

CHAPTER 8 RETROSPECT AND PROSPECT

8.1 THE UNIQUE QUALITIES OF THE MOUNT LOFTY RANGES

The Mt Lofty Ranges are an outstanding example of a cultural landscape that has been changed markedly through human use over nearly 180 years but which still exhibits qualities which delight people. The popularity of the Ranges for living and for recreating shows no sign of abating and will continue from times past to times future. Indeed with improved accessibility, the urban shadow of the adjacent metropolis, Adelaide, spreads inexorably across the Ranges into its hidden depths.

The early explorers and settlers, while seeking productive areas, were very mindful of the beauty of the Ranges, as exemplified by the comment by George French Angas in 1847: "From the summits of the Bugle range, the eye wanders over crowded hills, thickly sprinkled with wood, in all the beauty and grandeur of their primeval state."

There was certainly the view that the colonizers were changing the landscape, such as the comment by Bennett in 1847 "I can scarcely imagine a more interesting scene than to observe a country in the course of being rescued from nature" and Angas's comment about the woodman's axe echoing through the solitude of the Mount Lofty Ranges represented the "dawn of civilisation and industry."

But in bringing about change, the settlers also created landscapes that were often more pleasing to the human eye, modifying the extensive dense forests and woodlands to mosaics of trees, fields, orchards and vines. By the late 20th century, there was widespread appreciation of the aesthetic qualities of the Ranges, as evidenced by the activities of bodies such as the Mount Lofty Ranges Association by the many seminars held on the future of the Ranges, and by the report of the State Planning Authority into the Ranges in 1974.

As noted in Chapter 2, the State Planning Authority concluded from its study of the Ranges: "The protection of natural beauty should be the overriding policy governing all decisions relating to the development and use of land in the Mount Lofty Ranges." At the time there was considerable interest in the establishment of a body to oversee and protect the beauty of the Mt Lofty Ranges, and models such as the English National Parks over private land were proposed. However such interest waned over the succeeding decades.

The current World Heritage nomination proposal is different as it focuses more on the impetus and pattern of settlement than on the beauty of the Ranges. There is scope, however, within the World Heritage Convention to include the aesthetic element and this is addressed below.

Overall the study brought out some important points about the Ranges:

- The rating 6 dominates the Ranges, stretching from the Eden Valley in the north, south to Cape Jervis. It is bound in the east by the bare hills and escarpments of rating 5 and in the west by the hills face at Gawler, Adelaide, Morphett Vale and Willunga, rating 5 – 7.
- The rating 6 reflects the winter rating, the summer rating would be mostly 5 as the landscape quality, particularly in the agricultural areas, is not constant but rather varies with the seasons.
- A further quality variation results from the seasonal colour of vines. While the autumn colours might be thought to enhance the landscape, this study showed that the ratings of autumnal colour were in all cases lower than the summer green. Also, the ratings of vines in green leaf were lower than that of green pastures. Thus the argument that the spread of vines

across the Ranges will enhance its landscape quality is not supported by this study.

- Landscape quality also varies over time with changes in land use. The establishment of pine forests at Mt Crawford, Kuitpo and Second Valley decades ago transformed 5 and 6 rating landscapes to the 4 rating. The current spread of tree plantations, though using native trees, will have a similar effect as they also rate 4. To date the tree plantations are nowhere as extensive as the pines as they generally are a side crop on farms. However this could change.
- Vines are becoming a major land use across the Ranges. Pockets of vines exist from south of Yankalilla north through to the Eden Valley and across much of the central Ranges. In many areas they are transforming the landscapes of scattered trees on grazing land to monocultures of vines stretching across the undulating hills but with all remnant trees removed. More vines means less trees. Vineyard management is generally intolerant of trees amidst vines. And as this and the Barossa study has found, it is the trees that enhance landscape quality, not vines.

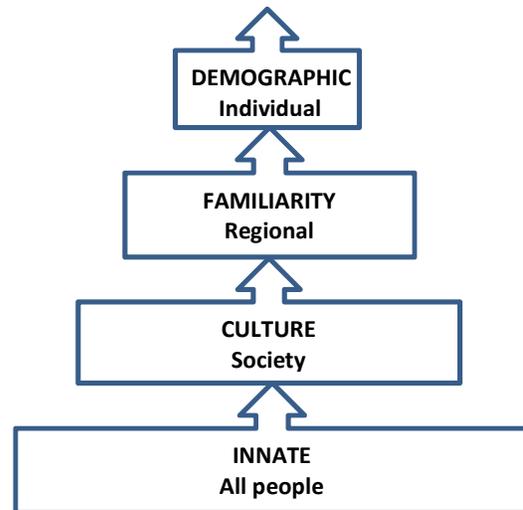
8.2 WHAT GENERATES THE APPEAL OF THE MOUNT LOFTY RANGES?

How may the ratings that were derived from this study be explained? Why is it that rugged terrain with a waterfall rated the highest, trees rated higher than vines, stands of pine forests and tree plantations rated much lower, and water bodies rated well?

The explorers and early settlers were much influenced by the Romantic view, delighting in water bodies, hills and farmlands beloved by the poets, writers and artists of the Romantic era. The Romantic influence together with the Picturesque is certainly evident in the

paintings of Light, Angas, Heysen and other artists, together with contemporary postcards, calendars and books of the Ranges.

Many researchers of landscape preferences believe that ratings are determined by a hierarchy of influences, ranging from individualistic, through cultural, right back to innate underlying influences. Dearden modelled these influences as shown by Figure 8.1.



Source: Dearden, 1989

Figure 8.1 Hierarchy of Societal Landscape Preferences

Individual influences are determined by one's upbringing, whether one lived in an urban or rural environment in one's childhood, one's exposure to natural environments, the choice of natural or artificial environments in which to holiday, and so on. Cultural influences are important in shaping our view of landscapes, for example the Chinese view of mountains and lakes in symbolic terms, and the Australian Aboriginal's Dreamtime ancestor creation stories which explain the origins of the landscape.

Innate influences are those which derive from our human evolutionary past. Theories of landscape preferences hypothesise that human landscape preferences are shaped by the survival imperative; that humans prefer those landscapes which enhance their capacity to survive. "The central assumption of an

evolutionary perspective on preference is that preference plays an adaptive role; that is, it is an aid to the survival of the individual.” (Kaplan, S. & R. 1982).

This explains the strong preference for water as it is essential for life, although it does not explain our delight in the sea which we cannot drink although the sea does provide food. And while Appleton (1975), in his famous prospect:refuge theory believes that hills and mountains provide opportunities to see without being seen, it is difficult to see that this fully explains how hills and mountains are survival enhancing. Thus although the evolutionary viewpoint of landscape preferences as being survival enhancing has intuitive appeal, it does not easily correlate with the facts on the ground, i.e. the ratings.

One prediction of the evolutionary landscape theory is that savannah-like woodlands of scattered trees on grasslands would be preferred, the African savannah where humans evolved. This appears to be borne out in this survey as the scattered trees rated well. Although few people realise it, scattered trees on grassland also comprise the landscape of our backyards and of neighbourhood parks. It also formed the expansive idyllic landscapes of country homes created by the 18th century Capability Brown and Humphrey Repton.

Studies of African savannah trees such as the *Acacia tortulis* found the highest preferences were for highly or moderately layered canopies, lower trunks, and higher canopy width/tree height ratio (Heerwagen & Orians, 1993). Research of tree preferences in Argentina, Australia and United States found that: “respondents preferred canopies to be moderately dense and trunks that bifurcated near the ground. Trees with high trunks and skimpy or very dense canopies were considered to be least attractive by all these groups, findings considered to be consistent with the savannah hypothesis” (Sommer & Summit, 1995).

These findings are supported by the higher preferences for the scattered trees,

and for wide trees with accessible canopies which describe the large red gums of the Ranges. Dense trees are not preferred, possibly because it is not immediately apparent that they are climbable and also that they may harbour predators. The stands of softwoods may also rate low for the same reason as being inaccessible and potentially threatening.

There has been much research on the restorative benefits that natural environments confer on humans which may also help explain the attraction of the Mt Lofty Ranges.

Studies have shown that exposure to natural environments and trees results in people being happier, less aggressive, less fatigued and with longer attention spans. Comparing scenes of nature with scenes of urban areas, our preferences for nature are twice that of urban scenes while the restorative benefits that come from nature are at least three times that of urban exposure.

In a classic study published in *Science*, Ulrich (1984) showed that hospital patients with a view of trees had shorter stays in hospital, took fewer analgesics and received fewer negative evaluative comments in nurse’s notes than patients who faced a blank wall. Since then there have been many supportive studies from viewing trees and experiencing natural environments: reduced anger and violence among residents of Chicago apartments and reduced crime in their neighbourhood (Kuo and Sullivan (2001a & b), less fatigue and more rapid recovery from fatigue (Hartig & Staats, 2006), reduced blood pressure (Ulrich, *et al*, 1991), lower heart rates (Laumann, *et al*, 2003) and reduced stress for students swotting for exams (Herzog, *et al*, 2003; Staats *et al*, 2003). Even viewing posters of natural scenes is similarly beneficial (Kweon, *et al*, 2008; Felsten, 2009).

Ulrich contends that “immediate, unconsciously triggered and initiated emotional responses - not ‘controlled’ cognitive responses - play a central role in the initial level of responding to nature” (Ulrich, *et al*, 1991). This indicates the

importance of assessing landscape preferences based on affective responses, rather than the cognitive analysis of landscape which can only describe the landscape.

The intuitive understanding of the positive benefits of viewing nature may help explain the popularity of visiting the Adelaide Hills. The survey found that the naturalness component correlated highly with ratings, as did land form and diversity, both contributors to naturalness. The Mt Lofty Ranges however offers a bonus, nature with culture, a strongly cultural landscape which displays the hand of man in the planting of trees, the farming of the landscape, and even in the quarries and mines.

These theoretical explanations provide insights into why the Mt Lofty Ranges appeals to people, and how it has held its appeal over many centuries.

In 1997, Costanza and his colleagues developed the concept of *ecosystem services*, the goods and services which ecosystems and the environment provide. These include the pollination of crops by bees, nutrient cycling (e.g. nitrogen, phosphorous), regulation of water flows across land by trees, and absorption by plants of greenhouse gases from the atmosphere. They conservatively estimated that globally, ecosystem services were valued at US\$33 trillion/year! Applying the same method and assumptions to South Australia derived an estimate of A\$43.3 Billion/year (Environmental Valuation Working Group, 1999).

The concept that the environment provides tangible and valuable services to humans can also be applied to landscapes. The *aesthetic services* of the environment are wide ranging – the delight that people derive from viewing flowers, birds, animals and landscapes. The open space of rural and natural areas provides a contrast to the built environment where most people live. These aesthetic services attract people to recreate in the Mt Lofty Ranges - to drive, cycle, walk, camp, and visit the region.

Aesthetic services may be as important for humans as ecosystem services as the studies of the restorative benefits show – exposure to nature makes people happier, less aggressive, less fatigued and with longer attention spans.

These aesthetic services have a value but many believe they are beyond value – priceless! How do you price a beautiful view or a sunrise or seeing birds fly and animals in the wild.

A surrogate of their value is the price that people are willing to pay to visit the region but this by no means their full value.

8.3 WORLD HERITAGE PROPOSAL

The World Heritage Convention was adopted in 1972 and provided for the conservation of cultural and natural sites. The basis of identifying World Heritage is their Outstanding Universal Value which is defined as:

cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity. As such, the permanent protection of this heritage is of the highest importance to the international community as a whole.

The Convention lists ten criteria for World Heritage status:

1. human creative genius,
2. human values,
3. cultural tradition,
4. buildings,
5. human settlement,
6. living traditions,
7. natural aesthetics,
8. Earth's history,
9. ecology and biology,
10. natural habitats.

Criterion 7 is: *to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance.*

This criterion has two separate elements (Mitchell *et al*, 2013):

1. *superlative natural phenomena* can often be objectively measured and assessed e.g. deepest canyon, highest mountain, largest cave system, highest waterfall;
2. *exceptional natural beauty and aesthetic importance* is harder to assess.

Mitchell notes that properties can meet this criterion by either one or the other or both. Natural beauty and aesthetic importance would be assessed using recognized approaches that are systematic, rigorous and transparent.

It is asserted that the current study of the Mt Lofty Ranges meets these criteria: it is systematic, rigorous and transparent.

The Convention recognises that no area is totally pristine and that all natural areas are in a dynamic state and to some extent involve contact with people. The Convention requires sites under Criterion 7 to include areas that are essential for maintaining the beauty of the property. A site for example which includes a waterfall needs to include its catchment and downstream areas that are “integrally linked” to the maintenance of its aesthetic qualities.

Cultural landscapes are defined as “cultural properties and represent the ‘combined works of nature and of man’ designated in Article 1 of the Convention. They are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal.”

All sites deemed worthy of World Heritage listing are required to meet strict conditions of integrity and/ or authenticity and are safeguarded by adequate protection and management.

The World Heritage List (<http://whc.unesco.org/en/list>) lists 911 sites comprising 704 cultural sites, 180

natural sites, and 27 mixed cultural/natural sites. The Antarctica and Arctic are excluded.

The current proposal is to nominate the Mt Lofty Ranges under Criteria 4. buildings, 5. human settlement, and 6. living traditions. Based on the findings of the current study, it is proposed that Criterion 7 be added and the region be nominated as a cultural landscape. The region would not be nominated under part a of Criterion 7: *contain superlative natural phenomena*, but rather under part b: *contains areas of exceptional natural beauty and aesthetic importance*.

Criterion 7 was included in eight of ten sites that Australia has World Heritage listing: Fraser Island, Great Barrier Reef, Kakadu, Purnululu, Shark Bay, Tasmanian wilderness, Uluru – Kata Tjuta & Wet Tropics. Oddly, the two sites which did not include Criterion 7 were the Blue Mountains, probably Australia’s pre-eminent scenic landscape, and the forests of northern New South Wales, also an area of high aesthetic significance. While their nomination was largely on the basis of their botanical significance, in retrospect omitting their scenic beauty resulted, I believe, in an incomplete nomination. The Mt Lofty Ranges bid should not similarly fail to cover all of its outstanding qualities.

The four criteria under which the nomination should be made therefore are:

- (iv) be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;
- (v) be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;
- (vi) be directly or tangibly associated with events or living traditions, with

ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (this criterion should preferably be used in conjunction with other criteria);

- (vii) contain areas of exceptional natural beauty and aesthetic importance;

The Convention requires that World Heritage properties are protected and that their “Outstanding Universal Value, including the conditions of integrity and/or authenticity at the time of inscription, are sustained or enhanced over time.” They are required to have “adequate long-term legislative, regulatory, institutional and/or traditional protection and management to ensure their safeguarding. This protection should include adequately delineated boundaries.”

As part of the nomination under Criterion 7, reference should be made to the quotes of early explorers, surveyors and settlers about the beauty of the Mount Lofty

Ranges as many of their comments reflected the strong picturesque and romantic ethos of the 19th century which prevailed across Europe and England at the time in which Wakefield, Bentham, Mills were prominent. Examples are contained in Chapter 2.

8.4 LANDSCAPE PROTECTION IN MOUNT LOFTY RANGES

The adequacy of landscape protection throughout the Ranges is examined by reference to the Development Plans for each of the Councils. Under the Development Act 1993, each Council has a Development Plan setting out its objectives and policies regarding development within its area. While some of the policies are of State-wide application and appear in all Development Plans, other policies are specific to the Council itself.

Table 8.1 Summary of provisions of Council Development Plans relating to landscape amenity

	Adelaide Hills	Alex-andria	Barossa	Mid Murray	Mount Barker	Onka-paringa	Play-ford	Victor Harbor	Yank-ailia
Advertisements	X	X	X	X	X	X	X	X	X
Biodiv. & native veg./cons.		X		X			X		X
Coastal areas		X				X	X	X	X
Design & appearance	X	X	X	X	X	X	X	X	X
Energy efficiency		X	X	X	X	X	X		
Forestry		X	X		X	X	X		
Hazards		X	X	X	X	X	X		
Heritage Places	X		X	X	X	X	X		X
Hills Face Zone	X						X		
Historic Conservation Areas		X	X		X	X			
Character preservation dist.	X		X						
Rural landscape prot. zone					X				
Landscaping, fences, walls		X	X		X	X	X		
Metro Open Space System	X					X	X		
Mineral extraction/Mining	X	X	X	X	X	X	X	X	X
Natural resources		X	X	X	X	X	X		
Open space & recreation		X	X		X	X	X	X	
Orderly & sustainable dev		X	X		X	X	X		
Regulated trees	X				X	X	X		
Significant trees	X				X	X	X		
Siting & visibility		X	X	X	X		X		
Tourism development	X	X	X	X	X		X	X	X
Waste	X		X	X	X	X	X	X	X
Wind farms	X	X	X	X	X	X	X	X	X

These are examined to assess the extent that the Development Plan provides protection for the landscape, the consistency of protection across Councils, and whether a case can be made for a Ranges-wide management authority based the model proposed in the 1970s. A further issue is whether the protection would meet the World Heritage requirement for adequate protection and management of the World Heritage values.

Table 8.1 summarises the provisions of the Council Development Plans, omitting Burnside, Mitcham and Tea Tree Gully Councils which mainly cover the Hills Face Zone.

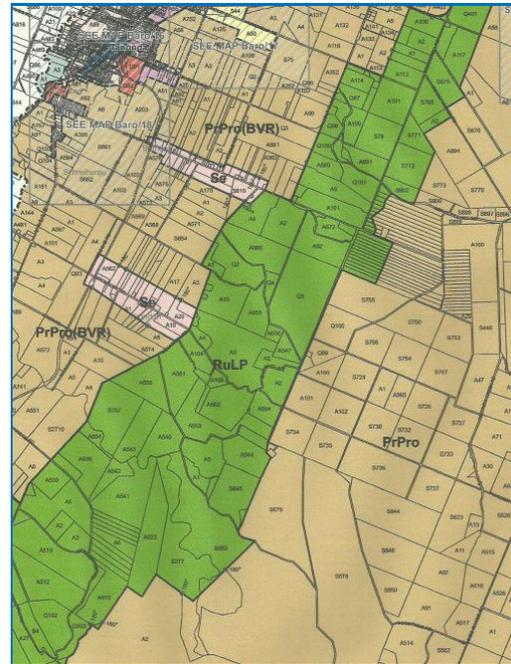
Many of these provisions are standard across all Councils where they are relevant: advertising (i.e. signs), design & appearance, energy efficiency, forestry, hazards, Metropolitan Open Space System (MOSS), mineral extraction, natural resources, open space and recreation, orderly and sustainable development, regulated and significant trees, waste, and wind farms.

Objectives and Principles of Development Control relating to the landscape from some of the Council Development Plans include the following, quoted verbatim.

Barossa Council

Design & appearance Objective: Development of a high architectural standard that responds to and reinforces positive aspects of the local environment and built form.

Landscaping, fences & walls Objective: The amenity of land and development enhanced with appropriate planting and other landscaping works, using locally indigenous plant species where possible.



Source: Barossa Development Plan, Map 24

Figure 8.2 Barossa Ranges Hills Face

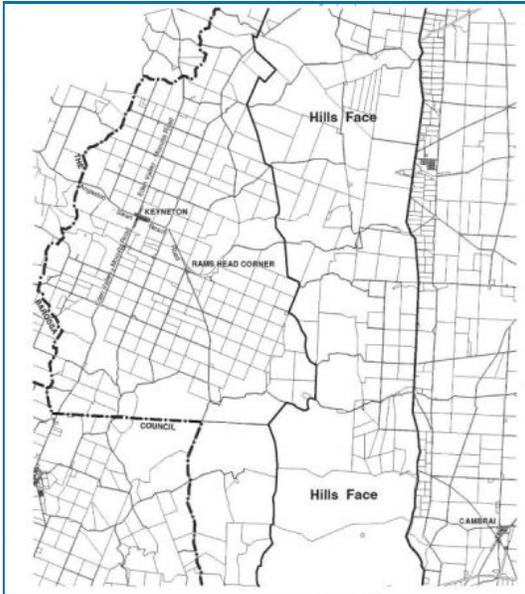
Rural landscape protection zone (Figure 8.2) Objective: Preservation of the natural and rural character and scenic features of the zone. The zone covers the natural landscape that provides a scenic backdrop to the Barossa Valley floor.

Mid Murray Council

Appearance of Land and Buildings Objective: Amenity of localities not impaired by the appearance of land, buildings and structures including landscape.

Siting and Visibility Objective: Protection of scenically attractive areas, particularly natural, rural and riverine landscapes.

Conservation Objective: Development liable to create significant adverse effects on natural features, areas of significant native vegetation, ..., scenically attractive areas, or areas of environmental significance, should not be undertaken.



Source: Mid Murray Development Plan Fig HF/3

Figure 8.3 Mid Murray Council's Hills Face

Hills Policy Area (Figure 8.3) Background: The eastern face of the Mount Lofty Ranges, and the ranges themselves, are a dramatic and attractive landscape feature of the Council area and region generally. Development Policies are structured to encourage suitable rural uses and limit built form on the face of the ranges. Desired character: Open grazing of the eastern hills face and very limited or no built form to preserve the eastern backdrop of the Murray Plains.

Objective: Retention of the open rural character as derived from large land holdings used for primary production and dispersed isolated built form. Principles of Development Control: Development should not be undertaken unless it is consistent with the desired character for the policy area.

Adelaide Hills Council

Objective: The conservation, preservation, or enhancement, of scenically attractive areas, including land adjoining water or scenic routes.

Objective: The conservation and preservation of the rural character, scenic amenity and bushland of the area.

The ranges are still attractively wooded, providing areas of considerable beauty, readily accessible from the Adelaide Plain. However, any action likely to diminish these wooded areas, such as subdivision into unduly small residential allotments, should be resisted.

The gorge of the River Torrens through the south Mount Lofty Ranges is of special scenic value, needing particular attention to ensure that the natural character is preserved.

The beauty of scenic approaches to Adelaide by road through the south Mount Lofty Ranges should be maintained. The roads wind through attractively wooded country, with frequent views of the city and suburbs spread out over the Adelaide Plain below, against the background of the sea.

The outstanding scenery and rural character of the south Mount Lofty Ranges provide a visual contrast with the suburbs on the Adelaide Plain and a convenient refuge for recreation in a countryside setting. These features should be protected against mismanagement and more intensive development which may degrade the quality of the landscape. (AHC)

Principles of Development Control: Development should be undertaken with the minimum effect on natural features, land adjoining water or scenic routes or scenically attractive areas.

Development should not impair the character or nature of buildings or sites of architectural, historical or scientific interest or sites of natural beauty.

Objective: The amenity of localities not impaired by the appearance of land, buildings and objects.

Objective: Buildings or structures unobtrusively sited and of a character and design which blends naturally with the landscape.

Objective: Character Preservation District (North Of Kersbrook) A district where: (a) scenic and rural landscapes are highly

valued, retained and protected, (b) development near entrances to towns and settlements does not diminish the rural setting, character and heritage values associated with those towns and settlements.

Objective: Special objectives for Summertown, Uraidla and Norton Summit including (AHC):

- Buildings should be in sympathy with the features and amenity of the rural environment and designed to blend with and enhance its attractive appearance.
- Conservation of rural character and scenic amenity, especially significant tracts of bushland.

Mt Barker Council

Siting and Visibility Objective: Protection of scenically attractive areas, particularly natural, rural and coastal landscapes.

Principles of Development Control: Development should be sited and designed to minimise its visual impact on:

- the natural, rural or heritage character of the area;
- areas of high visual or scenic value, particularly rural areas.

Rural Landscape Protection Zone Objective:

- Preservation of the pleasant rural backdrop to the South Eastern Freeway and townships of Mount Barker and Littlehampton.
- Preservation of the natural and rural character and scenic features of the zone.

Onkaparinga Council

Coastal areas Objective: Preservation of areas of high landscape and amenity value including stands of vegetation, shores, exposed cliffs, headlands, islands and hill tops, and areas which form an attractive background to urban and tourist areas.

Principles of Development Control: Development should be compatible with the coastal environment in terms of built-form, appearance and landscaping

including the use of walls and low pitched roofs of non-reflective texture and natural earth colours.

Character preservation district Objective: A district where: (a) scenic and rural landscapes are highly valued, retained and protected. Principles of Development Control: Development in the district should: (b) retain the predominant rural landscape character and function.

Victor Harbor Council

Appearance of Land and Buildings Objectives:

- The amenity of localities not impaired by the appearance of land, buildings, and objects. Untidy commercial sites, poorly maintained holiday houses, and abandoned structures, should not be allowed to mar the landscape in the region.
- Compatibility of new buildings with the scenic views of Victor Harbor and with surrounding buildings.
- Improvement of the appearance of all development throughout the district.
- Preservation of landscapes of aesthetic merit, and sites and localities of natural beauty.
- Protection of the natural skyline from artificial intrusion.

Principles of Development Control:

- Building development should be located and designed in respect of the size, colour, form, siting, architectural style and materials of construction of buildings to harmonise with, the objectives for an area, other buildings of historical significance or heritage value or, in the absence of guidance from these, the predominant character of existing building development.
- Development should take place in a manner which will not, in respect of its appearance, interfere with the achievement of the objectives for an area or, otherwise, the existing character of scenically or environmentally important areas, including areas which are prominently

visible from other land or are frequented by the public.

are of special: (c) scenic value or natural beauty.

South Mount Lofty Ranges Region Objectives:

- The maintenance and enhancement of the national (sic) resources of the South Mount Lofty Ranges Region.
- The preservation and restoration of remnant native vegetation in the South Mount Lofty Ranges Region.
- The enhancement of the amenity and landscape of the South Mount Lofty Ranges Region for the enjoyment of all residents and visitors.

Yankalilla Council

Agricultural industries (small-scale), Objectives:

- The development of agricultural industries (small-scale)... are encouraged in appropriate locations where able to meet stringent performance criteria ...
- Development should complement the Region's character and enhance tourist or heritage activities and be compatible with local areas.

Coastal Areas Objectives:

- The conservation, preservation, or enhancement, of scenically attractive areas including land adjoining water and scenic routes.
- The maintenance of the scenic environment of the coast.

Telecommunication Facilities Objectives:

Telecommunications facilities located and designed to minimise visual impact on the amenity of the local environment.

Conservation Principles of Development Control:

- Development should be undertaken with the minimum effect on natural features, land adjoining water, scenic routes or scenically attractive areas.
- The nature, features and general character of areas and items, other than building development and vegetation, should be conserved which

Council Development Plans Assessment

There are many excellent Objectives and Principles of Development Control across the councils and although there is considerable variation among them, it is heartening to see that the landscape is considered in all of them. A common element is their consideration of the visual impact of developments and extensive provisions are included to address this aspect.

It is particularly pleasing that the Mid Murray Council singled out the Palmer escarpment as its own Hills Face with sound Objectives and Principles of Development Control. The Barossa Council protects the Hills Face of the Barossa Ranges through

Well vegetated hills faces along the Inman and Hindmarsh Valley, the Barossa Ranges and in other localities (e.g. Mt Moon at Mt Compass) are attractive visual assets and consideration should be given to their protection as in the Adelaide Hills Face Zone.

The Barossa, Adelaide Hills and Mt Barker Councils have included Character Preservation Districts or Rural Landscape Protection Zones but these are of restricted application, applying only to relatively small defined areas.

A possibility would be for a Ranges-wide Landscape Protection Zone to be adopted by all Councils and included in their Development Plans. This would include strengthened Objectives and Principles of Development Control as well as provisions relating to their application by Councils. Townships would be excluded from the Zone.

In order to fulfil the World Heritage protection and management requirements, given the variation across Council Development Plans, such a blanket provision may be necessary.

The provision would also go some way towards the earlier model of a Ranges-wide management authority.

It is considered however, given the extent to which the Development Plans address the landscape and its protection, and the presence of not only the Councils but also two Natural Resource Management Boards in the Ranges, that the establishment of yet another management authority as proposed in the 1970s is not justified.

While the Objectives and Principles of Development Control may appear sound, the proof lies in their administration in respect of development applications. This would be a sizeable task and has not been undertaken by the author as it is beyond the scope of this project.

8.5 LANDSCAPE MANAGEMENT

Comments by some of the respondents of the survey indicate the love they have for the landscapes of the Mt Lofty Ranges:

- I now realise that I live in one of the most beautiful places in the world.
- I love nature, landscapes and gnarled gum trees. Consequently all photos for me were great, ... The many different shades of green against the dry background would be a photo stop for me."
- Having hiked and travelled a lot there are many jewels in the Mt Lofty Ranges for all to discover along the many walking trails it has to offer.
- A very special place
- Needless to say that I am eager that the unique NATURAL beauty of the MLR is preserved and rehabilitated where feasible.
- As a resident of, and frequent walker in the Ranges, I greatly enjoy their scenic beauty.
- Just love Australian bush. Missed it for many years due to living overseas..
- The Mount Lofty Ranges has a diverse range of landmarks and sights covering cultural, social, historical, agriculture, horticulture and recreation.

- The Mount Lofty Ranges is a very large and beautiful place to visit in all seasons.

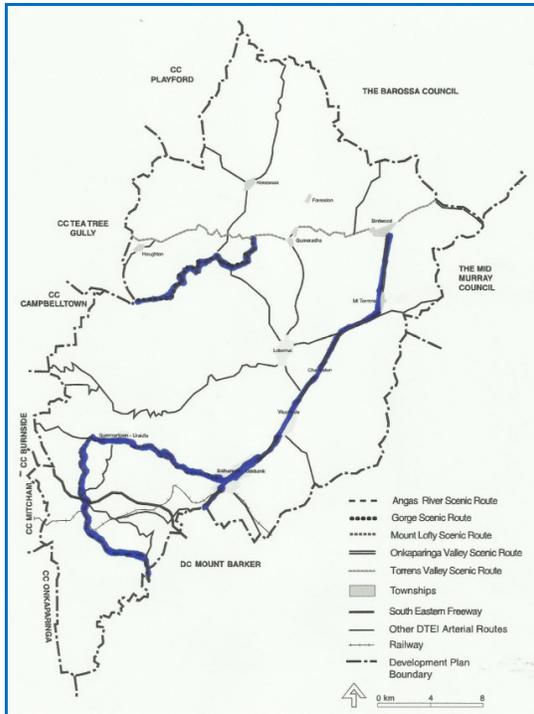
In managing the Ranges, authorities need to remember that they are managing it on behalf of the community who are very quick to criticize wrong policies, decisions and actions.

While the Development Plan applies to new and proposed developments, it does not address on-going management of the Mt Lofty Ranges. The Natural Resource Management Boards could assist in this, however they tend to restrict themselves to management of the physical environment – soil, water, land, vegetation, rather than aesthetic aspects.

Councils are best placed to manage their local environments and that includes the landscape.

From the viewpoint of enhancing the Ranges' landscape quality the following should be considered:

1. Prevent the loss of scattered trees across grazing land and encourage the regeneration and replanting of the remnant trees before they are all lost through senescence Much regeneration is occurring across parts of the Ranges such as in the Harrogate area and this is to be encouraged and supported;
2. Prevent the loss of stands of trees from vineyard development or other developments;
3. Consider carefully the further establishment of monoculture tree plantations; encourage a mix of species to be used;
4. Dams are a visual asset throughout the Ranges and their location in strategic places often creates an attractive scene;



Source: AHC Figure AdHi (EC)/1

Figure 8.4 Adelaide Hills Council Scenic Routes

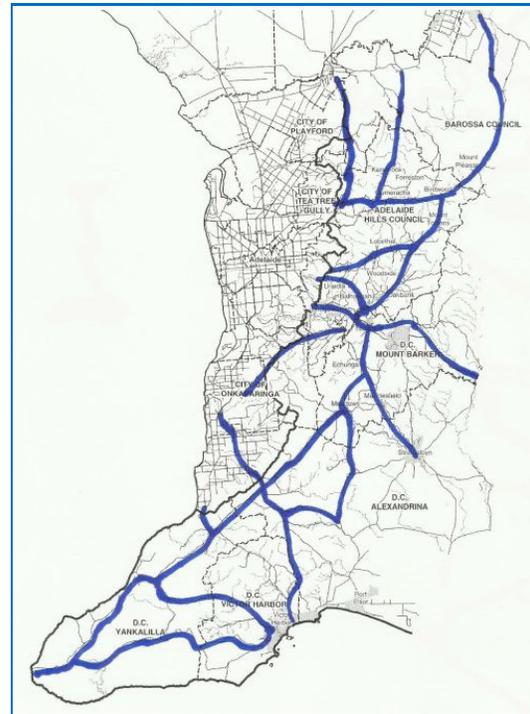


Figure 8.5 Proposed scenic roads

5. The major SA Water reservoirs actually constitute significant visual assets as water is always attractive. Much more could be done to provide lookouts and viewing access to these attractive water bodies without compromising their water quality;
6. Viewing areas should be provided along roads throughout the Ranges overlooking views.
7. The 1962 Development Plan for Adelaide identified a Scenic Road along the top of the Hills Face Zone. The Adelaide Hills Council is the only council to identify scenic routes (Figure 8.3).

Many of the major routes through the Ranges should be designated as Scenic Roads. The following fifteen routes are proposed (Figure 8.4):

- South Eastern Freeway
- Lyndoch – Williamstown – Kersbrook – Chain of Ponds
- Angaston – Springton – Birdwood – Chain of Ponds
- Gawler - Inglewood
- Onkaparinga Valley
- Ashton - Lobethal
- Summertown – Uraidla – Balhannah
- Mylor – Scott Creek – Cherry Gardens - Hackham
- Hahndorf – Echunga – Strathalbyn
- Meadows – Ashbourne – Mt Compass
- Meadows – Willunga Hill - Myponga
- Noarlunga – Victor Harbor
- Sellicks – Yankalilla – Cape Jervis
- Yankalilla – Inman Valley – Victor Harbor
- Delamere – Victor Harbor

8. Remove eyesores from spoiling attractive areas. Evan’s car dump in

Scott Creek is a well-known example. Most quarries are screened by trees.

9. Fire can have a devastating impact where it occurs, personally and socially, financially and economically. Some land uses such as grazing spring back quickly and native vegetation regenerates. However the long term viability of pine plantations in the Ranges needs to be questioned as these do not regenerate and the frequency and area of fires is not likely to diminish in the future with global warming and increasing accessibility and population in the Ranges. Burnt pine plantations mar the landscape and can remain standing for many years.
10. There is a place for exotic trees in the wetter areas of the hills such as Sturt Valley, Aldgate and Stirling. However the emphasis elsewhere should be on maintaining and encouraging the planting of indigenous species.

8.6 SURVEY LESSONS & IMPROVEMENTS

While the landscape quality of part the Mt Lofty Ranges have been examined previously (Dare, 1978, Sanderson, 1979, Revell, 1982), this study is the first complete survey of the entire region. What lessons may be drawn from it? What were its deficiencies and how could it be improved? What applications may be made of the results?

The first lesson is to recognise that landscape quality can be measured and it can be mapped. It was apparent from respondent comments that they readily understood the concept of qualitative assessment of landscape. While landscape *character* assessment requires technical expertise, everyone can participate in landscape *quality*, no experience or expertise are required. By reaching into respondent's preferences, their likes and dislikes, it elicits information about how the community view the Mt Lofty Ranges which is not easily obtainable through other means. While expertise is required in

developing and implementing the survey, and in analysing the results, no expertise is required of respondents who participate in the survey.

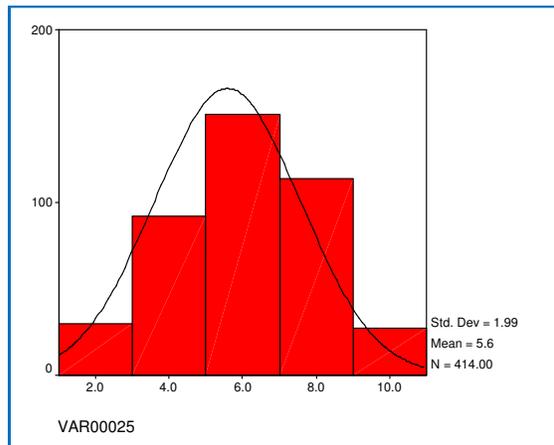
A second lesson is the amount of work required to carry it out. A project of this nature requires the dedicated allocation of resources. It is estimated that approximately 1500 hours was spent on the project over eight months. It was undertaken by one person who has completed eleven such projects involving either measuring and mapping landscape quality or assessing the visual impact of developments through surveys (see www.scenicsolutions.com.au/Projects.html)

The project required considerable attention to detail through all phases – photography, selection of photographs for the survey, preparation of the Internet survey, issuing invitations to participate in the survey, compilation and analysis of results, and mapping the area's landscape quality. Once completed however, future surveys can build on it by detailing particular areas or assessing the visual impact of potential developments against the quantified landscape quality.

The similarity of preferences for landscape quality is also a significant finding, corroborated by previous surveys. While it is commonly believed that "beauty is in the eyes of the beholder", suggesting great variations between individuals in what they regard as beautiful, in respect of landscape, preferences of individuals generally congregate around a common position with a few outliers - the standard bell-shaped graph of preferences. This is illustrated by Figure 8.6 showing a scene and the histogram of responses which are closely grouped around the mean. Appendix 3 shows the histograms for all 150 scenes. While some are spread more than others, or are skewed towards the high or low ratings, they all rise to a peak of common ratings. For the saying to be true, the histogram would need to be level across all ratings.



Scene 25 Barossa Ranges



Histogram for scene 25

Figure 8.6 Scene and histogram to illustrate commonality of most ratings

Belief in the notion that “beauty lies in the eyes of the beholder” can prevent one from every assessing the community’s landscape preferences as it may be thought that they are too variable to be analysed. Indeed the opposite is true – landscape preferences are remarkably similar and are relatively easily analysed.

In summary, the project illustrated that landscape quality can be measured and mapped but it requires considerable effort over time to accomplish. The commonality of ratings allows for their analysis and puts the lie to the notion that “beauty is in the eyes of the beholder” – yes, but the beholders see it as surprisingly similar.

The survey could have been improved by the following:

A greater mix of summer and winter photographs. The bulk of the scenes used

in the survey were taken at the end of summer and into autumn when the ground was dry and grass brown. Although vines and orchards were in leaf, they were against hills and valleys that were brown.

Scenes of missed areas. Key areas which lacked coverage were the Onkaparinga Gorge, parts of the Adelaide Hills Face Zone, and along the Deep Creek – Blowhole Creek area.

More scenes with farmhouses. This was suggested by some respondents but care was taken in taking photographs to avoid houses and other signs of settlement such as tanks, sheds, fences and powerlines. It is a moot issue whether a more accurate portrayal of the landscape can be gained through their inclusion. The author’s position has been to avoid them as far as possible.

Survey instrument improvements Some respondents commented that each scene required firstly a rating and then a click on the “Next” button and this was tiresome. The scene should automatically move to the next scene after a rating. The author agrees with this and in a previous survey had contacted Survey Monkey with this suggestion. Although the instrument has been upgraded since then, this suggestion was not adopted. According to Survey Monkey, the Next button triggers a cookie in the program and cannot be omitted.

Length of survey Some respondents commented on the length of the survey, with 150 scenes to rate. Of the 560 total respondents, two thirds (379) completed all 150 scenes. One respondent’s comment was “A long survey, but worth it.” Interestingly, 38 failed to rate any. Despite its length, it can be completed quickly and the instructions encourage respondents not to think too much about each scene but rather to rate them as first comes into their mind. This taps into the affective judgement – their preferences, rather than their cognitive or analytical judgement.

8.7 RECOMMENDATIONS

Arising from this study, the following recommendations are presented.

World Heritage Convention

1. Nominate the Mt Lofty Ranges under Criterion 7 of the World Heritage Convention on the basis that it contains *areas of exceptional natural beauty and aesthetic importance*.

Councils

2. Include a Ranges-wide Landscape Protection Zone by all Council Development Plans. This would have strengthened Objectives and Principles of Development Control relating to the landscape and provisions relating to their application by Councils.
3. Designate hills faces along the Inman and Hindmarsh Valley and in other localities in Council Development Plans;
4. Encourage the regeneration and replanting of scattered trees, particularly throughout the central and eastern areas;
5. Prohibit the loss of stands of trees from vineyard development or other developments;

6. Encourage mixes of species in tree plantations;
7. Protect roadside trees as they enhance the landscape;
8. Encourage land owners to beautify their dams through tree planting and management to enhance their attractiveness;
9. Provide viewing areas along roads throughout the Ranges overlooking views;
10. Designate major routes as Scenic Roads and provide for the protection of their views in the Development Plan;
11. Remove eyesores from spoiling attractive areas.

SA Water

12. Provide lookouts and viewing access to the reservoirs in the Mt Lofty Ranges to utilise these attractive water bodies without compromising their water quality;

SA Government

13. Cease planting further softwood plantations in the Mt Lofty Ranges.

The author of this project hopes that the use made of its results may more than repay the time and effort that he has invested in it.