make the decision whether or not action needs to be taken, requires an environmental understanding (Proshansky et al., 1983). In addition, an individual must have environmental competency to know what to do, as well as environmental control, to have the ability to make changes to a setting in order to maintain compatibility between place identity cognitions and the place (Proshansky et al., 1983). Lastly, place identity involves an anxiety and defense function, which offers a sense of security (Lalli, 1992). The focus of Proshansky's et al. (1983) research, on cognitive processes, has drawn criticism for its neglect of the emotional and social components of place identity (Lalli, 1992). Lalli (1992) notes the importance of social reconstructions of the identity of a place and the social processes of identifying with a place, to place identity.

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Krupat (1983) comments that the paper by Proshansky and colleagues (1983) asks many more questions than it answers, for example, if and how the concept can be measured and what factors determine different types of place identities. Korpela (1989) and Twigger-Ross Uzzell (1996) are critical of Proshansky et al. (1983) for failing to articulate principles to account for behaviours influenced by place identity, and failing to explain the processes influencing how and why places become salient to self theories. Korpela (1989) redefines place identity, not as a 'confused potpourri of images' (p.245) but as a coherent act of self-regulation, whereby physical environments are used by people to maintain their sense of self. Korpela (1989) explains, an emotional attachment to place is the basis from which place identity develops, expressed as the use of a place to regulate the balance of positive and negative thoughts and emotions. Using a descriptive study, in which young children were questioned about their favourite places, Korpela (1989) found places were used for relaxation and enjoyment, to release energy and emotions, to maintain a coherent sense of self and to maintain self esteem.

Disparities between definitions and conceptualisations of place identity are characteristic of the literature on this topic. The heterogeneity of terms and differences within theoretical foundations of place identity research, have been held responsible for a lack of 'fruitful' research within such research (Lalli, 1992). Lalli (1992) redresses these issues through analysis of the theoretical roots of place identity. Without questioning the relevance of spatial-physical environments to an individual's identity, Lalli (1992) concludes the lack of spatial specificity within place identity research contributes to a scarcity of relevant empirical work. Lalli (1992) redefines place identity as a 'superordinate category for a particular research paradigm' (p.300). Place identity becomes an all encompassing term for a variety of forms of place related identity, such as urban identity (Lalli, 1992). However, other authors tread carefully around dissecting multidimensional concepts, so as not to lose their overall essence (Jorgensen & Stedman, 2001).

Twigger-Ross and Uzzell (1996) question whether existing place identity theories, namely Breakwell's (1986) identity process model, could be used to explain the relationship between place and identity, in a study of attachment to the residential environment of the London Docklands. This model proposes four identity principles, similar to those described

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by Korpela (1989), which guide actions: distinctiveness, continuity, self-esteem and self-efficacy (Breakwell, 1992). Twigger-Ross and Uzzell (1996) clearly demonstrate a strong relationship between these principles and their respondents' attachment to place (Gustafson, 2001).

Distinctiveness, distinguishing oneself from others, was realised as respondents who identified with an environment, distinguished themselves from others who were identified with a different environment (Twigger-Ross & Uzzell, 1996). The environment also became a vehicle for maintaining self continuity, as places became references for past experiences (Twigger-Ross & Uzzell, 1996). The continuity of identity through place reference was also an important function of Proshansky's et al. (1983) conceptualisation of place identity, which noted the implication that extreme variation in the physical environment can disrupt the continuity function, threatening self identity. The severity with which discontinuities of place can impact on individuals was earlier articulated by Fried (1963), who found concepts of grief and mourning could be extended to the loss or destruction of an emotionally salient place.

Twigger-Ross and Uzzell (1996) also found attachment to a place positively influenced the self esteem of respondents. Self-efficacy was related to the capability of an environment to support the chosen activities of an individual (Twigger-Ross & Uzzell, 1996), a concept similar to Proshansky's (1983) 'expressive-requirement' function of place identity. Twigger-Ross and Uzzell (1996) found residents who expressed strong attachments to their environment found it difficult to leave when changes within their environment threatened feelings of manageability. The four identity principles of Breakwell's (1992) model provided a suitable framework within which the meanings and roles of emotionally salient places to an individual's identity could be clarified (Twigger-Ross & Uzzell, 1996). Twigger-Ross and Uzzell (1996) echo implications in Fried (1963) and Proshansky's et al. (1983) research, that disruptions to place could lead to identity disruptions, calling for more research to further understand the relationship between identity and changes within the physical environment, particularly in settings other than the residential environment.

1.2.2 Place Attachment

The emphasis on cognitive processes involved within the relationship between people and places has proven inadequate in clarifying this relationship (Guiliani & Feldman, 1993). Research on place attachment has more of an emotional focus than place identity (Jorgensen & Stedman, 2001), and has contributed to developing the understanding of our relationships with place (Hay, 1998). However, the interdisciplinary nature of the emotional bonds between people and their ecological, built, social and symbolic environments, has led to an array of definitions for place attachment (Hummon, 1992).

Place attachment is generally described as a complex phenomenon consisting of many components and debate surrounds the nature and interrelationships of these components (Guiliani & Feldman, 1993). Altman and Low (1992) as editors of a collection of essays exploring the concept of place attachment, proposed their own definition:

> Place attachment subsumes or is subsumed by a variety of analogous ideas, including topophilia (Tuan, 1974), place identity (Proshansky et al., 1983), insidedness (Rowles, 1980), genres of place (Hufford, 1992), sense of place or rootedness (Chawla, 1992), environmental embeddedness, community sentiment and identity (Hummon, 1992), to name a few. (p. 3)

Altman and Low's (1992) book addresses biological, psychological, experiential, social and cultural attachments to place. Riley (1992) investigates human attachment to the landscape in three ways: humans as animals; as members of a particular culture; and as unique individuals, and questions the interrelationships between these three frameworks. Riley (1992) asserts that individuals interact with an 'internal landscape' of emotional contemplation, as well as an 'external landscape' of behaviour, social interaction and obligations. Place attachments are positively experienced bonds, which develop over time, promoting stability between people and their environments (Brown & Perkins, 1992). Brown and Perkins (1992) discuss the implications of disruptions in place attachments, demonstrating their importance to the meaning of everyday life. The implication is that when these attachments are disrupted, through severe changes to people, places and/or psychological processes, individuals experience a sense of loss and instability, finding the need to redefine themselves and their place attachments (Brown & Perkins, 1992).

The overarching and all encompassing definition articulated by Altman and Low (1992), brought criticism for its failure to differentiate between concepts and describe their

interrelationships (Jorgensen & Stedman, 2001). Guiliani and Feldman (1993) are also critical of the array of place attachment definitions throughout the chapters, although recognise the conundrum faced as broad definitions lose the nuances of attachment cognitions and affects, while specific definitions may exclude important facets of attachment. Nevertheless, Altman and Low's (1992) edited collection of essays provide a detailed background, to generate and guide place attachment research and illustrate the current state of confusion within terminology (Guiliani & Feldman, 1993).

Williams, Patterson and Roggenbuck (1992) associate place attachment with SOP, defining the latter as an overarching construct dominated by the concepts of place identity and place dependence. In addition, Williams, Patterson and Roggenbuck (1992) broaden their investigation of emotional and symbolic attachments to place, from the residential environment to wilderness settings. Their study highlighted the importance of emotional, symbolic and spiritual attachments to wilderness areas to respondents and the failure of natural resource planning to take these attachments into account (Williams, Patterson & Roggenbuck, 1992).

1.2.3 Meanings of Place
Some researchers have focussed on the importance of particular features of places to community members. Henwood and Pidgeon (2001) report on the significance of woods and trees to community members of North Wales. These researchers focus on meanings embedded within landscape features, within personal, community and cultural contexts and the implication of environmental meanings to resource management (Henwood & Pidgeon, 2001). The investigation found trees and woods were constructed as complex symbols of nature, and the enjoyment of woodlands fostered a sense of 'being part of nature' (Henwood & Pidgeon, 2001). Reflecting the findings of Twigger-Ross and Uzzell (1996) and Fried (1963; 2000), Henwood and Pidgeon (2001) found respondents associated threats to woodlands and trees with threats to themselves and to the stability and familiarity of their locality.

In a similar study, Oreszczyn and Lane (2000) investigated cultural dimensions of the hedged English landscape. Adopting a holistic approach, which considered the relationships between human activities and hedgerows as a whole, the researchers investigated a range of

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community perspectives regarding hedgerows (Oreszczyn & Lane, 2000). Oreszczyn and Lane (2000) found people exhibited strong connections to the hedged landscape in which hedgerows contributed to a sense of place, held aesthetic appeal, signified childhood memories and were also recognised as an important habitat for wildlife. The researchers also acknowledged participants related to hedgerows from an emotional as well as a rational point of view (Oreszczyn & Lane, 2000). Although these findings share similarities with the emotive and cognitive domains of place attachment and place identity, Oreszczyn and Lane (2000) did not draw upon these concepts to explore participant relationships with the environment, limiting discussion to a generalised 'sense of place'.

Thoughtfully combining theoretical and empirical research on 'place' within social and behavioural science, Gustafson (2001) produces an analytical framework for understanding the attribution of meaning to places. Following a systematic review of concepts of place throughout recent literature, Gustafson (2001) asks: 'What is the relationship between theoretical conceptualisations of place and people's everyday experiences?' Gustafson (2001) is critical of research concerned with place identity and place attachment, which has a limited focus on 'special places' and is reluctant to describe more general frameworks. This criticism is somewhat at odds with Lalli's (1992) critique of the theoretical foundations of place identity, which identified a lack of spatial specificity as partly responsible for insufficient research within place identity. Lalli (1992) warns against the use of generalised constructs while Gustafson (2001) argues that research need not limit itself to investigating specific places in order to contribute to discussions about concepts of place.

Diverging from traditional concepts of place identity and place attachment, Gustafson (2001) undertook an exploratory interview study, focussing on the ways in which individuals attribute meanings to places. Incorporating earlier research on the conceptualisation of place with his own findings, Gustafson (2001) successfully produced a three-pole model within which meanings of place could be mapped (Figure 1). The themes of self, others and the environment were found useful to classify themes identified in the

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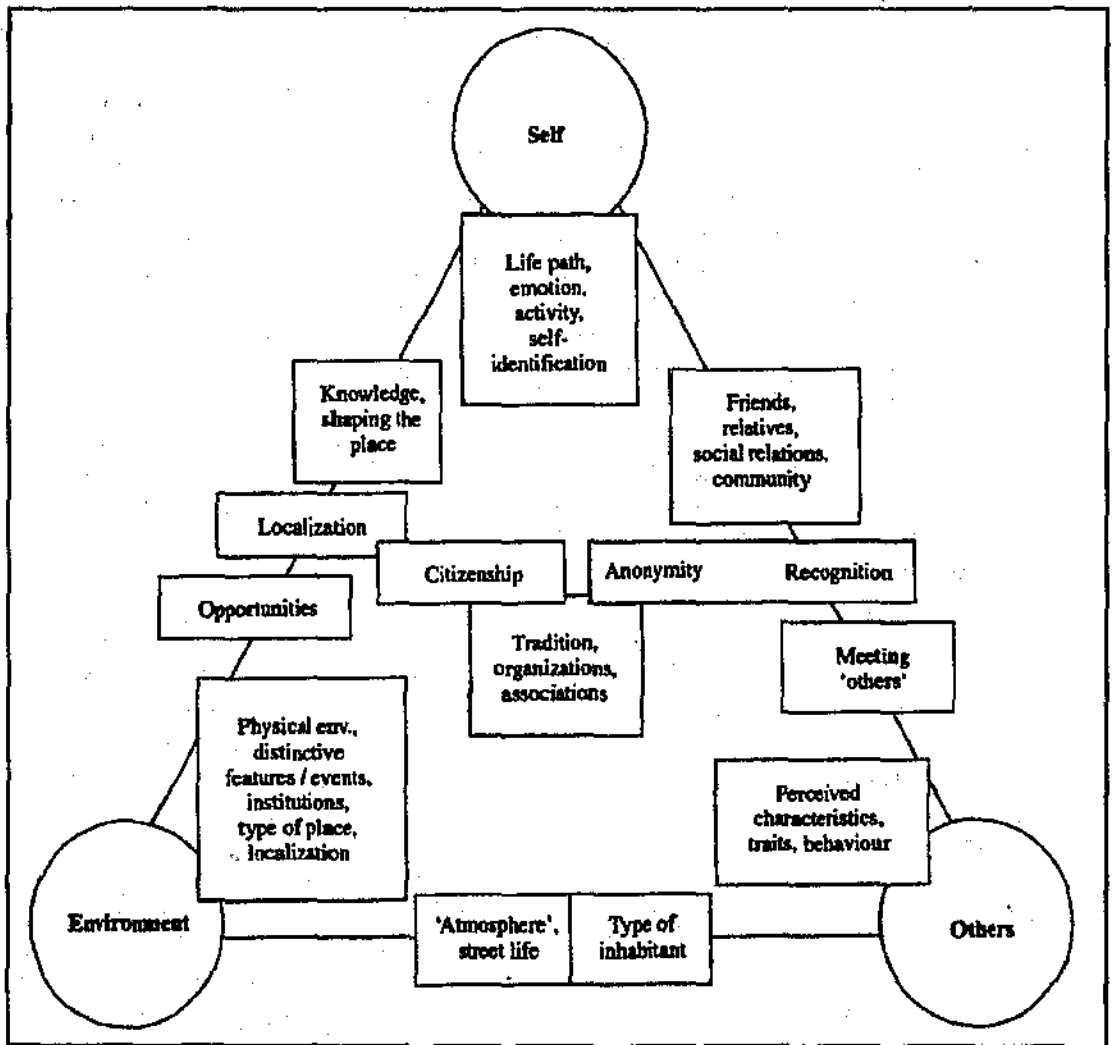
Figure 1.1: Three-pole model mapping meanings of place (Gustafson, 2001).

interviews, while the triangular model allowed meanings of place to be mapped *between* themes, rather than forcing meanings into discrete categories (Gustafson, 2001). Although Gustafson (2001) recognised these categories did not represent a complete range of meanings, the model did provide a useful means of deconstructing the multiple layers of meanings that can be attributed to a physical setting. Gustafson (2001) further illustrated the complexity with which places become meaningful to individuals, uncovering yet another layer of place meanings underlying his three-pole model. Expanding on themes developed in previous research, Gustafson (2001) identified distinction (Twigger-Ross & Uzzell, 1996), valuation, continuity (Fried, 2000; Hay, 1998) and change as categories that further organise the attribution of meanings to places.

1.2.4 Relevance of Place Constructs to Environmental Management

A plethora of concepts exist, which describe the relationships between people and physical settings (Jorgensen & Stedman, 2001). The significance of the physical environment to self-identity is strongly supported by a wealth of literature (Lalli, 1992), as is the importance of emotional attachments to the environment to develop and maintain identity processes (Twigger-Ross & Uzzell, 1996). In addition, the ways in which people attribute meanings to place have been the focus of a number of detailed studies (Gustafson, 2001; Henwood & Pidgeon, 2001). Oreszczyn and Lane (2000) made an important advancement within research regarding the relationship between people and their environment by considering these relationships within the context of landscape management. Oreszczyn and Lane (2000) emphasised the need to consider people's objective and subjective relationships with their environment and with each other, for meaningful participation in policy and decision-making processes within land management. However, with the exception of a handful of researchers such as Oreszczyn and Lane (2000) and Williams, Patterson and Roggenbuck (1992), the relationship between individuals, communities and their environments is rarely considered within the context of environmental management.

Given the complex relationship between place identity, place attachment and the physical environment, it follows that changes within the environment would have impacts for both identity and attachment (Horwitz et al., 2002). Despite this, research situated within environmental management addressing changes within the biophysical environment, rarely considers the psychological impacts of such change on the individuals and communities

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interacting with those environments (Horwitz et al., 2002). Studies of the psychological impacts of environmental change have related feelings of grief, loss and mourning to the loss of one's home and other places of personal significance (Fried, 2000; Mazumdar & Mazumdar, 1993). However, the focus of such studies has been limited to the impacts of loss as a result of natural disaster or enforced relocation. The psychological impacts of environmental change, as a result of environmental degradation, are rarely acknowledged (Horwitz et al., 2002).

1.3 Research Objectives

The purpose of this study was to examine the relationship between environmental change and place identity and attachment. More specifically, perceptions of change within the biophysical environment were investigated within the constructs of place identity and place attachment. Following an extensive review of the literature regarding place identity and place attachment, Gustafson's (2001) three-pole model was used to loosely guide the process of deconstructing the multiple layers of meanings that can be attributed to the physical environment. The themes of personal (self), community (others) and environmental condition (environment) were tentatively labeled in order to frame specific aims, focussing examination of the relationship between place identity, place attachment and environmental change.

1.3.1 Research Aims
The aim of this study was to describe the relationship between environmental change, place identity and place attachment, in relation to the three major themes of personal, community and environmental condition.

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1.4 Structure of Thesis

The following chapter details the qualitative study design adopted to examine the relationship between place identity, place attachment and environmental change. The results of analysis are then presented in combination with discussion points, relating findings to the literature. The presentation of results is loosely structured around the themes 'personal', 'community' and 'environmental condition'. Although interrelated and overlapping issues surrounded each of these themes, their distinction was maintained for the sake of clarity. The final synthesis chapter highlights salient themes identified in the previous chapters and summarises results. The final chapter also addresses the limitations of this study, examines the relevance of findings to environmental management, and suggests directions for future research.

CHAPTER 2

METHOD

2.1 Research Design

This project draws upon an interpretive framework, a position that recognises realities and meanings as temporally dependent social and cultural constructs, which need to be considered contextually in order to be understood (Nagy, 1994). Interpretivist research is concerned with understanding phenomena, rather than explaining causalities (Crotty, 1998). Research based within this framework primarily uses textual data gathered from unstructured or semi-structured interviews (Nagy, 1994).

An indepth qualitative study design was used in this study. Qualitative research lends itself to understanding the meanings people place on events, processes and structures of their lives and the connection of those meanings to the social world around them (Miles & Huberman, 1994). It provides descriptive accounts of the everyday lives of individuals and communities, in order to gain a holistic and context bound representation of a phenomenon under study, from the perspective of the individuals involved (Miles & Huberman, 1994; Sankar & Gubrium, 1994). Qualitative research aims to describe events and experiences, proposing explanations rather than predictions (Willig, 2001), and is an appropriate strategy for exploring a new area of research (Miles & Huberman, 1994). Such an approach is well suited to this project's descriptive exploration of the relationship between place identity and perceptions of environmental change.

Qualitative research relies on a descriptive database (Janesick, 2000) which may be sourced for example from historical records, field notes and/or interview transcriptions. There is no single protocol for qualitative research (Silverman, 1993) with different research objectives requiring different data collection and analytical approaches (Parker, 1994). The production of a typical qualitative data base can involve historical records and requires face-to-face interviewing, participant observation, field research and verbatim transcription along with detailed analysis, all of which may take several years of research investment (Thorne, 1994). Use of existing databases within qualitative research is an area being increasingly

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explored by researchers (Thorne, 1994). Existing databases provide a valuable means of maximising the research potential of a database, requiring considerably less time and resources and providing the opportunity to explore new research questions appropriate to the body of information, but not considered in the original research context (Thorne, 1994). Secondary analysis (the analysis of data collected for a purpose other than the research in question; Woods, 1998) of existing transcripts was also considered appropriate given the time and budget constraints of a one year Honours project.

2.2 Data Collection

2.2.1 Materials

This project used an existing collection of transcribed interviews originally gathered in 2001, for the purpose of a television documentary entitled *The Country Inside*[1]. This one hour production[2] documents the stories of people living and working within the south coast region of Western Australia. The documentary investigates the environmental and social impacts of broadacre farming, focussing on the experiences of community members from Ongerup, Jerramungup and surrounding areas, approximately 450km south east of Perth (Figure 2.1)[3]. Utilising these interviews provided the opportunity to locate the issues under study in an environmental and cultural context without duplicating the lengthy and often intrusive interview process.

2.2.2 Participant Selection

The filmmakers selected interview participants through a combination of purposive, snowballing and convenience sampling techniques. Purposive sampling utilises the knowledge of the researcher to select representatives of a group within the population, while snowballing relies on the identification of individuals relevant to the study, who then suggest other individuals the researchers may wish to interview (Berg, 2001).

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[1] See Appendix 1 for copyright information.
[2] The documentary *The Country Inside* was conceived and written by Frank Rijavec and Keith Bradby.
[3] See Appendix 2 for brief overview of the agricultural history of the south coast of Western Australia.

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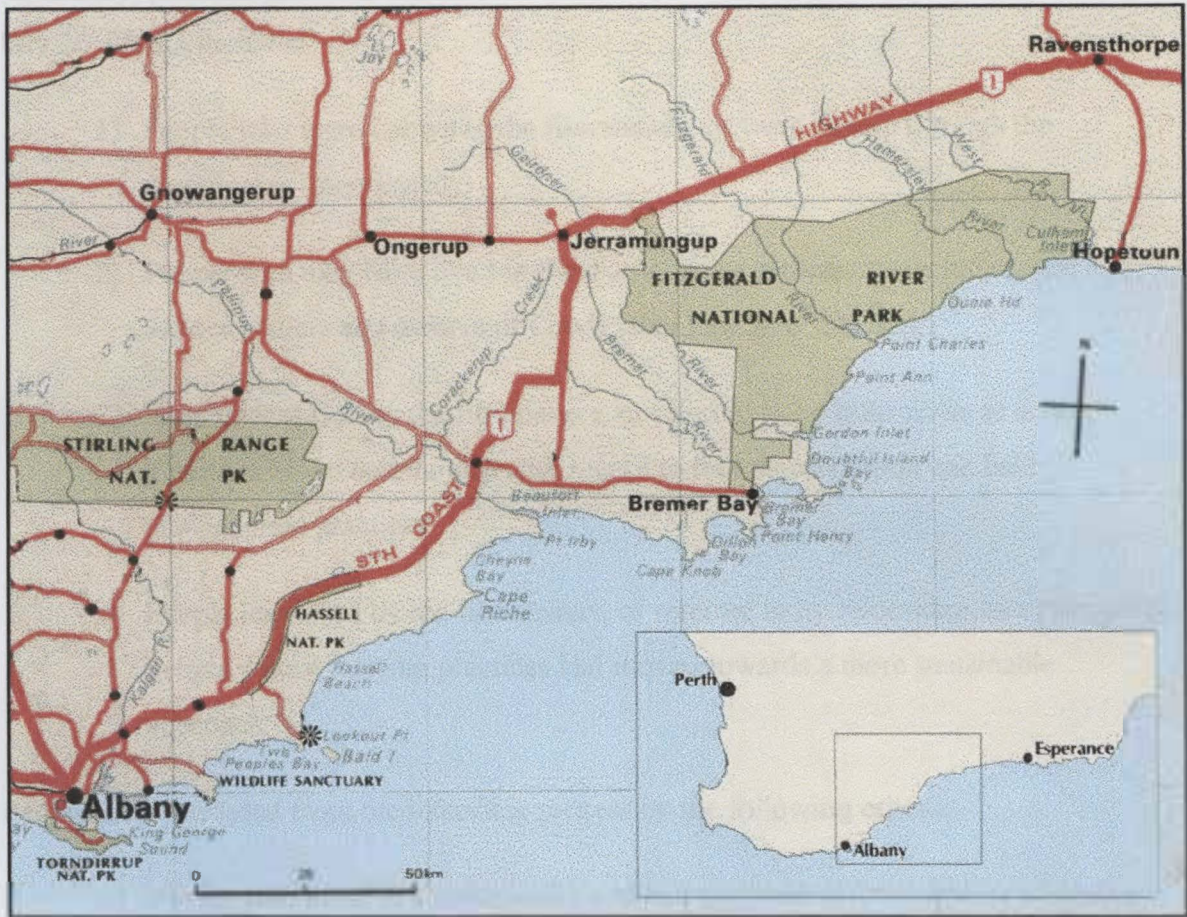
Figure 2.1: South coast of Western Australia: Community members from Ongerup, Jerramungup and surrounding areas were interviewed for *The Country Inside* documentary (source of transcripts).

Convenience sampling relies on the accessibility and availability of individuals familiar with the subject matter (Wallace, 1994). Inclusion criteria, as identified by the filmmakers (K.Bradby, personal communication, July 11, 2002; F.Rijavec, personal communication, July 26, 2002), included:

1) People who were known to the filmmakers, or were known through the participants interviewed;

2) People who may have lived in the district since settlement (including war service settlers and owners of Conditional Purchase[4] blocks);

3) People identified by the filmmakers, or referred to by informants as active members of the community with regard to their conservation and land management practices.

4) People identified by the filmmakers, or referred to by informants as examples of people whose farming practices had moved towards a more sustainable approach.

People were excluded from the interview process by the following criteria:

1) People who lived in a town centre and had not lived and worked on a farming property;

2) People identified by the filmmakers, as not participating as active community members with regard to their conservation practices.

A total of 31 participants were interviewed, 20 males and 11 females, ages ranging from 40 to over 80 years old. There were seven married couples within the selection of participants, who were interviewed as couples. Nineteen of the interviewees currently live and work within the south coast region of Western Australia, while twelve had retired from farming.

The sampling of participants was not designed to be representative of the general population, but rather to present a range of personal stories representing the issues

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[4] Conditional Purchase blocks were allocated by the WA State Government between 1959 and 1969 and owners were required to clear land and begin agricultural development within a given time period (Bradby, 1989).

addressed in the documentary. *The Country Inside* explored ideologies, values and prescriptions of post war agricultural development in southern Western Australia (see Appendix 3 for synopsis). The writers' focus on individual experiences and the meanings attributed to such, did not require their interview sample to be representative of the general population. There are a number of pivotal issues associated with the use of an existing database, most of which relate to the fit between the data set and the research question (Thorne, 1994). These include the adequacy of data collection methods, quality of the database (referring to missing or lost data), the match between the theoretical approach of the initial researcher and that of the primary or secondary researcher, and questions of external and internal validity (Thorne, 1994; Woods, 1988).

2.2.3 Interview Procedure

A semi-structured interviewing technique was adopted by the filmmakers for *The Country Inside*. This style of interviewing uses open-ended questions to encourage the interviewee to talk about aspects of their lives and their experiences in the form of a narrative (Willig, 2001). Questions are tailored to each interviewee (Burman, 1994), allowing the exploration of issues of importance, as identified by the respondent (Silverman, 1993). The filmmakers used a briefing sheet in preparation for each interview (Appendix 4). Not all questions were asked of all interviewees, but were varied given each person's individual experience. Interviewees were questioned about agricultural techniques and their repercussions, personal values, the economic climate, special places within the environment and their visions for the future. The filmmakers had established relationships within the community and were friends or acquaintances of most interviewees. These relationships provided an appropriate foundation to establish a rapport between the interviewer and interviewees, helping to create an ambience in which the participant felt free to speak openly and explore their own understanding of the topic at hand (Willig, 2001).

The interviews were conducted in April and May 2001, most taking place over a number of sessions and in various locations. Initial interviews usually took place in the participant's home while subsequent sessions were conducted within locations specifically referred to by the interviewee. The videotaped interviews were transcribed verbatim, with film cues and locations noted, although non-linguistic features such as pauses and intonations were not transcribed. Such features of speech were not required in this study as the focus was on

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what was said, rather than the way it was said (Willig, 2001). These transcripts offered rich, descriptive narratives about the lives of people living and working within the south coast region of Western Australia, and were readily adapted to the thematic analysis adopted for this study.

2.3 Data Analysis

2.3.1 Transcript Selection

Given the time constraints of a one year Honours project, eight of the detailed, lengthy and richly descriptive transcripts were analysed. These eight transcripts were selected randomly from the list of participants. Of the 31 participants interviewed, the transcripts of two females, four males and two couples were selected. Relevant details for selected transcripts are presented in Table 2.1, including names, age brackets, home location and the number of years participants had lived in their area. Preparation of the transcripts for analysis involved grouping all the interviews for each participant into a single document, maintaining the distinction between interview sessions conducted over different days and at different locations. Film cues were deleted, although location descriptions clarifying the context of the interviews were retained.

Table 2.1: Details of participants whose transcripts were selected for analysis.

Name	Age Bracket (yrs)	Home Location	Time spent in home location
Ann and Rob	50-59	Fitzgerald, WA	approx. 25 yrs
Bob	60-69	Jerramungup, WA	approx. 40 yrs
Brigitte and Willem	40-49	Munglinup, WA	approx. 20 yrs
Kaye	70-79	Ongerup, WA	since childhood
Nathan	40-49	Jacup, WA	approx. 20 yrs
Peter	40-49	Woogenilup, WA	approx. 20 yrs
Steve	40-49	Ongerup, WA	since childhood
Veronica	60-69	Ongerup, WA	approx. 40 yrs

2.3.2 Narrative Analysis

This study employed narrative analysis, an approach sharing the principles of qualitative research, using data in the form of 'natural language' and non-numerical analysis (Polkinghorne, 1995). Narrative analysis aims to maintain the social context, narrative structure and rich detail of stories and is an appropriate method for studying the presentation of self in everyday life (Mankowski & Rappaport, 2000; Riessman, 1990). It may be used to investigate different features of narratives, such as thematic content, narrative structure or function (Mankowski & Rappaport, 2000). Thematic content analysis was selected for the purposes of this study, identifying emergent themes and constructing an understanding of the meanings attributed to individual experiences (Mankowski & Rappaport, 2000; Oliver, 1998).

The steps involved in narrative analysis include coding passages of text, identifying and summarising emergent themes and developing analytical conclusions, verified by the data (Berg 2001; Miles & Huberman, 1994). These steps, concurrently developed throughout the research project, need to be clearly documented to ensure the rigour and validity of the analysis and promote the reflexive process (Berg, 2001). The following section addresses each of these steps in detail.

2.3.3 Analysis Procedure

Themes were inductively developed from the data, undertaking a line-by-line analysis of each transcript, highlighting significant statements referring to personal and social experiences (Morse, 1994). This process involved reading and re-reading the data, recording reflections and analytical memos (Miles & Huberman, 1994). Descriptive and inferential segments of text were labeled with codes assigned descriptive and interpretive meanings (Miles & Huberman, 1994). This was an iterative process, whereby highly descriptive initial codes were gradually converted into broader, interpretive themes, based on the identification of similar underlying concepts (Boyatzis, 1998; Gustafson, 2001). A working example of code development and analytical interpretation is provided in Text Box 2.1.

Text Box 2.1: Working example of code development and analytical interpretation.

Passage taken from interview transcript of Brigitte & Willem:

How do you find out about this, I guess it is when you, in our case it would have been though things that were brought to our attention, like salt, or like as we learned to read the landscape better, and then the impact that for instance salinity or wind erosion has on your farm but also has on the bush, and then going into this and *learning more about the flora and fauna and how it works and how it fits together, and that then makes you look at the bush with different eyes, with having the knowledge of how it depends on each other and how we depend on it too, it makes you see it with different eyes.* (L.183)

Initial reading	23/6/02	
Initial coding	7/8/02	information-knowledge (see underlined text)
Further coding	15/8/02	*changing perspective-environment (see italicised text)*
Analytical memo	15/8/02	(see below)

With an understanding of ecological processes comes a changes in perspective (don't forget these people are newcomers to the Australian landscape altogether) and turning point/decision to 'do something', but what about people who live a similar lifestyle and practice similar agricultural practices and 'see' the same processes/landscapes, but don't come to a change in perspective? or do they but choose not to 'take action'? what is different about the process of changing perspectives? is it upbringing/background etc...?

Further code development 14/9/02   (see below)

Overarching code: environmental relationship-perspective-knowledge

The qualitative research software program QSR Nvivo[5] (Version 1.1.127) was used to assist the analysis of transcripts. Given the quantity of rich, descriptive text analysed, the decision to use a computer program was made on the basis of practical benefits offered. The program enabled codes to be attached to segments of text, memos and analytical comments to be recorded within texts and allowed for the easy retrieval of data (Willig, 2001). Using a computer program allowed themes lists and relevant phrases to be readily produced, assisting the identification and understanding of patterns within the data (Berg, 2001).

2.3.4 Developing Analytical Interpretations

The interpretation and verification processes were developed throughout the research project, becoming more established with increasing familiarity with the data (Berg, 2001). Emerging themes and hypotheses were verified by constant referral to the data and by retracing analytical procedures from which conclusions were drawn (Berg, 2001). The transparent documentation required for such checks to be made is addressed in the following section.

2.4 Rigour

The means of judging the rigour or validity of qualitative research has been a topic debated by researchers over a number of years (Miles & Huberman, 1994; Willig, 2001). Given the variety of approaches and analytical procedures available to researchers within the qualitative paradigm, criteria for validating qualitative research is just as varied (Henwood & Pidgeon, 1994). However, a number of key criteria do emerge from the literature and although terminology may be diverse, they address similar issues. Miles and Huberman (1994) identify the main features of rigour: auditability, confirmability, credibility, and transferability. The process by which these aspects of rigour are addressed within this research project are discussed below.

2.4.1 Audit Trail

The confirmability of qualitative research refers to the explicit documentation of any researcher bias which may influence findings (Miles & Huberman, 1994). Confirmability

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was achieved by the use of an audit trail, a transparent documentation of the research process (Miles & Huberman, 1994; Nagy, 1994). The audit trail guides the reader through the formation of the research question, to the collection and analysis of data, through to the interpretation of findings (Beanland et al., 1999). The audit trail includes raw data, summaries, hypotheses, hunches and concepts derived from the data (Lincoln & Guba, 1985). It also details the construction of categories and their definitions, of relationships between themes and of conclusions and their connection to the existing literature (Lincoln & Guba, 1985).

The documentation of personal reflections and critical evaluations of the research process is known as reflexivity and is a distinctive feature of qualitative research (Parker, 1994; Tindall, 1994). Reflexive writing strengthens the accountability of the research process, identifying researcher understandings and biases and allowing the reader to follow the interpretation of findings (Henwood & Pidgeon, 1994; Tindall, 1994). A reflexive diary was kept throughout the research process, noting intentions, concerns, procedural notes, interpretations of data and explicit clarification of understandings (Tindall, 1994). Evidence contributing to the audit trail is thoroughly described within this thesis and is supported by the reflexive journal (available from author on request).

Credibility refers to the 'truth value' of findings, as judged by the participants and others within the research discipline (Beanland et al., 1999). The audit trail and reflexive journal contributed to establishing the credibility of the research findings. The philosophical framework within which this research is situated was clearly outlined in the opening chapter, reducing the temptation to distort findings to fit a theory and strengthening credibility (Nagy, 1994). The process of constant comparison, documented within the audit trail, was also used to maintain credibility. This involved constantly checking the findings against the data and comparing the similarities and differences between emerging themes (Nagy, 1994).

Transferability is the extent to which findings are applicable to other settings (Nagy, 1994). The interpretive philosophy on which this study was based, acknowledges that realities and meanings are context bound (Nagy, 1994). As such, transferability focuses on the

application of findings under similar social and environmental conditions (Leininger, 1994).

2.4.2 Intercoder Reliability

Reliability refers to the degree of consistency within the research findings, over time and between researchers (Miles & Huberman, 1994; Silverman 1993). Intercoder reliability was used to assess the reliability with which codes were applied to segments of data, between researchers (Cantanzaro, 1988). Independent reviewers (the two supervisors of this research project and another academic researcher from within the Faculty of Science, Technology and Engineering at Edith Cowan University) were asked to code an interview transcript, applying the codes developed by the researcher. Commonalities and differences between the applications of codes were discussed by the researcher and reviewers, and a consensus of themes reached (Cantanzaro, 1988). This process was documented within the audit trail, supporting the rigour of conclusions.

2.5 Ethical Considerations

Approval for this research project was granted by the Faculty of Communications, Health and Science Ethics Sub-committee for the conduct of Human Research.

The producers of *The Country Inside* were willing for the interview transcripts they collected and transcribed to be used as part of this study, providing informed consent was also gained from the interviewees The filmmakers facilitated contact with interviewees, who were then forwarded a letter explaining the purposes of this project, outlining the nature of involvement and welcoming any queries (Appendix 5). Informed consent was obtained via a Statement of Disclosure and Informed Consent (Appendix 6), sent out along with the explanatory letter, identifying possible concerns of participants and outlining the option to remain anonymous while agreeing to have their transcript included in the study (Banister et al., 1994). Should they consent to participate in the study, participants were asked whether they would allow their name to be used in association with their interview transcripts. All participants who were contacted agreed to have their transcript included in the study, and all but one gave consent for their name to be published in association with their interview transcript. Following receipt of signed consent forms, a follow-up phone call

was made to each participant to thank them for their involvement in this study and to clarify any queries they may have had. A commitment was also made to provide each participant with a summary of findings upon completion of the research project.

Interview transcripts will be archived in a secure place, in accordance with the requirements of the Faculty of Communications, Health and Science Ethics Sub-committee for the conduct of Human Research. (Line numbers associated with cited quotations refer to the position of the quote within the transcript document of each interview).

CHAPTER 3

PERSONAL CONCEPTUALISATIONS OF THE ENVIRONMENT

3.1 Personal Themes of Meaning

Places are often imbued with highly personal meanings (Gustafson, 2001), one of three overarching themes to emerge strongly from analysis of the transcripts. Places became vehicles for learning and for personal growth, they represented childhood memories and family continuity, they provided places of spiritual significance and emotional regulation and the recognition of environmental changes encouraged participants to reassess perspectives and values. The following section discusses the ways in which the physical environment became meaningful to participants and the influence of these meanings on identity and attachment at a personal level.

3.1.1 The Learning Journey

Knowledge and understanding of the natural environment was a significant theme discussed by all participants and was commonly expressed in terms of an ongoing, developmental process. Brigitte and Willem reflected on their involvement in the Landcare program and the environmental knowledge they gained:

> The involvement in active land care…led to a level of understanding of the way
> nature works here and how flora and fauna depend on each other, which we just
> didn't have before…and that started another journey of learning and led us to
> another level of understanding, and we are still trying to walk that path, trying…to
> do our bit to in one way protect the river down here. (L.340)

Ann and Rob contemplated the development of their understanding of environmental processes and the impacts of clearing for farmland:

> If we were doing it again now with what I know now, like everybody else would
> be the same I imagine, they'd leave more in places they know [it] would be better
> suited. (L.272)

They also expressed the sense that an understanding of the environment was a continual, developmental process, saying 'it's a bit like we first started with the interest in the plants.

The more you knew or learnt the more you realised there was to learn and I think farming's a lot the same' (L.462).

The importance of knowledge about an environment and the significant influence this has on shaping the meaning of an environment, is evident in comments from Bob. He explained when he first came to the south coast of Western Australia from South Australia, he 'had never seen a salt lake and...didn't even know what they were' (L.1161). However, this lack of awareness developed into an understanding of the environment, as Bob described:

> I certainly didn't realise that [salt lakes] were primary features in the
> landscape...I didn't understand all that until about probably twenty years ago.
> (L.1165)

The development of an environmental understanding was compared to personal growth by Bob, as he reflected:

> I don't know whether it is part of the growing up process or perhaps it is just part
> of the idea of...once you get environmentally conscious it is easy to see these
> other things. (L.798)

Although knowledge is recognised by Gustafson (2001) as influential in shaping meanings of place, the above comments suggest 'knowledge' has a much greater significance in the development of place meanings than is acknowledged in the literature. However, what defines 'knowledge' may also be worthy of consideration. Having climbed East Mount Barren, in the Fitzgerald National Park, Nathan described 'getting a splitting headache, trying to absorb it all' (L.183). He came to the understanding that total comprehension of the environment was not necessary, explaining 'it's not really important to know everything, it is more important to know that it is okay and it is over there, not to know every detail of it' (L.397). Peter expressed a similar sense of becoming overwhelmed when trying to comprehend everything within the environment. He explained 'I reckon if I lived for three lifetimes I'd never learn half of what's going on in the bush' (L.755).

3.1.2 Fostering Place Relationships

Family members played an important part in the development of an enduring interest in the environment for a number of participants. For example, Nathan explained 'I was fortunate to have a grandfather who was really interested in the bush' (L.4), who encouraged his

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enjoyment of the natural environment and his desire to develop an understanding of the land:

> I was really interested from when I was young in things natural and wanted to be
> out with it and not learn it from a book or listen to people tell me what their
> experience was, I wanted to do it myself...and I had my grandfather encourage
> that because he was also interested. (L.8)

Similarly, Steve described the influence his grandmother had in shaping his own father's interest in botany:

> My father was always interested in plants...and I was always told that that interest
> came from when he was a kid and my grandmother used to take him for walks
> down to the creek, which is still there, to look at the orchids. (L.898)

Kaye explained her knowledge of the environment began developing at a young age, encouraged by her father's involvement in the bush:

> It was Dad that, probably, showed us a lot of things that were in the bush, how to
> do things, how to make whistles, how to make all sorts of things from what was in
> the bush, and he would certainly show us the different birds and the birds' nests,
> and explain it all to us, so we became pretty knowledgeable about the bush at a
> very early age. (L21-25)

Kaye passed on her own appreciation and knowledge of the environment to her children, as she told:

> I certainly used to take the children out into the bush a lot, and share the bush with
> them and show them things the same as I had been shown and I think they became
> fond of the bush because they spent so much time out in it. (L34)

Kaye reflected on the extent to which these experiences influenced her children's connection to the bush, saying, 'the kids blame me for making them bushies, I think' (L.468). Referring to the environment to relate past experiences and selves to the present, is considered evidence of continuity, a principle of Breakwell's (1992) identity model. Maintaining links to a place which acts as a reference point to past selves and actions is thought to provide a sense of continuity to one's identity (Twigger-Ross & Uzzell, 1992). Kaye's comments suggest the use of the environment as a reference point for her own childhood experience and the maintenance of this link through the sharing of her children's experiences.

The above experiences also support the assertion of Proshansky and colleagues (1983) regarding the significance of physical settings throughout childhood socialisation. Proshansky et al. (1983) argue the most enduring and influential place-related cognitions develop in childhood, in settings where education and socialisation occur. The above comments indicate the 'bush', or the natural environment was indeed a significant and influential setting, where participants developed skills and their identities, to the point where they became 'bushies'. However, these comments also recognise the important influence of family members throughout childhood, an influence which can not readily be separated from that of the physical setting. Debate on whether identity is indeed more 'social' or more 'place' related has surrounded development of the place identity concept (Twigger-Ross & Uzzell, 1996). The comments of participants reflect the interconnection between social and place related aspects of identity and as such, suggest support for the proposition that all aspects of identity are influenced to some degree by place (Twigger-Ross & Uzzell, 1996).

3.1.3 Expressing a Sense of Responsibility

A number of participants expressed the sense that clearing native vegetation was not quite 'right'. Peter reflected:

> We were utterly amazed at the variety of species here and it certainly didn't seem
> right to be going in with machinery and ploughing it in... it wasn't a hard decision
> to make to not clear land and to turn it into agricultural production. (L.695)

A similar sense of right and wrong was expressed by Kaye, who remembered:

> It was wonderful, seeing all the crops and everything...we saw great clouds of dust,
> it was just like a big bush fire out the east...where the soil was being lifted and taken
> day after day after day, so we knew we had done wrong. (L253-256)

Kaye recalled feelings of devastation 'watching all that bush being flattened' (L.114), although her comments suggest a sense of inevitability as she went on to say 'but everyone had to, it was sort of get big or get out' (L.115). The extent to which land was cleared was not considered 'right' and a sense of regret was evident in Kaye's comments 'I think a lot of us realised afterwards that we didn't do the right thing, that we should have saved more bush' (L.116).

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Bob's comments reveal his experience of wind erosion as something 'wrong' within the environment:

> We have learned very quickly what is wrong, you have got to be very conscious of
> wind erosion (L.530).

The use of 'right' and 'wrong' when describing interactions with the environment, imbues such interactions with a sense of responsibility. Steve clearly expressed his sense of responsibility within his own relationship to the environment, as he said 'I feel that I have a responsibility to repair the damage that my family has done to this land before I finish with it' (L.967). The comments of Brigitte and Willem also implied a sense of responsibility towards the environment, as they said 'this is how it should be done, we should be able to look after the beautiful wetlands and waterways' (L.617).

Relationships with the environment were often imbued with a sense of responsibility and acquired a moral dimension, as interactions with the land were judged 'right' or 'wrong'. Understanding perceptions of and interactions with nature involves understanding cultural and social environmental values (Henwood & Pidgeon, 2001). The comments of participants suggest a growing sense of responsibility towards the environment and awareness of the value of native vegetation.

3.1.4 Experiencing a Turning Point

Six of the participants described a 'turning point' or experience that altered the way in which they perceived their environment and the changes within it. This point represented the development of a greater understanding of the environment and often led participants to question the appropriateness of their own farming practices. This is clearly illustrated in Bob's comments about his realisation of the extent to which clearing of native vegetation had occurred within the agricultural landscape of the south coast of W.A.:

> Flying back in the early eighties from Perth, it suddenly struck me that what I had
> in my hands was the spoils and I was one of the spoilers that was making it look
> like that out of the window. It was just so graphic that it was mind boggling, but
> very, very challenging as to what are you going to do about it, is there anything you
> can do about it? (L.607)

Prior to this experience, Bob explained only 'seeing' the environment as a vehicle for agricultural production, not perceiving the clearing of land as environmental degradation. He said:

> When I thought about the farm, I didn't see the clearing really, because that was good, because we were producing something where before nothing was produced...and this is what farmers do, they clear the land. (L.619)

Brigitte and Willem graphically describe their exposure to wind erosion as 'one of the worst experiences we had' (L.525), but that 'that was one of the reasons we changed a few things on the farm (L.540). They explain their experience and the subsequent changes they made to the management of their farm, revegetating exposed sand hills and reducing stocking rates, as 'all part of the learning process' (L.543). This reference further supports the 'journey of understanding' as a developmental learning process.

Peter also spoke of a particular experience that led him to question the development of his farming property. Having helped local farmers light fires in order to clear native vegetation, he explained:

> Watching these beautiful coloured bright red flowers being singed in the fire, suddenly it struck me as not being quite right and it was a very graphic thing and at that point I really started to think about what was going on here and that really put an end I guess in a way, to the development of that piece of land that my father owned...and ventured into making a little bit of money out of the seed rather than obliterating the resource. (L.686)

Kaye shared a similar experience of realisation in which she 'saw' the clearing of land:

> The first time I really, really realised what we were doing to the land, it certainly hit me very quickly and made us look around and just see, it's time we stopped clearing the land. (L.418)

Nathan relayed his experiences clearing native vegetation and his own questioning of the very practice he was involved in:

> It was like cutting someone's hair I suppose, that's how I felt about it, but the smells...the smells were the overwhelming thing, the smells of the pines...the eucalyptus smells...and all the cockroaches and all the creatures running around. I think it was a bit, I didn't feel comfortable about it but I didn't really worry about it, but now, ooh different. (L.84)

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The importance of having an experience that leads to the questioning of one's own relationship with the environment, and subsequently a greater understanding of environmental processes and the impacts of agriculture, was explicitly referred to by two of the interviewees. Peter explains:

> I think people need to have an experience, an experience th: anges their
> direction...if you walk out in an exposed paddock on the same day that you walk in
> the bush, suddenly it's warm and you've got all this life around you...it's good for
> the soul. I think if more people had that experience, the better. (L.980)

Bob shared similar sentiments, reflecting on the ability to 'see' your relationship with the environment with greater clarity:

> If you get some reason to cause you to think more laterally or to examine what you
> are doing and how you are doing it, if you get some reason to make you look at that
> and you are prepared to look at it with untinted blinkers as much as possible, you
> see all sorts of things then. (L.636)

Steve also experienced a change of perspective with which he viewed the environment, leading to him reassessing his own land management. Steve explains:

> Whereas once upon a time I would have loved to have stuck drains in [swamps and
> lakes] and got rid of the water, now I would actually like to turn them into habitat.
> (L.422)

The above comments highlight the significance of certain experiences with regard to one's perception of the environment and of environmental changes and degradation. The importance of experiential relationships with the environment emerges strongly from the transcripts. Evidence within the literature also supports these findings. Oreszczyn and Lane (2000) assert the images people have of their environment are based on their experiences and relationship with it.

3.1.5 Altering Perspectives

The production of environmental meanings can inform the perspective with which an individual views their world, in part influencing how people interact with their environment (Henwood & Pidgeon, 2001). A similar relationship between environmental values, perspectives and individual actions emerged from analysis of the transcripts. The perspectives with which participants 'viewed' their environment, both conceptually and physically, shaped what they 'saw'. This issue was often related to the experience of a

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'turning point' coming to the fore when participants recognised their own perspectives had changed and they had come to perceive their environments differently. This recognition is illustrated by Brigitte and Willem's comments:

> Unless you get out of the car and walk into the scrub you will never see what is there. I was the same, I had no idea what was on the side of the road until I really stopped and had a look, and that made a difference, I mean you look at scrub from a different perspective then. (L.211)

Brigitte and Willem's comments clearly illustrate the connection between knowledge of environmental processes and the influence this has over one's perspective:

> As we learned to read the landscape better and then the impact that for instance salinity or wind erosion has on your farm…and learning more about the flora and fauna and how it works and how it fits together, and that makes you look at the bush with different eyes, with having the knowledge of how it depends on each other and how we depend on it too, it makes you see it with different eyes. (L.183)

Bob described valuing the bush from an agricultural perspective, where production potential is the only value:

> I was doing something that was fantastic, because I was producing something where previously nothing was being produced…it's all production orientated. That is the thinking, there is no production from the bush. (L.1003)

Steve also comments about environmental perceptions, making reference to some people's active decision not to 'see' certain aspects:

> I think people too, are a little bit in denial, they tend not to look at those areas that are badly degraded, because they really don't want to see how bad it is. (L.717)

Kaye referred to her husband's attitude towards the bush, so different from her own:

> I said do you want to go for a walk in the bush, 'what, walk in the bally mallee?' I thought good heavens, fancy saying that. It wasn't there, he wasn't interested in going for a walk in the bush, so whether the parents had never taken them in the bush…different attitude to the bush, obviously. I have always remembered those words, 'what walk in the bally mallee'. As if that was the lowest thing you could do. (L.499)

Her comments also indicate the emphasis she placed on family experiences within the environment, and their influence over the attitudes and values with which the bush is perceived.

Physically altering the perspective from which you viewed the environment could also lead to a change of perspective, as a number of participants described. Bob's reference to the graphic view of the impacts of land clearing as he flew over the landscape (see sub-section 3.1.4) reflect this point. In a similar experience, Veronica described seeing her own property in a very graphic way having viewed satellite photographs:

> It looked like the moon, it just looked like the surface of the moon...all the maps of this area, the satellite images taken, and that's when you could see just how ghastly it was, I picked it out straight away, oh there is my place there, this horrible little salt sump. (L.115)

The relationship between environmental experience, perceptions and values is clearly demonstrated by the participants' comments. Experiential relationships with the environment influence perceptions (Oreszczyn and Lane, 2000), while images and perceptions influence interactions with the environment (Henwood & Pidgeon, 2001). Although this relationship emerges strongly from this study, participants' comments add further complexity. The significance of 'knowledge' regarding environmental processes is highlighted by Brigitte and Willem (L.183) while Steve's (L.717) comments indicate environmental degradation may be recognised, but may not be 'seen' if one chooses 'not to look'.

3.1.6 Experiencing Emotional and Spiritual Connections

Korpela (1989) argued place identity consists of cognitions about physical settings in which an individual maintains their sense of self. At the core of this interpretation are emotional attachments to place, which may vary in intensity and produce pleasurable or unpleasurable feelings (Korpela, 1989). A deep sense of attachment to the biophysical environment was clearly felt by the majority of participants, describing their love, appreciation and sense of belonging to the land.

Emotional and spiritual connections to the bush were reflected on by participants, who also discussed 'living with' and 'becoming a part' of the environment. Veronica described a particular remnant of native vegetation on her property, which provided her with a place to go to feel a sense of renewal, explaining 'it's a sanctuary for me. I come here to recharge

my batteries' (L.577). The spirituality of 'the bush', in a more general sense, is also evident in Veronica's comments. She said:

> If I'm stressed out really bad, it's like going to a cathedral, going in the bush, I go in
> there to get my batteries recharged and look and find things and observe what's
> going on. I love the bush, I just love it. I don't take it for granted and I have a bond
> with it, no matter where I go I appreciate it. (L.434)

Veronica's comments portray a sense of immersion into the environment: looking, finding and observing. Her description suggests a fascination with the bush, an important factor contributing to the development of restorative environments, places that foster pleasurable emotions (Korpela, 1992). Experiencing a sense of 'being away' from day to day life also promotes the restorative capacity of environments (Korpela & Hartig, 1996). This sense emerges from Veronica's comments about the bush as a sanctuary and place to recharge her energy.

Peter expressed a strong spiritual connection to a particular ridge on his property, where a lone tree had survived surrounding land clearing. He explained the sense of clarity he feels having spent time there:

> I used to come up here on moonlight nights when after working really late,
> processing seed or whatever, and just get the dust out of my eyes and out of my
> brain, come up on the ridge, walk up on the ridge in the moonlight and look at
> the trees silhouetted against the moon and try to imagine what it would be like all
> planted back. It was quite a spiritual time, really. (L442)

The restorative nature of this environment emerges from Peter's description, as it provides him with a place to get away from work and to clear his thoughts (Korpela & Hartig, 1996). Another important aspect of restorative environments is that they provide a place in which personal goals can be realised (Korpela & Hartig, 1996). Peter's goals are not only compatible with this environment, but it provides the very place in which they can be realised. He planned to 'replant the whole ridge with the same species and all the other understory so it creates a nice atmosphere for that [lone tree] again' (L.441), an important personal 'long term aim' (L.558).

Places which encourage a person to contemplate the meaning of their life, their personal goals and their connection to nature, often become places of spiritual importance

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(Mazumdar & Mazumdar, 1993). Peter describes a spiritual bond to his property and reveals similar connections to other places within Australia:

> This would be one of the places that I would have a special spiritual bond with,
> but there are other places around Australia which I have a similar bonding with.
> There are special places, when you arrive there you know it's a special place.
> (L1260)

Feelings of closeness and affinity with the land, or a connection to nature, shaped Peter's spiritual bond:

> Someone who has got...a closer affinity with the land just knows that it is a
> special place, whether it be the soil, the vegetation aspect or whatever...it's just
> being close to the land and close to nature I guess. (L.1266)

Love of the bush was a common sentiment expressed by participants. Peter says 'I've always loved working in the bush and it's always a bit of an adventure' (L.1170). Kaye explains her emotional attachment to the land, through which her experiences have become part of her identity:

> I still love the bush, I still go out to the deserts and sleep under the stars, and I
> don't think I would probably do that if I hadn't probably been out in the bush so
> much as a child, and with the cubs and with the children, I mean it is all just part
> of my identity now. (L94)

Kaye's comments offer strong support for Korpela's (1989) argument that emotional attachments to the physical environment are at the core of place identity. Her childhood experiences and profound attachment to the 'bush' have become part of her identity. The depth of the environmental connection felt by a number of participants, was illustrated by comments of being part of the land and living in and with the environment. Nathan states 'I was always interested in the bush, I always wanted to live in amongst it' (L.167), a sentiment shared by Peter:

> When people say they live in the bush I don't believe that very many people do
> actually live in the bush. They might live on a farm but most of the time those
> farm houses are set out in a cleared paddock. But I have been living in the bush
> for the last 17 years and the re-growth has come back up around us and we have
> grown to really appreciate what's here." (L.382)

Peter emphasised the closeness he felt to the bush, describing the extent to which a severance of his relationship with the environment would affect him:

> Being part of the earth and close to the earth, and the bush and nature, really attracts me, and I can feel that spirit within the landscape, and if I had to be taken away from the bush and forced to live in the city, I would feel like I was at some great loss and it would affect me, affect my health, physically and mentally it would affect me. (L.1252)

Similar expressions of loss and grief were found to accompany the dismantling of sacred spaces and places of emotional connectedness (Mazumdar & Mazumdar, 1993). A closeness and connection to the physical environment emerged as a significant aspect of many participants' relationship with their environment. Brigitte and Willem felt a closeness to the environment in which they lived, expressing the interdependent nature of their relationship:

> I have that feeling very much of being part of the area where I live and I feel I need to look after this environment as much as it at times looks after us. (L.923)

Veronica described a very tangible closeness to her environment, part of herself becoming part of the environment through the energy she invested developing her farm:

> Every time I go out in the paddock I just think about how special it is, even now, and that is why it is hard for me to leave. There is like a spirit there, if you know what I mean, part of you, the energy and work that you have put into it, it's now, it's all part of you. (L.199)

A sense of place belongingness has been proposed as a necessary basis for place identity (Korpela, 1989). The above comments support the notion of emotional attachment and a sense of belonging to place as an important foundation to develop identity related place cognitions. Attachments to the land, fostered over time and through personal investment, had developed to become an essential aspect of the identity of a number of participants. Korpela (1989) argued place identity consists of cognitions about physical settings in which an individual maintains their sense of self. At the core of this interpretation are emotional attachments to place, which may vary in intensity and produce pleasurable or unpleasurable feelings (Korpela, 1989).

CHAPTER 4

ENVIRONMENTAL MEANINGS IN A COMMUNITY CONTEXT

The development of environmental values within the local community was an important issue for the majority of participants. Participants reflected on the complexity and breadth of community opinion regarding the value of environmental conservation throughout the interviews and the influence of environmental values on social relationships. Participants also expressed a strong sense of belonging to their community, supporting the assertion that social relationships form an important basis for the development of a sense of place (Lalli, 1992).

4.1 Environmental Values within the Community

4.1.1 Developing Environmental Values

Participants had observed changes in the community's attitudes and values regarding the environment. They described growing support for the conservation of native vegetation and for management practices that redress environmental degradation. However, interviewees also recognised these attitudinal changes were still at an early stage of development within their community. For example, Steve felt the community had begun to recognise the value of land beyond its production potential, although he did acknowledge this attitude was still developing. He explained the 'bush is starting to get acceptance as valuable land that doesn't need developing to be valuable' (L.39). A similar attitude was expressed by Brigitte and Willem who felt sure the community would get to the stage 'where land is [valued] not only for farming' (L.231), but for its benefits to the community at large, saying 'it has got value for the whole population, not only for farmers' (L.232).

A number of participants felt community awareness and understanding of the environment was indeed increasing. Bob described a growing awareness of salinity within the landscape:

> Salinity has only really begun to be really noticed I would imagine in the last ten years…people should be starting to become much more aware of it than what they have been previously. (L.1150)

Peter was even more positive, saying 'I think people have woken up to the fact that the country is suffering and something has to be done' (L.934). He felt encouraged as more and more people recognised the value of native vegetation, 'it's quite encouraging, people are starting to see the importance now of connecting all these remnant bush areas' (L.566).

Henwood and Pidgeon (2001) suggest that views about environmental, community, lifestyle and other such changes, represent the impacts of social and economic transformations on the lives of community members. Given this, the above comments indicate participants recognised the development of environmental values, other than those based on agricultural production and economic return, as a positive social change.

4.1.2 The Changing Direction of Farming

As environmental conservation became increasingly valued throughout the community, participants noticed modifications within farm management, reflective of changing values. Ann and Rob discussed such changes, in light of growing recognition for the importance of maintaining biodiversity. They said they were no longer 'sure that traditional farming is as traditional any more and biodiversity is creeping [in]' (L.1150). Brigitte and Willem also noticed changes with regard to the increasing trend to fence paddocks according to soil type, rather than traditional fencing methods that largely ignored important environment features:

> It is changing with the trend to fence to soil type and I think that is an accepted
> method now...which in the past was not accepted. (L.668)

Brigitte and Willem were also glad to have contributed to the development and acceptance of new farming practices. They felt as though they were 'part of a development that put things into place that weren't accepted at the time when we did it' (L.768) and that 'it was good to be a part of that' (L.767).

Steve also felt farming had changed direction in recent years, as techniques reducing the environmental impacts of agriculture were adopted. He explained 'there has been a push towards minimum or no till, which has probably reduced the amount of wind erosion' (L.28), although these efforts had not gone far enough. He continued, 'farmers have had to use more chemicals to control the weeds, and the use of chemicals can leave the soil open to wind erosion too' (L.30). Steve thought farming had 'got to go further than that, we have

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got to start to farm smarter and utilise the resources that we have' (L.1027), suggesting farmers harvest native seed from their properties for revegetation programs.

These comments indicate a strong sense of responsibility towards farm management and the maintenance of biodiversity, while still taking into consideration economic concerns. In a study of the cultural significance of hedgerows within the English landscape, Oreszczyn and Lane (2000) described similar attitudes in that landowners exhibited a sense of responsibility towards land management, balancing emotional relationships to the land with economic and 'rational' concerns. The participants in this study clearly share the same concerns, balancing financial needs and the desire to maintain biodiversity.

4.1.3 Environmental Degradation Unrecognised

Although interviewees acknowledged the development of community support for conservation programs, many still felt environmental degradation was not recognised as an important issue. Peter explained the community had reached a turning point and although it was not heading in the right direction as yet, the potential still existed:

> Years ago I would have said we were going down the gurgler, and pretty fast, but I
> think at the moment we are still at a turning point, I don't think we've turned yet, I
> think things are still going downhill, just slowly...I think things will turn around but
> the longer we leave it...the harder it's going to be. (L.943)

Although Nathan was encouraged by the active involvement in land management by some sections of the community, he also described a general lack of support for conservation initiatives, and felt the community did not accommodate new ideas regarding interaction with the environment:

> I don't think we have embraced, as a community, the need to do things like...a
> National Park system...I think as a community we could do something like have a
> landscape park there that had interpretive centres and staff and all that stuff, all that
> sort of new thinking (L.518)

As Nathan explained, people in general had not yet developed an understanding of the environments in which they lived, saying 'a continuing frustration for me is that as a group of humans we don't understand or appreciate or like the landscape we live in' (L.322). He felt 'we don't get the great complexities in this landscape, the humans who live here don't respect that or understand that it's even important' (L.422).

The link between agricultural practices and environmental change and degradation was not even recognised by some members of the community, as Steve explained:

> I think a lot of people are still not accepting the fact that they are causing serious degradation to the land. All the signs are here that we are turning this country into a desert...people just aren't accepting that. (L.679)

Brigitte and Willem commented on the difficulty for city people to conceptualise environmental degradation, particularly when no tangible consequences could be seen:

> People just don't know what is happening, they see a bit but the effect, I don't think they know, they can't fathom... it is just somewhere in the country, and there is so much country here, people wouldn't even know. (L.382)

Kaye also felt it was difficult for city communities to understand the environmental issues challenging country communities, unless they had first hand experience. She said 'it is all very well to say you can do these things from the city but unless you have been here and lived through these things, they don't know, they just don't know.' (L.438).

The significance of experiencing environmental degradation first hand emerges from these comments. To 'live through' environmental degradation was to understand the environment and recognise degradation, an issue which also came to the fore in the previous chapter (see sub-section 3.1.4). Evidence within the literature also supports the importance of experiential relationships with the environment in shaping perceptions, as images people have of the environment are based on their experience and relationship with it (Oreszczyn and Lane, 2000). The relationship between environmental experience, knowledge and value is also evident within the above comments. The development of meaning or value of a place is often based on the individual's knowledge of that place (Gustafson, 2001). The experiences of environmental degradation become part of an individual's relationship with their environment and will influence the way in which meanings and values are attributed. However, comments that 'we don't get the landscape we live in' and that people aren't 'accepting' degradation suggest people draw from the same environmental experiences differently.

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4.1.4 Lack of Environmental Responsibility

The comments of a number of participants implied that a sense of attachment to the land was lacking within the community and people found it easier to walk away when environmental degradation became an issue. Veronica saw the neglect of sections of land viewed as being too difficult to work as 'desecration':

> I see a lot more people leaving...and I see the land being more desecrated, not being cared for. They'll only pick out the land that doesn't give them too much trouble. Anything that's a bit troublesome, a bit fragile, that needs special care, that'll be put that aside, just go in where they can make the big dollars without having to worry about the consequences of the land itself. (L.470)

Veronica's comments imply the absence of a sense of responsibility towards the land and the dominance of economic concerns. Kaye similarly recognised the influence of monetary concerns, with the cost of fencing remnant vegetation acting as a disincentive for many to protect susceptible areas. She said:

> Nobody liked losing a bit of land, and the other thing was that not many of them wanted to fence these places off, it all cost money to do the fencing. (L.410)

Brigitte and Willem expressed their own connection and responsibility to the land, particularly as it represented family continuity, explaining 'the responsibility probably came with us from Europe where...there is more to land than farming, and that is probably while land is passed on in the family' (L.352). They found this sense of responsibility lacking within members of their community, commenting 'I think that is missing here...there is still this notion where, if it is stuffed then we sell it and buy somewhere else' (L.357). Brigitte and Willem also felt community members had little appreciation for the native flora, relaying comments about 'the useless bush and the useless scrub' (L.203). They said:

> 'I find that is interesting for people that grew up here and lived here...also [have a] lack of knowledge of their local flora and fauna and their importance.' (L.205)

Once again, the relationship between knowledge of the environment and the values embedded within it come to the fore in the previous comments. However, the experiential basis for this relationship (Gustafson, 2001) is somewhat challenged by the comments that

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people who grew up and lived in an area lacked knowledge about their local plants and wildlife.

4.1.5 Reluctance to Change

Understanding the relationship between farmers and their land emerged as an important theme throughout a number of interviews. The significance of this relationship and its implications for conservation were revealed in comments made by Steve. He describes the concept of 'developing' a farm and the personal efforts and sacrifices involved in recreating the landscape:

> Those people have, to them, they have developed their farm. They have cleared the land, they have fenced the place, they have put in dams, they have built houses and sheds, they have bought machinery and they have paid off debts, and that is developing a farm. (L.688)

The agricultural landscape comes to symbolise the personal investment within farm development, a symbol which would be lost with revegetation, as Steve's comments imply:

> I find quite often the farmers who have cleared the bush haven't got the heart to want to replant it. They realise they over cleared it, but the effort of clearing it has put them off wanting to replant it. (L.34)

Steve also notes the same sense of symbolic attachment to the farm is not experienced by the next generation who are 'quite often willing to take up the challenge to repair the damage' (L.36). Gustafson (2001) similarly found places became meaningful and the relationship between environment and self strengthened when people had shaped their physical environment, building houses or cultivating their land. Steve's comments suggest feelings of attachment to the cultivated landscape are not as influential in generations which were not responsible for the initial agricultural development. The literature strongly supports this finding and writers such as Proshansky et al. (1983) and Korpela (1989) and Twigger-Ross and Uzzell (1996) assert place attachments are strongest and most salient for individuals who have lived in and personally invested in the one place all their lives. The strong place attachments which are forged contribute to the maintenance and continuity of the self (Twigger-Ross and Uzzell, 1996). The comments of participants suggest the revegetation of the cleared landscape may symbolise the destruction of this continuity, in turn threatening self-identity.

4.2 Community Attitudes

4.2.1 Community Acceptance

Participants keenly discussed prevalent attitudes within the community towards the environment, conservation, farm management and towards themselves. Analysis revealed a sense of community and community involvement was important for a number of interviewees. Community acceptance of participants themselves was also highlighted and while the community was found open and welcoming in some respects, suggestions which incorporated a different approach to farm management were often met with resistance.

Brigitte and Willem were very conscious of 'fitting in' and complying with social norms in a community that encouraged a high level of personal involvement. They explained '[we] would sit back and see how it is done and then you might make a comment if you think it would fit in...you don't want to blaze in and say things' (L.288). Despite being perceived as newcomers, Brigitte and Willem found the community welcoming and supportive, a characteristic they attributed to country people in general:

> The people living here in Australia in the remote areas, I think they have the
> wonderful qualities of...accepting people that come into their life...they are a lot
> more friendly, and that is a wonderful quality to have. (L.395)

The association of characteristics with people from a specific place supports work by Gustafson (2001), who found places may be associated with a certain type of community. However, these were not the only characteristics associated with rural Australia. Brigitte and Willem also described country communities as closed and insular. Their comments clearly illustrate the complex and often contradictory attitudes expressed within the community:

> Something that struck us when we both came here, sort of the openness and the
> friendliness of the people in the country, but then to a certain degree there is also the
> insular thinking and not wanting to look at other ways of doing things...that is part
> of the country life too, being very conservative. (L.412)

Nathan also experienced resistance to explore new ideas, as he described farmers' responses to his suggestion that farm dams could be landscaped as if they were natural waterholes:

> People would go quiet when you started to talk about [that] stuff...I think people would switch off because it was too weird, 'you can't think like that, we are here to farm wheat, this is an agricultural area'. (L.138)

The above comments suggest community members exhibit a reluctance to change their attitudes and actions with regard to their environment. Gustafson (2001) identified 'change' as an important theme encapsulating the temporal dimension of meanings of place. The meaningfulness of places may change over time, which also has implications for continuity, the maintenance of self concepts through the continuity of the self-environment relationship (Twigger-Ross & Uzzell, 1996). Strong evidence emerges from the literature in support of the importance of maintaining the continuity of this relationship, and in turn the place attachments and identities which develop from it (Fried, 2000). The reactions of community members to suggestions of change within their interaction with the environment, as described by participants, suggests change may be perceived as a threat, a theme developed further in the following section.

4.2.2 The Threat of Conservation

Many participants associated with conservation initiatives felt they were perceived by the community as a 'threat' or as 'eccentric'. Kaye explained 'people were scared to chop a tree down in Ongerup...if I was [there], they would wait until I went away' (L.505). Kaye also described the fervor with which pro-development attitudes were defended and the antagonism directed towards those in opposition to a mining development within the Fitzgerald National Park. She explained 'we weren't popular...they were really very much against the fact that we wanted to save that park. It was just about a stand up fight' (L.124).

Bob explained his views about land clearing were not considered to be the views of a 'real farmer', as they did not comply with those of the mainstream farming community. Speaking to a farming audience at an agricultural conference, he described the reaction to his comment 'there should be no more broadscale land release for agriculture' (L.675):

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> That was not well received in a farming community and they actually got another
> guy to speak after me at the end of the proceedings to give the real farmer's view
> point, because I was so much off because I said there should be no clearing. (L.676)

Steve explained because his father had 'done all the right things when he was younger, like playing football and that sort of thing' (L.928), he was 'accepted in the local community' (L.929). Steve further explained 'I think [what] helped him a lot [was] the fact he had actually been a practical farmer, that he had actually bowled over bush himself' (L.941). Because of this acceptance, the local community did not perceive his pro-active views about conservation as a threat, but rather as the comments of a 'likeable eccentric' (L.935). Nathan similarly reflected on the importance of being accepted as a part of the community, if your opinions were to be received. In a lighthearted remark, Nathan's comments reveal the nuances of social relationships:

> Playing cricket helped a great deal. If I'd been any good at it, it would have helped.
> Maybe if I was any good at cricket people would have listened more. (L.150)

The experiences relayed by Kaye and Bob illustrate a lack of community acceptance of value systems which treasured the natural environment over and above the value of 'developing' land in an agricultural sense. The perception of different value systems as 'threatening', was also illustrated by Henwood and Pidgeon (2001). These researchers found rural communities were unwelcoming of land use development perceived as a threat to their 'rural character' (Henwood & Pidgeon, 2001). Given these findings, the above comments suggest community members may have felt that increasing the conservation of native vegetation threatened the 'rural character' of an agricultural area, in which the community was '[there] to farm wheat' (Nathan, L.139). However, Steve and Nathan's comments imply these views were considered less threatening if they were seen to be from an 'insider'. There is strong evidence within the literature that people distinguish themselves from others by reference to place (Twigger-Ross & Uzzell, 1996). 'Outsiders' are differentiated from 'insiders' (Twigger-Ross & Uzzell, 1996) and the position from which one speaks can represent different perceptions of the relationship between the environment and the community (Henwood & Pidgeon, 2001). As such, the comments of participants indicate the 'position' from which one speaks is an important consideration if viewpoints are to be respected.

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4.2.3 A Developing Acceptance

Despite the above experiences, many participants felt community acceptance of 'greenies' and nature conservation was in fact growing. People could openly discuss conservation projects without being 'ridiculed', as Peter explained:

> Fifteen years ago you wouldn't have felt that, no way, even if somebody had a
> leaning towards [conservation] they wouldn't be game to make it public in the
> district that they did think that way because they felt that they would be ridiculed or
> called a greenie or a weirdo or something. (L.968)

Peter himself felt 'greenie' was an inappropriate label, saying 'it's got nothing to do with being green, its just understanding the environment you live in' (L.972).

Ann and Rob also described the change within community attitudes, to the point where conservation was considered 'normal':

> There's no doubt that attitudes have changed a lot in the...last twenty years time
> we've been here, they've changed so much that I'm just normal now, where I wasn't
> looked upon as being normal at one stage. (L.173)

They attributed this change in attitude to the fact that farmers who moved into the area came 'from a background that wasn't the type of farming they would be going into' (L.289) and as such 'they were very open-minded to different ideas and that's probably why there's been a big attitude change so widespread in the area in the last twenty years' (L.295).

Along with growing acceptance of conservation projects, Peter commented 'there are a lot of people who look up to me...because of what I'm doing' (L.592), suggesting a sense of admiration within the community for those who undertook conservation works. Similar comments were made by Steve, who felt 'people admire the people who put money back into their land and look after their land' (L.1015). Although 'admiration' for landholders was not highlighted within the literature, Oreszczyn and Lane (2000) report similar findings with regard to 'trust'. Farmers interviewed felt strongly that as custodians of the land, the community trusted them to care for the land.

Although participants described the reluctance of community members to change attitudes with regard to the environment, the above comments indicate there were attitudinal changes

and a growing acceptance of conservation values. The continual emergence of seemingly contradictory and changing community values and attitudes towards the environment is highlighted in the literature by a number of researchers including Gustafson (2001), Henwood and Pidgeon (2001), Oreszczyn and Lane (2000) and Proshansky et al. (1983). 'Places' are an ongoing process and where individual interpretations of place meet, contradictory, converging and evolving values emerge (Gustafson, 2001). Participants' comments reflect the concept of 'place' as a convergence of attitudes, values and experiences.

4.2.4 The Image of Farming

A number of participants felt farming had developed a negative image throughout the larger community. Ann and Rob observed:

> You don't hear as many people from the cities and town wishing they were on the
> land these days as you used to hear. So obviously the message has gotten through
> that it's not quite as rosy as it used to be. (L.937)

They also felt there was a general lack of respect for farmers and their relationship with the land, explaining they didn't think 'that farmers in Australia are accorded the respect that farmers in many other countries are' (L.928).

Steve felt farming had become a much 'more stressful occupation' than 'it used to be' (L.535). He thought 'you had to be an idiot to loose money, or lazy, one or the other' (L.536), whereas now 'you have to be a good business man and you have to hedge your bets and make sure that you are making a dollar because it is very easy to actually lose money' (L.539). Kaye similarly felt the financial burdens faced by farmers today were previously unprecedented:

> Money, money, money, everyone is pushed to the limit these days, that is what my
> feeling is...money speaks, you can't fight money now. We didn't have to fight
> money before. (L.659)

Peter also recognised the financial burdens faced by farmers today, but was critical of the fact that 'the government has always been there to step in to prop [farming] up' (L.827). Nathan acknowledged the conundrum faced by the farming community, who lack the financial support needed to address the environmental impacts of traditional agriculture. He questioned:

> How do you do it differently? And the people who need to do it differently, the
> farmers, are in financial loops who have got to sustain themselves financially and
> therefore can't be too adventurous like that because they will get their resources cut
> off. It's a Catch 22, I suppose. (L.264)

The importance of considering financial positions when making decisions regarding farm management, emerged as a significant issue for participants. Economic concerns, which feature strongly in participants' relationships with their environment, are not often addressed in the literature. In one case, Oreszczyn and Lane (2000) report farmers balanced 'subjective' environmental values with 'objective', economic values and the need to remain profitable. However, in Oreszczyn and Lane's (2000) study financial concerns were not considered a stumbling block for conservation initiatives as they were in the above comments.

4.2.5 Community Devolution

The financial and social impacts of unsustainable agricultural systems was felt strongly by each participant. Veronica graphically described the impacts of financial stress, which she witnessed in a number of families:

> [I] saw a lot of families move. Saw the neighbors...leave, eight children there. They
> left and the mother just wept the afternoon I went up there...she was taking all the
> children up to the school bus run to meet the bus and that was the little bit of money
> she was bringing in to feed the family. I saw a lot of heartache, a lot of heartache, a
> lot of emotional sickness with people not able to cope. (L.386)

The greatest impact was the declining population of their community, as people could no longer afford to continue farming. Ann and Rob explained their town was 'almost a ghost town now' (L.68). They felt that fewer land owners with larger properties were 'very detrimental...to the community situation because you get less and less people needing to manage them' (L.709).

This opinion was echoed by Steve, who thought his community would benefit from smaller, family land holdings, saying 'I think the farms have to go back to being smaller farms, small family farms rather than big corporate farms' (L.573). He explained:

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> When you get corporate farms you have a much smaller number of people in the
> community running those farms and those people tend to be very transient and so
> they don't always get involved in community activity...whereas family farms you
> tend to get one generation after the other being involved in community activities.
> (L.587)

The impact of a decreasing population on community sporting activities was an important issue raised by a number of interviewees. Bob explained:

> There [are] less people to pick from when you pick the cricket team and the football
> team, so it has a huge impact on sport and sport, by and large, sort of holds the
> community together. (L.454)

Ann and Rob also noticed the effect on community sporting activities:

> One of the local football teams... have lost nine of their key players in their A-grade
> team... if the young people move out and they find themselves settled into a
> job...you very rarely see them come back, and there's your future gone. (L.731)

Their comments reflect the importance of the younger community to sustain rural populations. Brigitte and Willem also recognised the importance of young people within their community, but felt the community had nothing to offer younger generations, explaining:

> Unless there are jobs available for young people there is really nothing to hold them
> here. We haven't even got a pub here, which if you are young this is a big minus. We
> have to provide jobs for young people and opportunities for them to be able to live
> here and work here. (L.861)

The current trend towards larger farming properties with fewer people on the land significantly impacted on a number of participants' sense of community. Smaller, transient communities meant the loss of important social activities such as sporting events, while the migration of the younger population to larger centres meant the loss of 'your future'. The above comments also indicate that without social and employment opportunities, place attachments are not strong enough to 'hold' younger generations to the community.

These findings support the wealth of literature which highlights the significance of social relationships as an important basis for a sense of belonging to place (Gustafson, 2001; Lalli, 1992; Twigger-Ross & Uzzell, 1996). As these relationships break down, in this case through the decreasing number of community members, attachments and identifications

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with a setting may dissolve (Lalli, 1992). Gustafson (2001) similarly found places became increasingly meaningful when they offered residents opportunities for personal development, a finding also reflected in participants' comments. Twigger-Ross and Uzzell (1996) reported that living in a social environment which did not offer individuals the opportunity to carry out daily activities, threatened self-efficacy, the feeling of being effective and productive in daily life. When self-efficacy was threatened, individuals were more inclined to leave their community, however, people strongly attached to their environment found the decision to leave harder to make (Twigger-Ross & Uzzell, 1996). The 'emotional sickness' witnessed by Veronica, as people were forced to leave their community, indicates the strength of place attachments within the community and supports the importance of self-efficacy to place attachment.

4.2.6 Sense of Belonging

A strong sense of belonging and attachment to their communities, was expressed by all participants. Ann and Rob believed this attachment was felt strongest by the people who were part of the initial agricultural development. They thought following generations did not share the same intense attachment to the land, explaining 'I think the people that developed the land here felt a sense of belonging…but…the next generation of farmer within the community didn't have that same bond' (L.109). (Section 4.1.5 also addresses these bonds and their implications for conservation). They further explained:

> Those that developed the land here were very fiercely proud of their community and
> what they put into the school and the hall and so on and unless you helped build
> something like that up you probably wouldn't have the same sense of ownership,
> bond or whatever towards it, I don't think. (L.115)

Steve explained the familiarity with which he knew the community and the environment where he spent so much of his lifetime and the sense of belonging which had grown from that:

> I suppose it's a sense of belonging, a sense of community. Apart from 6 years away
> at school I have lived here all my life and you are part of the community…you know
> the district so well, you know the people, you know their parents, you know their
> grandparents, you know their children and I suppose you know the land and the

climate and...all the interesting places to visit and see, where to go and look for
various things. (L.610)

The sense of belonging also brought with it a sense of responsibility towards the
community and the environment, as Steve further described:

Part of being...a member of a small community, is that you are brought up to be
responsible for that community...it includes the animals, the birds, the people, you
know we take responsibility for the people who live in this town too. (L.770)

Bob spoke of the importance of having pride within your community, although he felt this
was lacking in his district:

I think from a people point of view it is very good to have...a sense of place...to be
proud of the place you live and have a real affinity with that place, and I think that is
something that is pretty much lacking in this sort of district because a lot of people
tend to run it down all the time, which is not a good thing for them and it is not a
good thing for anybody thinking of coming into the area. (L.685)

Bob saw the importance of promoting a positive community image. He explained the
community's image 'got so bad at one stage that if an aircraft landed at the strip nobody
would go out and pick them up...because the place had such a bad image' (L.847). Bob felt
'the only way the image can be changed is to try and give some good pictures' (L.851).
Nathan described feeling 'very at ease and at home' (L.234) within his community because
he 'had a group of people who shared a common interest' (L.235). He also thought 'people
feel great attachments to this area but if you can't make a quid here through what you have
already done, then you don't enjoy it' (L.304).

A strong sense of community belonging was important for the majority of participants.
Feelings of pride, ownership, responsibility and comfort were associated with a sense of
belonging. Participant comments also implied that a negative place image adversely affects
feelings of attachment. Similarly, Twigger-Ross and Uzzell (1996) described the
importance of place image to place attachments and self esteem. These researchers
presented evidence for the physical qualities of a place providing positive self esteem
(Twigger-Ross & Uzzell, 1996). In addition, people who were more strongly attached to
their environment expressed stronger feelings of pride and ownership (Twigger-Ross &
Uzzell, 1996). The relationship between place image and positive place attachments was

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also discussed by Lalli (1992), who reported the social constructions of a town, as affluent or poor, clean or dilapidated, 'rubbed off' onto its residents. Participant comments support this finding as negative place images 'wore off' onto residents, who exhibited a lack of enthusiasm about their town.

CHAPTER 5

ENVIRONMENTAL CONDITION AND INTERACTIONS WITH PLACE

5.1 The Influence of Environmental Condition on Relationships with the Environment

An array of complex, interconnected themes encompassing the issue of environmental condition, emerged from analysis of the transcripts. The importance of environmental condition was evident as participants emotively described their reactions to environmental change, specifically the clearing of native vegetation. Wind and wind erosion were portrayed as a pervading features of the environment, while first hand experiences of degradation were significant events in people's lives. Conserving the environment fostered feelings of achievement and satisfaction. Environmental condition also became salient as participants described the magnificence and beauty of the natural environment.

5.1.1 Emotive Responses to Environmental Change

Environmental change, more specifically the clearing of native vegetation, emerged as an important issue for all participants. Environmental changes were graphically described, interviewees relaying feelings of devastation, depression, shame and loss upon witnessing the destruction of native vegetation. Kaye described her emotional reaction to the large-scale environmental clearing she witnessed, although her comments are tempered with a sense of inevitability about the extent of degradation within an agricultural landscape:

> It was pretty devastating really, watching all that bush being flattened, but everyone
> had to, it was sort of get big or get out...you thought you were doing the right thing,
> but I think a lot of us realised afterwards that we didn't do the right thing, that we
> should have saved more bush. (L114)

Peter felt depressed and upset about the extent to which farming had altered the landscape:

> It's been actually quite depressing because you have seen the transition from
> extremely healthy ancient vegetation...everything's changing, the hydrology has
> changed, the weeds have come in and blown into the remaining vegetation and you
> can see the bush is sad, it's dying...and when you know what it was like originally,
> that is pretty upsetting. (L.772)

Peter thought the rate at which the native vegetation was cleared, 'about a million acres a year' (L.780) was 'shameful' (L.783). A solitary tree surviving on a bare ridge, surrounded by cleared land, took on a special significance for Peter. Its survival in a drastically altered landscape represented the endurance of the environment:

> What we have got here is what could be a tree up to 500 years old...it's obviously a
> survivor...[it] has probably seen quite a lot happen on this property over the hundred
> years or so, going from a wilderness to completely cleared farmland...but there it is,
> standing guard really, and quite an impressive survivor. (L:1494)

Bob graphically described the fires which swept through the landscape, clearing native vegetation, 'a bit like an atomic bomb' (L.198). Nathan used similarly emotive descriptions of the agricultural landscape as an 'ugly, skinless land' (L.455). He felt the community were 'dumbing the landscape down' and were 'happy to have it ugly' (L.136), rather than designing features such as farms dams, as 'if they were a natural waterhole' (L.133). Nathan felt a sense of loss with regard to land clearing. He explained 'a lot of things disappeared...we never knew about...which I think is most unfortunate' (L.386). He also described a sadness associated with the decline of the black cockatoo, saying 'black cockatoos are diminishing, that's a sad story...and that's an indication of a great shame...of what has gone' (L.412). Ann and Rob said they felt 'perturbed about areas that were overcleared' (L.166). Rob explained:

> I was a bit annoyed if I could see from one boundary to another without some bush
> or trees sort of interrupting the wind flow across the landscape and we came over
> here we find there's some properties of 1500 hectares where you can still see from
> one boundary to the other without any interruption. (L168)

The clearing of native vegetation was a significant issue for participants. The drastic alteration to the landscape was emotively described as devastating, depressing, upsetting, ugly and sad. Although clearing was acknowledged by some as an unavoidable aspect of agriculture, the extent of clearing was considered 'shameful', while Kaye's comments 'we should have saved more bush' (L.116) suggest a sense of regret. In Henwood and Pidgeon's (2001) study, participants had expressed a desire to protect the natural environment, a valued habitat for wildlife. These researchers suggest people objected to the destruction of 'nature' because it had come to symbolise one's place and community identity (Henwood

& Pidgeon, 2001). In this study, participants' 'desire to protect the natural environment' was expressed as a more complex and multi-layered response to environmental change. Some participants had themselves contributed to the clearing and expressed feelings of regret and shame. The destruction of the natural environment was not only considered as the loss of wildlife habitat, but also represented the loss of knowledge and complexity as the landscape was 'dumbed down'.

While there is ample discussion in the literature regarding the impacts of change within the built environment on place identity and attachment (E.g. Brown & Perkins, 1992; Proshansky et al., 1983; Twigger-Ross & Uzzell, 1996), the psychological impacts of clearing native vegetation and of environmental degradation are not addressed. The findings of this study support Horwitz et al.s' (2002) assertion that environmental degradation in regional Australia can result in multiple losses for rural communities. Similarly, the emotive responses to clearing suggest that negative psychological impacts on communities and individuals may indeed result from environmental degradation, a claim posited by Horwitz et al. (2002).

5.1.2 Experiencing Degradation

Participants were keen to share personal experiences of environmental change and degradation, most commonly in reference to wind erosion. The changes witnessed were consistently attributed to the clearing of native vegetation. Wind emerged from the interviews as a pervading feature of the biophysical environment, particularly in the context of wind erosion. Veronica explained 'the high wind erosion, that was something that hit us...the continual wind' (L.61). The 'continual wind' was also an issue for Bob, who described wind erosion as a depressing feature within the landscape, particularly when combined with drought:

> Some get pretty depressed when it is dry and hoping for rain, especially if there
> is a bit of dust blowing around as well and there is continual wind blowing all the
> time...apart from being uncomfortable, it does have a depressing effect if it is
> dusty as well (L.1169).

Peter was also exposed to the impacts of wind erosion and dry conditions:

> When we've had a long dry spell...you get those strong, norwest, pre-frontal winds
> that come in the autumn and some days we've had visibility down to about 100
> metres...and that's just topsoil coming off all the surrounding farmland. (L.905)

In a graphic and telling excerpt, Brigitte and Willem described their own experience of wind erosion as 'one of the worst experiences we had' (L.524). They explained:

> You want to shut your windows and pull the blinds and just forget about everything
> outside. It's a disaster, it's a disaster and it is depressing. Wind itself is depressing,
> but the combination of drifting sand and wind...it is terrible. I don't want to
> experience that...we have had the kitchen table covered in sand here and there is just
> no way that you can hide from it. It...creeps into everything. (L.524)

However, such comments were again tempered with a sense of inevitability, as Brigitte and Willem went on to say 'in a way it is a price society pays for farming, for civilisation' (L.937). However, they did not believe the 'price' of agricultural development was unavoidable, but that 'people still have the opportunity to...make up for past mistakes' (L.939).

A couple of interviewees recalled particularly devastating periods of drought and wind erosion. Steve remembered 'in sixty-nine, seventy there was a lot of wind erosion' (L.19) following the clearing of land that was considered 'unsuitable for agriculture' (L.20). Kaye also remembered 'in sixty-nine we had a drought' (L.354). She went on to describe the impacts:

> So many sheep were dying and fences were being buried, roads were being buried,
> dams were being filled, the land was just blowing away...it was very sad to see it
> happening, after all the work they had put into it. (L.354).

Nearly all the environmental changes witnessed by participants were attributed to the clearing of native vegetation. Steve plainly makes the point that 'clearing has caused degradation of the bush' (L.42). He blamed the isolation of vegetation remnants, which were considered 'a good place to dump your rubbish and your old machinery, fencing wire [and] dead sheep' (L.45), for the infestation of 'weeds...vermin, rabbits...foxes and feral pigs' (L.43). Kaye clearly saw the connection between clearing and increased salinity, recalling 'it was just amazing how quickly things would go salt after you cleared' (L.409). She also remembered the 'tremendous lots of lizards and little marsupial animals' (L.326)

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killed by the clearing fires, saying 'we must have killed an awful lot, we really must have' (L.326). However, Kaye also noticed the number of kangaroos increased following the clearing of vegetation as they fed on the 'nice lot of crops soon after that, so they benefited in a way' (L.328).

The link between clearing native vegetation and subsequent degradation was made clear by participants. Wind was described as an ever-present feature of the environment but became 'terrible' and 'depressing' when combined with dry and dusty conditions. Once again, the significance of experiencing environmental degradation first hand, emerges from these comments (see also section 3.1.4 and 4.1.3). These findings support the notion that people's images of the environment are based on their experiences within it (Oresczcyn and Lane, 2000). Fried (2000) posits that the physical qualities of places may contribute to place attachment and that people may acclimatise to conditions which were initially considered intolerable. Throughout the transcripts, participants clearly expressed their attachment to, and value of their physical and social environment (see sections 3.1.6 and 4.2.6). However, participants did not appear to grow complacent and tolerant of degradation within this environment, rather 'never wanting to experience' such conditions again. (However, this attitude may be reflective of the initial inclusion criteria as outlined in section 2.2.2).

5.1.3 The Achievement of Conservation

Conserving native flora and fauna and improving the condition of remnant vegetation within the agricultural landscape, fostered feelings of achievement, encouragement and satisfaction. Conservation was not only considered 'logical', but also contributed to participants feeling good about the environment in which they lived. For example, Peter discussed the revegetation work he had initiated and the feeling of achievement it brought:

> You feel like you have really achieved something, especially as you start out
> with...a bare site and it looks like a totally barren landscape and you've created
> all this biodiversity, you've got wildlife coming into it, you've got birds nesting in
> it...you've got blue wrens and you've got quail in there and I've even seen honey
> possums...so you know that you are achieving something worthwhile once
> you've done that. (L.101)

He also felt encouraged as an 'overgrazed semi saline area' (L.1465) of remnant vegetation developed growth of seedling paperbarks in response to the removal of sheep. Peter said:

It is a good feeling to see this sort of reaction since the sheep went. It's very
encouraging really and we can just hope for more and encourage it in other areas.
(L.1473)

Conservation of the natural environment was also a contributing factor to feeling good
about a place. Ann and Rob described the satisfaction they gained from maintaining an area
of vegetation alongside the river running through their property:

[It] makes us feel happy. It is good to be able to drive past here, to walk past here
and to look on it and say, well doesn't that look great, isn't that wonderful that we
have something like this here and can look on it and enjoy it and we don't have to
close our eyes and look the other way. (L945)

Kaye was also pleased to have saved 'a bit of our natural bush' (L.737) planned for
clearing. She explained:

It's wonderful to see this bush here after all these years. Its about 40 odd years
ago I think that we tried to save it…and looking at them today when you see
some of the very, very old trees that must have been here many, many years ago,
you realise just what an old land it is and yes, it is wonderful. (L.732)

Nathan described similar feelings of satisfaction having been involved in a decision to
conserve an area of land scheduled for clearing:

It was quite clear that if we cleared the whole thing it would all fall apart…so we
left large bits and buffers around the edge and big bits of timber and a creek line
down the middle, very wide, so I go back there now with some degree of
satisfaction knowing that it is not the mess it could have been. (L.57)

Ann and Rob felt 'it just made sense' (L.182) to maintain remnant vegetation within the
agricultural landscape, explaining:

It was not something that anybody sat down and studied up on much, it just made
sense to have protection for the stock and stop the wind from screaming across great
expanses and to actually leave bush around the lakes and things like that and down
the watercourses to protect the soil…it just made sense. It's logical. (L178)

Steve had witnessed the environmental benefits of fencing remnant areas and revegetating
cleared land. He explained:

By revegetating the areas in between that had been cleared for agriculture or been
degraded by salinity…we have managed to stabilise a lot of the erosion that is
happening from salinity and livestock camping on the salt areas and trampling
banks, polluting water holes…so the overall benefit has been one of great benefit
to the river. (L183)

Farming 'with' the land, by maintaining remnant vegetation, fencing creek lines and revegetating cleared land, was considered an essential approach if farming was to remain productive and environmental degradation minimised. Steve explained:

> If we learned to farm differently, to farm with the land and with the water rather
> than against it, it would cease to be marginal. (L.833)

Ann and Rob also felt an important aspect of farming was to 'work with the elements and not against them' (L.524). Taking the weather into consideration was fundamental to this:

> I think we get too much of a set idea on what the climate should be and we try to
> farm to that and then blame it all on the climate and maybe we should be
> molding ourselves to the climate. (Ann & Rob, L.568)

Kaye also reecognised we 'can't control the weather' (L.387) and farmers had 'just got to rely on the weather...the weather changes and you've just got to go along with the weather' (L.387).

Conservation of the biophysical environment was a significant issue for all participants. Conservation was 'logical' and satisfying. Ann and Rob's comments (L.945) highlight the importance of environment condition to 'feeling happy' and enjoying one's surroundings. These comments support evidence presented by Twigger-Ross and Uzzell (1996) that the physical properties of a place can provide positive self esteem. Having been involved in efforts to conserve specific areas of native vegetation a sense of achievement, satisfaction and pleasure was also expressed by Kaye, Nathan, Ann and Rob. Their comments suggest these places had become personally significant. Gustafson (2001) highlighted the link between the meaningfulness of places and the level of personal involvement in a given setting. The findings of this study suggest the meaningfulness of places may be strengthened as personal involvement within an environment increased. Participants also discussed the importance of farming 'with' the land rather than against it. Similar sentiments were expressed in a study by Henwood and Pidgeon (2001), who described this viewpoint as an 'environmental' world view where people were seen to be part of nature, and nature part of them.

5.1.4 Valuing Environmental Condition

The natural environment was a source of fascination, knowledge, physical comfort and beauty for a number of participants. For Peter, the natural environment offered an interesting and comfortable setting in which to work. He compared working in a 'boring', cleared paddock to working amongst native vegetation, illustrating the importance of environmental condition to his own experiences:

> Here there is always something new...we've got all sorts of parrots coming
> through, if it's a cold windy day you can get behind the bush somewhere and its
> nice and warm, if its stinking hot you can work in the shade if you want to and all
> during that you've got the added bonus of all the bird life and everything around
> you which is just amazing. (L.668)

Native vegetation was also valued by Peter for its functional aspects, '[breaking] up...wild winds coming in from the south west' (L.418), as well as its aesthetic appeal. Peter explained:

> It will be great to get the [native vegetation] back...on the top of the ridge...it's
> just a great place to be with the view all around. Absolutely magnificent. (L.417)

Nathan clearly expressed the importance of aesthetics for feeling good about the environment in which you live:

> I think visuals of architecture and ambience and all that sort of stuff is so
> important to...feeling good about [the] landscape...I suspect that one of the
> reasons why farming isn't so good is because the country doesn't look nice any
> more...I think if you make it nice to be in and nice to look at it can be totally
> different. (L366)

He was critical that the farming landscape lacked ambience and looked as though someone had thrown towns, houses and sheds into the air and left them where they landed (L.336).

Brigitte and Willem explained that the beauty of the coastal environment had drawn them to their property, saying they 'wanted to go to the coast because of the beauty' (L.124). They also felt the 'trees around the house [had] made it more enjoyable' (L.269). The beauty, accessibility and solitude offered by the environment surrounding their property were also important values. Brigitte and Willem explained:

> The first time we drove over our farm and it adjoins the Oldfield River and we
> walked over across the fence and down to the river and that's so beautiful...you

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> do get it in Europe but it is not as easily accessible and if it is there are five
> million other people there wanting to see the same thing. (L.129)

Alongside the accessibility of environmental features, the temperate climate and opportunity for recreational activities also attracted them to coastal living. The 'moderate' coastal climate and 'being able to go down to the sea and go for a swim and not having to drive hundreds of kilometres' (L.125), were important considerations in Brigitte and Willem's decision to move to the south coast of Western Australia.

Steve similarly valued the uniqueness and aesthetic qualities of his environment, as he explained:

> I think it is a very unique bit of country...we have some pretty spectacular scenery
> in places and we have a great diversity of plants...we still have a great diversity of
> birds, though they are getting fewer and fewer. I suppose it is my affinity with this
> area that I think it is worth saving. (L749)

His comments imply environmental condition influences affinity with the environment and becomes a motivating factor for conservation.

The above comments indicate the natural environment is valued by participants on a number of levels. Native vegetation offered functional values, providing wind breaks and shelter; an environment in which to learn about and enjoy wild life; offered places to swim and recreate; while its beauty and uniqueness inspired wonder and motivated conservation. Valuing natural environments for accessibility and leisure factors supports findings by Henwood and Pidgeon (2001). Aesthetic appreciation of the natural environment was another particularly salient theme to emerge from their work. Experiencing the aesthetic qualities of an environment symbolised feeling 'a part of nature' and heightened people's sense of their own physical bodies (Henwood & Pidegeon, 2001). Although participants in this study did not make specific reference to these issues, the beauty of the environment neverthless emerged as a source of inspiration. Korpela and Hartig (1996) propose visual encounters with an aesthetic environment, which involve fascination and exploration, act to 'restore' or balance emotional and psychological states. These comments, along with those discussed previously (see section 3.1.6), support the assertion that natural environments are a source of fascination and exploration and 'magnificence', and also imply these experiences strengthen place attachments.

CHAPTER 6

SYNTHESIS

This chapter provides a synthesis of the major findings discussed in the previous three chapters. Significant themes are highlighted and discussion relates relevant findings to the relationship between environmental change and place identity and attachment. This chapter also examines the relevance of this study to environmental management. Limitations within the study are examined and suggestions are made for future research.

6.1 Relationship Between Environmental Change, Place Identity and Place Attachment

The findings of this study support the proposition that places function as more than a mere 'backdrop' to experience (Twigger-Ross & Uzzell, 1996), as participants described complex relationships with their environments. Although place identity and place attachment are both complex and multi-faceted concepts (Fuhrer, Kaiser & Hartig, 1993), they did not adequately capture the environmental relationships participants described. What emerged throughout the interviews was a sense that participants were intimately involved in a relationship with the land. This relationship was multi-layered, operating on personal, social and physical levels. The concept of place identity focuses on the integration of place and identity (Proshansky et al., 1983). Although the environment was used by some participants as a reference for childhood experience, and others implied the agricultural landscape represented a continuity of the farming identity, relationships with the environment were not solely based on maintaining self concepts. Emotional and spiritual connections to the land were also described by participants. The concept of place attachment focuses on emotional bonds to a place (Fuhrer et al., 1993; Jorgensen & Stedman, 2001). Participants indeed exhibited such attachments to place, while the comments of some suggested the environment offered 'restorative' experiences, in which emotional and self regulation processes were fostered (Korpela & Hartig, 1996). However, relationships with the environment went beyond these concepts. Participants embarked on a journey of learning and understanding with the environment. Experiences of environmental degradation often led participants to reassess their perspective of the land, while

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involvement in conservation activities fostered feelings of encouragement and satisfaction. Participants associated devastation, sadness and depression with the loss of native vegetation and the impacts of environmental degradation on the local community.

The three broad themes adapted from Gustafson's (2001) model (Figure 1.1), personal, community and environmental condition, provided a useful framework in which the relationships between participants and their environment could be investigated. Henwood and Pidegeon (2001) describe the usefulness of general categories for facilitating the placement of qualitative findings within a given context. The overarching nature of the three themes allowed interconnected issues to emerge from analysis without becoming disjointed and/or irrelevant within vast amounts of data. The degree to which these themes overlapped further supported Gustafson's (2001) use of a three pole model, whereby meanings of place can represent the relationship *between* the self, the community and the environment rather than being restricted to a single category. Qualitative analysis does not count instances of fixed categories and as such themes are not required to be distinct from one another (Henwood & Pidgeon, 2001).

6.1.1 The Influence of Personal Experiences

Analysis of the transcripts supported the assertion that places are often imbued with highly personal meanings (Gustafson, 2001). The environment became meaningful for participants in a number of ways. For example, the environment was considered an important setting in which learning, understanding and personal development were fostered (Ann & Rob, L.272; Brigitte & Willem, L.340; Bob, L.798). The importance of this aspect of participants' relationships with the environment emerged strongly from the transcripts, and was titled 'The Learning Journey'. This theme represented the ongoing, developmental process of 'understanding' the natural environment and subsequent perception of the natural environment as increasingly valuable (see section 3.1.1). This finding highlights the influence that 'knowledge' about the environment has on the perceived value and meaning of the land.

Gustafson (2001) stresses that 'places are processes' and that places and the meanings of place have a temporal dimension. Places may acquire new meanings as people gain knowledge about a place, physically shape a place and/or forge social relations within a

place (Gustafson, 2001). The findings of this study support the concept of 'place' as a process, whereby meanings and values change as knowledge develops. Through interactions with surroundings, the perspective with which people viewed their environment changed, as did the meanings instilled within it. Dixon and Durrheim (2000) suggest that intimate knowledge of a place is incorporated into the self concept, a premise central to the concept of place identity (Horwitz et al., 2002). A number of participants actively sought to understand their environment. The development of this knowledge influenced the way they interacted with their surroundings, as well as the way in which they perceived their environment, and values and meanings permeating this perception. Given that environmental 'knowledge' influences a person's relationship with their environment, this suggests 'knowledge' may be an influential factor for place identity. Knowledge is briefly mentioned in the literature within the context of place identity although generally refers to 'knowing' the location of physical features within the environment (see Gustafson, 2001; Horwitz et al., 2002). Knowledge, in the context of this study, not only referred to knowing about the location of physical features, such as salt lakes, but was also used to represent participants' understanding of environmental processes and the environmental impacts of agriculture.

'The Learning Journey' was intimately related to the themes 'Expressing a Sense of Responsibility' (section 3.1.3), 'Experiencing a Turning Point' (section 3.1.4) and 'Altering Perspectives' (section 3.1.5). These themes signify the importance of an experiential relationship with the environment, for the development of an environmental understanding and for subsequent perceptions of place and environmental values. Proshansky et al. (1983) propose place identity grows from direct experiences with the physical environment. Oreszczyn and Lane (2000) similarly concluded that the images people have of the environment are based on their personal experiences and relationship with it. The findings of this study, that experiences influenced understanding, perceptions and values of the environment, suggest these experiences may directly influence place identity and an individual's relationship with their environment. Dixon and Durrheim (2000) explained that place identity embodied the idea that 'who we are' is intimately related to 'where we are'. The results of analysis suggest this concept does not fully capture participants' relationships with their environment. The significance of an 'understanding' of the environment implies

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'who we are' not only relates to 'where we are', but also to 'what we know about where we are'.

The closeness with which participants related to their environment was signified by the theme 'Experiencing Emotional and Spiritual Connections' (section 3.1.6). Analysis of the transcripts provided strong evidence for the use of 'special places' within the natural setting as 'restorative' environments, in which people balanced their emotions, entertained fascinations, cleared their minds and realised personal goals. These findings support work by Korpela (1992) and Korpela and Hartig (1996), who posited favourite places are used to regulate emotions and thoughts, and maintain positive self images. These researchers argued that experiences within 'restorative' environments further the development of place identity. Although only one participant expressly related her love and attachment to the bush as 'part of my identity' (Kaye, L.94), the comments of a number of participants certainly implied a close and intimate relationship with the environment. Remarks about feeling 'part of the earth' (Peter, L.1252) and the importance of living amongst the bush (Nathan, L.167), reveal the intimacy of this relationship. 'Love' of the bush was also a common sentiment (Veronica, L.436; Kaye, L.94) as were spiritual bonds to the environment (Brigitte & Willem, L.923; Peter, L.1260; Veronica, L.437).

Emotional attachments to place feature strongly in the literature and are even considered the basis for place identity (Korpela, 1989). Analysis of the transcripts supports the significance of emotional attachments to the environment, although rather than being the sole basis for place identity, such attachments were one of the numerous and complex ways in which people related to their environment. Interactions with the land were judged 'right' or 'wrong', giving rise to a sense of responsibility. A number of participants had taken on this responsibility to 'repair' the land from the 'damage' of previous generations (Steve, L.967). The literature regarding place identity and place attachment tends to focus on emotional attachments to the environment (Fuhrer, Kaiser & Hartig, 1993; Lalli, 1992). The results of analysis indicate participants not only exhibited strong emotional attachments, but also expressed a moral responsibility towards the land.

6.1.2 The Influence of Community Attitudes and Experiences

A change within community attitudes and values regarding the environment was a significant issue for a number of participants. Growing awareness of salinity and environmental degradation (Bob, L.1150; Peter, L.934), increasing acceptance of the importance of biodiversity (Ann & Rob, L.668) and valuing the land for more than its agricultural potential (Brigitte & Willem, L.231; Steve, L.39) were some of the positive changes observed by participants. These attitudinal changes were a source of encouragement (Peter, L.566), while personally contributing to such changes fostered a sense of belonging (Brigitte & Willem, L.767). On the other hand, non-recognition of environmental degradation (Peter, L.943), a lack of environmental understanding (Brigitte & Willem, L.205; Nathan, L.322), community reluctance to receive new ideas about land management (Nathan, L.518) and a reluctance to change from traditional farming practices (Steve, L.688) were also highlighted. Throughout these issues, the importance of understanding the relationship between land owners and their land emerged as a significant theme.

The comments of one participant implied some members of the farming community were reluctant to accept conservation initiatives, because such actions would negate the personal effort invested in the initial agricultural development (Steve, L.34). The agricultural landscape had come to symbolise the significant personal investments involved in developing a farm (Steve, L.688; Veronica, L.200). One participant further noted these feelings of attachment were not as strong in subsequent generations of farmers, who had not been involved in the initial development (Steve, L.36). These findings support evidence presented in the literature that the relationship between the environment and the self is strengthened when people personally shape their environment, building houses or cultivating land (Gustafson, 2001). These findings also support those of Proshansky et al. (1983), Korpela (1989) and Twigger-Ross and Uzzell (1996), that place attachments are strongest and most salient for individuals who have lived in and personally invested in the one place all their lives. In accepting the assertion that place attachments contribute to the maintenance and continuity of the self (Twigger-Ross & Uzzell, 1996), the comments of participants suggest the revegetation of the cleared landscape may symbolise the

destruction of this continuity for some members of the community, in turn threatening self-identity (Fried, 2000).

Another important theme with implications for place identity and attachment, and related to the symbolism of the agricultural environment, was the 'Threat of Conservation' (section 4.2.2). Participants explained some members of the community perceived individuals associated with conservation initiatives as threatening (Kaye, L.105) or eccentric (Steve, L.935). These comments implied that some members of the community were yet to accept a value system which did not prioritise the 'development' of land in an agricultural sense (Bob, L.676; Kaye, L.124). Community reluctance to accept different values and a different way of relating to the environment, along with the comments that such values were considered threatening, suggests change may represent to some individuals the severance of well established relationships with the environment. Henwood and Pidgeon (2001) found rural communities did not welcome developments that were considered a threat to the 'rural character'. The findings of this study imply conservation, more specifically the revegetation of cleared farmland, may be perceived by some as a threat to the 'agricultural' identity of a farming community. The interplay between change and continuity within relationships to the environment was also a salient issue to emerge from the work of Gustafson (2001). New ideas regarding the use and meaning of place may compete with traditional uses and values, and over time established meanings of place may be changed (Gustafson, 2001).

A sense of community belonging and attachment emerged strongly from analysis. Once again, people who had been involved in the initial development of the farming community were considered to have the strongest attachments (Ann & Rob, L.115). 'Belonging' was also associated with a sense of responsibility towards the land and the community (Steve, L.770). The importance of a positive 'sense of community' was also discussed, while a negative place image was thought to contribute to negative self images (Bob, L.847). These conclusions support the work of Twigger-Ross and Uzzell (1996), who proposed positive place images are important for positive self esteem.

6.1.3 The Influence of Environmental Condition

Analysis of the transcripts revealed a number of interconnected issues surrounding the theme of 'environmental condition'. The most significant change to the condition of the environment, as described by participants, was the clearing of native vegetation. The impacts of clearing on the landscape were graphically described (Bob, L.198; Nathan, L.136) and personal responses to these changes were similarly emotive (Kaye, L.114; Peter, L.772). Feelings of devastation and sadness were compounded by a sense of inevitability and regret for a number of respondents who had themselves contributed to the clearing. Although some researchers have identified the desire to protect the natural environment as a significant issue within environmental interactions (Henwood & Pidgeon, 2001), there appears to be little research which can be compared to the complex response of participants to environmental clearing.

Participants openly relayed personal experiences of environmental degradation, most commonly referring to wind erosion events. These experiences were explored under the theme entitled 'Experiencing Degradation' (section 5.1.2). The 'continual wind' and wind erosion emerged as pervading features of the landscape (Bob, L.1169; Peter, L.905; Veronica, L.61). Sadness, devastation and the depression were once again associated with the deterioration in the condition of the natural environment (Brigitte & Willem, L.524; Kaye, L.354). The majority of participants made the link between clearing native vegetation and the degradation through wind erosion, increased salinity, infestation of feral animals and the loss of native wildlife, clear. Once again, the significance of experiencing environmental degradation first hand emerged from these comments, providing further evidence in support of the notion that people's images of the environments are based on their experiences within it (Oresczcyn & Lane, 2000). On the other hand, the idea that people acclimatise to 'intolerable' conditions within an environment to which they are attached (Fried, 2000), was not supported by the findings of this study. Participants clearly expressed intolerance to degradation and in some cases experiences motivated the adoption of conservation initiatives (Brigitte & Willem, L.524).

Conservation of the natural environment emerged as a significant issue for a number of participants. This issue was explored within the theme of 'Achieving Conservation' (section 5.1.3). Conservation was considered 'logical' and contributed to positive self

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esteem (Ann & Rob, L.945; Nathan, L.57; Peter, L.101). Farming 'with' the land rather than 'against' it was considered by some an essential attitude if conservation was to be achieved (Ann & Rob, L.568; Kaye, L.378; Steve, L.833). A similar 'environmental world view' was described by Henwood and Pidgeon (2001), whereby people were considered to be part of nature and nature part of them. The intimacy implied in the comments of participants, regarding their relationship with environment, signifies the reciprocal nature of their interaction with the land.

The natural environment was a source of fascination, knowledge, physical comfort and beauty for participants. These values were discussed within the theme 'Valuing Environmental Condition' (section 5.1.4). The environment offered functional values (Peter, L.668), an environment in which to learn about nature (Peter, L.668), places to recreate (Brigitte & Willem, L.125) as well as beauty and inspiration (Steve, L.749). The aesthetic qualities of the natural environment feature heavily in the literature concerning environmental values. The beauty of natural settings was one the most common reasons the environment became significant for participants in Henwood and Pidegon's (2001) study. Although participants within this study similarly valued aesthetic qualities of the landscape, their comments imply the valuation of even more subtle and complex qualities such as biodiversity, uniqueness and ambience.

Environmental change emerged from analysis as a significant influence on the relationship participants had with their environments. However, the 'changes' themselves were not the most important aspect, rather the perception of these changes was most influential. Unless participants had 'opened their eyes' to environmental condition, 'changes' or degradation within the environment may not have been recognized or acknowledged. The experiential relationship with the environment emerged as an important factor contributing to an alteration of the perspective from which the environment was viewed. Although the findings of this study indicate some participants did integrate aspects of the environment into their identity, evidence did not support that place identity was specifically influenced by environmental change. Participants' relationships with their environments emerged as a strong undercurrent throughout their life's experience, although the values and meanings associated with the environment may have changed over time and subsequently influenced the way they interacted with the land.

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5.2 Relevance of Findings to Environmental Management

The ways in which people relate to place, the meanings of place in the everyday day lives of individuals and communities and the influence of these experiences on the conceptualizations of place are important questions investigated within the social and behavioural sciences (Gustafson, 2001). Despite the relevance of such questions to the 'management' of interactions between people and the environment, these questions are rarely addressed within the context of environmental management. The findings of this study strongly support the notion that places are not 'static' and that through interactions with surroundings, places acquire new meanings over time (Gustafson, 2001). This is an important consideration for environmental managers, as the meaningfulness of the environment will influence interactions within it. Decisions made within the daily lives of individuals and communities determine the state of the environment (O'Brien, 1995). Despite this interconnectedness between people and the environment, ecologists have been reluctant to acknowledge that humans are embedded within the landscape (Horwitz et al., 2002).

Individuals conceptualise place differently and these conceptualizations influence the perspective with which people approach their 'use' of a place (Gustafson, 2001). Environmental issues for environmental managers may not be significant issues for a landholder who may have a different relationship with, and perception of, the environment. Implications for environmental managers relate to the need to consider individual conceptualisations of places and the perspective with which people approach their interactions with the land (O'Brien, 1995). First hand environmental experiences emerged as a significant influence of participants' perceptions and behaviours. Participants described feelings of satisfaction, encouragement and positive self-esteem having been involved with environmental conservation experiences. Utilising positive experiences within the environment is a potent means of generating support for conservation initiatives (O'Brien, 1995). Environmental managers need also be aware negative experiences may lead to feelings of helplessness and despair and the abandonment of conservation programs (O'Brien, 1995).

Community participation is a necessary ingredient for successful conservation of the natural environment (O'Brien, 1995). Understanding community behaviour is an essential

prerequisite to gain widespread community support for conservation (O'Brien, 1995). The successful protection of species restricted in their distribution and vulnerable to extinction will depend on the involvement of local community members, which in turn relies on understanding the motivations behind commitment to and involvement in conservation efforts (Horwitz et al., 2002).

6.3 Limitations of the Study

The qualitative study design adopted for this study, reflects an individual construction and interpretation of the data (Willig, 2001). As such, the findings are open to re-interpretation and alternative explorations (Willig, 2001). Discourse analysis and/or analysis of narrative structure of function of the data may provide further depth to the findings. Given the time constraints of a one year Honours project, only eight of thirty-one richly descriptive and lengthy transcripts were able to be thoroughly analysed. Further analysis of the remaining transcripts may reveal a more exhaustive list of salient issues regarding relationships with the environment. The inclusion of more than one researcher throughout the analysis process may also highlight influential biases and assumptions of an individual researcher, further enhancing reliability (Moore, 1995).

This study was based on an interpretive philosophy, which acknowledges realities and meanings are context bound (Nagy, 1994). The transferability of these findings is therefore limited to similar social and environmental conditions (Leininger, 1994). Although the results of this study are only relevant to a small number of participants in a specific location, the issues highlighted through analysis may also contribute to more general discussions about the relationships between people and the environment (Gustafson, 2001).

Secondary analysis of an existing database was also associated with limitations. Analysis of previously collected interviews required considerably less time and resources, and was appropriate given the time and budget constraints of this project (Thorne, 1994). However, interview questions were not designed with the same research objectives in mind and the interviewers did not specifically explore the concepts of place identity and place attachment. Interview questions tailored specifically for the research objectives may have led to a fuller exploration of the topic at hand.

6.4 Considerations for Future Research

The use of an existing database required the acceptance of a predetermined sample of respondents. The participant selection process for *The Country Inside* interviews was well suited to the purposes of this study. It became evident, however, throughout analysis that opportunities exist to further investigate the place relationships of individuals who meet a different suite of selection criteria. The filmmakers selected participants who were long term residents of the area, who were known for the active involvement in conservation and land management and who had lived and worked on a farming property (see section 2.2.2). Throughout the interviews these participants made reference to community members who were reluctant to partake in conservation activities, who were not long term residents and who were not familiar with the agricultural lifestyle. Examination of the relationship between landowners who expressed a reluctance to adopt conservation initiatives and their environment, may be particularly salient for environmental managers. Understanding why people are resistant to change is necessary if we are to understand the processes of how and why people change, in order to instigate community change in support of conserving the natural environment (O'Brien, 1995).

6.5 Conclusion

This study investigated the relationship between environmental change and place identity and attachment. The complex and interconnected issues relevant to participants' relationship with the land supports the proposition that concepts of place emerge through personal relationships, within a community context and are at the same time grounded within a physical location (Gustafson, 2001). The environmental relationships described by participants were multi-layered and revealed complexities with which meanings are attributed to places. As Henwood and Pidgeon (2001) similarly found, community members exhibited contested and contradictory meanings of place. The constructs of place identity and place attachment did not adequately represent the environmental meanings and values expressed by participants. Environmental interactions were instead conceptualised as 'relationships with the environment'. First hand experience of environmental change was an important aspect of these relationships. Environmental 'knowledge' was gained from such experiences, in turn influencing the perspective with which individuals interacted with the environment. These findings have important implications for environmental management.

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Understanding the processes influencing relationships with the environment is an imperative if environmental managers are to work with communities towards the conservation of the natural environment (O'Brien, 1995).

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APPENDIX 1

Copyright information for *The Country Inside.*

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          Snakewood Films

APPENDIX 2

Overview of the agricultural history of the south coast of Western Australia

The south coast region of Western Australia has a rich and detailed history. The earliest European explorers were recorded to have sailed past this region in 1626, although it was 1792 before detailed exploration of the area began (Bradby, 1989). The history of the south coast region however, begins many thousands of years before these events with the story of the Aboriginal residents (Bradby, 1989). For the purpose of outlining the research context of this study, a brief overview of the history of European settlement within this region will be provided. The documentary *The Country Inside*, from which participant interviews were sourced, focused its attention on residents from Ongerup and Jerramungup, approximately 450km south east of Perth and surrounding areas (Figure 2.1). As such, the brief description of European settlement will be limited to these areas.

Brief History of European Settlement

The settlement history of the south coast region of Western Australia is predominantly an agricultural story (Brady, 1989). Pasturalism spread throughout the region from the mid-1850s, although it wasn't until the 1950s that agricultural expanded rapidly throughout south coast region, drastically altering the landscape (Bradby, 1989). The production capabilities of W.A. soils increased with the application of trace elements and fertilizers developed following World War II (Bradby, 1989). These developments, coupled with increasing commodity prices, saw a rapid expansion of agricultural properties (Bradby, 1989). Land surrounding Jerramungup was sub-divided for soldier settlement as part of the Commonwealth government's War Service Land Settlement Scheme (WSLSS), with farm allocations beginning in 1955 following the arrival of Field Supervisor, Colin Cameron (Bradby, 1989).

Between the years 1948 and 1969, over 400 000 hectares of native vegetation were designated for agricultural development (Bradby, 1989). The methods by which land was surveyed were not sensitive to the environmental features of the landscape, with bulldozer drivers plotting a course for so many hours in one direction before turning in another and another until an area was enclosed (Thomas, 1989). Once the block was marked out, a pair

of tractors would drag a heavy, seventy-five metre chain between them, flattening the vegetation (Thomas, 1989). The vegetation would then be burnt and the land ploughed in preparation for cultivation (Thomas, 1989). By 1957 more than 140 farms had been allocated to ex-servicemen and their families as part of the WSLSS (Bradby, 1989).

The Commonwealth government brought an end to the WSLSS in 1959, while at the same time the State government increased its allocation of uncleared public land, as part of its Conditional Purchase (CP) scheme (Bradby, 1989). Applicants who successfully applied for a CP block were required to clear their land and begin agricultural development in a given time period (Bradby, 1989). Between 1960 and 1969, 300 CP blocks were allocated, the government promoting the agricultural development of 'over a million acres of land a year' (Bradby, 1989; Thomas, 1989).

By 1969 drought, falling commodity prices and newly introduced wheat quotas proved devastating for farmers, with many leaving the district (Bradby, 1989). The lack of overall planning with regard to the release of CP blocks, the lack of capital available for new farmers, the lack of agricultural expertise and the inappropriate selection of land were also thought to contribute to the social and environmental costs of this scheme (Thomas 1989). In some areas only twenty percent of the original population remains (Thomas, 1989). The social and environmental costs associated with development of land unsuitable for agriculture, were increasingly apparent by the 1980s, becoming more controversial as community awareness grew (Bradby, 1989).

APPENDIX 3

Synopsis of *The Country Inside* (renamed *A Million Acres A Year*).
(Provided by Frank Rijavec)

"A Million Acres A Year" describes the epic history of post war agricultural development in Western Australia and the personal journeys of some country people - a rural vanguard which has come to acknowledge that current forms of agriculture are not sustainable, and that the limited solutions we are trying to implement are not enough.

Their story unfolds in the remaining mallee/heath lands of WA's 'Wheatbelt', most of which were released to agriculture after WWII through the War Service Land Settlement and Conditional Purchase Schemes. Farmers, milkmen, policemen, painters, miners, even a dress shop manager from Woollongong - lured by advertisements promising the cheapest land in Australia - followed their dreams from the eastern states into the 'newlands' to try and farm one of the most ancient landscapes in the world.

They bear witness to the postwar holocaust of mass clearing, to the "breaking of virgin country" on the sand plains, to the spectacle of tandem bulldozers linked with anchor chains, thousand acres clearing burns and the brutal root rakes that produced so much wealth... and affliction.

They describe the agricultural prescriptions, the ideologies and values that propelled 'newland' farming, and explain slogans like "a million acres a year" and "get big or get out". They recall the winds that massed sand dunes where bush once grew and speak of rivers running to salt, wetlands dying, the continuing loss of more plant and animal species than in any comparable region of the world... the growing silence of the landscape.

And for what? This massive agricultural expansion peaked early in a brief golden age that crashed, just a decade after its birth, into a biological and economic nightmare.

All these are trials in the journey that led some farmers to their moments of truth. They describe episodes that were turning points away from industrial farming, and speak of how they succeeded in changing themselves and the way they work with the land.

But "A Million Acres A Year" does not just look backward, it proposes that real and lasting change does not hinge on technocratic solutions. It is about honest self-reflection, taking risks, restoring the place of nature and finding a place in it for ourselves. It is about ethics and public responsibility.

It is clear that the people in the documentary have transformed themselves not because conventional agriculture has failed economically, but because in their view its consequences are morally unacceptable... and more importantly, because they have grown to love the bush - whose remnants still compromise one of the planet's top 25 biological hotspots.

APPENDIX 4

Briefing Sheet used for *The Country Inside* Interviews.

<u>History of War Service Land Settlement Schemes (WSLSS)</u>

- how the country was opened up

Style of Agriculture

- how country was opened up (WSLSS/CP Scheme)?

- what was the country like before settlement?

- who were the settlers?

- what was the deal they got from the government?

- aspirations, hopes that motivated settlers

- what did they have to do to get started?

- the job of clearing

- is this good farming land?

- what was the style of newland farming?

- how did the style change... 60s... 70s...80s?

- ...get big or get out?

- where did farmers get their ideas from?

Repercussions

- how did this agriculture fare?

- what are the highlights/successes of this agriculture?

- what have been the most costly mistakes/the hardest lessons?

- what advice do you wish you had not taken?

- do you think the dominant types of farming are appropriate to these lands?

- in the long run has ag as we have known it been good for the people/communities/families/culture?

- how did the people fare?

- what were the rewards?

- how did communities fare?

- how has this agriculture failed people?

- what price have families/children paid?

- personal stresses

- social consequences

- devolution

- what are the most unforgettable images that have stayed with you in terms of how people have fared?

- extinction

- what is the scale/extent of clearing/how has landscape changed?

- what are the most unforgettable images that have stayed regarding what has happened in the landscape?

- how has 'character' of the country changed?

- what do you miss most about the country that was?

- anecdotes of disappearances/extinctions

Guiding values/justifications

- how was expansion into marginal country justified?

- what was the psychology/values that drove settlers 'against the earth'?

- aspirations, politics that motivated government

- "Million acres a year..."

Cultural evolution/turning point

- things that quickened their hearts
- describe experiences that opened your eyes to 'country'
- ... and to what was happening to country
- how have your attitudes/appreciation of the country changed over time (childhood/experience of farming/clearing...)?
- how have these experiences/realizations affected you and the way you work?

  or

- what has this country taught you about life/ agriculture/ possibilities for the future in this country?
- what pleasures/satisfactions do you take from farming and/or from your life here?
- how can bush help the farmer?
- what are ways people on the land can go with the earth (rather than against it)?

Rewards

- how health of bush help to make a healthy & viable agriculture and community as a whole?
- what is your big personal project at the moment?
- what rewards do you get for your efforts?
- what are the sacrifices you make?
- what, against all the odds of farming, makes life worth living out here?

Economic critique

- what are the hard realities of the terms of trade and survival?
- what are the biggest problems facing farmers today?

- what is happening to this season?

- what are the consequences of crop failure?

- how will this affect you?

- biggest factors shaping the future (positive and negative)?

- what are current trends that will shape future?

- what are the worrying trends (bluegum/monoculture)?

- what is the impact of globalization?

- how have 'terms of trade' changed (prices versus costs)?

- what are the consequences of this?

- what control do farmers have over what they're doing (hands tied/powerlessness)?

- environmental consequences of debt?

- desperation to pay bank drives system/bigger factor than weather or soils?

- why farmers fall for it?

Chemicals

- describe typical chemical regimes

- rural landscape synthetic/sustained by inputs

- why is farming so chemical dependent?

- environmental/health issues

- what are the obstacles to change (social/political/economic)?

- after all that has been learned about environmental/social/economic costs,

- why so slow for culture/practice to change?

Intervention

- what are the most appropriate form of Government subsidy/intervention?

- on what terms should it continue?

- should it stop?

- what has been the purpose and effect of past Government subsidy/intervention?

Standing up for the bush

- where are the special places in the country for you?

- what are the best bits of bush around here?

- The Fitzgerald National Park (mining/clearing)

- how did they come to be left?

- what sort of effort was needed to save them?

- who were the people who stuck their hand up?

- what did they have in common?

- what motivated them/what sustained them?

- what sacrifices did individuals have to make?

- how did/does the community around you react to your passion?

- what was it like going against the tide?

- was it worth it?

- what do you see in the bush/landscape that moves you/that is important on a personal level?

- why are these things important to you?

The Fitzgerald National Park

- why is it magic?

- cultural/ecological value

- what has it come to mean in peoples' lives?

- what does it mean for the surrounding communities?

- 'the Fitzie as an idea to live by' - what is the idea?

- describe biosphere dream/what does it mean?

- how has it traveled?

- what hurdles are in its way?

- what needs to happen to make it meaningful?

- what is happening to make it meaningful?

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- what are the real threats it still faces?

Ethics

- what responsibilities fall to people who chose to live in this country?
- what is going to inspire the next generation to make a go of it out here?
- what fundamental choices need to be made personally and by the community at large?
- what philosophy or belief or ethic needed?
- (need to re-invent agriculture as creative vocation)
- (how defeat economic binds)
- the good signs?
- who will survive – why?
- what trends from the rest of the world provide models?
- vision of the future in wheatbelt districts - what kind of action/farming/culture?
- what has to happen to keep what is left?

APPENDIX 5

Explanatory Letter for Participants.

Date/Name/Address
Dear

My name is Ruth Rogan and I am writing to you as a student completing my final year in Environmental Management at Edith Cowan University, undertaking a detailed research project.

The aim of my work is to use the stories and recollections of people living in or near the south coast in order to understand how environmental change has affected people's attitudes towards their home environment.

I was fortunate enough to have had an opportunity to view parts of Keith Bradby and Frank Rijavec's video *The Country Inside* in which you were interviewed. I found this most interesting and I think your story will help greatly with my research. Keith and Frank have both expressed how impressed they were with the interview tapes, and how keen they are to see them used in greater detail than possible in a documentary. I have been given access to a typed transcript of your interview and I would appreciate your permission to use this transcript as part of my project.

If you are happy for me to do so, please sign the enclosed consent form and return in the stamped addressed envelope.

If you have any queries relating to this project, please feel free to contact me on (08) 9275 8041 (home) or (08) 9400 5733 (university). If you leave a contact number I will be happy to return your call.

My supervisors will also be happy to speak with you. Their names are Pierre Horwitz, (08) 9400 5558 and Moira O'Connor, (08) 9400 5593.

Keith and Frank are in the final stages of completing the film which should be finished by the end of August. They have asked me to tell you that they will be in contact with you in September with information about when the program screens on SBS and with a complementary copy of the program.

I am eagerly awaiting your reply and hope you are happy to assist me in this valuable project.

Yours sincerely,

Ruth Rogan
c/- School of Natural Science
Edith Cowan University
100 Joondalup Drive
Joondalup WA 6027

APPENDIX 6

Statement of Disclosure and Informed Consent
(to be read and signed by the participant)

Project title

Exploration of the relationship between place identity and environmental change in the south coast region of Western Australia.

Possible concerns of the participants

1. Subject to your consent, your name will be published in the thesis in association with your interview transcript. However, it is not necessary to the project and you may agree to your transcript being included while remaining anonymous.

2. There are no expectations of participants to take part in environmental management activities as a result of participating in this project.

Giving your consent
(Please circle YES or NO as appropriate)
I...
Address and phone no ....
....
have read the above information and:

I give permission for my interview transcript to be used as part of the above project
                    YES   NO

I give permission for my name to be published in the thesis in association with my interview transcript
                    YES   NO

Participant.. Date:

Research student.. Date:

Seeking clarification

Any questions you have concerning this project can be directed to Ruth Rogan (research student) of the School of Natural Sciences at Edith Cowan University on (08) 9275 8041 (home) or (08) 9400 5058 (university). Questions may also be directed to either of my supervisors, Pierre Horwitz on (08) 9400 5558 or Moira O'Connor on (08) 9400 5593.