Forest Landscape Assessment: a Tasmanian Critique

Jim Russell
Centre for Environmental Studies
University of Tasmania

Abstract

Attention to forest landscape values may seem to be well covered by an established method, the Visual Management System, but that has the limitation of being primarily an aesthetic model. This paper argues that landscape is too complex a matter to be satisfactorily dealt with by assessment models that are single-purpose rather than holistic. The paper offers preliminary suggestions for modes of forestry planning that accept involvement and debate from the general community. The importance of the community's role is explained in terms of connections between landscape and the formation of personal, social and national identity.

Background

Considering how long there has been conflict over forestry in Australia, it is surprising that the academic literature in forestry has focused mainly on biology and environmental impact, saying little about the wider dimension of landscape. Why there is an absence of scholarly comment in this field is not readily apparent. Perhaps it is because of the lack of confidence in coming to terms with the continent that has been attributed to Australians in general - see, for example, Powell (1979). Or it may mirror the actual treatment of landscapes in this country. There are many indications that in Australia, just as in Britain, the USA and some other countries, landscape is considered only a residual element in management of the countryside, an element created unconsciously through resolving conflicts in the use of resources (Cloke and Park 1985).

Critical analyses of methods of assessing forest landscape are available, but most of them originated outside Australia. The release of *A Manual for Forest Landscape Management* (Forestry Commission, Tasmania 1990) provides an opportunity for reconsidering approaches to landscape and applying some of the published material to the Tasmanian situation.

The Tasmanian *Manual* represents work done in the Forestry Commission over many years. The work began with the secondment of successive landscape architects from the U.S. Forest Service and was then carried on by a locally trained landscape planner. The Americans brought with them the Visual Management System (VMS), a methodology already well-established in the U.S. for assessing forest landscapes and developing landscape management plans. It was adapted to local conditions in Victoria (see Leonard and Hammond 1984) as well as in Tasmania (Forestry Commission, Tasmania 1983). This was probably in response to concern over increased logging of native forests at the time of the introduction of the woodchip industry. That concern, in turn, mirrored a growing maturity in the community at large, both in its perceptions of Australia as 'home' and in its sense of Australia's uniqueness.

Evaluated in the light of landscape theory, VMS is a single-purpose model devoted solely to the management of the 'visual resource'. If we are faced with the choice, it is indeed much better to have personnel with visual landscape skills involved in the planning of logging and regeneration than not to have them there at all. Yet this does

not mean that such advisers will necessarily take into account the full range of the general community's concerns for landscape. Consequently, in incorporating VMS and its associated techniques, the new *Manual for Forest Landscape Management* seems too willing to accept that forestry activities are not driven by concerns about landscape itself. As the various pieces of legislation central to the conduct of the forestry industry demonstrate, the Tasmanian Government has for many years favoured the exploitation of wood products over forest landscape planning.

Encounters with landscape

The look of landscape, which is what VMS is concerned with, is only one of a wide range of factors determining human responses to landscape. A wider spectrum of meanings involved in 'landscape' has been considered by such authors as Relph (1981), Cosgrove (1984) and, in Australia, Taylor (1988). For some commentators, landscape can be defined narrowly and precisely, while for others it is a multi-faceted and elusive concept. Van Pelt (1980) for instance, in suggesting design principles for conifer plantations, equated the term *landscape* simply with 'the visual expression of the land'. At another extreme, Tuan (1979) saw it as a product of mind and feeling. The word *landscape* denoted human experience of life-support settings together with a vast range of other responses, including moral and aesthetic ones.

The Tasmanian forest landscape manual, in avowing a focus on the 'visual characteristics of the land', adopts the limited type of definition. Yet the wider meanings are of primary interest here, and indeed the visual account of the landscape is an abstraction that may rarely, if at all, describe how people experience the landscape. This is not to deny that the visual has a role, but it is only one component in people's experience of landscape. Psychology recognises this sort of complexity as characteristic of human perception in general (Reber 1985).

This recognition clashes with the meanings that have been commonly attributed to the idea of landscape in Western cultures, where the visual or scenic model of landscape has been the dominant one. Cosgrove (1984) examines the historical use of the concept as ideology and as socially and culturally determined. The circumstances in which the concept of landscape developed in the West have led to a restrictive way of seeing. An emphasis on 'sight, distance and separation' diminishes 'alternative modes of experiencing our relations with nature'. The very word *landscape* implies the perspective of a detached observer. In this view, landscape has been a tool used by sectional interests, helping them towards ownership and control of land and its resources. As such, the idea of landscape has not yet been called upon 'to give force to . . . our own inalienable experience of home, of life and of the rhythms of diurnal and seasonal life'. And this tradition of landscape as 'scenery' has been sustained by the public sector land management bureaucracies of today (Cosgrove 1984).

To be convinced, readers may well want to trace with care the historical details on which these arguments depend. But it is this *kind* of account, delineating conflict between 'official' versions of landscape and the responses of people closely involved with the land, that at least helps to explain why landscape architects and other professionals have had difficulties when trying to assess landscapes. Environments become invested with values that express ties between person and place, and the attempt to provide an 'objective', once-and-for-all specification of quality cannot cope with this (Powell 1981). This critique strikes a chord with the type of phenomenological environmental research that builds theories about relationships between humans and their surroundings - see, for example, Relph (1976), Seamon (1982), or Datel and Dingemans (1984). Condon (1990) rejects the notion of the self as something separate from the rest of reality: landscape becomes part of one's 'lifeworld', which is 'neither matter nor mind but [is]

constituted of the relationship between the two'. This does not make measurement or other specification of the physical world wholly impossible, but it does mean that the measuring cannot pretend to represent human experience. The same would be true of formal dissection of a Rembrandt painting: aesthetic principles cannot encompass the range of human responses to art.

So then, when the *Manual for Forest Landscape Management* asserts that 'the principles by which we can judge the aesthetic values of a landscape have been clearly defined' (p. 14), this *may* be true, but it is invoking criteria that are reductive in terms of human responses. It is also failing to make use of another important idea in the phenomenological approach to landscape - the distinction between the personal stance of 'insiders' (such as people who have family farms in a particular area) and 'outsiders' (such as professionals who are assessing the quality of the area's landscape).

This article has space for only summary treatment of the fact that landscape can give rise to complex layers of significance at personal, community and even national levels. Places can be redolent with meaning for people, in accordance with their experiences in life. As Berger has put it, landmarks are not only geographic but also biographical and personal (quoted by Cosgrove 1984). Meanings shared widely amongst communities are themselves part of the human experience: in the Tasmanian context, Mount Wellington is a good example of how an element in landscape can come to symbolise a range of values for the residents of a city. So the 'socially charged landscape' of Powell (1979) is no hollow phrase. Australian landscapes enter into national identity and culture. Even for city folk, they offer images that can focus intellectual and emotional responses, helping people to define who they are and what they are as inhabitants of this particular continent.

In Australia, the most striking examples of how identity and culture - both individual and collective - can be defined by landscape are to be found amongst the Aboriginal peoples. So strong are the links between the people and the land, that it seems reasonable to judge that nature and culture are not merely closely related but are actually one entity (Russell 1990). The focal points of the interrelationship are sacred sites. These 'are merely pin-points or markers in a sacred or significant landscape, and [they] derive their significance from it' (Sullivan 1985; and see also, for instance, Eliade 1973; Myers 1986; Neidje 1989).

A strong case has been made for promoting closer connections between landscape and national identity amongst the rest of Australians. Powell (1979) contends that a primary means by which Australians are beginning to achieve a confident self-image, and beginning to take spiritual possession of the country, is the historical exploration of their relationships with it, 'both positive and negative'. But in so far as their environmental behaviour is still 'full of a kind of dangerously naive self-abuse', they have not yet learned to identify with the national territory (Powell 1979).

This takes us to another aspect of landscape that has only recently begun to gain recognition in Australia - the cultural landscape and its conservation. Because the historical pattern of settlement across entire regions contributes to the understanding of a people's present as well as their past, the realisation is dawning in this country that landscapes can be just as valid a focus of historical interest as the buildings and other structures that have been conventionally labelled 'heritage' (Russell 1989). Perhaps this expansion of the nation's heritage, quite apart from its direct comment on landscape as bearer of historical meaning, will converge with other changes which we can now discern in the ways in which people perceive landscapes. I have given a fuller account elsewhere (Russell 1988) of evidence showing that many Australians have come to 'see' landscapes in ways that are informed by ecology and other natural sciences. This

environmental aesthetic runs parallel to a cultural-historical one that revalues familiar surroundings by offering historical perspective (Smith 1976).

All this would suggest that the 'scenic' aesthetic, based on conventions of visual composition, is under attack on a number of fronts. It is too early, however, to predict whether the concept of landscape itself will undergo a fundamental shift as a result of a re-ordering of the ways in which humanity perceives environments. On grounds of environmental concern, there would be no shortage of supporters for a shift away from the idea of landscape as 'distanced visual possession' (Cosgrove 1984) towards concepts more expressive of identification with the land, or what Young (1988) calls 'environmental bonding'.

Principles for judging landscape aesthetics

So far, this paper has looked at parts of the wider context in which landscape assessment techniques can be evaluated. The methods of the VMS are now examined in that system's own terms - that is, as a means of judging the aesthetic quality of landscapes. Given the difficulty of isolating the faculty of sight from other aspects of human experience, readers should not be surprised that the discussion will have to go beyond what is strictly visual.

Queries about the methodology of the VMS arise from two of its assumptions. It assumes (1) that people's aesthetic judgements inevitably correlate with variety in landscapes; and (2) that there can be a fixed 'value' for the quality of a landscape. Neither premise is unassailable. The *Manual for Forest Landscape Management* at first claims only that there is a tendency for the aesthetic appeal of a landscape to correlate with its variety; but this 'tendency' is treated as something inevitable when the *Manual* goes on to apply the VMS to actual landscapes.

It is true that researchers showing people a selection of landscape photographs find that respondents generally favour wild, rugged scenes over others. This preference, expressed in response to a request to say what you 'like best', is assumed to arise from contrasts - contrasts brought about by complex variation in landform, or by colours and textures in vegetation (forest edging against buttongrass plains, for example), or perhaps by the most 'lively' stretches of streams, such as waterfalls and cascades. Theoretical bases for such preferences, sometimes in opposition to one another (see Cosgrove 1990), cannot be discussed here. The relevant point is the plethora of methodological details that one might question, such as the relationship between normal life circumstances and the use of photographs, or even the very requirement for people to express a choice. Furthermore, the principle that increasing variety in landscape will predicate higher quality falls down where variety (at least on the grand scale) is apparently absent and thus not available for subjection to a rating system. Landscapes with few measurable zones, such as Canada's prairies, are condemned to aesthetic ignominy (Evernden 1981). Yet there are passionate lovers of the prairies. There must be factors other than visual variety at work to attract them.

Defenders of the VMS might argue that this criticism fails to take into account the division of a large area such as Tasmania into physiographical regions of 'Character Types' within which quality can be assessed. That kind of division would avoid the pitfall of trying to rate, say, the Western Arthurs against prairies (assuming, for the sake of illustration, that there were prairies in Tasmania). Nevertheless, for landscape, the very process of rating leads to a notional downgrading of some of its parts. This is well illustrated in a photograph on p. 167 of the *Manual*, where a 'prominent mountain landmark' is classed as being of 'High Scenic Quality', while savannah-like 'extensive areas of the same vegetation on gentle slopes at its foot' are said to be of 'Low Scenic Quality'.

Some people might well feel a sense of outrage at seeing this dissection of a broad sweep of

country - something which they could reasonably expect to respond to as a whole, rather than in separate bits. But quite apart from that, there is the fundamental problem of having a large part of it represented as being somehow of a lower class. It is as if nobody ought to be able to find supreme beauty there, even if their mood and circumstances (such as having a feeling of elation at being privileged to experience such wide open spaces) were favourable.

Another factor not being taken into account in the 'Low Scenic Quality' judgement is that the enjoyment of the environment may not especially depend on the faculty of sight. The idea was expressed in the 1930s by advocates for securing access to the countryside in England: 'the intentions were not to see landscape, so much as to experience it physically - to walk it, climb it or cycle through it' (Cosgrove 1984). 'Low Scenic Quality' offers no comfort to someone who may be intensely involved in this landscape, perhaps a local who knows it intimately in all its seasonal rhythms, or a visitor returning to it again and again as a much-loved place. The conclusion must be that although there may be aesthetic 'laws' that would explain why some scenes are attractive under some circumstances, they are not the sole determinants of how people value landscapes. Intentions to invest places with value also guide their judgements.

Once classified under the VMS, landscapes around Tasmania presumably retain their given 'variety class' rating (High, Medium, Low) forever. Here again the assumption seems to be that the values are fixed, and that there are built-in characteristics making some parts of the environment inherently superior to others.

According to Evernden (1981), such an assumption was virtually made mandatory under U.S. national environmental legislation in the late 1960s. As a result, intangibles such as landscape-as-visual-resource became encoded in systems such as the VMS. What in personal experience was a response to place had to be reified, converted into a thing responded to, something constant that could be measured and rated. In practice, however, the ephemeral qualities in landscape are precisely relevant to the assessment of landscape. What is being viewed can change, along with respondents' emotions. With factors like sunlight, cloud and seasonal variations at work, the 'visual resource' under assessment is anything but constant.

Advocates of the VMS may produce two counter-claims against my argument. Firstly, they may point out that it is not the quality rating alone that determines the visual management strategy for a forested area: its status as a 'Landscape Priority Zone' can change in accord with other factors that are included in the method. As new tourist roads are built in an area, for example, the viewing public will change, both in numbers and in intent. Thus the quality classification does not solely determine management outcomes. Although this is true, it is not central to the present discussion. What is in question is whether Tasmania's forest landscapes are part of a *hierarchy* of quality. A particular landscape's position in an assigned hierarchy will contribute directly to the managerial decisions that are taken.

Secondly, it may be argued by proponents of the VMS that research into public preferences about landscape tends to back up the quality ratings given in the Tasmanian *Manual*. Or, to put it the other way round, what is actually reflected in the ratings is the public response to landscapes. Here I would once again question the validity of published research findings on the matter of public preferences in landscape. Earlier in this article I criticised both their methods and some failures to account for people's seemingly motiveless love of a relatively featureless landscape such as a prairie. There is an additional basic issue, however. Does society really want the future of its public landscapes settled by what amounts to being a popularity poll? There is a conundrum here that has been summed up nicely: 'For some persons, the prospect of adopting systems that promise to do for

landscape what the ratings system does for television is not cheering' (Evernden 1981).

Conclusions and suggestions for future directions

This paper argues that Tasmania's *Manual for Forest Landscape Management,* in dealing with scenic beauty alone, attends to only one facet of the multidimensional human experience of landscape. The 'scenic' tradition, although it may have been fashionable once, is not fashionable in the 1990s, and in any case it pays little regard to such experience as a sense of 'homeness' or of belonging in a landscape.

This critique lays no claim to comprehensiveness. There are further aspects of the *Manual* that could be discussed: the scale at which landscapes are assessed in relation to viewers' intentions, for example; or the reliability of assessments; and broader issues, including the integration of landscape techniques with other assessments, such as those based on biological factors. There are matters of detail, too, some of which are of great importance in the implementation of landscape protection. For instance, the *Manual's* suggestions for 'recommended alteration' resulting from forestry activities in an area (in line with its Landscape Priority Zone classification under VMS) are governed by the criterion of what can be seen by the 'casual observer' (p. 42). Such a standard relies on the notion of the 'detached observer' - an observer whose whole stance in fact tends to conflict with findings from the social and cultural study of landscape (see, for example, Crouch 1990). These findings might well suggest that the views of the *committed* observer are what deserve most weight.

It has been a long and sometimes difficult struggle to get the 'landscape message' before forest managers' eyes. Even now, the Forestry Commission in Tasmania employs only one landscape professional. To suggest that the Forestry Commission's methodology is not broad enough may not be popular. On

the other hand, some members of the public suspect that the effort being made is cosmetic rather than substantial. Sceptics might even take the view that it scarcely matters what sort of assessment techniques are used, since there can be no confidence that informed consideration of the State's landscape character, its meanings to Tasmanians and its future are being included in the calculations of forest use. It may be claimed that there has been no concept of using landscape planning as a basis for decisions about the allocation of forest resources, but only a belated introduction of landscape 'cosmetics' aimed at minimising damage.

This possibility - that landscape assessment and treatment achieve only limited effect, if the major decisions about extracting resources have already been made and executed - recalls the operational definition that I quoted earlier: landscape defined as only a residual element in management (Cloke and Park 1985). The impression is reinforced by the VMS's invocation of what is most popular and scenic, since it virtually sets these qualities up in opposition to the ordinary, which can also be highly valued for numerous reasons intimately bound up with the experience of landscape. This detracts from much of the intent of the *Manual,* directed as it is towards achieving the best possible landscape outcomes for all areas of Tasmania that are subject to forestry activities.

Any quest to make forestry planning give expression to wider and perhaps deeper experiences of landscape is hampered by the lack of research in this country into the bonds between people and their surroundings. But some useful principles can be stated. Firstly, connections between particular landscapes and the people most intimately involved with them could be canvassed and treated with respect (Powell 1981). Such an initiative may not always sit comfortably with a large bureaucracy's charter, especially if there is rivalry between local control and State or even regional aims; yet it is difficult to see how local values can be taken into account in

any other way. Secondly, the methods that the heritage professions have developed for establishing the cultural significance of places can be helpful. They could illuminate the values invested in landscapes more reliably than can visual assessment on its own. A history of local settlement, for instance, might point to residual physical evidence of some earlier pattern of land use that would help to explain why the landscape is as it is today - and why it is loved.

There are no easy answers. Australia exhibits a range of problems surrounding the expression of heritage values. The violence that can be done to local communities by having 'official' histories imposed by outsiders is an example (see Griffiths 1987). Also, this country has only limited experience in determining cultural values. It was only in 1989 that the Australian Heritage Commission began investigating how the social significance of places might be assessed, even though 'aesthetic, historic, scientific or social significance or other special values' have always been listed by the *Australian Heritage Commission Act 1975* as bases for the inclusion of places on the National Estate Register. Methods for determining the cultural significance of places need to be more firmly established if the diverse meanings of landscape are to reach the planning agenda.

It is possible, of course, that many Australians either do not have deep attachments to landscapes, or, more probably, cannot express the links that they have formed. If they are not used to describing their relationships with their surroundings, they are probably inclined to see the environment at large as always being someone else's concern. The point that they are missing is that landscapes and places are created by people (Powell 1979). Conversely, and putting it in more literary terms, 'It is our self we are making out there' (Malouf 1978). While some portray Australians as great makers of a country, the fact remains that we have few avenues in this culture for identifying and articulating attachment to place. There seems to be little

affirmation of the idea of landscapes as community heritage. It may be that people are hesitant to form too close an association with heritage, which can be seen as official, bureaucratic, and imposed from outside (and from above). In Tasmania in particular, some sections of the population may see the idea of landscape as heritage as a political weapon promoting the ascendancy of the 'green' movement in the making of decisions about resource allocation.

One model, and a source of inspiration, for popularising the idea of landscape as heritage comes from England's Common Ground organisation. Common Ground undertakes projects to encourage people to see and express the values in their ordinary surroundings: the principle is that these values 'embody the spirit of our everyday culture' (King and Clifford 1987). One such campaign, called 'Local Distinctiveness', provides a means for communicating appreciation of developments or projects that have been 'sympathetic to place, people, land, wild life, history and culture, creating new and positive identity'. (The quotation is from a Common Ground advertisement in *Landscape Research News Extra*, 6, Summer 1990). Another promotion, the 'Parish Maps Project', sought response to locality by involving communities in producing and exhibiting their own maps, including elaborately embroidered pictorial pieces (Rogers 1988).

Educative processes concerning landscape, tantamount to self-education can work very well. This is not a new realisation in Australia. Powell (1979) called for 'research/ educative processes aimed at investing neglected or abused landscapes with meaning'. Within the ambit of such self-education could come the education of the bureaucracies themselves, particularly with respect to their pursuing a continuing dialogue with the community at large. A new approach to the evaluation of landscape might then gradually evolve, with its emphasis on community dialogue rather than on professional assessment. This sort of

suggestion is also usually anathema to bureaucracies: they tend to view public participation as too complex and time-consuming, if not actually obstructive to the making of decisions. Yet there would seem to be little conflict between the avowed aims of bodies such as the Forestry Commission and sponsorship of community projects exploring, say, 'local distinctiveness'.

That kind of shift in orientation would not imply that professional assessment, including visual assessment, was no longer needed - especially as education does not occur overnight. What might happen is that at least part of the professional role would gradually change from being that of an expert to being that of a facilitator, stimulating people's landscape education. If, on the other hand, these matters are left entirely in the hands of experts, there is little chance that the values that people invest in their surroundings will figure in decision-making. At present, the instituting of techniques like the VMS tends to mask the need for public discussion of evolving values in Tasmania's forest landscapes. Opportunities for exposing the interactive role of people with landscape are being missed. So also are potential contributions to community and national identity.

Acknowledgement

References

Cloke, P.J. and Park, C.C. (1985) *Rural Resource Management*. Croom Helm, London.

Condon, P. (1990). Phenomenological approaches to landscape, place and design. *Environmental and Architectural Phenomenology Newsletter* 1(3): 3-4.

Cosgrove, D.E. (1984) *Social Formation and Symbolic Landscape*. Croom Helm, London.

Cosgrove, D. (1990) Landscape studies in geography and cognate fields of the humanities and social sciences. *Landscape Research* 15(3): 1-6.

Crouch, D. (1990) Culture in the experience of landscape. *Landscape Research* 15(1): 11-19.

Datel, R.E. and Dingemans, D.J. (1984) Environmental perception, historic preservation, and sense of place. In: *Environmental Perception and Behaviour: An Inventory and Prospect* (eds T.F. Saarinen, D. Seamon and J. Sell). University of Chicago, Department of Geography, Chicago.

Eliade, M. (1973) *Australian Religions: An Introduction*. Cornell University Press, Ithaca, New York.

Evernden, M. (1981) The ambiguous landscape. *The Geographical Review* 71: 147-157.

Forestry Commission, Tasmania (1983) *The Forest Landscape Visual Management System*. Bulletin No. 9. Forestry Commission, Tasmania.

Forestry Commission, Tasmania (1990) *A Manual for Forest Landscape Management*. Forestry Commission, Tasmania.

Griffiths, T. (1987) *Beechworth: An Australian Country Town and its Past*. Greenhouse Publications, Richmond, Victoria.

King, A. and Clifford, S. (1987) *Holding your Ground: An Action Guide to Local Conservation*. Wildwood House, Aldershot, United Kingdom.

Leonard, M. and Hammond, R. (1984) *Landscape Character Types of Victoria*. Forest Commission, Victoria, Melbourne.

Malouf, D. (1978) *An Imaginary Life*. Chatto and Windus, London.

Myers, F. (1986) *Pintupi Country, Pintupi Self: Sentiment, Place and Politics among Western Desert Aborigines*. Smithsonian Inst. Press, Washington, and Aust. Inst. of Aboriginal Studies, Canberra.

Neidje, B. (1989) *Story about Feeling*. Magabala Books, Broome, Western Australia.

Powell, J.M. (1979) Landscapes and dialectics: incitements to a public expedition. *Landscape Australia* 1(4): 190-196.

Powell, M. (1981) The magic of landscape. *Ecos* (Journal of the British Association of Nature Conservationists) 2(3): 2-6.

Reber, A.S. (1985) *The Penguin Dictionary of Psychology*. Penguin Books, Harmondsworth, England.

Relph, E. (1976) *Place and Placelessness.* Pion Limited, London.

Relph, E. (1981) *Rational Landscapes and Humanistic Geography.* Croom Helm, London.

Rogers, B. (1988) On common ground: a perceptual approach to environmental education. In: *Sailing on an Inland Sea* (ed. S. Traynor). Proc. 5th Nat. Conf. Australian Association for Environmental Education, Alice Springs, 2-6 Oct 1988. Centralian Organisation for Outdoor Education, Alice Springs.

Russell, J. (1988) Cultural heritage, history and environmental perception. In: *Sailing on an Inland Sea* (ed. S. Traynor). Proc. 5th Nat. Conf. Australian Association for Environmental Education, Alice Springs, 2-6 Oct 1988. Centralian Organisation for Outdoor Education, Alice Springs.

Russell, J.A. (1989) The genesis of historic landscape conservation in Australia. *Landscape and Urban Planning* 17: 305-312.

Russell, J. (1990) The cultural dimensions of the Australian environment. *Historic Environment* 7(3,4): 15-20.

Seamon, D. (1982) The phenomenological contribution to environmental psychology. *J. Env. Psych.* 2: 119-140.

Smith, B. (1976) On perceiving the Australian suburb. In: *Man and Landscape in Australia* (eds G. Seddon and M. Davis). Australian Government Publishing Service, Canberra.

Sullivan, S. (1985) Cultural resource management and historical studies. In: *History and Cultural Resources Project, Part 2: Seminar Papers, CRASTE Paper No. 3.* Committee to Review Australian Studies in Tertiary Education - CRASTE. CRASTE, Canberra.

Taylor, K. (1988) Cultural landscapes: meanings and heritage values. Masters thesis, University of Melbourne.

Tuan, Yi-Fu (1979) Thought and landscape: the eye and the mind's eye. In: *The Interpretations of Ordinary Landscapes* (ed D.W. Meinig). Oxford University Press, New York.

Van Pelt, J. (1980) Landscape analysis and design for conifer plantations. *Aust. For.* 43(3): 178-188.

Young, G. (1988) *Conservation, History and Development.* Department of Environment and Planning, Sydney.

Tasforests