

7. Landscape evaluation

7.1 WHAT IS DISTINCTIVE ABOUT THIS LANDSCAPE?

Other areas in Central Otago have many of the same elements as the Bannockburn area. Many other localities are surrounded by tussock/tor mountains, have a similar Maori and early European history, a mining boom and decline followed by a long period of little change, and have been affected by power schemes, the vineyard boom, and recent subdivisions. There are and always have been similar processes at work elsewhere in Central Otago.

Many aspects of Bannockburn nevertheless make it distinctive. In part it is distinctive because it is physically separate from the Cromwell Basin, in a north-facing basin. But its distinctiveness is more in its historical features. Signs of the past are everywhere. Unlike many gold settlements, the Bannockburn settlement did not become a ghost town (although many of the surrounding settlements did), possibly because of the continuation of coal mining to the 1950s and the existence of many small ex-miners' sections which could be developed for small farming. It was a town that moved around to fit the circumstances, and is still in some senses moving today. It is a landscape which holds many stories. It is full of a sense of mystery—its deeply dissected gullies and winding roads are quite unlike the predictable layout of most Central Otago localities. There is a surprising degree of continuity in the population, with many families having lived in the area for one or more generations. The landscape was very strongly formed by the actions of the past (particularly on the terraces and gullies around Bannockburn settlement and Felton Rd) so that it is richly endowed with historic features and archaeological sites.

The key aspects of the landscape which distinguish it from other similar places are:

- the richness of the history of the place, representing the main stories of Central Otago within a relatively small area; and
- the relatively high degree of retention of physical features, stories, traditions and genealogical links with the past.

7.2 KEY HERITAGE SIGNIFICANCE

The methodology entailed an identification of those aspects of the landscape which have key heritage significance. The concept of landscape used was that it consists not only of the physical environment (both its natural and human-created elements), but also cultural perceptions, practices, traditions, and stories, and the relationships between people and the land. To consider heritage significance it was therefore necessary to focus not only on the more obvious historic aspects of the landscape, but also the other aspects.

To assign heritage significance, consideration was given to historic importance of each aspect of the landscape, its value for providing information about the past, and its shared significance to community members as reported in interviews. The five key layers of the landscape have already been described (Section 6.3). In this section, key relationships, webs, spaces, nodes, networks, features and activities are listed.

Key relationships

Tangata whenua

- Stories and meanings
- Kaitiakitanga
- Genealogical connections

Community

- Economic—the land as a source of production
- Sense of place—distinctiveness
- Aesthetics—views, openness, textures, naturalness, tussock/tors, colour changes
- Movement—walking, exploring, mystery, discovery
- Historic features—physical links to the past: features, networks, spaces
- Stories—from tales to family genealogies to broad histories
- Sense of community—linked to places where the community interacts and communal activities
- Activities—those which show continuity with the past or conserve those relationships
- Genealogical connections
- Names of places

Key webs

- Pastoral farming (characterised by extensive tussock country on the uplands, station buildings (particularly Kawarau Station))
- Hard-rock mining (characterised by mines on Carrick Range, Quartzville, Carricktown, coal mines, access routes amongst these)
- Alluvial mining (characterised by sluicings, water races, sludge channels)
- Water networks (characterised by races, dams, Stewart Town)
- Small farming pattern (characterised by lot sizes, sod walls, tree clusters, cottages)
- Settlement pattern (characterised by historic pattern of Bannockburn settlement)

Key spaces

- Underlying landforms
- Tussock-dominated undeveloped upper country
- Sluice faces, sluiced gullies
- Setting of older cottages

Key nodes

- Kawarau Station homestead and farm building cluster
- Homestead and farm building clusters from c. 1910
- Cluster of Bannockburn hall, Presbyterian church and war memorial
- Cluster of Bannockburn store, post office, bakehouse, and corrugated iron house opposite
- Quartzville
- Carricktown
- Stewart Town

Key networks

- Carrick race
- Roads—Cairnmuir, Nevis, Carrick
- Walking tracks

Key features

- Scattered cottages and other buildings relating to the mining era (usually mud or corrugated iron construction).
- Sod or rammed-earth field walls
- Trees—old poplars, fruit trees, etc.
- Mines—remains of hard-rock mines, coal mines, antimony mine

Key activities

- Pastoral farming
- Ability to walk through the landscape

7.3 INTEGRITY

The concept of integrity

The methodology entailed assessing the landscape for its integrity. The concept of integrity is more commonly used in the USA and Canada than in New Zealand. In the USA it is an important criterion for deciding whether a historic place or structure will meet the standard for national registration. It was developed particularly for use with historic buildings but has more recently been applied to historic landscapes. For landscapes, integrity requires ‘that the various characteristics that shaped the land during the historic period be present today in much the same way as they were historically’ (McClelland et al. 1992: 6). The concept recognises that land uses will change over time, vegetation will grow, and the landscape will not remain exactly as it was historically. Nevertheless, the character and feeling of the historic period must be retained for it to be eligible for registration.

The US guidelines state that historic integrity is the composite effect of:

- Location—the geographic factors that determined the historic landscape
- Design—the composition of natural and cultural elements; the spatial organisation
- Setting—the physical environment within and surrounding the place

- Materials—the construction materials used, which may come from the locality
- Workmanship—how people fashioned their environment for functional or decorative purposes
- Feeling—intangible, evoked by physical characteristics
- Association—the link between the place and events or persons that shaped it. Can be reinforced by continued family associations, continued cultural events, use of traditional methods in new construction, etc. (McClelland et al. 1992: 7-8)

The US notion of integrity appears to be designed to assess landscape types which in the World Heritage Operational Guidelines would be called ‘relict’ landscapes—that is, those in which a particular use came to an end and which has evolved little since that time (UNESCO 2002). Bannockburn does not fit into this category. Its landscape does not just reflect a single historical period but a number of periods. While aspects of each layer are still visible, no single layer is dominant. Bannockburn is more akin to what the Operational Guidelines call a ‘continuing landscape’—that is, one which retains an active social role in contemporary society, and which is still evolving, but which still shows material evidence of its evolution over time.

Interestingly, the World Heritage Operational Guidelines for cultural properties refer to the test of ‘authenticity’ rather than integrity. Integrity is used in reference to natural sites. ‘Authenticity’ is not explained, but the ICOMOS Guidelines for evaluating nominated World Heritage sites refer to authenticity of setting, function, design, materials, and workmanship, which suggests some similarity to ‘integrity’. ICOMOS makes the point, however, that this is a complex and somewhat subjective matter, which is perceived differently between cultures and regions (ICOMOS 2000).

Integrity of Bannockburn’s 1878 landscape

As it is an evolving landscape, the Bannockburn area as a whole cannot be assessed for its integrity—a ‘layer’ must be chosen. Even the mining landscape as a whole could not be assessed for integrity, as it has itself evolved over time, with new methods of mining at times overlaying older methods.

Given that the 1878 landscape is reasonably well recorded (see Fig. 17) it was decided to apply the test of ‘integrity’ to this particular slice of time. (Note that Bannockburn did not exist as a settlement in the current location in 1878.)

Elements of the 1878 landscape which remain today include:

- remains of hard-rock mines and battery sites
- remains of sluicings, sluice faces, gullies
- remains of Carricktown
- some parts of Stewart Town (most developed post-1878)
- remains of scattered settlement, e.g. Miners Terrace cottages, possibly Domain Rd cottages, remains of buildings in more isolated valleys
- roads and walking tracks which follow routes of this time
- Carrick water race (and possibly other race systems which are now derelict)
- Kawarau Station and its homestead and farm buildings
- Many names of places and features

These have been assessed against the integrity factors used by the US National Park Service (McClelland et al. 1992) :

Integrity of location: High. The hills and valleys from which the gold came are still evident, although the gold has mainly gone. The most significant change to the location has been the drowning of the Kawarau River and Bannockburn Creek mouth, which has hidden areas that were previously mined and sluiced.

Integrity of design: Medium. The spatial organisation and composition of natural and cultural elements can still be read in many places (e.g. Stewart Town) but is confused where elements are missing from the web (e.g. parts of water races have gone, sluicings are overgrown with weeds or used for viticulture, miners huts have disappeared, new subdivision patterns are seen).

Integrity of setting: High–Medium. In the upper country, the setting is still relatively unchanged except for the vegetation on previously barren mined areas. Within the Bannockburn Basin, this has been changed through subdivision, new housing, vineyards, etc. It is strongly seen at Kawarau Station homestead cluster.

Integrity of materials: Medium. This concept is harder to apply to a landscape than to a building. It generally refers to the construction materials used in building. For a landscape, integrity of materials can apply to how buildings have been constructed and subsequently repaired. Buildings of the 1878 era are notable in being built almost entirely of materials from the local environment (mud and in some cases stone) or corrugated iron. Today, many buildings still retain their original materials (particularly where derelict), but some which are still used today have been significantly altered.

Integrity of workmanship: Low–medium. This refers to how people fashioned their environment for functional or decorative purposes. This can be seen at a most fundamental level, e.g. roads, water races, cottages, possibly some old plantings, sod walls around gardens. It is most strongly seen at Kawarau Station homestead and woolshed.

Integrity of feeling: Medium–high. This refers to intangible aspects evoked by physical characteristics. It can be evoked more strongly in some parts of the landscape than others. The feeling of the 1878 era is strongest where the degree of change is least. The Kawarau Station homestead and farm buildings, Stewart Town and its associated sluicings, and the tussock hillsides with their workings, are possibly the least changed aspects of the period, where the feeling of the past is easily evoked.

Integrity of association: Medium–high. This refers to the link between the place and the events or persons that shaped it. Again, this factor is more relevant to historic buildings than landscapes. The Bannockburn pastoral landscape is strongly associated with the Australia and New Zealand Land Company, which owned the Kawarau pastoral lease, and James Cowan, who was station manager from 1867 to 1898. The mining landscape was associated with many hundreds of miners, only a few of whose names have carried through to the present. A few local families are descended from people who lived in the area in the mining era.

Overall, the landscape of the 1878 period retains a medium to high level of integrity in the landscape today. Integrity is particularly high in places that have changed the least, including Kawarau Station; the Carrick Range workings together with Carricktown and the Carrick race; and the Stewart Town, Menzies Dam, and sluicings area. However, there is still also a surprising amount of integrity elsewhere, which can be seen in such things as period buildings, water race systems, sluicings, plantings, and settlement patterns.

7.4 HERITAGE VALUE

The methodology entailed an assessment of the international, national and regional significance of the heritage landscape with reference to various classification models.

International and national significance

It is difficult to make an assessment of the overall value of the Bannockburn landscape in international or national terms. Nationally, this is the first known such assessment in New Zealand so there are no equivalent studies to compare it against. National assessment methods for historic places have limited relevance as they have developed for buildings or relatively restricted historic areas. In Box 16, the Historic Places Act classification model is discussed.

Internationally, formal assessment and classification methods exist for heritage landscapes, but these models are not necessarily relevant to the New Zealand situation. The models which potentially offer the most assistance are the National Trust of Australia's Cultural Landscapes definition and the Australian Heritage Commission's Historic Themes Framework. These are discussed in Box 17.

Regional significance

The Bannockburn landscape has many features in common with other parts of Central Otago. What is particularly distinctive is the extraordinary richness of the history of this area, and its high degree of retention of features and systems. There is also a medium-high degree of integrity in the retention of the c. 1878 landscape, when the area was still being actively mined. It is not possible to make a properly informed comparison with other similar areas of Central Otago as no comparable studies have been done. However, from the authors' combined knowledge this is likely to be one of the best examples of a landscape showing the multiple layers of the past and present while still retaining a reasonably high degree of integrity of early landscapes. There are similar mining landscapes such as at Bendigo and St Bathans, but these places predominantly tell the mining story only. Bannockburn offers many stories of many eras.

Box 16: NATIONAL CLASSIFICATION MODEL

Historic Places Act 1993

While New Zealand does not yet have a classification model specifically developed for heritage landscapes, the criteria for historic places and areas in section 23 of the Historic Places Act 1993 provides some guidance.

Section 23(1) requires that registered historic places or areas have significance or value in any of the following areas: Aesthetic, Archaeological, Architectural, Cultural, Historical, Scientific, Social, Spiritual, Technological, Traditional.

Although the community highly values aesthetic aspects of the landscape, it is questionable whether the area could claim to have aesthetic value as the term is used in the Historic Places Act. The Act's focus is on historic heritage, so the aesthetic values of the natural aspects of the landscape would be of limited relevance. The term 'aesthetic value' is generally used to refer to the values of human-made structures or plantings.

The study area has significant archaeological value. Large parts of it are archaeological sites as defined in the Historic Places Act: that is, they show evidence of human use and occupation prior to 1900.

The study area has cultural value as evidenced by the interviews with community members and tangata whenua.

Bannockburn's particular historic significance is that, through its combined webs and layers, it tells the Central Otago story in a nutshell – Maori associations, the big pastoral runs, alluvial mining, hard-rock mining, dredging, coal mining, subdivision of the stations, the beginning of horticulture, small farming, the Clyde Dam, holiday and recreational uses, increasing urbanisation and now viticulture.

However, it is considered that the study area as a whole would be unlikely to qualify for Historic Places registration. As the Act is currently interpreted, the heritage features are too dispersed and multi-layered, rather than a compact area which highlights a particular aspect or era of historic heritage. The area is also too extensive and too diverse. Additionally, the values of the area are not confined to historic heritage, whereas this is the focus of the Act.

This is not to say the area lacks heritage value – assessed by other criteria, we believe it would rate highly (see Australian Cultural Landscapes (Box 17), for example). It is just that our nation's current way of defining heritage places was not designed around heritage landscapes concepts.

Some individual sites within the landscape are already registered as historic places (see section 2.5). It may be that certain smaller areas within the landscape (e.g. Carricktown and associated mines) would be eligible for Historic Area status, but more research would be required to establish this.

7.5 POTENTIAL FOR INTERPRETATION AND EDUCATION

Bannockburn area is potentially an excellent location for education and interpretation purposes because of its multiple layers of the past. Currently there is very little accessible information about the history in the landscape. Visitor experience is largely limited to driving through, and possibly seeing the Bannockburn sluicings and two or three old buildings on the Bannockburn-Nevis road. Few people appear to make the effort to walk up to Carricktown. While the interpretation at the sluicings reserve is good, the broader landscape and the patterns of settlement, use, and landscape change cannot be understood through uninformed eyes, but nowhere are they explained. There is great scope for sensitively developed interpretation of the heritage landscape, possibly based at a central point such as the Bannockburn Post Office.

**Box 17: INTERNATIONAL CLASSIFICATION MODEL:
Australian Cultural Landscapes definition
and
Historic Themes Framework**

Australia has moved further towards adopting a landscape approach to heritage than New Zealand. Cultural landscapes are described by the National Trust of Australia as those parts of the land surface which have been modified by human activity, including natural and cultural elements which may overlay each other over time. The resulting composite picture of layers is a cultural landscape created by inter-relationships between people, places, and events. These patterns of development and change present a record of human activity and are a manifestation of human values and ideologies. Memory and symbolism associated with landscapes are also considered to be part of cultural landscapes (National Trust of Australia 1999).

The Australian Heritage Commission has developed a Historic Themes Framework to assist in the identification and management of heritage places nationwide. The framework is intended to introduce a more balanced approach to heritage identification and to reveal previously ignored themes. (See www.ahc.gov.au/infores/publications/generalpubs/framework/html/intro.html)

If applied to the Bannockburn study area, the following themes could be relevant:

1. Tracing the evolution of the [NZ] environment
2. Peopling [NZ]
3. Developing local, regional and national economies
4. Building settlements, towns and cities
5. Working
6. Developing cultural life

The Australian National Trust approach to cultural landscapes and the Historic Themes Framework provide classification approaches which are much more closely aligned with the heritage values of the Bannockburn landscape than current New Zealand frameworks. Under the Australian system it appears that the Bannockburn landscape could be classified as a cultural landscape and could be shown to be representative of a number of national themes.

7.6 ROBUSTNESS

Robustness is the ability of a landscape or feature to tolerate change, or to retain its essential character in spite of change.

Sources of change

There are many new activities and processes occurring in the area today (see Section 6.5). All of these have a potential to change the heritage landscape. Table 1 summarises how different sources of change could affect particular features or aspects of the heritage landscape:

Relative robustness of key aspects of the landscape

Table 2 assesses the relative robustness of the key aspects of the landscape. This was developed through examining the current forces of change in the landscape, the aspects of the landscape that could be affected by these changes, and to what degree these aspects could withstand change and yet retain their integrity. The assessment is very general and only indicative—it was not within the brief of this project to examine robustness on a case-by-case basis.

If development pressures and changes continue into the future as they are doing at present, it is possible that the only aspects of the heritage landscape which will retain their integrity will be those in the left-hand column of Table 2 (highly

TABLE 1. SOURCES OF POSSIBLE CHANGE TO THE BANNOCKBURN LANDSCAPE.

KEY ASPECTS OF THE LANDSCAPE	SOURCES OF POSSIBLE CHANGE
Key tangata whenua values	
Stories and meanings ...	Lack of recognition; lack of passing stories on; loss of names from the landscape
Kaitiakitanga ...	Lack of recognition of relationship
Genealogical links ...	Loss of information
Key community values	
Economic—the land as a source of agricultural/horticultural production	Speculation, subdivision, urbanisation
Sense of place—distinctiveness	Bland development; no recognition of vernacular building styles; rapid urban expansion
Aesthetics—views, openness, textures, naturalness, tussock/tors, colour changes	Subdivision, housing development or forestry on tussock hillsides
Stories—from tales to family genealogies to broad histories	Loss of historic features that stories link to; lack of interpretation at significant sites; out-migration of longer-settled people; large increase in population
Genealogical links	Loss of information; out-migration of those with links to the area
Names of places	Loss of information; out-migration of those with links to the area
Sense of community	Lack of places to meet for community interaction (e.g. sale of church); no physical 'heart' to the town; loss of common interests; loss of common activities
Key webs	
Pastoral farming (characterised by extensive tussock country on the uplands, and farm building clusters (particularly Kawarau Station))	Tenure reviews resulting in breakup of economic farm units; new land uses
Water networks (characterised by races, dams, Stewart Town)	Cumulative loss of parts of water race systems
Small farming pattern (characterised by lot sizes, sod walls, tree clusters, mud huts)	Cumulative loss through subdivision, development, 'tidying up'
Hard-rock mining (characterised by mines on Carrick Range, Quartzville, Carricktown (and possibly other settlements), coal mines, access routes amongst these)	Cumulative loss through modern mining; earthworks; vandalism; over-use of tracks by 4WD, decay of buildings, vegetation growth
Alluvial mining (characterised by sluicings, water races, sludge channels)	Cumulative loss of individual features through vegetation growth, earthworks, subdivision, development
Settlement pattern (characterised by historic pattern/s of Bannockburn settlement)	Cumulative loss of parts of the historic pattern through subdivision, development, new housing
Key spatial aspects	
Underlying landforms	Earthworks
Quality of light	Street and exterior lighting at night
Tussock-dominated undeveloped upper country	Subdivision; housing development; forestry
Alluvial mining sites including sluice faces, sluiced gullies, etc.	Earthworks; viticulture; forestry; development; weed growth [Those in the DOC reserve are protected but under threat from weed encroachment]
Key nodes	
Kawarau Station homestead and farm building cluster	Owners who did not choose to care for and conserve
Homestead and farm building clusters from c. 1910 period	Owners who did not choose to care for and conserve
Cluster of Bannockburn hall, Presbyterian church and war memorial	Possible sale of church would lose significance of this cluster
Cluster of Bannockburn store, post office, bakehouse and corrugated iron house opposite Quartzville	Decay; lack of recognition of significance; new development
Quartzville	Natural decay; earthworks; vandalism
Carricktown	Natural decay; earthworks; vandalism
Stewart Town	Natural decay; vandalism

TABLE 1 (continued). SOURCES OF POSSIBLE CHANGE TO THE BANNOCKBURN LANDSCAPE.

KEY ASPECTS OF THE LANDSCAPE	SOURCES OF POSSIBLE CHANGE
Key networks	
Carrick race	[Robust because of continued use] Loss of use would probably lead to decay
Road networks	[Robust where continued use and legal status] Historic roading pattern could be lost through subdivision, development, earthworks, road closures.
Walking tracks	Loss of legal status; lack of legitimisation of customary walking trails
Key features	
Scattered cottages and other buildings relating to the mining era (usually mud or corrugated iron construction); archaeological sites	Decay; demolition; new development, earthworks
Sod or rammed-earth field walls	Decay, demolition; new development
Trees—old poplars, fruit trees, etc.	Death from old age; felling
Mines—remains of hard-rock mines, coal mines, antimony mine	Earthworks, decay
Key activities	
Pastoral farming	Tenure reviews resulting in breakup of economic farm units; new land uses
Public movement—walking, exploring, mystery, discovery	Urbanisation; fencing; new residents with different attitudes to public access; closing of paper roads

robust). Even these could potentially be lost—for example if the Carrick race were no longer used it would deteriorate over time; if pastoral farms were freeholded and subdivided or sold to speculators this could spell the end of this activity.

The key aspects listed in the central column of Table 2 (medium) may be physically changed or lose integrity should the current forces of change continue. Some of their current resilience depends on community and individual stewardship—for example, as long as the owners of historic homesteads and farm buildings take pride in them and care for them, they will be robust. Over time, cumulative changes of the types discussed above are likely to gradually erode the heritage values.

The aspects in the right-hand column of Table 2 are considered to be the most fragile. They are at immediate risk from changes which are currently occurring or appear likely to occur in the near future. The risks include the physical loss of features from decay or destruction (e.g. trees, buildings, archaeological sites); loss of integrity (e.g. urban/lifestyle development within tussock country); cumulative loss of parts of a system (e.g. alluvial mining system); or loss of meaning or significance (e.g. through public exclusion from previous public buildings or places).

Possibly the greatest risk is the fact that development is currently occurring largely in the same place as a great wealth of historic features. The area within and in the vicinity of Bannockburn township and its surrounding terraces and gullies was intensively mined, lived on and farmed, leaving behind many visible patterns and features (including many archaeological sites). Much has already

TABLE 2. ROBUSTNESS OF KEY ASPECTS OF THE BANNOCKBURN LANDSCAPE.

HIGH ROBUSTNESS	MEDIUM ROBUSTNESS	LOW ROBUSTNESS
Key values		
Genealogical links	Stories and meanings	Aesthetics – views, openness, textures, ‘naturalness’
Names of places	Kaitiakitanga Productive use of land Local distinctiveness Sense of community	Tussock-dominated upper country
Key webs		
	Pastoral farming ‘web’	Small farming pattern around Bannockburn settlement
	Water networks	Distinctive pattern of Bannockburn settlement and community buildings
	Historic hard-rock mining ‘web’ Coal mining ‘web’	Alluvial mining ‘web’
Key spatial aspects		
Underlying landforms	Quality of light	Sluice faces, sluiced gullies
Key nodes		
Stewart Town	Quartzville Carricktown Kawarau Station homestead and farm buildings Homesteads and farm buildings dating from c. 1910 period	Church/hall cluster Store/post office cluster
Key networks		
Carrick race	Walking tracks	
Key features		
Road networks	Hard-rock mines	Scattered cottages, sheds, (standing and ruins) relating to the mining era Sod or mud field walls Old trees Archaeological sites
Key activities		
Pastoral farming		Public movement through the landscape

been lost, and if current vectors continue, this part of the landscape could rapidly lose integrity and significance.

7.7 WHAT IS CURRENTLY PROTECTED?

Some of the features discussed above are protected, as described in Section 2. In brief, protection extends to the three DOC reserves (Young Australian, Post Office, and Bannockburn Sluicings/Stewart Town), the fourteen individual items listed in the District Plan, and archaeological sites.

On the face of it, protecting fourteen items in the District Plan seem quite extensive. However, most are already protected in a sense, being publicly owned - eight of them are within DOC reserves, one on road reserve, and one is the war memorial. Of the rest, one is the Presbyterian church and three are privately owned (Bannockburn store and the Kawarau Station homestead and woolshed).

The archaeological protection provisions of the Historic Places Act 1993 would also appear (on the face of it) to protect many of the heritage features of the landscape. As described in Section 2, all pre-1900 archaeological sites are automatically protected whether they have been previously recorded or not. It is an offence to modify, damage or destroy a site without the prior approval of the NZ Historic Places Trust.

The Bannockburn landscape was intensively used by humans prior to 1900 and consequently it is rich in pre-1900 archaeology. However, only a small proportion of archaeological sites have been recorded so far. The study area has never been fully surveyed, with most of the known sites being recorded as part of the Clyde Dam project.

There is undoubtedly a wealth of archaeological sites in the area which have never been formally mapped or recognised. Some of the more obvious ones are shown in Fig. 2 but there will be many more. Examples have been discussed throughout this report, such as in the identification of key nodes, networks, and features (Section 6.4). There is generally some community awareness of some of these sites (an indication being the list of historic features identified by interviewees, Section 5.2). However, it is probable that many owners or developers (particularly those new to the area) do not know what features are on their land or may not know in advance what their legal requirements are, and thus may be in danger of prosecution if sites are damaged.

It is also a problem for authorities with responsibilities for heritage (DOC, the Historic Places Trust, and the Council), as no one is aware of the full extent and nature of archaeological features in the area. Often, too, archaeological sites can be under the earth surface (e.g. middens) and so not obvious to the untrained eye. What is certain is that subdivision and development is proceeding apace within an area which was intensively used prior to 1900, and it is likely that archaeological features are cumulatively being lost.

Even where a site is known and an application is made to destroy or damage a site, the fact that there is no record of the totality of archaeological features in the area means that it is difficult to assess the significance of any single part of it. Often, too, it is important to be able to understand an individual item in light of how it fits into a larger system—for example, a dam may be part of a system of water races. If the systems are not known, the cumulative effect of removing part of the system cannot be assessed.

Many of the key features and aspects of the landscape identified above have no protection. Sites or features created after 1900 (e.g. any places that relate to the post 1910 'settling down' period) are not protected under the Historic Places Act. Trees are not protected, nor are distinctive settlement patterns, nor open space. There is no formal recognition of systems or webs relating to particular eras or activities. Valued aspects of the landscape such as the upper tussock

grasslands could be altered forever through subdivision and development, or forestry, or high-level viticulture.

Is more protection required? The word 'protection' conjures up images of laws and bureaucracy. Sometimes these tools are needed, particularly as a 'bottom line' to prevent important things from being lost. But often the best protection is the goodwill and energy of a community which values its heritage and can see the long-term benefits of looking after it in a sustainable way. The next section discusses this further.

8. Conclusions

This study has attempted to bring together and evaluate an extraordinarily broad range of information to give a better understanding of the heritage values of the Bannockburn area. We have concluded that the study area is a rich heritage landscape, encapsulating all of the key stories and histories of Central Otago within a relatively small basin and its surrounding hills. The heritage values include man-made structures and features, archaeological sites, names, stories, activities, genealogical links, and memories, from which can be read the webs and layers of the past.

Through the interview process it became clear that people living in and associated with the area today value the landscape highly for a wide range of reasons, including its historic, spiritual, aesthetic, cultural, economic, and recreational attributes.

The influx of people into the area is at least in part generated by these special qualities. Paradoxically it is this influx of people (and related subdivision and development) that is the main source of change that threatens the integrity of the landscape.

While some aspects of the heritage landscape are likely to be robust in the face of change, many aspects are fragile and likely to be lost. The process is likely to be cumulative—every miner's cottage lost, or piece of water race filled in, or story forgotten, will contribute to the loss of integrity of the heritage landscape as a whole.

The dry climate has assisted greatly in the retention of heritage features which in wetter places would long ago have disappeared. However, ongoing deterioration is still a problem, and if unstemmed will result in eventual loss of many heritage features. Often decay can be slowed considerably by a 'stitch in time'—a little bit of preventative work to nail on a sheet of iron, or prevent a gutter leaking into a mud-brick wall, for example. Owners may often wish to retain their special places but may be hampered by lack of time, money, knowledge, or materials. There is scope here for the community to be a steward of its own heritage, to come together to work co-operatively to build up the skill base and offer assistance to maintain heritage places. Such an initiative could be supported by agencies with an interest in heritage management.

As things stand, with limited protective measures, a lack of basic information on what exists and where, and little active management of heritage features, many of the key aspects of the landscape are under threat.

Does this matter? We think it does. The heritage landscape has a remarkable wealth and complexity. Many people care about it deeply. It has much to offer in helping understand the many different layers of the past of Central Otago. While aspects have already been lost over recent years, it has survived remarkably intact to the present. But the current form and rate of change makes this unlikely to continue unless some actions are taken now. We suggest that it is critically important that the community and interested agencies begin to look seriously at how the area should be managed in the future so that the key values and distinctiveness of the landscape are sustained.

8.1 CONSERVATION OR SUSTAINABLE DEVELOPMENT?

Conservation

The methodology entailed recommendations on what needs to be done to conserve the heritage values of this landscape. But is *conservation* the appropriate approach for an entire landscape? As we worked our way through the issues this became an important question. We looked at the meaning of the term in the New Zealand context. The most relevant uses of the term ‘conservation’ were found to be in the Conservation Act 1987 (CA) and in the ICOMOS NZ Charter.

The Conservation Act defines conservation as ‘the preservation and protection of natural and historic resources for the purpose of maintaining their intrinsic values, providing for their appreciation and recreational enjoyment by the public, and safeguarding the options of future generations’ (Section 2 CA). The ICOMOS Charter defines it as ‘the processes of caring for a place so as to safeguard its cultural heritage value’ (ICOMOS New Zealand 1993). The Charter states that the purpose of conservation is to care for places of cultural heritage value, their structures, materials and cultural meaning. Conservation is thus more than protection; it includes caring for places so as to extend their lifespan.

The practice of conservation in these contexts is usually applied to historic places which are limited in extent—most often a building or cluster of buildings, but occasionally a pa site or other archaeological feature. It has rarely, from our knowledge, been applied at a landscape scale except possibly where the entire area is managed for conservation purposes (e.g. Bendigo).

The Bannockburn study area presents an entirely different set of circumstances. It is an extensive area with historic features throughout, but intermingled with active economic and social processes, such as pastoral farming, orcharding, vineyards, and residential uses. It is almost entirely in private ownership or Crown lease; only three relatively small areas are reserves. We consider that it is unrealistic to expect the entire area to be ‘conserved’ (in the preservation sense), because it is a living landscape. People have always used the land to make a living and to live, and must be able to continue to do this. It is not

possible to regard it simply as a heritage artefact —it is simultaneously a place in which people have social, economic, and cultural stakes. While there are particular features, nodes, networks, and spaces that may require a conservation approach, we believe that this is inappropriate for a whole landscape.

Sustainable development

At the same time there are special values and special features of the landscape that should be better cared for. The current forces of change are likely to result in their loss, unless there are conscious decisions and actions taken to look after the heritage values of the landscape.

If we are not recommending that the landscape as a whole should be conserved, what approach should be taken?

Having reviewed national and international literature, we have concluded that the complex interests and values in the study area would be better served through using a sustainable development approach, while conserving particularly important aspects of the landscape. Internationally the concept of ‘sustainable development’ is increasingly being applied to valued cultural landscapes (see for example Tricaud 2000; Dejeant-Pons et al. 2001; Kirby 1992; Mumma 2002; Parliamentary Commissioner for the Environment (PCE) 2001, 2003). The concept was first given international prominence in the United Nations Brundtland Commission report in 1987 and is now the central tenet of international agreements such as the Earth Summit in 1992. In short, it means development which meets the needs of the present generation without compromising the ability of future generations to meet their needs.

It should be noted that ‘sustainable development’ is not the same as the ‘sustainable management’ promoted in the Resource Management Act 1991. The concept has been recently promoted by New Zealand’s Parliamentary Commissioner for the Environment. The PCE’s 2001 report investigated the perceived inadequacies in the current planning and management systems for areas around fast-growing towns and cities that had significant natural, landscape, and cultural heritage values. The report concluded that the current system may not be capable of promoting the sustainable development of such areas. Particular problems included reaching agreement as to the nature and significance of values to be protected, and recognising and providing for the public interest in the management of privately owned land. The management of cumulative effects also was seen as a critical issue. The Resource Management Act was seen to be deficient in promoting sustainable development, being largely a reactive tool which focuses primarily on environmental effects of single developments. The report proposed that sustainable development, which seeks to integrate environmental, social, and economic sustainability, should be the goal in areas with highly valued landscapes.

The concept of sustainable development differs from the Resource Management Act’s focus of ‘sustainable management’ in that it encompasses social, economic, environmental and cultural sustainability. The Local Government Act 2002 (LGA) provides for local authorities to play a broad role in promoting the social, economic, environmental, and cultural well-being of their communities, taking a sustainable development approach (Section 3 LGA). Local authorities

should take into account social, economic, and cultural well-being of people and communities, the need to maintain and enhance the quality of the environment, and the reasonably foreseeable needs of future generations (Section 14 LGA). Local authorities are only just beginning to develop the plans required under this legislation, but it provides some interesting possibilities for the Bannockburn area.

Taking a sustainable development approach means considering the people and the landscape holistically, and engaging with the community to a greater extent than has been possible within the limits of this study. It would involve considering environmental, economic, social, and cultural sustainability issues. While some aspects of the landscape may require protection or conservation, other parts may be able to absorb change. The challenge is to develop actions and strategies to improve the understanding, identification, and care of key aspects of the heritage landscape while sustaining the community, economy, and environment.

Improving understanding

The fundamental requirement for sustaining a heritage landscape is shared recognition of its values. People are unlikely to protect or care for places unless they understand why they are important. Community-wide pride, respect and stewardship should be seen as the primary means of achieving sustainable development.

Some community members have a deep knowledge of the history and landscape of the area. Further publications of local history would assist in disseminating information and developing local knowledge and pride.

The Bannockburn heritage landscape also has excellent potential for education and interpretation, not just of mining history but of the key layers of the past before and after this era. The key to any interpretation should be the connection between stories and the physical landscape. Interpreting the landscape offers great potential for tourism, which could contribute to economic sustainability.

Improving identification

In this study it was not possible to carry out any comprehensive on-ground mapping of heritage features. Further work needs to be carried out to record the key aspects of the landscape in detail: critically, the historic features in the northern quadrant of the study area, where subdivision and development are occurring apace.

Improving care

As discussed earlier, all pre-1900 archaeological sites are automatically protected, but this is of little help if people and agencies do not know they exist. The more detailed mapping mentioned above would assist with this problem.

Other aspects of the landscape may also need formal protection through, for example, district planning mechanisms or the tenure review process. While this report has identified key aspects of the landscape, we consider that more consultation and discussion is required before decisions are made about what is

protected and how. A critical aspect of these discussions must also be the form and nature of new subdivision and development, and where it should be located.

However, all the formal protection in the world means nothing if valued places are not cared for. Protected features can still degrade unless people are willing to put effort into conserving them. Stewardship by owners, community groups, and agencies should be actively encouraged and aided through appropriate training, information, and support.

8.2 SUGGESTIONS FOR FURTHER CONSIDERATION

We believe this study has provided a wealth of information about the nature and significance of cultural values in the landscape. It has shown that the landscape as a whole is distinctive and has significant heritage value. It has also found that the landscape will change very rapidly if current trends continue. Some of those changes are likely to be beneficial but others may well lead to irreparable harm to valued aspects of the landscape unless there is agreement and cooperation between the groups most closely associated with it.

From the privileged position of outsiders looking in, we would like to suggest some broad goals and some specific actions that we believe would assist in working towards sustainable development of Bannockburn's heritage landscape.

These suggestions are not worded as recommendations because we feel that future directions should not be determined without more extensive consultation with the community, tangata whenua, and agencies than has been possible as part of this study. Instead, they are worded as 'possible broad goals' and 'possible actions' and it is hoped that they can seed further discussion.

Possible broad goals

By 2020 the Bannockburn area will still retain:

- its distinctiveness
- its sense of community
- the stories and meanings associated with the landscape
- the connectedness between people and the landscape
- the key webs, nodes, networks, spatial patterns, and features that together tell the stories of the past
- the visual and spatial aspects of the landscape which people value highly

The Bannockburn area will be:

- a place where the community, tangata whenua, and agencies (e.g. DOC, District Council, Historic Places Trust) work in an integrated way towards a common goal of sustainable development
- a place where the land still retains its primary role as a source of production rather than speculation

- a place where the community and tangata whenua have pride in the heritage landscape and take an active role in sustaining it
- a place where the valued aspects of the landscape are conserved primarily through the stewardship of the owners and community
- a place where highly valued aspects of the heritage landscape are formally protected
- a place where change and development occur in a way which is respectful of the past and of the values that people hold for the landscape
- a place that people visit because of excellent presentation and interpretation of the many histories of Central Otago, while telling the particular stories of the Bannockburn area
- a place that people are able to walk and explore, within limits and respecting the needs of owners of private property
- a place which still retains a sense of mystery and surprise

Actions that the community may wish to consider

- discussions within the community to reach mutual understandings and agreement about what is important and distinctive about the landscape and its people
- discussions within the community about what aspects of the landscape need protection or enhancement and how this might best occur
- discussions within the community about the appropriate nature and scale of future development
- input by the community into the Central Otago District Council's current strategic planning process
- improving people's understanding of the sorts of heritage features that are present in the landscape, particularly those which are less easy to recognise (e.g. water races, archaeological sites)
- encouraging more detailed surveys and studies of the area (e.g. histories, genealogies)
- retaining and developing community stewardship practices - that is, people voluntarily taking action to care for valued places. There are many people who already do this at a personal level, but it could be enhanced through such things as:
 - leadership
 - basic training in conservation skills (e.g. stabilising mud-brick buildings and field walls)
 - getting together to carry out 'stitch in time' work on derelict buildings (e.g. weatherproofing, stabilising)
 - replanting tree species which are distinctive to this area but are reaching the end of their lives
- working towards improved interpretation of the heritage landscape and the history of the area
- retention or re-establishment of places where the community meets and interacts

(Some of these initiatives may require support from outside agencies such as DOC, NZ Historic Places Trust and/or the Central Otago District Council, at least initially. However they would ideally be initiated from within the community.)

Actions tangata whenua may wish to consider

- determining if there are aspects of the landscape that need protection and how this might best occur
- input into the Central Otago District Council's current strategic planning process
- retaining and developing kaitiakitanga practices

Actions that DOC may wish to consider

- supporting community initiatives such as those described above
- having input into the Central Otago District Council's current strategic planning process
- developing interpretation and trails around the webs and layers of the heritage landscape. The Bannockburn Post Office is a possible centre for such a project.
- initiating more detailed studies of aspects of the heritage landscape to support this project (e.g. the integrity of the 1878 landscape features; the Chinese presence; the Miners Terrace settlement; the way of life of women and families in a mining area)
- supporting local stewardship practices, possibly through offering training and leadership
- considering heritage landscape values when having input into pastoral lease reviews
- ensuring 'best practice' conservation of heritage places for which DOC has responsibility
- contributing to a more detailed study of heritage features, nodes, networks and spaces within the fast-developing part of the study area (from Adams Gully north)

Actions that the Central Otago District Council may wish to consider

- supporting community initiatives such as those described above
- reassessing the current District Plan heritage provisions in light of the values of this heritage landscape
- protecting important features, nodes, networks, and spaces in the landscape through planning provisions (including incentives). Possible examples include:
 - the upper landscape consisting of undeveloped slopes, tussock, tors, etc., together with its webs of the past
 - early settlement sites
 - physical traces of the past which together still form important webs (e.g. 19th century mining) particularly within the fast-developing northern area

- as the gatekeeper of subdivision and development proposals, being aware of the potential location of archaeological sites and develop an alerting mechanism for owners, and its own staff
- enhancing aspects of the heritage landscape through planning provisions (including incentives). Possible examples include:
 - foot access agreements
 - developing guidelines, information sheets and/or controls on the form and extent of subdivision and development
 - delineating the extent of new urban subdivision
 - compatible patterns for new sections and street layouts
 - form and scale of new buildings
 - delineating the extent and height up hillsides of 'lifestyle' subdivision
 - delineating an acceptable height up hillsides for vineyard planting
 - encouraging the retention and re-use of historic buildings using best practice
 - providing guidance on land management practices which respect historic features and cultural values
- contributing to a more detailed study of heritage features, nodes, networks, and spaces within the fast-developing part of the study area (from Adams Gully north)

Actions that the NZ Historic Places Trust may wish to consider

- supporting community initiatives such as those described above
- having input into the Central Otago District Council's current strategic planning process
- developing national evaluation and classification tools for heritage landscapes
- providing free advice and guidance to those who own registered or scheduled historic places
- supporting local stewardship practices, possibly through offering training and leadership along with DOC
- considering whether any places or areas should be proposed for registration (e.g. Carricktown and associated hard rock mines and battery sites)
- contributing to a more detailed study of heritage features, nodes, networks, and spaces within the fast-developing part of the study area (from Adams Gully north)

8.3 FURTHER RESEARCH OPPORTUNITIES

This study was carried out as a pilot to test a methodology for researching heritage landscapes (Appendix 1). We believe that the study has shown the strength and promise of a heritage landscape approach. Further work, however, is needed in the following areas:

- The methodology itself could be revised to a simpler, more straightforward format. The experiences of the study team could be used as a basis for such a

revision. The methodology could then be of greater use to other agencies wishing to assess heritage landscapes.

- The methodology could incorporate a greater emphasis on graphical representations at the evaluation stage of the process—for example to illustrate the key webs and layers in the landscape, and to identify those aspects of the landscape that have greater or lesser robustness.
- The study highlights the lack of legislative, policy, and methodological guidance within New Zealand for the identification, assessment and management of heritage landscapes. This is particularly notable in relation to other countries (e.g. Australia, England, Canada, USA) where such guidance is well-developed. There is considerable scope for further research (theoretical, policy and applied) and publications to guide the development of a coherent and integrated heritage landscape approach in New Zealand.

9. Acknowledgements

Over the period of this study we have been privileged to get to know a very special landscape through the eyes of its people.

We would like firstly to give our heartfelt thanks to the Bannockburn community for sharing their stories, thoughts, photographs, and family histories with us, and for being so welcoming to the strangers in their midst. Our thanks also to the tangata whenua for generously sharing their knowledge and stories of the area, in particular Huata Holmes.

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A number of people took up our invitation to draw personal maps of the Bannockburn heritage landscape. The resulting maps are a real treasure, and we believe they will be part of Bannockburn's future heritage.

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Appendix 1

HERITAGE LANDSCAPES:¹ A LANDSCAPE APPROACH TO THE IDENTIFICATION, CONSERVATION AND INTERPRETATION OF HISTORIC AND CULTURAL RESOURCES

Tony Nightingale

Department of Conservation

1. Introduction

Why develop a landscape methodology?

New Zealand heritage managers have tended to focus on the discrete site. Sites have usually been managed and developed to express one period or idea, while interpretation, where it exists, has focused on describing the physical remains relating to the selected period or idea.

In the last few decades the United States, United Kingdom, and United Nations have developed and refined the concept of a heritage landscape to facilitate the identification, management, and interpretation of larger areas where there are multiple historical assets, as well as a variety of stories and community relationships with the land.

In New Zealand there is provision under the Resource Management Act² and the Historic Places Act 1993³ to develop landscape approaches, but up to the present this has tended not to happen. This methodology has been developed by the Department of Conservation to co-ordinate the department's thinking on what a heritage landscape is in order to carry out several case studies. The methodology will be trialled and adapted in the case studies.

This methodology has been designed to assist the Department of Conservation. A focus group⁴ was assembled by DOC to discuss landscape and this

¹ The term 'heritage landscape' is chosen in preference to cultural landscapes used by the World Heritage Convention. See UNESCO *World Heritage Convention* (1972) and *Operational Guidelines for the Implementation of the World Heritage Convention* passed at the sixteenth session, 1 December 1992, and the four categories of cultural landscape adopted by the UNESCO Intergovernmental Committee for the Protection of the World Cultural and Natural Heritage in February 1994. The reason for DOC's use of heritage is that the term is broader and the use of cultural has generally been restricted to current relationships with the landscape. Former relationships are defined as historic. This choice is consistent with the definition of 'cultural heritage' as defined in the ICOMOS New Zealand charter but differs from the definition of 'cultural significance' in the ICOMOS Australia, 'Burra Charter'.

² Resource Management Act 1991, sections 187, 188, 189.

³ Historic Places Act 1993, sections 22, 23 and 31.

⁴ Aidan Challis (Heritage Policy DOC), Paul Dingwall (Geomorphologist DOC), Kevin Jones (Archaeologist DOC), Tony Nightingale (Historian DOC), Simon Smale (Landscape Architect DOC), Janet Stephenson (Heritage Adviser and Planner, Historic Places Trust), Professor Simon Swaffield (Landscape Architecture Lincoln), Garmini Wijesuriya (Principal Regional Scientist DOC).

methodology is an outcome of those meetings. It represents a synthesis of the ideas from those discussions, although it became clear early on in discussions that the term 'landscape' is used in different ways. It is also likely that landscape studies will vary considerably and the methodology is deliberately permissive to encourage experimentation. During the year in which the case studies are undertaken, the methodology will be distributed amongst others for comment and the methodology reassessed.

Landscapes and space

Identifying, managing, and interpreting heritage at a landscape scale requires different techniques from identifying discrete site heritage (e.g. individual buildings or archaeological sites). A heritage landscape approach attempts to identify significance by examining the interactions between physical remains, stories associated with those physical remains, and current relationships with the heritage site. A landscape methodology attempts to mark key interrelationships between these three general factors⁵ in a bid to assess overall site significance. The concepts of *nodes*, *networks*, *spaces*, *stories*, *webs*, and *layers* been developed to highlight these relationships in terms of space, time, and community associations.

Nodes are central points of heritage significance in a landscape. They are usually physical features or remains such as a kainga site, a sacred mountain, a whaling station, a gold battery site, an early cheese factory, etc.

Networks are physical or notional features that connect the nodes. They can include tracks, supply routes, roads, railway lines, water races etc. They may not be physically traceable e.g. former tracks across a mountain pass or passages across a lake. They can be lines of sight or cultural meaning, e.g. a *pepepha* (a Maori saying).

Spaces could include field and farming patterns, Maori gardening activities and associated storage pits, designed gardens, settlement layouts, or mining remains. Open space or landscape patterns around a site can contribute to the integrity of a heritage landscape. Physical relationships and viewsapes between sites can also enhance the significance of a landscape.

Stories explain human relationships with the landscape. These can be formal written histories, traditions, or beliefs. Sometimes only a part of the stories will remain, e.g. a name or an association. What makes stories powerful is that they link the present and people with the landscape.

Webs connect nodes, networks, spaces, and stories, e.g. the concept of the 1860s gold rush, a bush tramway system, or a system of beliefs, e.g. the Tuwharetoa and Taranaki Maori stories about the relationships between Mounts Tongariro, Ngauruhoe, Ruapehu and Taranaki.⁶

A major function of the heritage landscape assessment is to synthesise information from a variety of sources to provide an assessment of the

⁵ 'Physical, cultural and historic' are the criteria used by New Zealand Historic Places Trust in Assessing Places and Areas. Vossler, G. 2001: *Assessing Places and Areas on the Historic Place: Guidelines for Interpreting Registration Criteria for Historic Places and Areas* (New Zealand Historic Places Trust). However, these three criteria are a generalisation of the many criteria listed in the New Zealand Historic Places Act 1992, section 23, ss 1 and 2.

⁶ These terms are commonly used in a range of disciplines. They have emerged from landscape work, particularly in geography. See, for example, Haggett, P.; Chorley, R.J. 1969: *Network analysis in Geography*. Edward Arnold, London.

cumulative landscape values. A landscape perspective emphasises the value of an ‘holistic’ perspective—it looks for common threads, links, and relationships and enables heritage management to be linked to the management of other resources. This document outlines a proposed methodology for the analysis of heritage landscapes. The process involves information gathering and recording, consultation with community groups, analysis and evaluation, all of which are likely to be iterative processes. The methodology is described in terms of the contents of a final report, even though the study process is unlikely to be carried out in such a linear fashion.

2. A heritage landscape methodology to assist in the Department of Conservation’s landscape case studies

What is a heritage landscape study?

A heritage landscape study examines the inter-relationships between human pasts and the environment over time.⁷ A landscape study encompasses cultural perceptions, practices, traditions and stories, as well as the physical expressions of those relationships.⁸ It is extensive, comprehensive, and multi-disciplinary.

Terms

Cultural perceptions: could include views of Tangata Whenua, Pakeha, Pacific Islander, other ethnic groups, landowners, land administrators, and numerous community groups on their relationship with part or all of a landscape.

Cultural practices: land uses and community activities including agriculture, fishing, hunting as well as spiritual, religious, social, and or/ recreational, activities. Cultural practices can also include transportation networks, boundaries, patterns of spatial organisation, and festivals.

Traditions: Beliefs or associations with a landscape, e.g. taniwha on the Whanganui River, moral purity associated with wilderness.

Stories: history, folk lore, myth, and any accounts of change over time.

Physical expressions: Relict landscapes (i.e. what remains on or in the ground); archaeological sites; buildings; tracks, fences, etc.; responses to the natural environment; vegetation related to land use; clusters of objects; small scale objects.⁹

⁷ Kirby, V.G. 1992: Heritage or millstone? A review of the relevance of historic landscapes to sustainable land management in New Zealand today’ in: Henriques, P. (ed.) *Sustainable Land Management: Proceedings of the International Conference on Sustainable Management*. Palmerston North International College.

⁸ The National Trust (UK) Historic Landscape Survey Guidelines focus on the survey of physical remains as the starting point for determining an historical landscape. While not undermining the importance of archaeological survey as an influence in historic landscapes, this methodology emphasises the interaction and fluidity between physical remains, cultural perceptions, practices and traditions and stories in assessing heritage landscapes.

⁹ There is no master list of possible features but a good starting point is: McClelland, L.F.; Keller, J.T.; Keller, G.P.; Melnick, R.Z. 1992: Guidelines for Evaluating and Documenting Rural Historic Landscapes. *National Register Bulletin, US National Parks Service* (40)

Examples of expertise that may be useful in a landscape study include archaeology, architecture, community group knowledge, descent group knowledge (usually iwi, hapu, whanau), engineering, genealogy, geology, geomorphology, history, historical geography, landscape architecture, and policy analysis.

The following stages provide a straightforward and transparent way to organise the assessment of a heritage landscape. They correspond to the approaches taken by planning and design disciplines. There are several advantages in using a staged approach: it is ideal for project planning and cost management; it enables delegation and subcontracting; and it provides a coherent basis for recording and reporting results. However, with landscape it is always important to retain the 'big picture', and for people involved in each stage to understand how their work contributes to the wider purpose of the study. The stages are only a guide, and when preparing a summary report it may be possible to avoid some of the repetition inherent in the description, characterisation, and analysis steps.

Step 1: Statement of intent

Step 2: Statement of context

Step 3: Landscape description

Step 4: Landscape characterisation and analysis

Step 5: Landscape evaluation

Step 6: Recommendations

Step 1: Writing a clear statement of intent

A heritage landscape study has a context and needs a statement of intent, i.e. what is the study's purpose. (Although the statement of intent is addressed first, there is considerable interaction between the statement of intent and statement of context in Section 2, i.e. given the context, the aim of the study is to ...).

Note that, because it is addressed first, the statement of intent appears to be independent of the rest of the study, but the aim can be explicitly changed during and by the study.

Step 2: Writing a clear statement of context

Any landscape study occurs within wider contexts. Explicitly acknowledging key contexts helps focus the work towards what is new, relevant and distinctive about the study. These statements need to be relatively broad and brief. Example of contexts include:

- 2.1 Bio-physical context: What are the broad geomorphologic (land forming) and ecological processes at work in the particular landscape area?
- 2.2 Cultural context: How do current communities of interest use and value the landscape? What current policies or designations are relevant to the study? (This could be at a local, regional, national level or international level).
- 2.3 Historic context: What are the significant stories associated with this landscape? These could relate to any of:
 - (a) the time before the landscape was designated historic;
 - (b) the time the place was defined historic;
 - (c) the period of its subsequent administration;

(d) the current period as its historic designation is now understood;¹⁰

(e) no definable time period.

2.4 Academic context: Where does this study fit with academic work already completed? While this should be implicit in any bibliography, it is better to state it explicitly.

2.5 Conservation context: How does this study fit in the context of wider natural and historic conservation work undertaken in relation to this landscape?

Detail the contexts in which your study is being undertaken. The examples above should be broad enough to encompass key ideas, but if you have something that does not fit put it in as another context.

Step 3: Preparing a detailed landscape description

The aim here is to achieve a detailed description of the key bio-physical, historical and cultural aspects of the landscape. There will be stories associated with all three aspects, and these stories may be links that help characterise the landscape.

The description should include the biophysical aspects, historic aspects (including non-contemporary cultural associative values) and cultural aspects (contemporary associative values).

3.1 Biophysical

Describing the bio-physical landscape could include a general description of the underlying geological formation as well as its geomorphologic and ecological development. While many of these phenomena are largely prehistoric, they will have influenced subsequent human interaction with the landscape. There will also be stories associated with the development, and understanding of how these phenomena have evolved, that may provide considerable insight to subsequent perceptions and use.

A physical description should as far as possible describe subsequent cultural modification. A landscape may have been altered many times and it is useful to have a good idea of the different modifications and the approximate time periods when these took place. These descriptions need to be detailed and to reflect what is currently known about the landscape, although there is an interaction between description and the (his)stories in that ultimately the stories should provide links among the bio-physical, cultural and historic.

Examples

- A volcano
- Indigenous ecosystems
- Early Maori occupation and modifications
- 'Classic' Maori occupation and modifications
- Maori post-European contact occupation and modifications
- 19th century land occupation and modification
- 20th century land occupation and modification

¹⁰David Hamer suggests three phases but practice has shown that we need to consider the period before a landscape is designated historic. See David Hamer 'Historic Preservation in Urban New Zealand: An Historian's Perspective' in *New Zealand Journal Of History* vol. 31, no 2 (October 1997), pp. 251-269, especially pp. 253-254.

Note that all descriptions need to be related to the landscape and as far as practical be given approximate physical boundaries. There is no reason why all or any features should be physically congruent. It is desirable, however, that they share a considerable amount of overlap. This is really the point of the landscape approach.

3.2 Historic

The key stories here are of human interaction with the landscape. The stories must be located in, and will almost inevitably be associated with, the physical and cultural aspects of the landscape. These links can be detailed in those sections but can be cross-referenced here.

Primary (original or contemporary with historical event) and secondary (subsequent interpretation) evidence does not need to be documentation in the conventional sense of the term. It could include creation/location stories, oral testimony, carvings, maps, photographs, paintings, and fictional material related to the landscape. However, the evidence must ultimately tell an accessible story.

There are also stories about development and changes in the stories told about a landscape. Sometimes these disputed and evolving stories can provide an insight into the significance of the landscape. It is sufficient here to note and describe the different stories and there is no need to create one unified narrative. A plurality of stories will make it easier to isolate nodes or webs of meaning.

3.3 Cultural

The cultural values focus is contemporary. This can be quite varied and the easiest way to identify these cultural values is to identify groups who have associations with the landscape and to look at those associations. Associations can be heavily influenced by stories of the past. For tangata whenua there may be no effective distinction between the past and the present when interpreting a landscape, e.g. Tipuna associations are ongoing. This can be true for other groups also, e.g. burial sites remain sacred in most cultures. However, there are also many new and rapidly evolving uses and values that will, in due course, become part of our heritage landscape (e.g. adventure and eco-tourism). These can be important influences upon our understanding of landscapes

Step 4: Characterise and analyse the landscape

The analysis is aimed at 'making sense' of the descriptive material collected and collated in the previous stage. There are several parts to this: characterisation of the landscape patterns and process; determination of changes, threats and vulnerabilities; analysis of the ways in which the heritage values may be expressed; and identification of the relevant frameworks by which the landscape may be evaluated. This stage is a crucial refinement of the description exercise and has to be undertaken thoroughly in order to make meaningful generalisations about the physical, historic, and cultural aspects of the landscape.

There are several ways to do this, and each applies to the physical, cultural and historic dimensions of a landscape. Here are five key sets of questions

- (a) What patterns are there within this landscape? How is it ordered? What are the continuities and discontinuities?
- (b) What are the most significant elements in the landscape?
- (c) What are the different scales or levels, in the landscape? (There may be several—some patterns or elements may be significant only at a particular scale. Others may be part of nodes, networks or webs).
- (d) What are the dominant processes now taking place?
- (e) How are the landscape patterns, elements and processes connected to other landscapes?

Step 5: Landscape evaluation: Links between the physical, cultural, and historic resources

5.1 Visual, spatial and experiential aspects

- (a) Is there a distinctive visual quality the landscape? (visibility, aesthetics, perspective, e.g. could relate to an image)
- (b) What are the key spatial aspects or links for an understanding of the heritage significance of the landscape?
- (c) Which aspects of the landscape can be considered nodes or webs (i.e. intersections between the physical, cultural and historic that collectively can add to the site's meaning)
- (d) What are the key experiential values of the landscape - i.e. how do visitors experience the landscape?

5.2 Is the landscape robust?

- (a) What are the current elements of change in this landscape?
- (b) What aspects of the landscape could or could not tolerate change?
- (c) What are the main risks to this landscape in the medium term—say 5 years?
- (d) Are there zones within the landscape that need special consideration, interpretation, or protection?

5.3 What is the heritage landscape value?

- (a) What is the significance of the landscape to the communities of interest?
- (b) What is the significance of the inter-relationships among elements?
- (c) What is the relative contribution of individual landscape elements to the integrity of the landscape as a whole?
- (d) What are the key nodes, routes, and boundaries that coalesce from an examination of the physical, cultural, and historic aspects of the landscape?
- (e) Are they of sufficient significance to designate one significant landscape?
- (f) Can you determine physical boundaries? If so what are they?
- (g) Using the Australian Heritage Commission's Thematic Framework what might this landscape be classified as? ¹¹

¹¹ See <http://www.ahc.gov.au/infores/publications/generalpubs/framework/index.html>
 The Australian thematic framework is being used because there is no New Zealand framework.
 NB. The Australian framework appears weak on indigenous peoples' relationships with the land.

- (h) Would the landscape potentially qualify for Historic Places Registration? List your reasons why.
- (i) Does this landscape have integrity – why?¹²
- (j) Can this landscape be compared with similar landscapes and, if so, how does it compare?
- (k) What current use is made of the landscape? Is it potentially a good landscape for conservation, educational, interpretation purposes? Why?
- (l) What are the contributing and non-contributing elements in this landscape?
- (m) What is the overall significance of this landscape in international/national/regional/local terms?

Step 6: Key issues and recommendations

- 6.1 Goal: Make a positive statement about what needs to be done to conserve the heritage values of this landscape.
- 6.2 Guided by the statement of intent for the project, your interpretative framework, and your goal above, what are the recommendations for conservation? This might relate to identification, research, conservation management, interpretation, or standards of practice.
- 6.3 Do these recommendations mitigate potential risks to the heritage value of the landscape?
- 6.4 Can these recommendations be taken up under current policy or is there a need to change policy?
- 6.5 Do these recommendations have implications for protective and/or regulatory mechanisms?
- 6.6 Do these recommendations have implications for landscape interpretation?
- 6.7 What is the proposed involvement of communities of interest?
- 6.8 Identify opportunities or actions that could enhance conservation e.g. changed public attitude, change of tenure, new communication networks, approaches
- 6.9 Identify further research opportunities

¹² An assessment of integrity relates to the sum of the physical, cultural and historical contributions. There is considerable detail on such an assessment in McClelland, L.F.; Keller, J.T.; Keller, G.P.; Melnick, R.Z. 1992: Guidelines for Evaluating and Documenting Rural Historic Landscapes. *National Register Bulletin, US National Parks Service* (40)