Section I: Defining the setting of monuments and sites:
The significance of tangible and intangible cultural and natural qualities
Section I: Définir le milieu des monuments et des sites-
Dimensions matérielles et immatérielles, valeur culturelle et naturelle

THE PROTECTION OF THE SETTINGS OF ARCHAEOLOGICAL SITES IN SCOTLAND

Black Mairi / UK

Heritage Planning Manager of the Heritage Planning Unit , executive agency of the Scottish Executive

Historic Scotland

Historic Scotland is an executive agency within the devolved Scottish Executive. Our mission is to safeguard Scotland's historic environment and to promote its understanding and enjoyment. It is our role to advise Scottish Ministers on all matters relating to the built heritage and the historic environment.

Historic Scotland contains four key business groups including the Historic Environment Policy Group, which is responsible for policy and planning matters. Included in the Group is the Heritage Planning Unit, which is a multi-disciplinary team that provides specialist guidance on the implications of development for the built heritage and on wider environmental issues.

Protecting the Setting of Archaeological Sites

The importance of protecting and preserving sites' settings has long been recognised in international charters and in the planning guidance for the land-use planning system that is in place in Scotland and elsewhere in the United Kingdom. The issue has been further, and increasingly recognised in the growing use of environmental impact assessment regimes in Scotland, and what constitutes the setting of an archaeological site has become a subject of much discussion.

Archaeologists use the term setting with different meanings depending on the type of decision or discussion of the site that is taking place. Archaeologists often use the term to mean the landscape that the site in question sits within and has had interaction with for its lifetime, before its abandonment and subsequent preservation. Other archaeologists use the term to mean something which provides an experience of a place, thus aiding its interpretation either intellectually or as a purely emotional experience. Better communication should be fostered by the use of standard terms between archaeologists and planning professionals.

In general, the points to look at are:
- The site should be described in terms of its type and function.
- The likelihood of the potential for the discovery of presently unknown archaeological remains within the site should be considered.
- The site should be examined in terms of its visual relationships and how its settings contribute to those relationships. Those relationships will be with other archaeological sites, landuse and topographic features.
- The setting should be assessed for its contribution to the experience of the site.
- Exploration of these points should make it easier to identify those things in the landscape that should or could be important to the interpretation of these sites, and what area of landscape could be associated with them either during their habitation or during their subsequent preservation in the landscape.

This paper attempts a definition of the term by looking at how it has been used in a range of practical and theoretical areas. These include national and international conservation charters and guidance, the interpretation of archaeological sites, professional opinions within cultural resource management, academic opinions and planning decisions. A method of assessment will be discussed using a technique developed by landscape analysis, including visual impact assessment and landscape capacity study. The benefits and pitfalls will be explored and recommendations for further work made.

What is a setting?

Settings of archaeological sites can be used for aesthetic appreciation, for interpretation of the site and its relationships and for the interpretation of landscapes, and in terms of the "experience" created by a visit to the site itself. It is clear that a "setting" consists of visual and non–visual elements which can be physical and non-physical. Also, that the concept of setting is related to the amenity of the site.

Section I: Defining the setting of monuments and sites:
The significance of tangible and intangible cultural and natural qualities
Section I: Définir le milieu des monuments et des sites-
Dimensions matérielles et immatérielles, valeur culturelle et naturelle

From the beginning of the production of international conservation charters, the preservation of the setting of a monument has been seen as a way of understanding the aesthetic appreciation of the monument. There are many examples but it is shown most clearly in Doctrine III of *The Athens Charter for the Restoration of Historic Monuments* of 1931. It recommends explicitly that the picturesque elements of the area created by historical monuments should be preserved from intrusive elements of new development. Most of the later international charters discuss the value of preserving the setting of archaeological site for interpreting the site and the value of understanding its relationships. The *Venice Charter for the Conservation and Restoration of Monuments and Sites* of 1964 states, in Article 7, that a monument is inseparable from the history to which it bears witness. Article 13 states that additions cannot be allowed except in so far as they do not detract from the interesting parts of the building, its traditional setting, the balance of its composition and its relation with its surroundings, thus emphasising the importance of interpretation. The ICOMOS International Committee of Canada produced *The Appleton Charter for the Protection and Enhancement of the Built Environment* in 1983. Section C, on principles, describes why setting is important: "Any element of the built environment is inseparable from the history to which it bears witness, and from the setting in which it occurs." The *Charter for the Conservation of Places of Cultural Heritage Value* was produced by the ICOMOS International Committee of New Zealand in 1992. In Article 6 it states that "the historical setting of a place should be conserved with the place itself." In Article 8 of *The Burra Charter* of 1999, setting is defined as something that, along with other relationships, "contributes to the cultural significance of the place." In Article 9, a section on location, dealing with the desirability of whether elements of a site can be relocated, states that the "the physical location of a place is part of its cultural significance." From the very first Charter the need to preserve a setting is acknowledged as important for aesthetic appreciation, for interpretation and to provide an "experience" of history.

So what is a setting? Settings can be as wide as the landscapes that the sites inhabit. By examining the landscape around the burial cairns, settings have been used to interpret the Neolithic chambered cairns of South Uist in the Western Isles of Scotland (Cummings, 2003). Illustration 1 shows the view from the forecourt area of one of the cairns where ritual activity may have taken place. The viewpoint shows a range of mountains visible to the east, and how the bulk of the cairn blocks out the view towards the sea and the coastal plain. Many cairns were placed close to rock outcrops. From examining the landscape setting, the author concluded the cairns may have been located in deliberate positions to reference specific features within the landscape.

It is crucial to understand when looking at the preservation of a site within an appropriate setting that the landscape setting that you are looking at is the modern landscape within which the archaeological site has survived. Sometimes this modern landscape shows historic features; sometimes it only shows modern land uses within which the site survives. All surrounding landscapes are important for understanding the history of a site. A recent presentation by Jon Humble (Humble, 2002) addressed the issue of whether the current land-use/landscape setting can be considered appropriate if it differs from that which could be expected to have prevailed when the main period of use of the site took place or if it contains later intrusions. For the aesthetic setting of the site, it seems less important if the site is not within an original type of landscape as long as it is appropriate for aesthetic appreciation, that is, to look pleasing to observers who either appreciate its historic nature or otherwise appreciate the view. The interpretive setting of the site need not be the original landscape of the site. In some cases, due to climate change or management requirements, it would not be possible to maintain or recreate the original landscape for interpretation and aesthetic appreciation. It is possible to preserve an interpretative setting for a site within a overtly modern landscape that still preserves an understanding of the function of the site.

The interpretation and identification of the preservation of relationships and processes for an archaeological site is more difficult. One tool available is the use of site catchment analysis, where analysis concentrates on the total area from which a site's contents have derived. The technique could be used to interpret processes within the site and understand links to other settlements or other areas of landscape; it could be used to understand why a site is situated where it is within the landscape. The setting can therefore be defined by the physical evidence provided by artefacts and scientific facts as well as looking at the landscape placement. An example of this technique being used in respect of the multi-period fortification and settlement of Eketorp on Öland island in Sweden. The evidence used in interpreting this excavated site shows that the setting has a number of different physical elements. (See the published volume entitled "the setting" that discusses the interpretation of the site (Nasman and Wegraeus, 1979).)

Section I: Defining the setting of monuments and sites:
The significance of tangible and intangible cultural and natural qualities
Section I: Définir le milieu des monuments et des sites-
Dimensions matérielles et immatérielles, valeur culturelle et naturelle

Moving away from the physical evidence, the experience of an archaeological site and its setting is the most difficult to define in simple terms. It often becomes an important factor when assessing development proposals in terms of their impact on human communities. A site's setting can contribute to a "sense of place", an emotional quality about a location in the landscape. The preservation of an appropriate setting for the quality of this "experience" is crucially important. Christopher Tilley explains that the experience in replicating the experience of the monument builder and user is a tangible link to the past. It is not dependent on a replication of environmental conditions contemporary with the monument but an emotional response. (Tilley, 1994). While personal experiences of sites within a setting obviously have value and can be considered in terms of what is "appropriate" for preserving the site, it is not clear when they can be considered to have enough value to become a cultural experience (Campbell, 2003). Presumably, for this transformation to occur, the experience has to show measurable effects amongst a number of people or has to be experienced over a length of time. This cultural experience is a social value where "a place has become a focus of spiritual, political, national or other cultural sentiment to a majority or minority group." (Australia ICOMOS, 1998, para. 2.5). These social values have been studied for the Hilton of Cadboll Pictish cross-slab, a carved stone, removed from its site in Ross-shire, Scotland to the National Museum of Scotland in Edinburgh, shown in illustration 2. A fragment of the stone was discovered remaining in situ in Ross-shire causing the local community to resume campaigning for the whole stone's return to the village. A Historic Scotland sponsored study showed that the stone and its setting were strongly interlinked (Jones, 2003) and that the stone provided a sense of connection with the past for those born in the village, a sense of validation for others living there from evidence for much earlier habitation in the landscape, a connection from the more recent past to the present from the oral history that grew up around the cross-slab, an essential reference point in a community's identity or sense of itself, in terms of an iconic image for the community and a sense of being set apart from the norm. It provided a sense of collective attachment to place (Jones, 2003, pp.53-54). The stone had a setting within the community's "sense of place" that was affected by its physical removal.

When the term setting is used, it is often in conjunction with the term "amenity". English Heritage has identified that, in an increasing number of planning decisions up until 1991, visual amenity of a site and its setting was defined with "reference to imagination, understanding or specific viewpoints" using phrases such as "the imagination easily understands the reasons for the initial choice of site" (T/APP/L3815/A/90/148258-60 and 151738/P5). Planning decisions that involved a discussion of amenity "measured the appropriateness of the proposed setting compared to the existing and to the past landscape settings" (Fairclough, 1991). From recent Scottish planning decisions, the concept of "amenity" as setting is inferred by the description of the monument as having value to the public. Abernethy round tower, a scheduled ancient monument, was described as having value in providing a viewpoint of the historic village it overlooked – a village which was considered as its setting (Walled Garden, School Wynd, Abernethy, P/PPA/340/241, 2002.) See illiustration 3. It seems that the setting of a site can be considered as something that provides "amenity" i.e. added value to the environment in terms of providing a historic background to the landscape, often in terms of providing a viewpoint, to and from the monument.

Defining Setting

Few sources, international or national, approach a definition of the physical elements of setting. The recent boom in the development of renewable energy in Scotland has caused a six-fold increase in environmental impact assessments carried out for large scale developments from 1999 (Scottish Executive, 2005). Most of these have been in rural landscapes and all of these can be said to exhibit human influence, whether in the form of recognised cultural heritage sites or in land-use changes. Amongst professionals, this has offered an opportunity to shine a metaphorical spotlight on the subject of setting yet still there is uncertainty over the full definition of what constitutes the setting of an historic site and even more uncertainty over a methodology to assess how these sites' settings will be affected by land use development.

Each site has to be valued in its own right and in terms of the Scottish planning guidance, valued and protected in line with its status as being nationally, regionally or locally important. The Scottish National Planning Policy Guideline states that, for nationally important sites, "it is particularly important that they are preserved in situ and within an appropriate setting. Developments, which would have an adverse effect on scheduled monuments or the integrity of their settings, should not be permitted unless there are exceptional circumstances." (SOED, 1994, para. 17). In other words, from this guidance the preservation of the setting of the site is considered extremely important and as crucial as preserving the site itself.

Section I: Defining the setting of monuments and sites:
The significance of tangible and intangible cultural and natural qualities
Section I: Définir le milieu des monuments et des sites-
Dimensions matérielles et immatérielles, valeur culturelle et naturelle

Assessing Existing Methods

Various methods of looking at setting have been used in the environmental impact assessment process. It would be fair to say that, in Scotland, there remains unease amongst archaeological professionals at the effectiveness of the methods on offer. An assessment of existing methods has shown that a blend of approaches used by archaeological and landscape professionals may be a useful way forward.

Colcutt's classification of the components of an archaeological setting provides a useful definition of visual elements of setting that could be used as a basis for any new assessment method:

- Listing visual qualities
- Identifying topographic features that can be linked with the function of the site or the reason for placement of the site in the landscape
- Identifying whether the landuse is sympathetic to the site's intellectual understanding
- Listing other sites, also above or below ground, that could assist with creating a network of relationships. This should acknowledge any spatial element. (Colcutt, 1999, p.504)

Colcutt takes a site-centred view of setting that could be improved, for the environmental impact assessment process, by an approach that instead looks at the site within a landscape and, as such, brings in an appreciation of the time-depth of landscape. This means a wider assessment method based in landscape analysis and, using a mixture of techniques: visual impact assessment which looks at the visibility of a development in a landscape, the visual impact on receptors and the significance of this impact; a landscape capacity study consisting of an examination of the ability of the landscape to "absorb" development with the least impact; a Landscape Character Assessment and a Historic Landuse Assessment that mapped the extent of past and present landuse areas.

Technical Considerations

An enhanced landscape capacity study was devised for the setting of the "Heart of Neolithic Orkney" World Heritage Site in order to study its sensitivity to landscape change and the potential accommodation of new development (David Tyldesley and Associates, 2001). Different methods were used to try to define the setting of the World Heritage Site. The setting itself was split into three categories: immediate, intermediate and wider. The immediate Zone of Visual Influence (0.5km) was defined by the archaeological sites themselves and their immediate surroundings. This setting was defined in terms of visitor access to the monuments and, as interpretative facilities can be expected to change with time, this setting was described as flexible and changing. The definition of the intermediate settings of the sites was more complex. It was defined by using the visual envelopes of the monuments which were analogous to the intermediate Zone of Visual Influence of up to 3 – 4 km. These intermediate settings were confined by the landscape forms of a sea bay, low hills and ridgelines. For Skara Brae, the Neolithic village in the World Heritage Site shown in illustration 4, the boundaries of the landscape form, for the most part, coincided with the boundaries of the land categorisation of the Landscape Character Assessment and Historic Landuse Assessment. Zones of Visual Influence were constructed to test how well the landscape could absorb different developments. These assumed that visibility of a development impact in a landscape is closely related to its distance from the receptor and taking into account visual impacts of various types of developments (Stevenson and Griffiths, 1994). The "visual envelopes" – the view from the monuments themselves - were split up into Zones of different sizes:

- An immediate Zone of Visual Influence, where very small change was very noticeable, perhaps up to 0.5km, depending on the context (meaning landscape character) beyond which there could be
- An intermediate Zone of Visual Influence where human scale changes could be noticeable, perhaps up to 3 or 4 km, depending on the context (again meaning landscape character) beyond   which there could be
- A wider Zone of Visual Influence where only large scale changes could be noticeable, such as a large wind turbine generator, perhaps up to 15km.

Changes to the "experience" of a site within its setting can be affected by the reaction of the human senses. Tyldesley grades the impact of these effects on a site and its setting in terms of distance:

- Immediate – very small scale changes, such as a poorly designed fence, path or sign, loud or repetitive noise, pungent smells or visually intrusive features such as advertising could markedly affect the intimate experience, ambience and enjoyment of the World Heritage Site monuments
- Intermediate – individual new buildings of any size, structures, roads or other features, or alterations to

Section I: Defining the setting of monuments and sites:
The significance of tangible and intangible cultural and natural qualities
Section I: Définir le milieu des monuments et des sites-
Dimensions matérielles et immatérielles, valeur culturelle et naturelle

them; other visible changes which are about the same scale as a human figure (or larger) or intensity of movement or activity, could be clearly seen, or may be heard, or the cumulative effect of smaller changes, in the setting…could affect the character and peoples' perception and enjoyment of the World Heritage Site

- Wider – large scale built developments, massive, high or conspicuous structures; very loud or far-carrying sounds (such as lower level aircraft flights or the drone of distant traffic) or other types of major change; or the cumulative effects of smaller changes, in the wider setting could affect the character and peoples' perception and enjoyment of the World Heritage Site (David Tyldesley and Associates, 2001, p.8).

This method has obvious benefits and some problems. The aesthetic appreciation of a place can consist of a basic enjoyment of the physical space without any scientific knowledge of archaeological sites that exist there. Instead, a visitor can experience an awareness of the contribution that an archaeological site and its landscape setting can make to the historic ambience of the landscape or the "sense of place" as experienced by the public. This unconscious appreciation of the historic nature of the landscape is not usually acknowledged in landscape assessments but is beginning to be recognised. The historic environment is considered to be a constant backdrop to modern life and "the context within which new development happens" (English Heritage, 2000, p.8). This experience is difficult to quantify, given its complexity and personal nature.

Although the distance between a development and a site and its setting is an important factor, some developments will be screened from receptors. Screening is often used as a factor in determining visual impacts when it comes to assessing the views to and from archaeological sites. The effectiveness of screening would obviously be specific to the siting and size of proposed development. The lifespan of the screening should also be taken into account when assessing its effects against the lifespan of the development. Computer software can assess the effects of screening by landform however other screening factors are often judged at a smaller scale. The Landscape Capacity Study acknowledges that it is possible to define the setting of an area depending on the purpose of the assessment, the scale of working and based on the criteria used (David Tyldesley and Associates, 2001, p.6). So how do we come to a more general set of working practices?

Recommendations for Further Work

The following steps are recommended as a basic method to use when looking at a setting assessment. It does not detail how to make a professional judgement against published planning guidance nor should it be used without obvious enhancement in some areas and tailoring in others, depending on different development types, landscapes and site types. It cannot replace a professional assessment of significance once the work is completed.

The site type or function and the relationships between multi-period site types should be established. The aesthetic aspects of setting could be assessed by employing the method suggested in Scottish Natural Heritage and The Countryside Agency's Guidelines (Swanwick, 2002). It lists a non-comprehensive range of aspects and the adjectives that might be used to describe them. For sites' settings it may be useful to use these terms to create a checklist on record sheets recording how these specific areas contribute to these aesthetic characteristics. This checklist would be easy to use when making comparisons but these terms could also be incorporated into written descriptions. A field survey visit will be necessary to complete this part of the assessment.

The assessment should then identify topographic features that relate to the function or placement of the site, it should identify other archaeological sites known in the area and comment on the area's potential for the discovery of presently unknown archaeological remains. (Although this relationship is non-visual, its natural place is in this stage of the assessment.) It should be clearly stated where and why information or inferences cannot be made.

Computer software allows an inter-visibility analysis or "viewshed" (Wheatley, 1995) to be constructed for the site (pers. comm. Phil Marsh). This would provide the data for features that are visible from the site and from which the site can be seen. It is important to note that this technique does not delineate setting but the results are necessary for the site's interpretation and delineation of setting. A Digital Terrain Model is constructed using Ordnance Survey data, probably at 50m interval resolution using 1:50 000 maps or for smaller areas it can be compiled using 10m spacing and 1:10 000 maps. Other land survey and design data, surface obstructions (i.e. screening) and the effect of the curvature of the Earth are added. To assess inter-visibility between the site and this base data, a three-dimensional digital model of the archaeological site could be constructed and lines of sight interpreted from target heights taken from this model. This should be an important tool because, in most cases, the

Section I: Defining the setting of monuments and sites:
The significance of tangible and intangible cultural and natural qualities
Section I: Définir le milieu des monuments et des sites-
Dimensions matérielles et immatérielles, valeur culturelle et naturelle

further away the development is then less is the negative impact on the site and setting.

The Historic Landuse Assessment should be consulted for information on the historic landuse and how this could contribute to the interpretation of the site.

Screening should be assessed for its contribution to the modern setting of the site, positive or negative, and its permanence at a smaller scale than might be assessed in a study of inter-visibility. This will be more important when locating a suitable site for development within an archaeological site's setting but should be examined here.

The "experience" of a site can be considered mainly visual although it is predicted that an experience of a site will be enhanced when the site, and its past use by human beings, is understood. Field survey will be crucial for assessing how the setting contributes to the experience of the site. Elements of the setting which affect the experience are given earlier in this paper but will possibly be unique in their combination for each site visited. At this point, it will be important to detail what mars the "experience" of the site, as well at what contributes to a positive experience. Stakeholders should be identified for the site and setting at this point and consulted on their associations with the site. The setting will undoubtedly be an important part of their experience of the site.

The setting should be assessed for its ability to preserve evidence to assist with the interpretation of the site. It could consist of a field visit to check the conditions on the site and/or it could consist of evaluation techniques to check the extent of site preservation and the preservation environment itself. This preservation quotient could be linked to archaeological research agendas available for specific periods, with a central steer from Historic Scotland (Barclay, 1997) and from the local knowledge of research agendas from regional archaeologists. An investigation of this kind would assess the importance of this component of setting for understanding the site. Any invasive fieldwork could be incorporated as part of any site specific investigations.

Conclusion

It is clear that an archaeological site's setting has three broad values for society: aesthetic appreciation, intellectual interpretation and "experience", all adding up to amenity value for the wider community. However, defining the individual elements, and the extent of the setting of a site that allows these things to happen, is more difficult. This is especially true if the site itself is not well understood. Using the above method as a way of forming a consensus on what to look at may be one way forward. To establish what a setting is, using clear parameters and a common method, may then allow more open dialogue on how a development's effects can be clearly assessed in the preservation of a site's setting for the future.

Abstract

Scotland has a rich archaeological heritage that has been the subject of government protection for nearly 125 years. As part of the United Kingdom, Scotland is committed to fulfilling its obligations under the various international charters and conventions that are designed to protect the historic environment.

Background From the beginning of the production of international conservation charters in the twentieth century, the preservation of the setting of a monument has been seen as a way of protecting the appreciation, interpretation and the visitor's experience of the monument within appropriate surroundings. However, the UK guidance does not define setting in detail or what could be considered as an appropriate setting. It has been left to the archaeological and planning professions to explore the definition further.

Issues This paper looks at how the term has been interpreted and used by the archaeological and planning professions. It will explain how the term's definition has not been used consistently or in its widest sense. This paper presents a definition of the full meaning of the term "setting". A method of assessment for the setting of archaeological sites will be presented. It will assess existing techniques of landscape analysis, including visual impact assessment and landscape capacity study with particular reference to the buffer zone of the Heart of Neolithic Orkney World Heritage Site. The benefits and pitfalls of the method will be explained along with recommendations for further work.

Section I: Defining the setting of monuments and sites:
The significance of tangible and intangible cultural and natural qualities
Section I: Définir le milieu des monuments et des sites-
Dimensions matérielles et immatérielles, valeur culturelle et naturelle

References

1. The Athens Charter for the Restoration of Historic Monuments, 1931.
2. The Venice Charter. International Charter for the Conservation and Restoration of Monuments and Sites, 1964.
3. Appleton Charter for the Protection and Enhancement of the Built Environment,1983.
4. Charter for the Conservation of Places of Cultural Heritage Value, 1992.
5. The Australia ICOMOS Charter for the Conservation of Places of Cultural Significance (the Burra Charter) 1979 revised 1981, 1988 and 1999.
6. Australia ICOMOS (1988) *Guidelines to the Burra Charter: Cultural Significance*, http://www.icomos.org /australia/
7. Barclay, G. (ed) (1997) *State-Funded Rescue Archaeology in Scotland, Past, Present and Future*, Occasional Paper number 2, Historic Scotland Ancient Monuments Division, Edinburgh.
8. Campbell, L. *Landscape Character Assessment, Landscape and Visual Impacts* SNH Landscape Group. Seminar given to Scottish Executive Inquiry Reporters Unit, May 2003.
9. Colcutt, S. (1999) The Setting of Cultural Heritage Features, *Journal of Planning Law*, June, pp. 498-513.
10. Cummings, V. (2003) The Neolithic Chambered Cairns of South Uist, *Internet Archaeology*, 8 (http://intarch.york.ac.uk/journal/issue8/cummings_toc. html)
11. David Tyldesley and Associates (2001) *Landscape Studies of the Heart of Neolithic Orkney World Heritage Site*, Report to Scottish Natural Heritage and Historic Scotland.
12. English Heritage (2000) *The Power of Place, The Future of the Historic Environment*, Power of Place Office, London.
13. Fairclough, G. (1991) *Ancient Monuments' Setting and Visual Amenity*, unpublished correspondence to Dr David Breeze, Historic Scotland, 28th January 1991.
14. Humble, J. (2002) *Run the Risk Assessment and Reap the Rewards.* Paper presented at European Association of Archaeologists Conference, Thessaloniki.
15. Nasman, U. and Wegraeus, E. (ed.) (1979) *Eketorp Fortification and Settlement on Öland/Sweden. The Setting*, Almqvist & Wiksell International, Stockholm.
16. Scottish Executive (1995) *Use of Environmental Impact Assessment in the Planning System and Electricity Act Draft Final Report*, Scottish Executive
17. Scottish Office Environment Department (SOED) (1994) National Planning Policy Guideline (NPPG) 5 *Archaeology and Planning*, Edinburgh, Scottish Office.
18. Stevenson, R, & Griffiths, S. (1994) *The Visual Impact of Windfarms: Lessons from the UK Experience* ETSU W/13/00395/REP. ETSU for the Department of Trade and Industry.
19. Swanwick, C. (2002) *Landscape Character Assessment Guidance for England and Scotland*, The Countryside Agency and Scottish Natural Heritage.
20. Tilley, C. (1994) *A Phenomenology of Landscape*, Berg, Oxford.
21. Wheatley, D. (1995) Cumulative Viewshed Analysis: a GIS-based method for investigating intervisibility and its archaeological application, in G. Lock and Z. Stancie (eds) *The Impact of GIS on European Archaeology*, London, Routledge.

Section I: Defining the setting of monuments and sites:
The significance of tangible and intangible cultural and natural qualities
Section I: Définir le milieu des monuments et des sites-
Dimensions matérielles et immatérielles, valeur culturelle et naturelle

THE PROTECTION OF THE SETTINGS OF ARCHAEOLOGICAL SITES IN SCOTLAND

Black Mairi / UK

Heritage Planning Manager of the Heritage Planning Unit , executive agency of the Scottish Executive

SCALE	Intimate	Small	Large	Vast
ENCLOSURE	Tight	Enclosed	Open	Exposed
DIVERSITY	Uniform	Simple	Diverse	Complex
TEXTURE	Smooth	Textured	Rough	Very Rough
FORM	Vertical	Sloping	Rolling	Horizontal
LINE	Straight	Angular	Curved	Sinuous
COLOUR	Monochrome	Muted	Colourful	Garish
BALANCE	Harmonious	Balanced	Discordant	Chaotic
MOVEMENT	Dead	Still	Calm	Busy
PATTERN	Random	Organised	Regular	Formal

Aesthetic aspects of setting (after Swanwick, 2002. p.34).

Section I: Defining the setting of monuments and sites:
The significance of tangible and intangible cultural and natural qualities
Section I: Définir le milieu des monuments et des sites-
Dimensions matérielles et immatérielles, valeur culturelle et naturelle

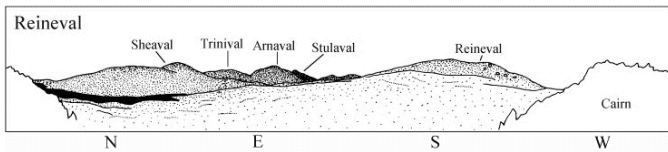# THE PROTECTION OF THE SETTINGS OF ARCHAEOLOGICAL SITES IN SCOTLAND

Black Mairi / UK

Heritage Planning Manager of the Heritage Planning Unit , executive agency of the Scottish Executive

The 360º landscape setting from the forecourt of a Neolithic cairn in South Uist. Copyright Vicki Cummings.

Hilton of Cadboll Pictish cross-slab. Copyright Historic Scotland.

Abernethy round tower. Copyright Historic Scotland.

Skara Brae Neolithic village. Copyright Historic Scotland.