# The Cultural Values Model: An integrated approach to values in landscapes

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## Abstract

Cultural identity is strongly associated with the ways in which people interact with their landscapes. A few special landscapes may have 'universal' or 'outstanding' values, but almost all landscapes will be valued in multiple ways by those people who are closely associated with them. It is important that those making decisions affecting landscapes are aware of the potential nature and range of cultural values, particularly where these values are not accounted for using standardised landscape assessment techniques. This article describes the development of the Cultural Values Model, which offers an integrated conceptual framework for understanding the potential range of values that might be present within a landscape, and the potential dynamics between these values. The model emerged out of community-based research undertaken in two landscapes in New Zealand, and is discussed in the context of the contribution that landscapes can make to cultural identity and sustainability.
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## 1. Introduction

Over the past few years in New Zealand, unease about inappropriate landscape modification has been expressed by a variety of national bodies (e.g. Parliamentary Commissioner for the Environment, 2001; New Zealand Historic Places Trust, 2003; Environmental Defence Society, 2003; New Zealand Institute of Landscape Architects, 2005). These concerns are expressed in relation to both 'special' landscapes (e.g. coastal, high country, historic) and landscapes which may appear 'ordinary' yet have great significance to people of the locality. Māori author Tapsell (2002) writes of his tribal landscape:

"There is no other place in the world like Papamoa. Yet hundreds of thousands of cars pass by every year and few occupants would realise the significance that the layered history of these prominent coastal hills represent to our future identity and well-being..." (p. 272).

Much has been written about the significance of landscape (or the related idea of place) to communities and their cultural identity. The literature ranges from sociological and anthropological work, to studies of 'place identity' (e.g. Gray, 2003; Hay, 1998; Stokowski, 1996). A common theme is that both self-identity and group identity are intimately connected with the events and history that are associated with the tangible environment. Culture and identity are therefore not just about social relationships, but are also profoundly spatial. Inappropriate landscape development can change or obliterate locally distinctive characteristics and cultural meanings, creating a break between communities and their past (Antrop, 2005). The global groundswell of concern about such losses, epitomised by the signing of the European Landscape Convention in 2000, suggests that there may be shortcomings in the identification of landscapes' cultural significance, and that better attention should be paid to how to sustain landscape's contribution to cultural identity and diversity.

The concept of sustainable development is widely interpreted as a need to achieve sustainability concurrently within environmental, economic and social spheres (United Nations, 2002). Environmental sustainability concepts have been strongly influenced by landscape ecology, which emphasises the importance of local diversity and the interactions between parts of an ecological system. In recent years these concepts have been extended to consider resilience in light of human–ecological relationships,

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and the role of cultural capital in achieving regional sustainability (Gunderson and Holling, 2002). An interesting parallel can be seen with the emerging discourse on cultural sustainability, and the role of landscape in maintaining cultural diversity. This is well evidenced by the European Landscape Convention, in which the signatories undertake "to recognise landscapes in law as an essential component of people's surroundings, an expression of the diversity of their shared cultural and natural heritage, and a foundation of their identity" (Council of Europe, 2000, p. 89). The growing awareness of the need to sustain both cultural diversity and ecological diversity appears to be finding common ground in landscape, as can be seen for example in the inclusive approaches taken to landscape identification and protection under the World Heritage Convention (UNESCO, 2002) and the interest in sustainable cultural–natural relationships under the protected landscapes approach (Brown et al., 2005).

Taking an 'ecological systems' approach to cultural sustainability would suggest that to adequately sustain a landscape's contribution to culture/s (at both local and national scales) requires decision-makers to have a detailed knowledge of the particular values of that place, and how the values help support (or otherwise) cultural identity and diversity. Planning and management decisions would need to be taken in the context of the cultural dynamics of landscapes, and new development would need to be designed to support and enhance such values. To support this, decision-makers would need to understand the nature and range of values that may be present in a given landscape, how these are spatially spread, and how they interact. Yet current methods of landscape evaluation, as commonly incorporated into national legislation and institutionalised assessment mechanisms, may fail to do justice to the diverse, overlapping and irregularly spread values that are present in landscapes.

Formalised landscape assessments generally undertake to define set categories of value using predetermined criteria (aesthetic, historic, scientific, etc). This approach is well-supported in national approaches to landscape assessment enshrined in law or policy. The Australian ICOMOS Charter for the Conservation of Places of Cultural Significance (Burra Charter), for example, defines cultural significance as meaning aesthetic, historic, scientific, social or spiritual value for past, present or future generations (ICOMOS Australia, 1999). In New Zealand, current case law similarly determines that criteria for assessing landscapes include natural science factors (ecological, geological); aesthetic values, transient values, historical associations, values to *tangata whenua* (Māori 'people of the land') and whether the values are shared and recognised (Wakatipu Environmental Society v Queenstown Lakes District Council C89/2005). Guided by these expectations, landscape evaluations are commonly set up to provide a series of parallel assessments by different disciplinary 'experts'. What is perceived to be of value will depend on the particular interest of the discipline; as Rowntree (1996) notes, disciplines variously interpret landscapes as an ecological artefact, material culture, visual resource, a metaphor, an artistic depiction, ideology, and agent of power relations, to name but a few key themes. Assessments by landscape architects, for example, are strongly influenced by design and picturesque principles, although increasingly ecological

or 'natural' values are also considered (Swaffield and Foster, 2000). Archaeologists are increasingly being involved in assessments of historic character (Thackray, 1999; Watkins et al., 2002). Studies by landscape ecologists may seek to protect species diversity in urban and rural areas (Hawkins and Selman, 2002; Breuste, 2004). Within these worldviews, the choice of assessment method will largely determine what is recorded and therefore what is perceived to be of value.

The result can, firstly, be a static model of significance – a map of 'aesthetic', 'historic', and/or 'ecological' values, for example – with no way of conceiving of the landscape's cultural dynamics as a whole. This is exacerbated when "laws, regulations, planning and administration for landscape are formulated in separate divisions, where values related to nature and culture are separated from experiential and social landscape values" (Herlin, 2004, p. 400). Such approaches reinforce an assumption that values always accord with typologies, and that typologies will encompass all values. The outcome can be "the acceptance and reinforcement of an impoverished understanding" (Dakin, 2003, p. 190).

It is apparent that the application of assessment typologies may also fail to reflect the nature and range of values expressed by those who feel they 'belong' to the landscape. In her research on the landscapes of the Otago Peninsula, New Zealand, for example, Read (2005) found that an 'expert' approach to landscape assessment that had sought to objectively define 'beauty' in the landscape "privilege[d] the view of the outsider over the inhabitants, owners and users of the landscape" (p. 340). Such a restricted approach to determining landscape significance revealed "a tension between the rural landscape environment as the lived experience of those who dwell within it and the objectification of that environment as scenery by those who visit it" (p. 341). Management decisions based on the 'aesthetic' assessment would not have done justice to the wider range of values held by the residents of that landscape.

While participatory methods involving communities of interest are becoming more common (e.g. Dakin, 2003; Selman, 2004; Stewart et al., 2004), expert approaches that focus on the contribution of particular academic disciplines still dominate, with a particular focus on material phenomena (vegetation, historic features, etc.) and aesthetics (Swaffield and Foster, 2000; Dakin, 2003). This is indicated in Fig. 1, which shows the main aspects of landscape of interest to disciplines, and highlights those which are most commonly included in landscapes assessments, at least in New Zealand.

Multi-disciplinary landscape assessments (e.g. Hayden, 1995) offer a broader understanding of landscape values than a single discipline, but such collaborations can be hindered by the incompatibility of landscape-related theory and methodology. This problem has been noted from within many disciplines, including geography (Tress and Tress, 2001; Jones, 1991), archaeology (McGlade, 1999; Anschuetz et al., 2001), landscape ecology (Dramstad et al., 2001), landscape architecture (Spirn, 1998) and heritage (Ramsay and Paraskevopoulos, 1994). While some researchers have attempted a 'technical fix' by mapping layers of landscape information using sophisticated software such as Geographical Information Systems (e.g. Allen et al.,
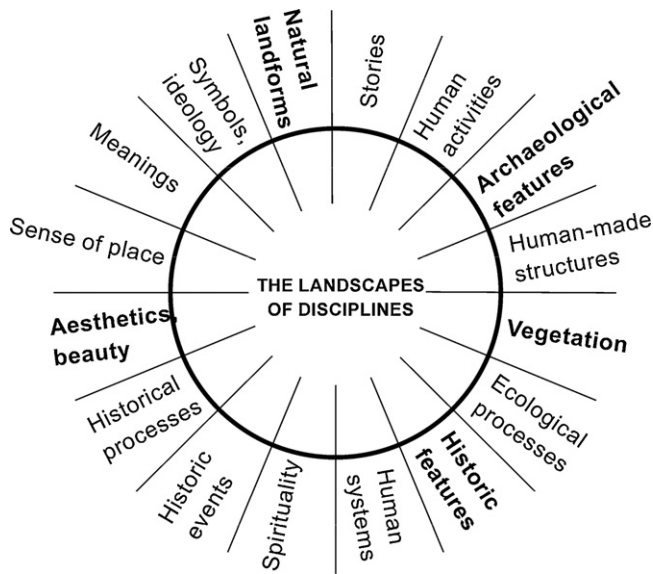
Fig. 1. The main facets of landscape of interest to disciplines, highlighting the aspects most commonly identified in formal landscape evaluations.

1990), McGlade (1999) suggests that the heart of the problem is the "systematic fragmentation of separate specialist observations which are then 'incorporated' into a synthetic reconstruction of the cultural environment" (p. 467).

This failure to understand landscapes in a holistic sense, Terkenli (2001) suggests, is underlain by "the fact that no integrated, comprehensive theoretical and analytical frameworks have been thus far formulated that adequately address landscape study, assessment and planning" (p. 198). Ideally, such a framework would offer an effective unifying approach that enables the multiplicity of information (from whatever source) to be seen as an interlinked whole. In relation to considering the cultural significance of landscapes, a similarly holistic framework would be needed to conceptualise landscape values-as-a-whole, in a way that incorporates the very different assessments of value that might be made to from within different disciplines, as well as the values expressed by 'insiders' (Williams, 1973) for a given landscape.

What appears to be a relatively straightforward issue – how to make better decisions in the face of the anguish felt by communities and culture groups when their local landscapes are under threat of change – can thus be seen as much more deep-seated conceptual problem. If those involved in landscape policy, administration or development control are solely reliant on the version of 'landscape' put forward through the lens of the contributing assessment method or discipline, values that are not captured through these typologies fail to be legitimised, and can thus be ignored.

The Cultural Values Model was developed in an attempt to respond to this challenge by developing a holistic conceptual structure for considering the diversity of cultural values that might exist in any given landscape, and how these might relate to and reinforce one another. By developing the model, it was hoped that this could offer a different insights into the nature and range of potential cultural values in landscapes, as expressed both

by associated communities as well as more formally through landscape assessments. In order to avoid 'capture', a conscious choice was made to step aside from the lenses of predetermined value typologies, and instead to attempt to discover, from communities themselves, what it was about their landscapes that they particularly valued. In taking this grounded perspective, it was hoped that the findings would be shaped less by legal precedent and accepted evaluation practice, and more by the actual cultural dynamics that exist between communities and their landscapes.

The development of the model was informed by contemporary theories on the nature of landscape, and prevailing 'holistic' models of landscape. Two case studies were undertaken to reveal the nature and range of cultural values in landscapes, and these findings were then applied to advancing a unifying conceptual framework that would enable these values to be conceived as a dynamic and interlinked whole.

## 2. Cultural values

A brief explanation of the use of the term 'culture', 'value' and 'cultural values' in this context is necessary. Current interpretations propose that culture is a dynamic process whereby people are actively engaged in constructing group life and its products (Johnston et al., 2000). Thrift and Whatmore (2004) suggest that 'culture' is used today in three main (but overlapping) ways—in an anthropological sense as the whole way of life of a people; as a functional means of ascribing identity to a group; and to refer to particular social processes (p. 7–8). People are considered to live culturally rather than in cultures, with the generative source of culture being human practices rather than in representations of the world (Ingold, 1994). These dynamic senses of 'culture' are adopted here.

The concept of 'value', once considered an intrinsic and universal state, is now generally considered to be a social construction arising from the cultural contexts of a time and place (Avrami et al., 2000). Brown et al. (2002) suggest that people hold certain 'values' but also express 'value' for certain objects. In this sense, understanding how a landscape is valued involves understanding both the nature of the valued 'object' (or aspect of landscape), and the nature of the expressed value/s for that object. These values do not speak for themselves: they can only be identified when they are expressed by those who are part of the cultural context, or by those who are in a position to observe and understand.

Arising from the evolving meanings of 'culture' and 'values', cultural values are taken to be those values that are shared by a group or community, or are given legitimacy through a socially accepted way of assigning value. This suggests that there can be multiple ways of valuing landscapes—values shared by those within an associated group as well as those attributed by disciplinary 'experts'. In the sense it is used here, 'cultural values' are inclusive not only of attributes traditionally considered to be part of 'culture' such as stories and myths, but also of attributes that might be considered to be part of 'nature' yet which are valued culturally—an example in New Zealand being the high value placed by society on 'natural' landscapes such as native forests and undeveloped coastlines (Peart, 2004).

## 3. Theoretical underpinnings

The nature of landscape has been conceptualised in many different ways by various disciplines, particularly (but by no means solely) by geographers. Traditional geographic thought approached the physical world as a neutral external backdrop to human activities, to be understood in terms of its material phenomena, but a thread of scholarship has long sought to understand how human culture and activities interact with the surrounding landscape (see for example Mackinder, 1887). In the mid-20th century, the 'cultural landscape' concept developed by Carl Sauer and the Berkley School showed an emerging interest in the human components of landscape. Largely using an empirical approach, Sauer sought to understand people's role in the evolution of landscapes through methods such as morphological analysis and cultural history (Leighly, 1963). During the mid to late 20th century, culturally oriented influences such as humanism and postmodernism began to re-shape geography and other disciplines, and those interested in the relationship between people and their surroundings began to turn their attention to the symbolic dimensions of human activities and the relevance of historical understanding, using interpretive methods of investigation. There was a growing resistance to spatial determinism, and cultural geographers moved to a new focus on its landscape's subjective and experiential aspects (e.g. Jackson, 1989; Meinig, 1979; Tuan, 1979) and its role in ideologies (Cosgrove and Daniels, 1988; Bender, 1993).

Interest in time as a further dimension of landscape emerged from various disciplines from the 1980s. Daniels (1989) characterised landscape as having a "deep sense of the past" (p. 210), while anthropologist Ingold (1993) referred to its "fundamental temporality" (p. 164) and historian Schama (1996) to its "veins of myth and memory" (p. 14). Contemporary geographic literature pushes new boundaries, moving beyond the dualist model that conceives of space and time separately, to a unified concept of space–time. Crang and Travlou (2001), for example, suggest that places are not unitary in space and time, but include subterranean landscapes, with time differentially irrupt-

ing through place to bring the past into contact with the present. Other authors in this vein suggest that space–time is integral with human action, experience, and social practice (May and Thrift, 2001), so that it consists of "not just bodies moving through space but making it" (Crang, 2001, p. 194).

Applying a similar line of thought to landscape, Ingold (2000) proposes a 'dwelling perspective' in which engagement with the land and its human and non-human components continuously generates both cultural knowledge and bodily substance. The landscape is thus constituted as "an enduring record of – and testimony to – the lives and works of part generations who have dwelt within it and in so doing, have left there something of themselves" (p. 189). Ingold's approach attempts to bridge the "the sterile opposition between the naturalistic view of the landscape as a neutral, external backdrop to human activities and the culturalistic view that every landscape is a particular cognitive or symbolic ordering of space" (p. 189).

These recent explorations of the nature of landscape, space and time have parallels with some more formalised models of landscape that have been developed from a variety of disciplinary perspectives in recent years. These models, all of which aim to offer an integrated approach to the landscape concept, will be briefly touched on below. Their key points are summarised in Table 1.

The nature of landscape has long been of interest to archaeologists, who have sought to retrospectively understand the relationship between physical features, the people who created them, and the setting in which this occurred. The model of 'definitive elements of landscape' developed by Crumley and Marquardt (1990) proposes that landscape is determined by physical structures (those relatively independent of human control such as climate, topography, geology) and socio-historical structures (e.g. class, inheritance, liaisons, trade, laws). These structures and their interpretations (aesthetic, symbolic, religious, ideological) are determinative and mutually definitive of landscape. Darvill (1999), another archaeologist, proposes that rather than being a passive object representing the cumulative sum of human actions, landscape is a set of structures and

Table 1
Summary of models

| Model purpose | Model components | | | |
|---|---|---|---|---|
| | (1) Model components relating to physicality | (2) Model components relating to human relationships | (3) Model components relating to actions and processes | (4) Other model components |
| Definitive elements of landscape (Crumley and Marquardt, 1990) | Physical structures | Interpretations | Socio-historical structures | |
| Aspects of landscape as context (Darvill, 1999) | Space | | Social action | Time |
| Elements of landscape (Spirn, 1998) | Nouns: agents and objects | Adverbs/adjectives: qualities and meaning | Verbs: events | |
| Model of landscape multi-functionality (Soini, 2001) | Landscape qualities | Value systems | Landscape functions | |
| Aspects of landscape (Terkenli, 2001) | Visual (form) | Cognitive (meaning) | Experiential (functions, processes, human experiences) | |
| Dimensions of landscape (Tress and Tress, 2001) | Spatial entity | Mental entity | Systems | Time nature/culture nexus |

devices that are active agents in society (as long as they continue to be socially meaningful). He suggests that the context of a landscape includes space as experienced by individuals and social groups, time (both objective and as represented subjectively) and social action (intentional action to effect or prevent change). Darvill's landscape is thus a "time-dependent, spatially referenced, socially constituted template or perspective of the world" shared by individuals and groups (p. 110).

From a very different perspective, landscape architect Spirn (1998) likens landscape to text, and its elements to parts of speech. Using the metaphor of a sentence structure, her model of 'elements of landscape' incorporates agents and objects (nouns), events (verbs), and meanings and qualities (adjectives and adverbs). She suggests that these elements do not exist in isolation, but combine in ways that produce significance, as do words in a phrase or sentence.

Three recent models offered by geographers complete this overview. Terkenli's (2001) 'aspects of landscape' model proposes that landscape is a visible expression of the humanised environment, perceived through sensory and cognitive processes, and simultaneously a medium for human action. He identifies three interlocking facets of landscape: the visual (form), the cognitive (meaning) and the experiential (functions, processes and human experiences), which are shaped by both biological laws and cultural rules. Soini (2001), similarly suggests a three-poled 'model of landscape multi-functionality': landscape qualities (ecological, aesthetic, historical or symbolic characteristics), landscape functions (the services that these qualities produce) and value systems (which determines how and why people act in the landscape). All of these are interactive and are influenced by economic actions.

A slightly more complex model of 'dimensions of landscape' is offered by Tress and Tress (2001), based on five different historical approaches to understanding landscape. These conceptualise landscape variously as a spatial entity (its physical-material dimension); as a mental entity (human sensory and reflective response to landscape); as the nexus of nature and culture; as a complex system (involving the geosphere, biosphere and noo-sphere) and as a temporal dimension. They suggest that landscapes consist of these interacting aspects in hierarchically ordered systems.

These models may seem at first glance to be a confusing myriad of ideas, but closer inspection reveals a surprisingly high degree of congruence. As can be seen in Table 1, almost all of the models offer a three-part analysis. Even though the models have been developed from a variety of disciplinary backgrounds, strong similarities can also be seen in the components or conceptual groupings of the models.

All of the models have as a component the physical forms of the landscape, using terms such as nouns (agents and objects) (Spirn, 1998), physical structures (Crumley and Marquardt, 1990), landscape qualities (Soini, 2001), visual form (Terkenli, 2001) and spatial entity (Tress and Tress, 2001) (column 1, Table 1).

Most models also refer in some way to meanings generated by human relationships with their surroundings (column 2, Table 1). Expressions used include meaning (Spirn, 1998;

Terkenli, 2001), interpretations (Crumley and Marquardt, 1990), value systems (Soini, 2001) and mental entity (Tress and Tress, 2001). Note however that Soini's category of 'landscape qualities' (column 1) also incorporates some aspects of meaning and value (e.g. symbolic, aesthetic).

Additionally, most models also incorporate actions or processes (column 3, Table 1). Some models focus on human activities, using terms such as verbs/events (Spirn, 1998), socio-historical structures (Crumley and Marquardt, 1990) and social action (Darvill, 1999). Two models include natural processes, referring to landscape functions (Soini, 2001), and systems (Tress and Tress, 2001). Terkenli groups functions, processes and human experiences together within the 'experiential' aspect of landscape (Terkenli, 2001).

The main divergence between the models relates to the temporal dimensions of landscapes. Darvill (1999) and Tress and Tress (2001) both differentiate the dynamics of time from dynamic interactions in themselves ('social action' and 'systems'). Other models do not separately feature time as a component of landscape. This omission is significant given the recent theoretical interest in temporality as a component of landscape.

These concepts and models provided the intellectual framework around which the Cultural Values Model was developed. While the focus of the research was on developing a model of cultural values in landscapes, it was important that such a model was consistent with contemporary theories on landscape itself, particularly given the growing emphasis on landscape as "both [an] area and the role of human perception in defining that area" (Olwig, 2005, p. 294).

## 4. The case studies

The case studies were carried out to determine the nature and range of cultural values that might be expressed about a landscape by its insiders, so as to inform the model-building process. The two case study landscapes were located in the South Island of New Zealand at Bannockburn and Akaroa (these are more fully described in Stephenson et al. (2004) and Stephenson (2007)). The choice of case study areas was guided by a preference for landscapes that were distinctive, had recognised and varied cultural values, and had a resident community of which some people at least were likely to have developed strong connections with the landscape over time. The Bannockburn area, a broad inland valley within rugged tussock-covered ranges, was extensively mined for gold the 19th century, and today is renowned for its quality vineyards. The Akaroa basin has at its heart a long narrow harbour, a shoreline is dotted with small settlements, and is encircled by rural and forested land rising to steep volcanic ridges. It has a significant Māori history as well as relatively early European settlement, and is also widely known for its natural beauty. In both areas, tangata whenua still retain close links with the land. Additionally, both landscapes are known to be undergoing relatively rapid modification from influxes of newcomers and land use changes. For this reason, it was reasoned, interviewees would be more likely to be aware of the potential or actual alterations to valued aspects of the landscape,

and thus more likely to be consciously aware of what they valued.

The case studies were 'instrumental' (Stake, 2000) in that they sought to provide insights and facilitate understanding at a generic level rather than matters intrinsic to the case study areas. Thus, while the research sought to understand the particular relationships between interviewees and their landscape, the resulting information was intended to be used to generate general concepts. By focusing on particular locations it was hoped to gain an understanding of landscape value that went beyond identification of generic preferences for landscape types, and captured cultural associations that had built up over time.

To gain a broad range of possible perceptions, interviewees were chosen to represent long- and short-term residents, different cultures, different professions, different ages, and people of different economic status. The in-depth semi-structured interviews (14 at Bannockburn, of which 1 was Māori; and 20 at Akaroa, of which 6 were Māori) were centred around the question—'what is important to you about this landscape?' What interviewees had to say about their landscape was used as the 'way in' to understanding the meanings and values built up through their experience of the landscape. The resulting material was analysed for statements that conveyed that the interviewee attributed some importance or significance to that matter, regardless of whether it fitted any preconceived notion of 'landscape' held by the interviewer. The data was further selected according to whether the expressed sentiments were shared or supported by others. From this broad picture of values-as-a-whole, patterns and linkages were sought. In the discussion below, the results of both case studies are discussed together. Where 'A' prefixes a nom-de-plume, it refers to an Akaroa interviewee; 'B' prefixed refers to a Bannockburn interviewee.

### 4.1. Values in the landscape

Interviewees frequently referred to valued physical qualities of the landscape. At Bannockburn, this included the surrounding mountains and hills, and the gullies, terraces and river. Also important were the historic gold workings, water races, sod walls, trees, and the sites of historic settlements. Lineal features were often mentioned. Interviewee BA, for example, told of an historic route out of the area via the 'natural bridge' over the Kawarau River (a spanning rock, since fallen), the Carrick water race, Bull Spur Road (an old wagon trail) and an 'original fence' from the first Kawarau Station.

At Akaroa, views were important, either of a particular part of the landscape, such as the spectacular ridgeline of the Akaroa basin, or the landscape as a whole. Yet much of the detail as to why parts of the landscape were valued had little to do with aesthetics. An example was Onawe, a narrow and highly visible peninsula jutting out into the Akaroa Harbour. For many interviewees (both Māori and European) its significance lay in it being the location of a battle in 1832 in which many tribal members were killed or enslaved. Its significance also included its volcanic origins, the *kaitiaki* (guardianship) role of tangata whenua, and the 'feeling' of the place (AB, AL).

Sensory responses were commonly mentioned. The mountains surrounding Bannockburn, for example, were important for their starkness, wildness, colour, changeability, and sense of enclosure. People enjoyed the combination of tors and tussock, the folds of the hills and the lack of visible development. As an artist, BH found the landscapes 'inspirational'. At Akaroa, sensory responses were enhanced by variability in the quality of light, colours, seasonal changes and the weather patterns. Interviewees rarely referred to a single sensory quality—instead a combination of qualities emerged, such as with BH who referred to 'vistas, skyline, rock, harshness, history, stories in the land, climate, accessibility, all these things drawn together'. BK similarly referred to the combination of mountains, sky and weather, particularly the seasonal and weather-related changes. Although values that were described could often have been considered to fit within a particular value type (e.g. 'aesthetic'), the actual description was often within a far more complex context (e.g. AF linked the pleasure of the views from the Akaroa hills with the physical feeling of long grass brushing his legs, the smells of the vegetation, the sounds of activity in the village below, and hawks flying above).

For many informants (both Māori and European), family connections to the area were an integral part of the landscape's significance. BF, for example, recounted his family's history in Bannockburn since they settled in 1876 with a descriptive narrative that included the location of their homes, farms and workplaces. In Akaroa, half of the 20 interviewees referred to family genealogical associations with the landscape. Interviews of people descending from French or English settlers who arrived in the 1840–1860s conveyed a deep knowledge of the landscape. Many past events and practices were recalled along with the places they occurred and what could still be seen there today. Some landscape features were named after these families or related in some way to them, and this additional linkage provided a further sense of belonging. For the six tangata whenua interviewees, their genealogical connections were more than just a link to past ancestral occupation—their genealogies linked directly back to the earth herself as the originator of the first humans. The prominent mountain peak Tuhiraki was described as the *kō* (digging stick) of mythical Māori ancestor Rakaihautu. This particular mountain is also highly valued because it is referred to in ritual greetings by tangata whenua to establish status (AE, AN).

Many landscape values were shared by Māori and European respondents, and a number of aspects of the Akaroa landscape that related strongly to Māori tradition were also valued by European respondents. For example, Onuku (a tiny Māori settlement centred on a meeting-house and church) was strongly valued by five European respondents, in relation to such things as community involvement, its visual appearance, and the welcoming quality of the marae.

Landscape significance was frequently explained through stories that attached to particular locations. 'Stories' is used here in an inclusive sense, encompassing myths, historic events and the broad continuum between history and myth. Interviewee BN, a Māori informant at Bannockburn, recounted an evocative story of his ancestors' battle some 500 years ago with the Bouakai (an

eagle, now extinct) at a specific place in the landscape. Stories from other Bannockburn interviewees included tales dating from the 19th century about the construction of the Carrick water race (a canal), about miners (such as those driven mad by drink, loneliness and isolation), and about 'Jockey Jones' (a notorious local woman). At Akaroa, 27 stories were used to describe landscape significance, including myths, historic events (up to 150 years prior) and recent events.

The sense of history in the landscape was widely appreciated. BL, for example, particularly valued the sense of continuity in the landscape, exemplified by the combination of natural and historic features. BH spoke of the 'rich immediacy' of the history of the area – finding ceramics when digging the garden, and the widespread visible historic features – and noted that 'the historic past is very present here'. Similarly at Akaroa, the sense of embedded history was very present to many interviewees. The bay at Takapuneke, for example, was the location of a number of formative historic events that still have repercussions in relationships and tensions described in the interviews.

When speaking of the valued aspects of the landscape, interviewees frequently referred to activities, both those that occurred the past and those that are current. Valued land-based activities at Bannockburn included pastoral farming, various forms of gold-mining, coal-mining, viticulture, orchards, other forms of small farming. At Akaroa, important Māori practices in the landscape included naming traditions, burial traditions, lookouts and signalling, whaling, fishing, and walking/trading routes. A number of early European settlement practices were also considered significant, including land clearance, sawmilling, cheese factories and traditional farming activities. Valued contemporary practices included fishing and gathering seafood, walking through the landscape, kaitiakitanga and nature conservation.

Interviewees also valued physical processes in the landscape. At Akaroa, for example, many referred positively to the gradual regeneration of native forest on abandoned farmland. Weather patterns and microclimates were described, as were geological processes such as the formation of the Akaroa volcano.

The strong emphasis on valued practices, traditions, processes and other dynamics within the landscape was a surprise.

While the sense of history in the landscape was expected, given the historic affiliations in both places, it was interesting that people did not confine themselves to the physical remnants of the past, but recounted place-based stories, events, genealogies and myths.

In summary, insiders in both Akaroa and Bannockburn identified a similarly wide range of valued aspects of their landscape. These are summarised below in Table 2.

The grouping of values in Table 2 might suggest that these values were experienced in a compartmentalised manner, but in fact analysis of the interview material revealed that landscape significance is built up from a rich interplay of these impressions, experiences, knowledge and memories. The interviews also revealed that, for many people, the landscape simultaneously holds both past and present. Many of the references by community members linked directly to the past, such as how past activities have shaped the landscape, a sense of past events, or ancestral linkages with an area. It was clear that the awareness of the past influences how the landscape is perceived: for example, at Akaroa, one of the places most frequently referred to – Takapuneke – was a sloping field of grass with no visual cues, yet a massacre that occurred there some 175 years earlier still reverberated in the strong emotions expressed by people.

There are clearly many overlaps between the landscape interests of community members (insiders) and disciplines (usually outsiders), as can be seen by comparing the range of characteristics in Table 2 with the totality of disciplinary interests (Fig. 1). Insider perspectives, however, were founded in personal experience and knowledge of place, and a broader phenomenon than would typically be of interest to a single discipline. It was also notable that insiders emphasised intangible values (stories, genealogies, practices, etc.) to a far greater extent that would usually be elicited through standard expert-based studies of landscape's material forms. As well, community members, did not generally confine themselves to landscape as defined through standard assessment typologies, but ranged freely across many topics. This is not to say that insider views are necessarily more 'right' than those of outsiders: the crucial issue is that both forms

Table 2
Insider values in the Akaroa and Bannockburn landscapes

| Valued aspects of the Akaroa landscape | Valued aspects of the Bannockburn landscape |
| --- | --- |
| Natural features (e.g. harbour, skyline, vegetation, walking trails) | Natural features (e.g. landforms, vegetation) |
| Historic features (buildings, tracks, early farms) | Historic features (e.g. buildings, sluicings, routes) |
| Contemporary features (e.g. walking trails) | Contemporary features (e.g. vineyards) |
| Sensory responses (e.g. colours, light, beauty, naturalness) | Sensory impressions (e.g. quality of light, colours and forms of the hills) |
| Spiritual connection (e.g. through Māori cosmology) | Spiritual qualities (e.g. embodied myths) |
| Genealogical relationships with the land | Genealogical connections (e.g. prior generations living in the area) |
| Historic events (e.g. volcano, whaling, Te Rauparaha) | Stories, myths (e.g. regarding the gold-mining days) |
| Stories (often linked to names of places) | Sense of history (e.g. as conveyed by features and stories) |
| Land-based and water-based activities and traditions (e.g. walking, faming, food gathering) | Activities (e.g. traditional pastoral farming, walking through the landscape) |
| Natural processes (e.g. seasonal changes, weather patterns, regeneration of bush) | Natural processes (e.g. seasonal changes) |
| Meanings conveyed by names of places (e.g. "Tuhiraki", "Dan Rogers") | Meanings conveyed by names of places (e.g. "Kofuia", "Bull Spur Road") |
| Sense of place (e.g. living in a volcano) | Sense of community (e.g. as linked to Presbyterian Church) |
| Feeling of belonging | Sense of place |

of knowledge contribute to understanding landscape values-as-a-whole.

## 5. Developing the Cultural Values Model

In developing the Cultural Values Model, as noted earlier, it was intended that it should be compatible with contemporary landscape theory, as well as capable of accounting for the multiple ways in which landscapes are valued. In the sense it is used here, 'cultural values' are inclusive not only of attributes traditionally considered to 'cultural' (such as stories and myths), but also of 'natural' attributes that are valued culturally. Examples of the latter from the case studies include seasonal changes, geological processes, regeneration of native forest, and ecologically important areas. These may be values expressed by insiders or assigned by disciplinary experts.

On the basis of the clustering of values expressed in the case studies, the commonalities between disciplinary and 'insider' perceptions, and the clear synergies between models of landscape/space/place (see Table 1), it is suggested that culturally valued aspects of the landscape can be considered in the first instance as comprising three components.

The first component consists of the physical, tangible and measurable aspects of landscape or space. These include natural features (landforms, vegetation, etc.) and features created by or resulting from human intervention (structures, gardens, tracks, etc.). The term *forms* has been adopted to capture this first group of aspects, as a term that is consciously inclusive of both natural and cultural features. This component is largely consistent with the model components listed in column 1 of Table 1, and with a number of the aspects of landscape shown in Table 2.

As discussed earlier, the 'cultural' theme within disciplines such as anthropology and geography suggest that meaning, significance, and interpretations of landscape are generated by human relationships with and within landscapes. Such relationships are represented in many ways including localised spirituality, myth, sense of place, naming, stories and through arts such as literature and song. Ecological and functional relationships can also be valued, both in their own right and as part of a human–natural system. Consciously spanning the human–natural continuum, the term *relationships* is proposed to encompass those generated by people–people interactions in the landscape, those generated by people–landscape interactions, and valued relationships within the landscape even where there is little or no direct human involvement (e.g. ecological relationships). This second component of landscape again has similarities to the model components listed in column 2 of Table 1, and is also consistent with the landscape values expressed by insiders and certain disciplines.

The third component – *practices* – is inclusive of both human practices and natural processes (there does not appear to be a word in the English language that captures both concepts). These are the primary matters conveyed in column 3 of Table 1, and include past and present actions, traditions and events; ecological and natural processes; and those practices/processes that incorporate both human and natural elements. These are grouped together in order to reflect that human practices and the processes of nature are a continuum of dynamic action rather than conceptually separate. At one end of this continuum, natural processes (weather, erosion) are initiated by non-human forces, while cultural activities (farming, building) are initiated by humans. Human activity, however, affects natural processes (e.g. building dams will alter water flows) and natural processes affect human activity (e.g. flooding may affect farming downstream). To conceptually separate the two is to replicate the nature/culture fission and deny the inseparability of natural and cultural processes. The single category of 'practices' is therefore intended to capture the continuum of valued cultural practices and natural/human processes of the landscape.

I suggest that these three fundamental components – forms, relationships and practices (and, as will be discussed, their interactions over time) – offer the basis for an integrated understanding of landscape and its values. As can be seen (in Fig. 2 below), these three categories encompass the range of landscape values expressed by both disciplines and insiders.

### 5.1. Landscape dynamics

There is a clear call within contemporary thinking on landscape and space that it is necessary to move beyond static understandings, and to be inclusive of movement, social practice, and time. By considering the three model components in a dynamic sense, it can be seen that practices, forms and relationships are continually interacting to create landscape. This notion has, in various forms, been long part of the landscape debate. Mackinder (1887) and later geographic determinists, for example, focused on how the forms of a landscape can shape practices
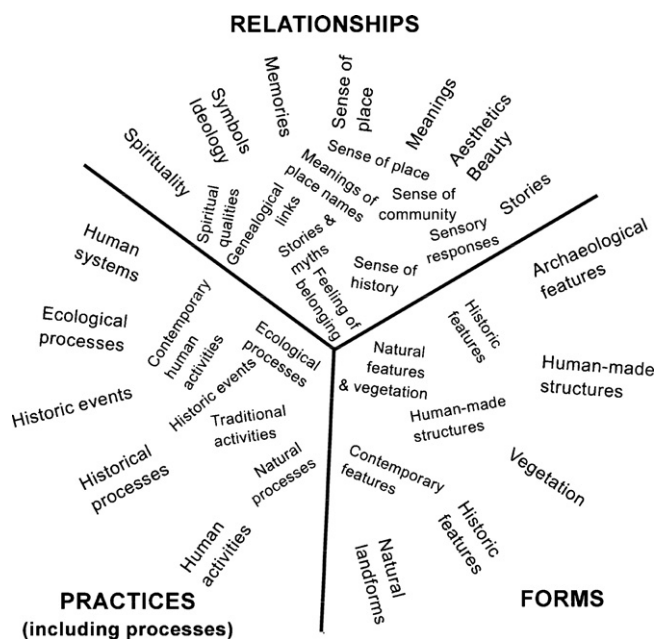


Fig. 2. The three fundamental components of landscape: forms, practices and relationships. The outer circle represents the disciplinary interests in landscape (from Fig. 1) and the inner circle represents the values expressed by associated communities (from Table 2).

and relationships. Sauer, on the other hand, was particularly interested in how practices shape landscape forms (Leighly, 1963). Interpretive and symbolic approaches (e.g. Bender, 1993; Meinig, 1979) focused on how cultural relationships determine the significance of landscape forms, and how forms themselves can engender relationships. Forms, relationships and practices are thus in continual dynamic interchange—a proposition that has synergy with the systems approach advocated by Gunderson and Holling (2002). These dynamic interactions not only shape the physical environment but also shape environment as-perceived—the landscape. Accordingly, while the three components can be considered separately, they are nonetheless inseparably interwoven as the dynamic landscape.

Such dynamics were revealed in the case studies. At Akaroa, the volcanic peak Tuhiraki is severally a striking visual feature, the kō of a mythological ancestor, and one of the key landscape features used in formal greetings by tangata whenua to establish their links to the landscape. The mountain form, the story, and the ritualistic practices combined to give this feature a powerful presence. A very different example is at Bannockburn, where water races, originally constructed during the gold rush era, were a valued aspect of the landscape. While many are now dry, some are still used by farmers to convey water from high in the mountains to irrigate farms and vineyards. Interviewees appreciated the visual form of the water races running across mountainsides, but also valued the continued use of the races for conveying water and the communal activity of managing the water races. The races were significant not just as aesthetic/historic forms, but as the locus of relationships and practices that made them a dynamic part of the landscape.

The proposition that landscape can be understood as forms, practices and relationships in dynamic interaction is depicted in Fig. 3. Such interactions were implicit in many of the reported values from the case studies, and it was rare for interviewees to talk about one component (e.g. a form) without further elucidating its value in terms of practices or relationships, or both. It is therefore proposed that these dynamic interactions help generate cultural values, and are also generated by them.
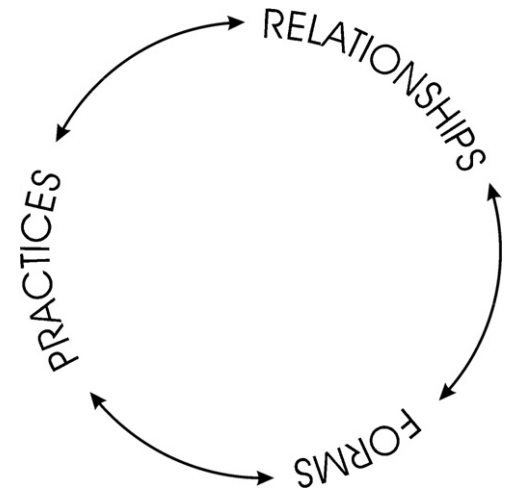


Fig. 3. The dynamic interaction of forms, practices and relationships.

### 5.2. Landscape temporality

The literature reviewed above suggests that landscape has yet a further dimension—temporality. The time-thickness of landscapes was clearly evident in the case studies, where interviewees (almost without exception) spoke of aspects of the past when referring to their landscapes. This included stories and historic events that belonged to particular locations; historic structures; family and tribal 'located' genealogies; and landscape forms that had been generated by human action.

The diagram in Fig. 3, while adequately reflecting landscape dynamics, does not convey a landscape's temporal dimensions. Accordingly, a further variant on the model represents landscape as a continuum, bearing within it the forms, relationships and practices of the past that influence those of the present, and thereby shape landscape as it is perceived (Fig. 4). It expresses the concept that landscape is created from the dynamic interactions of forms, practices and relationships, occurring over time, and that landscape values are contingent on elements from both the past and present. Landscape is thus always changing,
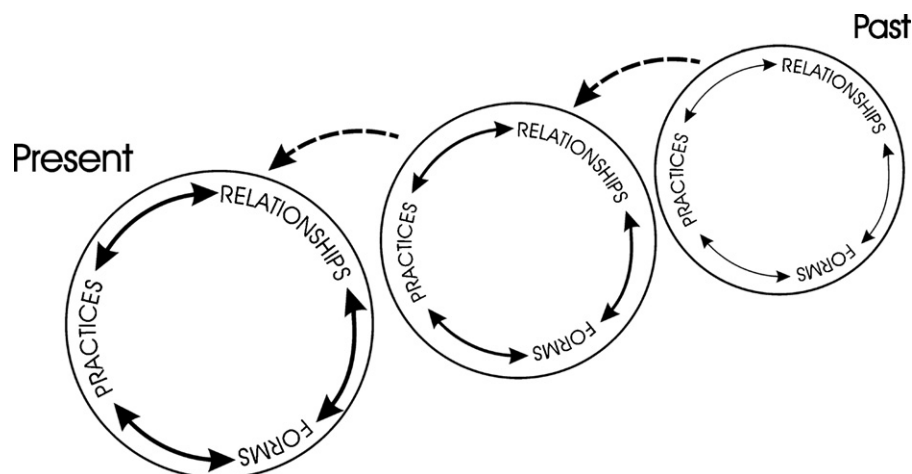


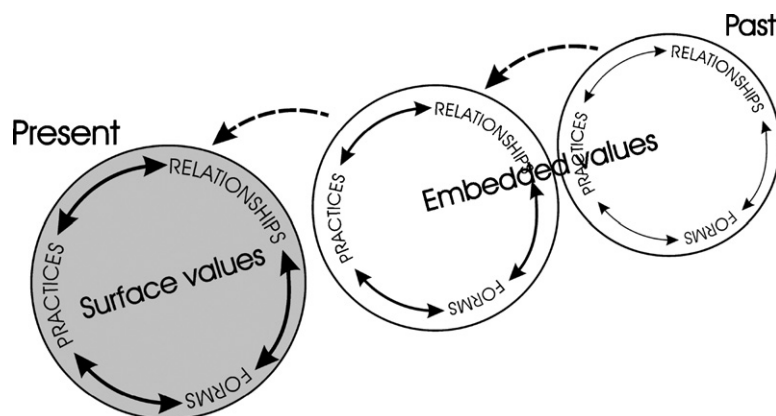Fig. 4. The Cultural Values Model, showing the dynamic and temporal dimensions of landscape.

Fig. 5. The Cultural Values Model, showing surface and embedded values.

carrying forward the threads of the past and weaving them into the future.

Further analysis of the case study findings revealed that those with a relatively short experience of the landscape tended to express its significance in terms of physicality and sensory responses, whereas those with a longer experience spoke about relationships and understandings of the landscape that arose from its temporality (e.g. historic events, traditions). To describe this distinction, the terms *surface values* and *embedded values* are proposed: surface values are the perceptual response to the directly perceived forms, relationships and practices, while embedded values arise out of an awareness of past forms, practices and relationships. Interestingly, some of the Māori respondents made no reference at all to surface values: for them, all significance lay in the embedded values of the landscape. Surface and embedded values are shown diagrammatically in Fig. 5.

In summary, the Cultural Values Model proposes that the cultural values in landscapes can be understood in an integrated way through consideration of forms, relationships and practices. While some values may arise from immediate responses to the 'surface landscape', the case studies suggest that insider values are particularly associated with the dynamic interactions between these, which create a time-deep 'embedded landscape'.

## 6. Discussion

The Cultural Values Model was developed to provide a framework to understand the potential range of values that might be contained in a given landscape; to help address the problem of fragmented understandings of landscape value; and to consider the contribution of landscape to cultural sustainability.

As discussed above and shown in Table 2, a similar nature and range of value types was identified in Akaroa and Bannockburn. Both case studies revealed that values were not limited to the physical forms of landscapes, but also related to contemporary or past practices, and to relationships with and within the landscape. Although the visual and experiential aspects of the landscape were certainly important, most associated community members and tribal members also gave great significance to values that had developed over time. The emphasis given

to embedded values bears out Crang's (1998) suggestion that "…places provide an anchor of shared experiences between people and continuity over time. Spaces become places as they become 'time-thickened'. They have a past and a future that binds people together round them." (p. 103). As a whole, the localised values create a distinctive identity that comprises the relationships between people and the landscape. They contribute to the sense of belonging that was expressed by many interviewees, and, as particularly revealed by Māori respondents, are a powerful part of cultural identity.

It was not unusual for the same landscape feature to be valued for multiple different reasons. Sometimes these reasons appeared unrelated, and occasionally at odds (e.g. Takapuneke was sacred to many interviewees, but one saw it as a potential site for a beach settlement). In other instances there appeared to be a dynamic relationship between forms, relationships and/or practices, particularly for key features. At Onawe, for example, the visible forms of the site where the battle took place with Te Rauparaha were supported by the stories and spiritual significance of the feature, and reinforced further for tangata whenua by their role as active caretakers of the site. At Bannockburn, the continued use of the historic Carrick water race by local farmers helps ensure its survival, and also cements its significance for local people. It is tempting to conclude that values are experienced most strongly where forms, relationships and practices continue to dynamically interact, so that values are cross-generative—for example, that ongoing practices reinforce the value of forms, and in doing so maintain relationships. Just as ecological sustainability is dependent on interactions between the plants, animals and environmental conditions of a locality, perhaps cultural sustainability is dependent on local dynamic interactions between valued forms, practices and relationships. This may be a fruitful area for further research into how to achieve localised cultural sustainability.

The findings also suggest that part of the power of landscapes is how they represent multiple cultures, and can make these cultures visible and accessible. In Akaroa in particular, the analysis showed that many values were recognised and shared across cultural streams. Many of the interviewees of European descent, for example, gave high value to Māori cultural components in the landscape. This suggests that the visibility and accessibility
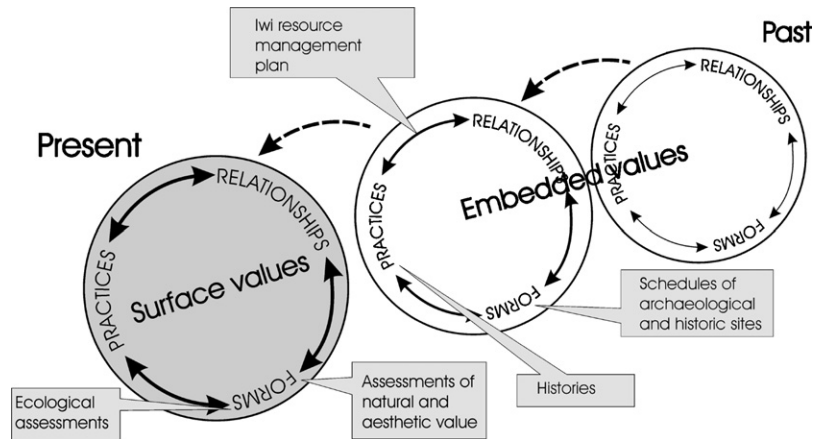
Fig. 6. Using the Cultural Values Model to indicate the relative contribution of landscape assessments to understanding the Akaroa landscape values-as-a-whole.

of other cultural codes within landscapes may aid in generating a cross-cultural awareness and appreciation. This is another potential area for further research.

The Cultural Values Model proved to be unexpectedly useful for identifying the relative contribution of disciplinary studies to an overall understanding of the landscape. The model made it possible to roughly 'locate' the contribution of any given study to an understanding of the landscape as a whole. This was done by looking at the landscape component that was the subject of the expert evaluation (forms, practices and/or relationships, or their interactions) and whether it related to the surface or embedded landscape, and mapping this on to the Cultural Values Model. In Akaroa, for example (see Fig. 6), three prior studies by landscape architects had predominantly used an expert approach to evaluate the area's scenery based on aesthetic and 'naturalness' criteria. An ecological survey identified patches of ecologically significant flora and fauna. Both of these disciplines focused on the surface values of the landscape's forms. Archaeologists and historians had reported on valued aspects of the embedded landscape, focusing respectively on a selection of embedded forms and embedded practices. The *iwi* (tribal) resource management plan, in comparison, offered an insider perspective that included valued practices (e.g. traditional activities) and relationships (e.g. genealogical links), and in some instances how these related to landscape forms.

By examining and 'locating' all of the landscape-related studies available for a given landscape, it was possible to identify some fundamental gaps in the understanding of the landscape as a whole—for example, the absence of any information on embedded practices and relationships that were significant to Europeans. It also helped provide an overview of the types of knowledge already available about the landscape, as a starting point for developing a more holistic understanding.

The suggestion that a holistic understanding of landscape values requires input from communities as well as a range of disciplines is nothing new—this is the approach taken with World Heritage cultural landscapes. What the model might offer, however, is a more explicit way of approaching the knotty problem of 'intangible values'. There are many well-honed methods of identifying and mapping tangible values in landscapes. Intangible values are much harder to grasp, and are therefore much easier to overlook or dismiss, often being lumped together as 'associative' or 'spiritual'. The Cultural Values Model may offer a way past the confusing concept of 'intangible', by suggesting that the focus should be on determining significant practices and relationships at a more fine-grained level. By directly targeting the identification of located stories, traditions, genealogies, naming practices, etc., and considering both surface and embedded values, the intangible curtain may be more readily drawn aside to reveal the richness and diversity of these values.

The model has further potential significance in offering an integrating framework for interdisciplinary landscape work, by offering a common frame of reference for those with an interest in landscape. In particular, it may provide a frame through which to further explore the idea of regional sustainability, with a particular focus on how human–landscape relationships contribute to social and ecological resilience.

Further research, testing and refinement of the model is required. Because of the necessary breadth of this research process, and its limited origins in two case studies, the model in its present form should be seen as a beginning point. It would benefit from being tested in a variety of applied situations, including applications to urban landscapes, 'ordinary' landscapes, and highly valued landscapes. It would also be interesting to include the views of tourists and other visitors, and to compare these outsider views with the insider views of the same landscape. Cross-cultural application could test whether the framework is valid to convey non-western understandings of landscape.

## 7. Conclusion

Landscape is a place and a concept in which insiders and disciplines meet, collide and, increasingly, interact. To improve interaction, and to assist those who care for and manage landscapes, it is important to find ways of achieving a more integrated and comprehensive approach to understanding landscape values. Traditional landscape assessment methods which focus on discipline-specific value typologies may fall short of revealing the richness and diversity of cultural values in landscapes held

by insiders. Achieving a more integrated approach, I have suggested, requires the establishment of a conceptual framework that is inclusive of perceptions founded in disciplinary methodologies, and also captures the rich and dynamic landscape experienced by insiders. While it is unnecessary for different forms of landscape knowledge to share a methodology or a theoretical foundation, the key is a common frame of reference that has a reasonable fit with the range of ways in which disciplines and communities perceive and value landscape.

May and Thrift (2001) have pointed out that discussions in geographic literature as to the nature of space and time is still largely at the level of metaphor. The landscape framework provided by the Cultural Values Model has attempted to move one step beyond metaphor, by offering a conceptual linkage between contemporary theory on landscape, space and time with the range of ways in which insiders and disciplines express what is important to them about landscapes. It is hoped that the model will offer a stage in the process of addressing the real and urgent need for better ways to mutually sustain landscapes and the diverse values that they encompass.

## Acknowledgements

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