

Land, spirit and health: a non-Indigenous perspective

Tony Gleeson, Synapse Research and Consulting

ABSTRACT

There is increasing recognition throughout Australia of the negative impacts of depression. Clearly the predisposing causes of depression are many and complex. However, to some extent they include a sense of lack of purpose and of connectivity in our lives – connectivity with our spiritual selves, with our communities and with our physical environments.

This paper examines the relationship between land, spirit and health and how institutional arrangements for rural Australia affect this connectivity. The general proposition explored in the paper is that our institutional arrangements constrain our appreciation of the many and varied attributes of landscapes, the multi-functionality of landscapes.

INTRODUCTION

Many authors have examined the interdependency of land, spirit and health from a range of perspectives, some of which are presented here. These perspectives generally point to the importance of the cultural determinants of landscapes. It follows that if we are to enable the interdependency of land, spirit and health to be expressed then these cultural determinants of landscapes need to be embedded in the institutional arrangements for rural Australia.

Gesler^{1,2} coined the term “therapeutic landscapes” whereby natural and built landscapes promote mental and physical well-being.

Williams³ built on the therapeutic landscape concept from humanistic and holistic medical perspectives concluding that the individual is critically instrumental, on both a conscious and sub-conscious level, in creating, living in and being influenced by landscapes.

Frumkin⁴ takes up the therapeutic theme further in a review of relationships between animals, plants, landscapes and wilderness and human health in which he provides illustrations of the positive healing effects of associations with animals and plants and the stress reducing effects of landscapes, especially of savannah type landscapes.

Milligan et al.⁵, drawing on the work of Appleton⁶ and Mealey & Theis⁷, refer to the relationship between humans and nature as an evolutionary one based on preferences for environments which provide features of prospect (access to resources) and/or of refuge (places to hide from danger).

Other schools of thought see nature as sacred with Taylor^{8,9,10} observing that members of nature-based religions seek ultimate meaning and transformative power in nature.

Sessions¹¹ sees deep ecology, enabling humans the freedom to unfold in their own way unhindered by various forms of human dominations, as a way to return to a state of awareness where the separation of nature and ‘self’ is not so inevitable. By losing ‘touch’ with nature, Sessions observes we lose an awareness of our own ‘nature’, that is self or the sense of truly

knowing ourselves. With this loss of self brings a fracturing of how we interpret the world on many levels resulting in dualistic experiences and interpretations of the world around us and ourselves. We feel alienated from the 'natural' and only possess 'control' within our own definitions. Because of this disconnection we seek to interpret our understanding and feelings through religion and science. Deep ecology suggests that the only true way to mend this disconnection is to find a way to reverse the dualism.

In a similar vein Tacey¹² makes the point that in most secular Western interpretations, spirit is something that is separate from land – rather it is something more associated with 'heaven' and space. Western perception of land and spirituality are often difficult for many to reconcile as connected as we often come "from a conquering consciousness", that is we have to tame and be superior to our landscapes.

Bender¹³ argues that land is constantly being reinvented according to the social values of the day, how it is worked, valued, owned, disputed. In other words, landscapes are created by people based on their experiences and attachment to the world around them. Bender intimates that our perception of landscapes and therefore our understanding of self and how these fit together are often prescribed for us. We see and interpret our environment and ourselves based on predetermined and accepted social and cultural interpretations. Despite this interpretation, it is quite possible that one place has several different landscapes and that landscapes change depending on the attachment that you have with them.

McIntyre-Tamwoy^{14,15} suggests that it is the social or community value assigned to sites and community landscapes that defines our sense of self and well-being. Although places exist independently in time and space, from people the meaning and significance of places cannot be divorced from human experience and culture. These associations between people and places are heterogeneous and dynamic rather than being singular or fixed. Places usually have many different values ranging from natural values at one end of the spectrum through to cultural values at the other but the separation of natural and cultural is largely artificial. McIntyre-Tamwoy¹⁴ identifies the need for meaningful dialogue between specialists (ecologists, archaeologists, anthropologists, historians, social geographers, conservation architects and other heritage staff) and the need to engage community.

The 1979 Australian "Burra Charter" presents a framework for social impact assessment encompassing the aesthetic, historical, scientific and social. It defines social value as embracing the qualities for which place has become a focus of spiritual, political, national or other cultural sentiment to a majority or minority group. However, as argued by Byrne et al.¹⁶ the entire cultural heritage process is located within a society and the linear reductionist approach inherent in the charter diminishes the social, a point further illustrated by Cox et al.¹⁷

Byrne et al.¹⁶ advocated an approach for non-Indigenous historical heritage based on the concept of attachment. It would seem reasonable, in the context of this paper, that the concept of attachment should be more widely and more deeply taken into account in the design and operations of institutional arrangements for rural Australia.

The linear reductionist approach inherent in the Burra Charter has a parallel in the so-called 'triple bottom line' approach whereby it is intended that the economic, environmental and social attributes of well-being are taken into account. However, triple bottom line thinking is limited from several perspectives. First, it assigns value to the economy rather than clearly positioning the economy as an instrument to give expression to value. Second, and as a consequence of the first, it inclines towards a commodification (pricing) of all values and/or towards a diminished importance being placed on values which are difficult to price or which cannot be priced. And third, it maintains a limited reductionist and homogenous approach to

values. This reductionist approach denies the complexity and the diversity of the interplay of beliefs and values.

Irrespective of what might be the basis for the relationship between humans and nature it is evident that the relationship encompasses an intermingling of the physical, biological and cultural features of landscapes. It is this intermingling that gives the relationship potency for landscapes derive their meaning from the actions and imaginations of people in society.

LAND, SPIRIT AND HEALTH

In preparing this paper for the National Rural Health Alliance Conference in Alice Springs it is difficult as an outsider to escape the mindset of land being defined in geomorphic terms, albeit modified by human activities. However, such a mindset would present some significant dangers.

The first of these dangers, at least for someone like myself dealing with the bush, would be to deny the importance to spirit and health of other naturally constructed environments, for instance marine environments and built landscapes. Nevertheless having acknowledged the broader canvas I will in fact deal almost exclusively with land in the sense of natural terrestrial landscapes.

The second and more complex danger would be the construction of land, and landscape, independent from and outside of human experience, leading to a denial of landscape being socially constructed.

Given these and other considerations, the way forward here is to use the term 'land' to include all the physical, biological and cultural determinants of place.

The word 'spirit' is used in many ways; to convey a sense of intent – taken in the spirit of, to describe the immaterial part of man-the soul, to describe a person or animal as having a certain type of spirit, and even to describe distilled liquor.

Spirit and spiritual become intertwined with spiritual in the broadest sense being concerned with the inner nature of man, including but not necessarily exclusively, the sacred, related to a deity.

For the purpose of this paper, which explores the relationships between land, spirit and health, it is the work of Csikszentmihalyi^{18,19} that I believe takes us to an understanding of spirit that best enables that exploration.

In his writings through the 1990s^{18,19} Mihaly Csikszentmihalyi examined psychological states conducive to happiness and other positive aspects of human experience. He concluded that the experience of 'flow' is a precondition of happiness, of equanimity; flow being an optimal state of inner experience achieved when consciousness is harmoniously ordered. The opposite state to flow is inner chaos, leading to existential dread, or the fear of there being no meaning to life.

Snowden, Director of the Cynefin Centre for Organisational Complexity, uses the term 'flow'²⁰ to describe that attribute of knowledge which has to do with it being an "active process of relating", requiring attention to the context and narrative as well as to the content attribute.

Csikszentmihalyi's "state of inner experience" flow and Snowden's "active process of relating" flow concepts converge to enable insight as to the nature of spirit which encompasses but is not restricted to the sacred (related to a deity).

It is through flow that the individual grows as a result of both a heightened sense of self-control and of capability, as well as from a sense of being in a union with people and ideas beyond self, a sense of community. For the purpose of this paper this is the spirit. It is a sense of inner self, of purpose, of community and of wonderment.

To the limited extent that this paper deals directly with health I have adopted the definition of health provided by the World Health Organisation, “the state of complete physical, mental and social wellbeing”.

Given these understandings of land, spirit and health our challenge is to create institutional arrangements for rural Australia that enable socially constructed meanings of landscapes to lead to a heightened sense of self-control and of capability, to a sense of being connected with people and ideas beyond self, to a sense of community and hence to an improved physical, mental and social well-being. The National Rural Health Alliance has a critical role to play in designing institutional arrangements to achieve this objective.

WHAT ARE INSTITUTIONAL ARRANGEMENTS?

Institutional arrangements include the traditions and the attitudes and practices of groups, the organisations formed by government, industries and communities and their policies and programs, including laws, regulations, codes of practice, and the operation of markets.²¹ The institutional framework influences and enables individuals to act in the public good.²² It is this framework that enables governance, the exercise of political power to manage a nation’s affairs.²³

Institutional arrangements are underpinned by and reflect our beliefs, values and attitudes^a and it is these elements that when shared constitute culture. Additionally, institutional arrangements may actually reinforce existing or presumed beliefs and values, as is illustrated by evolving institutional arrangements for water management as discussed later in this paper. Alternatively, institutional arrangements may accelerate change in beliefs and values as happened for instance with Landcare. Landcare began as a reflection of the beliefs and values of some concerned citizens and it gradually became institutionalised and converted others to a stewardship mindset.

It is this mutuality between beliefs and values on one hand and institutional arrangements on the other that either constrains or enables our physical, mental and social well-being.

^a The following definitions are drawn from Rogers et al.²⁴:

A belief is a symbolic statement about reality. Beliefs are something accepted as true, especially a particular tenet, or body of tenets. There are, of course, personal beliefs, but it is the collection of shared beliefs that help give definition to a culture and define group perspectives.

Values are symbolic statements of what is right and important. Values are those qualities regarded by a person or group as important or desirable - a set of standards and principles. Values tend to be culturally determined and affect the development of attitudes. They help define propriety within a culture. Again, these influence response to a particular situation.

Norms are symbolic statements of expected behaviour. Within a culture, they define the limits of acceptable behaviour, especially for community members. There are levels of normative expectations within a culture that are maintained by reward or punishment.

These ideational elements of a culture, the beliefs, values and norms, are expressed as attitudes, with the collective influencing behaviour. Attitudes are a state of mind or feeling with regard to some matter.

Determinants of institutional arrangements for rural Australia

Given that the meaning and significance of place cannot be divorced from human experience and culture,¹⁴ it is not surprising that agricultural thinking has had a dominant impact on how we value and relate to land and on the design and operation of institutional arrangements for rural Australia. Agriculture occupies approximately two thirds of the Australian land mass and accounts for about 70 per cent of 'used' water.

In turn, the beliefs and values that underpin agricultural activities are reinforced by the institutional arrangements they spawn as is illustrated by the following quote from one of the nation's most influential rural analytical bodies:

Australia is a country defined by its agricultural sector. Agricultural products were among the first goods traded by this country and remain a critical element of our current and future international trade. Our quality of life is enhanced by the wealth generated by the agricultural sector and the clean, green quality of our food and agricultural products. (ABARE 2000)²⁵

The institutional arrangements governing agriculture were established in the mid nineteenth century and have remained largely unchanged since that time. They are underpinned by valuing the 'development' of our natural resources in part for the sake of economic prosperity and in part by the desire to 'tame' our landscapes.

Now there are moves to take account of the environmental and social impacts of agriculture. However, institutional arrangements create winners and losers, the winners being those organisations and individuals that benefit from maintaining the status quo and the losers being those organisations and individuals whose beliefs and values are not taken into account when the arrangements are put in place. Hence there is rigidity in institutional arrangements, especially when they are based on a relatively narrow set of beliefs and values.

I will illustrate these institutional limitations through an exploration of two contemporary policy issues, water management and the multi-functionality of landscapes.

Water management

There is a rapidly growing awareness worldwide of the need to improve how we manage our water resources. In Australia this recognition has led the Council of Australian Governments (COAG) to accept the need for improved institutional arrangements for water management. The COAG position has prompted many initiatives but I will examine only two of these, illustrative of the direction in which Australia is heading in water management.

In November 2002 a group of environmental scientists, the Wentworth Group, released a national water management manifesto, "Blueprint for a Living Continent".²⁶ The blueprint received extensive media coverage and consideration at the highest levels of government. However, it has not stimulated a broadly based public consideration of the beliefs and values underpinning its various assertions.^{27, 28}

At a regional level the need for improved water management is reflected by, for instance, an investigation of water management in the Murrumbidgee leading to the release recently of the Pratt Report.²⁹ It is still too early to judge the nature and extent of any public debate that might be generated by this report.

These reports reflect existing institutional arrangements and hence have many common elements. Here I will focus on just three; the allocation of property rights, the use of market mechanisms and the role of science.

The Wentworth Group supports the perceived need to better define property rights and for compensation for rights that appear to be diminished. These calls have been heard at the highest levels, as reflected in the following policy positions.

... compensation should be paid where individuals give up property rights in the broader community interest. This payment of fair compensation is not negotiable as far as the Coalition is concerned. (Prime Minister John Howard)³⁰

... if the community demands changes to farm practices in the national or common interest, and those changes devalue the farm asset or reduce farm income, then the community must share the burden. (Deputy Prime Minister John Anderson)³¹

Farmers currently don't have property rights over water, but our new laws will give you secure access rights to water for the first time. (NSW Premier Bob Carr)³²

As observed by the NSW Farmers' Association these positions "don't just come out of the blue. They are the result of hard work by NSW Farmers' Association and the National Farmers' Federation over an extended period".³³

The Wentworth Group sensibly defines the water right in terms of it being "a right to use a proportion of available water for a finite time".²⁶ However, given climate variability and climate change just how this substantially removes the uncertainty allegedly limiting investment, development and environmental flows is far from clear. And in any event, has the certainty of land rights prevented land degradation? Quite the contrary one might attest.

We need to examine the basis for these claims and what might be the national benefit from meeting those claims. As the Wentworth Group says there is only one cake and for every allocated litre there is one not available for an alternative allocation.

The Wentworth Group acknowledges the self-interest of large water businesses ("the history of water development in Australia is a history of articulate interest groups seeking to have water used for their advantage"²⁶) yet it promotes the establishment of a market mechanism to give expression to those interests.

The Wentworth Group advocates that "from 2006, water trading could be limited to those with water".²⁶ But the Pratt Group goes one step further in advocating that farmers have special property rights over water that is 'saved', that is over water which was previously wasted as judged by their own market based criteria. In other words farmers will be rewarded for past waste.²⁹

The domination of priced values is expressed also in the Pratt Group's assertion that the environment be considered as "a commercial customer on equal footing with other water users in the (Murrumbidgee) Valley". What this means is that for environmental purposes the community will buy water currently vested in the community (State). Furthermore the granting of special rights exclusively to some existing water users, in particular to those who have wasted water, will elevate the price the community will need to pay for access to water vested in the State.

The point to be made here is that although the market can be a useful tool to give expression to the values of a community, the market does not establish those values.

Furthermore, there are values that lie beyond commodification, beyond the ability of markets to sensibly price resources for exchange. Environmental flows fall into this category, as do many landscape attributes.

The Wentworth scientists promote a fatal reductionism. They advocate a water policy isolated from considerations of the economic, social, spiritual and biophysical realities of our ecosystems. The lessons of history – even our recent history – are forgotten, not learnt. Most astoundingly, we forget that we are now wrestling with the aftermath of the father of all reductionist programs, the Snowy Scheme.

Lane et al.²⁸ critiqued the Wentworth's position primarily from an institutional perspective and concluded that the Group's assertions "largely elide the key conceptual challenges in the management of the Australian landscape". These authors point also to the domination of the biophysical sciences in the development and advocacy of the Blueprint.

The Pratt Report asserts that in its preparation "every relevant form of expertise has been sought to be harnessed and ideas captured". However, a cursory reading of the report and in particular the list of contributors attests to the invalidity of this claim no matter how well intentioned. The distinction in the Pratt Report between "productive human" use and "environmental" use illustrates the narrow and reductionist approach adopted by the study group.

Surely the lesson here is that there are grave risks in dealing in isolation with one part of the ecosystem. There is no recovery from such a reductionist position. The total ecological jigsaw is greater than the sum of the bits. Once the elements become packaged separately into their own administrative and policy boxes, then wild horses will not pull them back together.

Multi-functionality

The OECD³⁴ defines multi-functionality as the attribute of an economic activity whereby it may have multiple outputs and, by virtue of this, may contribute to several societal objectives at once.

Notwithstanding considerable resistance in international policy forums there now is a wide acceptance of the multi-functionality of agriculture. Some authors argue on efficiency and equity grounds that these multi-functional features should be dealt with separately by policies specifically directed to those ends.³⁵

Other authors argue that consideration of the multi-functional features needs to be embedded in agricultural policies. For instance Edwards and Fraser³⁶ argue that using agri-environmental policies to account for jointly produced agricultural and other outputs potentially is consistent with eco efficiency and ecological integrity. These authors point to the important role to be played by agri-environmental policy in correcting externalities, for instance off-site effects generated by modern agriculture.

Potter and Burney³⁷ suggest that the design of agri-environmental policies needs to accommodate the fundamental interplay between agriculture and production and landscape design objectives, the difficulty being that without broad community involvement it is hard to be sure that public preferences are accurately reflected in current policies.

To varying degrees, it is now recognised that many of the multi-functional features of agriculture (environmental effects, viability of rural communities) are not unique to agriculture. Nevertheless, our institutional arrangements tend to limit consideration of multi-functionality to it being an attribute of economic activity rather than it being set within the broader canvas of the multi-functionality of landscapes. Too often the multi-functional possibilities presented by farms, and in particular the provision of eco-services and landscape design features, are judged wrongly to be inseparable co-products of our economic activities.

GOING FORWARD – WE NEED A REALITY CHECK ON AGRICULTURE

As stated earlier agricultural thinking has had a dominant impact on how we value and relate to land and on the design and operation of institutional arrangements for rural Australia. However, we have a gap between what we do and what we think we do in agriculture and this is driven largely by the institutional arrangements related to agriculture.

The economic importance of the agricultural production sector, the on-farm component, is overstated as is the economic performance of the sector.³⁸ Politicians and community and industry leaders encourage farmers to believe in the special importance of their contribution to economic growth and exports. Farmers, their organisations and their public support agencies build on these cultural norms, closing their minds and those of the nation to other ways of conceiving of rural Australia.

Byrne et al.¹⁶ observe that when there is a gap between reality and an idea, between what we do and what we think or believe we do, it becomes difficult to move forward. When such gaps occur we need to enable new imaginings to emerge which take account of the cultural determinants of landscapes and hence of the relationships between land, spirit and health (see Gleeson et al.³⁹).

These new imaginings will best occur in safe places, that is in environments where participants are protected from institutionally driven adverse reactions to their deconstructions. However, such safe places increasingly are scarce because of the domination of funding arrangements by agri-political influences, the narrow disciplinary and domain experiences of participants, and too much reliance on short-term, project-based competitive funding.

GOING FORWARD – WE NEED CULTURAL CHANGE

Abensperg-Traun et al.⁴⁰ observe that a preparedness to devise, apply and accept environmental restoration measures depends on the degree of ecological literacy of local communities. This requires a discussion process to define what society wants future landscapes to look like and what services they should provide. They argue that an approach is needed that accommodates spatial and temporal scales and an inherent flexibility to deal with new opportunities and changes in public demands. Otherwise, they argue, we will continue with a piecemeal approach that has largely failed to halt biodiversity erosion.²⁰

Similarly Plumwood⁴¹ argues in “Environmental Culture – the ecological crisis of reason” for cultural change to develop an ecologically rational society.

The question is how do we achieve this cultural change?

Gleeson et al.⁴² report that participants at a symposium in 2000 on Australian Values – Rural Policies concluded that institutional arrangements affecting rural Australia need to be informed and shaped by a broader suite of beliefs, values, norms and attitudes than happens now. To enable this we need to understand how cultures develop and how they are expressed in individual and group action.

A range of theories⁴² operates at the individual and social levels about how culture is developed and expressed. Essentially these theories concern the establishment of conceptual frameworks that enable us to interpret reality and to move from one reality to another.

Concepts are tools for thinking not only about how reality gets made, but about how else it could possibly be made ... without concepts all we have is nostalgia for how things once were, or impossible, unobtainable ideals. (Wark)⁴³

Abel et al.⁴⁴ theorise that barriers to communication occur when mental models are incompatible. Increasing the volume of information cannot bridge such barriers, as that would strengthen the barrier by reinforcing a mental model. They postulate that the key is relevance and social relationship.

The importance of beliefs and values lies in their deep, underlying influence on thought and action and we need to understand the complexity of their interrelationships. We need ways to consider values that enable reflection on both the breadth and the depth of those values and of the institutional making process. In this way, new, more integral understandings can emerge, and with them strategies for the renewal of Australian rural institutions.

The implicit, unexamined incorporation of particular values and belief systems within institutional arrangements is likely to perpetuate the same type of problem framing, and give rise to the same solutions that have been seen in the past. To encourage adaptation to change, old ideas need to be reframed. This requires an understanding of the breadth and depth of the nature of rurality and of how institutions evolve, rather than the continued application of superficial analysis.

Gleeson et al.⁴² suggest several pointers for developing institutions for rural Australia that reflect broader sets of beliefs and values, including the need to cater for diversity, for transparency, for broadly based engagement and for equity across space and generations. Additionally, it is important that processes to improve environmental management and landscape design, such as those advocated by Australian Land Management System Ltd, are designed and implemented so that they enable the broadest possible sets of beliefs and values to be taken into account. It is critical that organisations such as the National Rural Health Alliance and regional and local health services are invited and resourced to participate in these developments.

CONCLUSION

There is a significant body of opinion that points to an important relationship between land, spirit and human well-being. This relationship is founded on the cultural determinants of landscapes. The culturally constructed determinants of landscapes, however, are largely excluded from agriculture-centric, reductionist and mercantile analyses that govern the nature and operation of institutional arrangements for rural Australia.

A fuller expression of the relationship between land, spirit and well-being will only be possible through consideration of a broader set of beliefs and values than occurs now in institutional analyses. In turn this will be possible only through participation in those analyses of individuals who bring to the table new insights, insights less constrained by the dominant paradigms of commodification and scientific determinism and by sectional interests. These analyses and conversations need to happen in safe places for they will challenge our long held beliefs and values, beliefs and values reinforced by the institutions and power balances to which they gave birth.

ACKNOWLEDGMENTS

My thanks are extended to the National Rural Health Alliance and in particular to the Executive Director of the Alliance, Gordon Gregory, who provided me with the opportunity to prepare this paper. I wish also to thank my colleague Laurie Lewis without whose help I would not have been able to make this contribution.

REFERENCES

- 1 Gesler, W. Therapeutic landscapes: Medical issues in light of the new cultural geography. *Social Science & Medicine* 1992; 34(7):735-746.
- 2 Gesler, W. Therapeutic landscapes: Theory and a case study of Epidauros, Greece. *Environment and Planning D: Society and Space* 1993; 11:171-189.
- 3 Williams, A. Therapeutic Landscapes in Holistic Medicine. *Social Science Medicine* 1998; 46(9):1193-1203.
- 4 Frumkin, H. Beyond Toxicity: Human Health and the Natural Environment. *American Journal of Preventative Medicine* 2001; 20(3): 234-240.
- 5 Milligan, C., Gattrell, A. and Bingley, A. "Cultivating health": therapeutic landscapes and older people in northern England. *Social Science & Medicine* 2004; 58:1781-1793.
- 6 Appleton, J. *The experience of landscape*. Chichester: Wiley; 1975.
- 7 Mealey, L. and Theis, P. The relationships between mood and preferences: An evolutionary perspective. *Ethology and Sociobiology* 1995; 16: 247-256.
- 8 Taylor, B. Earth and Nature-based Spirituality (Part I): From Deep Ecology to Radical Environmentalism. *Religion* 2001; 31:175-193.
- 9 Taylor, B. Earth and Nature-based Spirituality (Part II): From Earth First! And Bioregionalism to Scientific Paganism and the New Age. *Religion* 2001; 31:225-245.
- 10 Taylor, B. A green future for religion? *Futures* 2004; 36:991-1008.
- 11 Sessions, R. Deep Ecology versus Ecofeminism: Healthy Differences or Incompatible Philosophies? In K.J. Warren (ed) *Ecological Feminist Philosophies*. Indiana University Press; 1996, p. 137-154.
- 12 Tacey, D. *ReEnchantment: The New Australian Spirituality*. Sydney: Harper Collins Publishers; 2000.
- 13 Bender, B. Introduction: Landscape Meaning and Action. In B. Bender, (ed.) *Landscape: Politics and Perspectives*. Berg, Providence and Oxford; 1993.
- 14 McIntyre-Tamwoy, S. Places people value: Social significance and cultural exchange in post-invasion Australia. R. Harrison, and C. Williamson (eds) *After Captain Cook: the archaeology of the recent indigenous past in Australia*. Sydney University Archaeological Methods Series 8; 2002, p.171-190.
- 15 McIntyre-Tamwoy, S. My Barrier Reef: Exploring the Bowen Community's attachment to the Great Barrier Reef. *Historic Environment*, 2004; 17(3).
- 16 Byrne, D., Brayshaw, H. and Ireland, T. *Social Significance: a discussion paper*. Hurstville, NSW, NSW National Parks and Wildlife Service, 2001.
- 17 Cox, G., Dale, A. and Morrison, T. Limitation and Opportunity: The institutional basis for social assessment in natural resource management in Australia. In A. Dale, N. Taylor, M. and Lane (eds) *Social Assessment in Natural Resource Management Institutions*, Melbourne; CSIRO Publishing 2001; p. 74-92.
- 18 Csikszentmihalyi, M. *Creativity: Flow and the Psychology of Discovery and Intervention*. New York: HarperCollins; 1996.
- 19 Csikszentmihalyi, M. *Flow: The Psychology of Optimal Experience*. New York: Harper & Row; 1990.

- 20 Snowden, D. (2002) Complex acts of knowing – paradox and descriptive self-awareness. United Kingdom: IBM Global Services, 2002.
- 21 Ball, R. "Institutions of Innovation and Prosperity", Occasional Papers 58, St Leonards; The Centre for Independent Studies, 1996.
- 22 Saul, J. The Unconscious Civilisation, Victoria: Penguin Books, 1996.
- 23 Weller, P. "In Search of Governance", in M. Keating and G. Davis (eds.) The Future of Governance: Policy Choices. St Leonards: Allen and Unwin, 2000.
- 24 Rogers, E. M., Burdge, R. J., Korsching, P. F. and Donnermeyer, J. F. Social Change in Rural Societies. New Jersey: Prentice Hall, 1988.
- 25 Australian Bureau of Agriculture and Rural Economics (ABARE) Sustaining the Nation: Celebrating 100 Years of Agriculture to Australia. Canberra; ABARE, 2000. Australian Bureau of Statistics, 1996.
- 26 The Wentworth Group. Blueprint for a living continent: A way forward from the Wentworth Group of concerned scientists. Australia: World Wide Fund for Nature Australia, 2002.
- 27 Gleeson T. Have the scientists got it right this time? 3 January 2003 Available at <http://www.onlineopinion.com.au>. Accessed January 2005
- 28 Lane, M. McDonald, G. and Morrison, T. (2004) Decentralisation and Environmental Management in Australia: A Comment on the Prescriptions of the Wentworth Group. Australian Geographical Studies March 2004; 42 (1): 103-115.
- 29 Pratt Water. The Business of Saving Water, The Report of the Murrumbidgee Valley Water Efficiency Feasibility Project. Campbellfield, Victoria: Pratt Water, 2004.
- 30 John Howard November 1, 2001; NSW Farmers' Association Press release August 2003.
- 31 Speech by (Deputy Prime Minister) John Anderson to the NSW National Party Annual Conference Albury 2002 June 15; NSW Farmers' Association Press release August 2003.
- 32 Announcement by NSW Premier Carr to Annual Conference of the NSW Farmers' Association 2002 July 23; NSW Farmers' Association Press release August 2003.
- 33 NSW Farmers' Association has succeeded in putting property rights on the political agenda at national and state levels – & We Will Not Give Up! The Land 2003 August 28; NSW Farmers' Association Press release August 2003.
- 34 Organisation for Economic Co-operation and Development (OECD) Multifunctionality: Towards an Analytical Framework. Paris: OECD Publications Services, 2001.
- 35 Freeman, F. and Roberts, I. ABARE Current Issues: "Multifunctionality": A pretext for protection? Canberra: Rural Industries Research & Development Corporation, August, 1999.
- 36 Edwards, G. and Fraser, I. Reconsidering agri-environmental policy permitted by the Uruguay round agreement. Ecological Economics 2001; 37: 313-326.
- 37 Potter, C. and Burnley, J. Agricultural Multifunctionality in the WTO – legitimate non-concern or disguised protectionism? Journal of Rural Studies 2002; 18: 35-47.
- 38 Gleeson, T. and Piper, K. "Institutional Reform in Rural Australia: Defining and Allocating Property Rights" in Property: Rights and Responsibilities. Current Australian Thinking. Canberra: Land and Water Australia, 2002.
- 39 Gleeson, T., Russell, G. and Woods, E. Environmental Factors Affecting Creativity in Agricultural Research in Australia. Canberra: Rural Industries Research & Development Corporation, 1999.

- 40 Abensperg-Traun, M., Wrbka, T., Bieringer, G., Hobbs, R., Deininger, F., York Main, B., Milasowszky, N., Sauberer, N. and Zulka, K.P. Ecological restoration in the slipstream of agricultural policy in the old and new world. *Agriculture, Ecosystems and Environments* 2004; 103: 601–611.
- 41 Plumwood, V. *Environmental Culture: The Ecological Crisis of Reason*. London: Routledge, 2002.
- 42 Gleeson, T., Turner, C., Beeton, B. and Drinan, J. Digging Deeper: Reflections on a Symposium on Australian Values in T. Gleeson, C. Turner and J. Drinan (eds) *Rural Policies in Australian Values – Rural Policies: Proceedings of a Symposium held in Old Parliament House in the Year 2000*. Canberra: Rural Industries Research & Development Corporation, 2005.
- 43 Wark, M. *Celebrities, Culture and Cyberspace, the Light on the Hill in a Postmodern World*. Australia: Pluto Press, 1999.
- 44 Abel N., Ross H., Herbert H., Manning M., Walker P. and Wheeler H. *Mental Models & Communication in Agriculture*. Canberra, Rural Industries Research & Development Corporation, 1998.
- 45 Gleeson, T., Crawford, P. and Douglas, J. *Guide to Australian Landcare Management*. South Brisbane, Australian Landcare Management System Ltd, 2004.