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## ARCHAEOLOGY IN NEW ZEALAND



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# ASSESSING ARCHAEOLOGICAL VALUE

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The archaeological values of historic places need to be assessed for a variety of purposes. Formal assessments are commonly undertaken for authorities under the Historic Places Act 1993 or resource consents under the Resource Management Act 1991, for registration or listing of historic places, or for management purposes such as conservation planning and prioritising expenditure. Assessing archaeological values is one of the most difficult tasks in archaeological resource management. New Zealand working practice is relatively ill-defined compared with many other national jurisdictions. To ensure consistency in approach among practitioners, professionally accepted standard working practices and frameworks for assessing significance are required. This paper recommends the use of one particularly well-tried set of criteria.

## **The Strands of Significance**

There is considerable agreement about what factors make historic places important and this has resulted in legislation and working practice with a close family resemblance in New Zealand, Australia, Canada, the United Kingdom, and the United States. What considerations count, how they are handled, and even what they are called, differs from one national jurisdiction to another. Legislative criteria of significance generally do not provide a practical basis for assessment (Kerr 1996: 11). They are usually open in their approach, allowing the inclusion of a wide range of interdependent and overlapping values and requiring the formation of more precise policy by the administering agency. The Historic Places Act 1993 s23 (1), for example, lists aesthetic, archaeological, architectural, cultural, historical, scientific, social, spiritual, technological or traditional significance as criteria for entry in the register of historic places and historic areas.

It is widely recognised that one single value provides an insufficient basis for assessing the significance of an historic place. Archaeological values are now usually seen as operating within a broad model for managing heritage places which has been developed under the general auspices of ICOMOS. Pearson and Sullivan (1995: 134), for example, recommend the approach to assessment taken in the ICOMOS Burra Charter with its emphases on fabric and authenticity and the need to balance aesthetic, historical, scientific, and social values. In assessing significance, an attempt should be made to document all the different values involved and to integrate them in a constructive way. The assessment of all strands of significance tends to be the ideal rather than the reality (Byrne *et al.* 2001) with social significance, in particular, under-represented. Although this paper deals only with archaeological values, it is recognised that assessment of other values will often also be required to arrive at a comprehensive view of the value of a place. In the final analysis archaeological and heritage values generally may complement or compete with the other imperatives in the decision-making process. Ultimately the decision may be in the hands of a politician or judge.

Current New Zealand legislation provides the overall framework for assessing archaeological values. It is within this framework that decisions must be made about working practice and the procedures and criteria required to promote a consistent approach to the assessment of archaeological values. Legislation has tended in the past to focus on the values associated with the physical fabric of historic places rather than on their wider social dimensions, and have been site-based rather than landscape-based (Byrne *et al.* 2001). The current Historic Places Act has moved towards a more expansive concept of heritage and defines historic places, historic areas, wahi tapu and wahi tapu areas. Wahi tapu, for example, is defined as 'a place sacred to Maori in the traditional, spiritual, religious, ritual or mythological sense.'

The principal (but not the sole) reason why archaeological remains are important is for the information they contain about the past (Schiffer and Gumerman 1977; Bowdler 1981, 1984a: 405, 1984b; Hiscock and Mitchell 1993: 1; Pearson and Sullivan 1995: 150 - 153; Smith 1996; Briuer and Mathers 1997; Hardesty and Little 2000). This value is usually assigned in comparative terms by (1) characterising the class of place and its relative importance; (2) comparing one place relative to other places of the same class; (3) management considerations and how these bear on identifying the most appropriate course of action. Values cannot be assigned independently of a thematic, geographical, and chronological framework and even if this is not made explicit it still

informs any judgements made (Carver 1996). The need to make explicit the thematic, geographical, and chronological framework employed has been another imperative in practice overseas.

### **Integrating Other Values**

Some legislation puts greater weight on particular values. The provisions of the Historic Places Act dealing with archaeological sites, for example, implicitly gives particular weight to archaeological considerations in spite of the reference to the need to assess 'Maori, or other relevant values' (s11(2)c). In practice, Maori values often incorporate aspects of archaeological value. Different criteria need not be set up as a hierarchy of more and less important values (Briuer and Mathers 1997: 33). If the legislation allows, the weight given to the different criteria should instead depend on the character of the place itself and the context and objectives of the assessment.

Discussions of archaeological significance in the 1970s and 1980s tended to include criteria such as ethnic and public significance within an archaeological assessment (Jones 1981). In practice, this tended not to result in other strands of significance being incorporated in the assessment. Instead, other points of view on the archaeological values were presented. As heritage management has become a field for practitioners from different backgrounds, archaeologists have increasingly limited their role to their own particular area of expertise.

### **Assessment Procedures**

Archaeological assessments are commonly undertaken for (1) an application for an authority to modify or destroy an archaeological site under the Historic Places Act; (2) a resource consent under the Resource Management Act; (3) registration or listing of historic places; (4) management purposes such as preparing a conservation plan or prioritising expenditure. The crucial test for any approach to assessing archaeological values is its ability to perform credibly in assessments done for development purposes. The same general approach must, however, be applicable to all assessments.

The presumption in the Historic Places Act that archaeological values should be preserved or protected *in situ* is relatively weak, although the Resource Management Act imposes a general duty to avoid, mitigate or remedy adverse effects. Even here, however, heritage, economic and other values are regularly traded off against each other. Very few places assessed for significance in the resource management process are preserved or protected *in situ* in New Zealand, or in equivalent processes overseas. In resource management

decisions, heritage values are often acknowledged only to the extent of allowing appropriate records to be made prior to, or at the time of, damage or destruction of a place. (This is often referred to in the archaeological literature as preservation *by record*, as opposed to preservation *in situ*.)

### **Assessing the Significance of Archaeological Values**

It is implicit in most legislation and practice that not everything can or must be saved. Priorities are established by assessing significance. Archaeological significance is not immutable and requires matching of the archaeological resource with current knowledge and research problems and other values. The degree of detail required and the formality of the process will vary according to circumstances. When the purpose of an assessment is to make and defend recommendations about archaeological values in the face of proposed changes in land use, an assessment should spell out the nature and level of significance of a place in terms of an explicit set of criteria.

An inventory of known archaeological resources is a necessary but not sufficient basis upon which to assess the significance of archaeological resources. As Pearson and Sullivan (1995: 174) note, 'the gathering of comparative information about ...the class of places similar to that being assessed can be of crucial importance in arriving at a valid statement of significance.' The inventory of New Zealand's archaeological resources is large but contains records of very variable quality, and the geographical coverage is uneven. The notion of a desk-based assessment and comparison of sites from existing inventory alone is, therefore, problematic.

Any system of assessment is crucially dependent on good information. A definitive level of knowledge is seldom achieved in practice and it is often recommended that the assumption is made that archaeological resources are relevant until proven irrelevant; or significant until proven insignificant (Tainter and Lucas 1983; Schaafsma 1989). This approach is consistent with existing legislation such as the Historic Places Act. In spite of the occasional use of the qualifier 'significant' in the legislation (e.g. s9(2)), it effectively assumes that the public has an interest in the information contained in archaeological sites and that the damage or destruction of any site constitutes a potentially irreplaceable loss. Archaeological sites are, in that sense, like historical documents. The more limited the information available for the assessment, the more necessary it is to begin with the assumption that a place is significant until proven otherwise. This is a starting point, however, not the end-point.

The identification and description of a place is a necessary part of an assessment of sites, but it is only a part. It is arguable that a more important part of the assessment is placing the resource in a context of existing knowledge and timely and specific research questions (Bowdler 1984a: 406). Any assessment must, therefore, incorporate sound knowledge of the relevant literature, including a critical assessment of what has previously been accomplished.

The theoretical and substantive knowledge of the discipline provides a context for the consideration of the criteria of significance (e.g., Butler 1987: 822 - 823). Syntheses of the archaeology of an area or classes of site, or reviews of current research needs, may provide a statement of what is known and what is not known about a place, or class of places, or region of interest and what further work is needed (English Heritage n.d.). Recent New Zealand examples of regional synthesis are Challis (1995) and Hamel (2001).

### **Criteria for Assessing Archaeological Value**

Given the relatively small number of archaeologists in New Zealand, it is sensible to make full use of models developed overseas, and the intellectual weight and practical experience that lies behind them. To promote a systematic and consistent approach, one set of criteria developed in the United Kingdom in the early 1980s, is recommended because of its general usefulness and versatility. The model is generally well suited to New Zealand circumstances. The criteria are not intended to be exhaustive or inflexible and adjustments may be made to suit particular circumstances. In a previous discussion of these criteria (Walton 1999), a number of suggestions were made to reinforce the importance of research potential. The criteria can, however, be used in a variety of different ways to achieve specific ends. A current use of these and other criteria is for the assessment of archaeological sites on the Hauraki Gulf Islands for the Auckland City Council.

Eight non-statutory criteria for assessing significance were promulgated in England in 1983 to guide scheduling of ancient monuments and were later refined to provide a basis for a Monuments Protection Programme (Darvill et al. 1987; Startin 1989, 1997). The eight criteria are: period, rarity, documentation, group value, survival/condition, fragility/vulnerability, diversity, and research potential. The eight criteria and the amplified criteria employed in the Monuments Protection Programme are listed below. The criteria are versatile and potentially have wide application in the assessment of archaeological values (Darvill et al. 1987; Lambrick 1992). The criteria may be used to address research potential, representativeness, and the need to protect

'monuments' or landscape elements. Different versions of the criteria exist for different purposes. They have been used to assess sites under threat (Association of County Archaeological Officers 1993: 19) and for this purpose those criteria concerned with management may be omitted.

*Table 1. Assessment Criteria For Monuments Protection Programme (U.K.)*

<b>Characterisation</b>	
period (currency)	the likely age and duration of use of the particular class of place.
rarity	the extent to which a class of place is represented by few surviving or known examples.
diversity (form)	the extent to which a class is diverse in form.
period (representivity)	the extent to which this class of place is representative of a given period.
<b>Discrimination</b>	
survival:	the extent to which a place has survived in comparison with other examples of this class of place.
group value (association):	the association with places of other classes or as part of a relict landscape.
documentation:	the level of documentation, historical and archaeological.
potential:	the extent to which place is likely to contain recoverable information.
group value (clustering):	the association with other places of the same class.
diversity (features):	the extent to which a place contains features characteristic of the class as a whole.
amenity value:	the extent to which a place has symbolic or educational value or commemorates people and events of the past.
<b>Assessment</b>	
condition:	the extent to which a place has been damaged.
fragility:	the fabric, form, and structure of a place and the effect of this on its survival.
vulnerability:	the situation within the landscape and vulnerability to deterioration or destruction.
conservation value:	the extent to which archaeological values form part of a wider group of values.

The criteria adopted for the Monuments Protection Programme (Darvill et al. 1987) fall within three broad categories: (1) criteria which provide a context by characterising the class of place and the importance of the class; (2) criteria which assist in comparing one place relative to other similar places; (3) criteria which address the situation, condition, and setting of a place. The criteria are listed here in a modified form but work from the general to the specific: from class of site to the characteristics of the particular example.



The Monuments Protection Programme aims to ensure the preservation of a representative sample of each class of monument. It employs a method of scoring each criterion to help rank sites. The limitations of scoring systems have been the subject of some debate (e.g., Bowden 1988) and scoring is explicitly seen as an aid to judgement, not a replacement for it (Startin 1997: 192).

These considerations enter into most assessments of significance in New Zealand in one way or another but usually not in any systematic manner. Most of the UK criteria also have equivalents in other jurisdictions. Condition, for example, is taken into account in U.S. National Register of Historic Places under the heading of 'integrity' and the elements to be considered include location, design, setting, materials, workmanship, feeling and association (Hardesty and Little 2000: 47).

Each criterion can be used to focus on particular aspects of a site or class of site to help build up a picture of it as a source of evidence about the past and whether the evidence gained will substantially or significantly improve existing knowledge. Because different classes of sites are valued for different reasons, no set weighting is given to any particular criterion.

The amenity and conservation values may be used to take into account archaeological aspects of related heritage values. Archaeological features often have both historic and aesthetic aspects and archaeological research usually creates or informs social and aesthetic values. There will be cases where archaeological and related non-archaeological values reinforce each other and give a place a greater overall significance than it would otherwise have had.

It is emphasised that the intention in adopting a particular set of criteria is not to create a rigid approach. It is to provide a standard framework for ensuring that all factors relevant to an assessment are properly considered and that there is a family resemblance in working practice among archaeologists. It is also recognised, as previously noted, that assessment of other values may also be required. This paper deals with archaeological values, and the production of an archaeological assessment does not necessarily limit, remove or replace the need for the assessments of other values.

Table 2 contains a fictitious example of a summary assessment. It is recommended that considerations are summarised in a table as a means of ensuring judgements are explicit and relevant.

Table 2. Summary statement of archaeological values

<u>Name of site</u>	<u>Land Status</u>	<u>NZAA Site No:</u>
	Private	T12/
Criteria	Comments	
CHARACTERIZATION		
Period (Currency)	Shell middens were formed over a long period of time but are particularly common for late prehistoric period.	
Rarity	Shell middens are frequent in the bays along Coromandel coast but have been, and continue to be, subject to severe disturbance and loss.	
Diversity (Form)	A diverse class, but often with limited variability locally.	
Period (Representivity)	An important class of site, particularly representative of late prehistoric period.	
DISCRIMINATION		
Survival	A class with numerous representatives but one under heavy development pressure.	
Group value (Association)	There are pa sites on spurs adjacent and terraces nearby.	
Documentation	Little documentation and midden analysis confined to a grab sample and recording of bulldozer -cut section.	
Potential	Shell midden is a small deposit 3 x 3 m and consisting of about 85% pipi ( <i>Paphies australis</i> ), some crushed and burnt, and 15% mudsnail ( <i>Amphibola crenata</i> ). Heat shattered oven stones also present. No layers suggesting a single period of occupation. No evidence found of any associated settlement, long-term or temporary.	
Group value (Clustering)	One of a small number of middens in similar setting.	
Diversity (Features)	Nearby middens have similar content.	
Amenity value		
ASSESSMENT		
Condition	Good.	
Fragility		
Vulnerability	At ground surface, in bay with strong development pressures.	
Conservation value		
Other values	Maori	
Summary	Site is of moderate to low significance, monitoring during development recommended.	

### Level of Significance

Some assessments require the level of significance to be stated in terms of a hierarchy of categories. The top category is usually for places of 'exceptional significance', followed by places of 'considerable significance', 'some significance', and 'little significance' (Kerr 1996: 19). Ranking is provided for in the Historic Places Act. Historic places in the Register (but not historic areas,

wahi tapu, or wahi tapu areas) are assigned Category I or Category II status with the first reserved for places of 'special or outstanding significance'.

For archaeological sites, the level of significance is related to potential to provide information within a particular thematic, geographical, and chronological framework. This practice is most achievable when comparing place with place to build up a register. It is more difficult to achieve the same degree of rigour when assessing only one or two places in the context of a proposed development when the relevant framework has to be identified and perhaps even researched under severe time pressure.

The problems with ranking archaeological sites are that, not infrequently, assessment is based on incomplete knowledge both of the archaeological values of the historic place concerned and the wider context that should provide the framework. Ranking also tends to set one place against another when the need to preserve one place is independent of the need to preserve anything else. Rankings need, moreover, to be subject to review in the light of changing knowledge.

Ranking systems have often been avoided in New Zealand archaeological practice but have been employed for large scale developments such as forestry, which may involve impacts in many different places, often spread over a considerable area (Coster 1979; Jones 1981). Sites were placed in one of three management categories either for protection, further evaluation or no further action. This represents a pragmatic solution to problems of dealing with large-scale development. Ranking is often unavoidable but should be related to preferred outcomes (see below).

Few terms have created more confusion than 'local', 'regional' and 'national' employed as levels of significance. As Kerr (1996: 20) notes, these terms are frequently used to address management issues, not aspects of significance, and they carry connotations which are best avoided in an assessment process.

### **Statutory Provisions for Consent Procedures**

#### *Historic Places Act 1993*

An archaeological site is defined in Section 2 of the Historic Places Act 1993 as 'any place in New Zealand that either was associated with human activity that occurred before 1900; or is the site of the wreck of any vessel where the wreck occurred before 1900; and is or may be able through investigation by

archaeological methods to provide evidence relating to the history of New Zealand.'

Sections 11(2) and 12(3) of the Act require applications for authority to destroy, damage, or modify an archaeological site to provide certain information. The information required in an application includes:

- a description of the archaeological site or sites over which an authority is sought;
- an assessment of the archaeological values which the site or sites contain;
- an assessment of the effect which the proposed activity will have on these values.

The key ingredient of an assessment of archaeological values is a definition of the potential of a place to provide evidence about the past (Gumbley 1995: 104). The assessments may be used as a basis for the research objectives should an investigation be required as a condition of an authority.

The narrow focus on potential to provide evidence has been a source of criticism of the specifically archaeological provisions of the legislation because it does not give greater weight to Maori values. The legislation specifically requires decision-makers to have wide-ranging reference to Maori values but the likely outcomes are limited. The legislation results in the protection of some places but most are subject only to a process for mitigating their loss. It is arguable that this is exactly what was intended. The provisions are finely balanced in terms of private rights versus public good. As Jones (1981: 164) noted twenty years ago, the archaeological provisions will not be allowed to become a barrier to development.

The quality of information supplied with applications for authorities needs to be of a sufficient standard that processing can proceed without further clarification. The following paragraphs, drawing on material from Gumbley (1995) but with some additional useful suggestions from the overseas literature (e.g. Association of Local Government Archaeological Officers UK 1997), discuss the requirements for the majority of proposals.

A properly documented application describes the existing situation and how the proposed activity will change it. It has enough clear detail about what is intended for a full understanding by the New Zealand Historic Places Trust and others who must be consulted. Insufficient information to explain and justify

proposals can cause misunderstandings and delays in obtaining consent.

There are several ways of conveying information so that it is sufficiently clear and detailed, and the chosen format will depend upon the type and complexity of the case:

- Maps and plans or aerial photographs should be at an appropriate scale. Particularly important details may need to be at a larger scale. Drawings need to be accurate, and appropriately detailed and annotated according to their subject.
- Well-chosen dated photographs can be helpful, but they should supplement rather than replace what can only be properly shown on accurate and detailed drawings.
- Written material should describe matters that cannot be covered pictorially, such as the archaeological significance of the site and the justification for the proposed activity.

In all applications the context must be shown by describing:

- the location and extent of the development site in relation to the surrounding area;
- how the proposal relates to the site and buildings on or near it;
- the type of proposed development, its general form and characteristics (written).

'As existing' information about the archaeological feature(s) affected will cover:

- whether it is a registered or recorded archaeological site;
- its character, location and likely extent, particularly potential for evidence not evident at the ground surface;
- the particular aspects or elements affected by the proposed activity. If only a small part of the site is affected by the proposal, detailed plans of that part should be provided together with a general plan showing its location in relation to the rest of the site.

All applications should include information about the significance of the remains including the results of any investigations undertaken. There may be aspects of archaeological interest in standing structures, including ruined, derelict or abandoned buildings, as well as those features or structures below ground.

### *Resource Management Act 1991*

Applications for resource consents under the Resource Management Act 1991 must be accompanied by an assessment of effects (actual and potential) that the activity may have on the environment, and the ways in which any adverse effects may be mitigated (section 88(4)(b)). The legislation imposes a duty to avoid, mitigate, and remedy adverse effects. This discussion is based on written material supplied by New Zealand Historic Places Trust.

The environment is defined within the Act to include ecosystems (including people and communities), all natural and physical resources, amenity values (which are further defined to include cultural attributes), and cultural conditions affecting the above matters. Consideration must be given to places and areas of heritage value in any assessment of effects accompanying resource consent applications. This assessment of effects must be prepared in accordance with the 4th Schedule (section 88(6)(b)). Clause 2(d) of this Schedule requires consideration to be given to 'any effect on natural and physical resources having ...historical, spiritual or cultural value ...for present and future generations.'

In considering an application for a resource consent under the Act, consent authorities must have regard to the actual and potential effects of allowing the activity; Part II of the Act (note in particular sections 6(e), 7(c)(e) and (f) and section 8); and information provided under section 88(4)-(7) and section 92. Heritage values must be addressed.

Relevant objectives, policies, and rules of any policy statement or plan are also important in decision making.

### **Risks**

Ignorance or evasion of the assessment process are major risks to archaeological sites. While it is desirable that projects are screened by qualified people, many projects are currently checked, if at all, only by local government using recorded sites or predictive models to determine the likely impact on archaeological values. The onus is often on the developer to decide whether to call in an archaeologist to undertake an assessment.

The incorrect diagnosis of the presence or absence of sites is the fundamental risk of the assessment process itself (Darvill *et al.* 1995: 7-8). The failure to identify a site at an early stage of planning almost inevitably results in the loss of the site. The tendency in New Zealand to rely on visible surface evidence in

assessing archaeological value creates a particularly significant risk. Other risks are the misidentification of remains, and the incorrect assessment of the potential of a place. The risks are minimised by having an appropriately qualified archaeologist to carry out an adequate investigation at each stage of the planning. This will often need to include invasive techniques. The potential gains of collecting further information will, however, always be balanced against the costs.

### **Outcomes**

In the planning context, when an assessment has been completed, a recommendation will usually be made for:

- avoidance, or reduction of adverse effects;
- preservation *in situ*;
- excavation before or during development;
- monitoring during development;
- some combination of the above;
- no further action.

It is important to note that archaeologists are not usually the decision-makers in statutory processes: they make recommendations, with supporting evidence, to their clients. If an application for an authority or consent proceeds, an archaeologist may review the information and assessments provided but here also they are usually advisors and not decision-makers. The various decision-makers in this process may be considering a range of matters, including overtly political factors, and attempting to find a balance among them.

### **Qualifications and Training**

Determining the nature, extent and importance of archaeological remains is difficult, particularly since the necessary evidence is often buried below the surface. Professional judgements often have to be made about the desirability of mitigation or protection on the basis of limited evidence. Recommendations should be based on current best practice and accepted procedures. The quality of an assessment is crucially dependent on the archaeologist's knowledge of the subject and region, and practical experience in fieldwork.

In many countries a Masters degree in archaeology, or anthropology with a speciality in archaeology, is regarded as the minimum academic qualification. In addition, practitioners should have demonstrated their ability to design and conduct archaeological research and to complete a final report in a timely

manner. In some places, a professional qualification is required, and practitioners are certified as competent in some way.

In New Zealand there is currently no minimum academic qualification and there are no mechanisms for certifying archaeologists or operating disciplinary processes. It is doubtful whether certification, which in effect regulates entry into a profession, is an appropriate instrument for the New Zealand situation and emphasis accordingly needs to be placed on accountability for performance and compliance with professional standards and best-practice guidelines. At present, then, the onus is on, and is likely to remain on, the New Zealand Historic Places Trust to promote an improved quality of professional advice. There are various provisions in the legislation, including section 18 that allows it to judge the competency of archaeologists and to reject inadequate work.

### **Conclusions**

There is a need to establish clear and explicit methods for assessing archaeological values. The use of a well-tried set of criteria of significance is recommended. The criteria are: period, rarity, documentation, group value, survival/condition, fragility/vulnerability, diversity, potential, amenity value, and conservation value. The use of these criteria is compatible with current legislation and would allow an appropriate degree of consistency nationally in the application of assessment procedures for the registration, protection and management of the archaeological values of historic places.

It is recognised that there are values other than archaeological values that may need to be assessed and that there is the potential for conflicting recommendations arising from different values. The integration of different assessments and the weight to be given to each is an issue requiring separate treatment.

Assessments are done for a variety of purposes and archaeologists usually attempt to extract as much information as they can from a site with the least physical disturbance. Because of the rapid attrition of the archaeological record, the emphasis must be on exhausting all non-invasive options before resorting to the use of invasive sub-surface techniques. This is particularly the case when assessments are done for management or registration purposes. Archival research may also be an important component of some assessments. This does not mean that testing or disturbance is always avoided: in many instances, the use of invasive techniques is fully warranted by circumstances. When a site is under threat, full use of invasive techniques may be indicated.



The suggestions made in this paper are not exhaustive and further work is required to clarify details. It does, however, provide an outline of a system that is consistent with international practice and which would go some way to meeting the demand for clear and explicit methods and procedures, and their consistent application. In doing so it may promote the development of mechanisms for ensuring archaeologists are accountable for their work and for their compliance with professional standards and best-practice guidelines.

## References

- Association of County Archaeological Officers (U.K.) 1993. *Model Briefs and Specifications for Archaeological Assessments and Field Evaluations*.
- Association of Local Government Archaeological Officers (UK) 1997. *Analysis and Recording for the Conservation and Control of Works to Historic Buildings*.
- Bowden, M. 1988. Priority scores for archaeological evaluation. *Antiquity* 62: 286 - 288.
- Bowdler, S. 1981. Unconsidered trifles? Cultural resource management, environment impact statements and archaeological research in New South Wales. *Australian Archaeology* 12: 123 - 133.
- Bowdler, S. 1984a. Reconciling archaeological and aboriginal interests in the protection of sites. *Anthropological Forum* 5: 403 - 413.
- Bowdler, S. 1984b. Archaeological significance as a mutable quality. In S. Sullivan and S. Bowdler (editors), *Site Surveys And Significance Assessment In Australian Archaeology*: 1 - 9. Australian National University, Canberra.
- Briuer, F.L. and C. Mathers. 1997. *Trends and Patterns in Cultural Resource Significance: An Historical Perspective and Annotated Bibliography*. US Army Corps of Engineers, Waterways Experimental Station, Technical Report EL-97-5.
- Butler, W. 1987. Significance and other frustrations in the CMS process. *American Antiquity* 52 (4): 820 - 829.
- Byrne, D., Bradshaw, H., Ireland, T. 2001. *Social Significance: A Discussion Paper*. New South Wales National Parks and Wildlife Service, Hurstville.
- Carver, M. 1996. On archaeological value. *Antiquity* 70: 45 - 56.
- Challis, A. 1995. *Ka pakihi whakatekateka o Waitaha: The Archaeology of Canterbury in Maori times*. Science & Research Series 89. Department of Conservation, Wellington.
- Coster, J. 1979. Exotic forestry and site management in the Auckland region. In J.R. McKinlay and K.L. Jones (editors), *Archaeological Resource*

- Management in Australia and Oceania*: 89 - 94. New Zealand Historic Places Trust, Wellington.
- Darvill, T., S. Burrow and D. Wildgust 1995. *Planning for the Past. Volume 2: An Assessment of Archaeological Assessments, 1982-1991*. University of Southampton and English Heritage.
- Darvill, T., A. Saunders and B. Startin 1987. A question of national importance: approaches to the evaluation of ancient monuments for the Monuments Protection Programme in England. *Antiquity* 61: 393 - 408.
- English Heritage n.d.. Research Frameworks: Project Report – third draft. <http://www.english-heritage.org.uk/Filestore/pdf/archaeology/frameworks.pdf>
- Gumbley, W. 1995. Guidelines for provision of archaeological information and assessment for authority applications under Section 11 or Section 12 of the Historic Places Act 1993. *Archaeology in New Zealand* 38 (2): 100 - 105.
- Hamel, J. 2001. *The Archaeology of Otago*. Department of Conservation, Wellington.
- Hardesty, D. and B. Little. 2000. *Assessing Site Significance: A Guide for Archaeologists and Historians*. AltaMira Press, Walnut Creek.
- Hiscock, P. and S. Mitchell. 1993. *Stone Artefact Quarries and Reduction Sites in Australia: Towards a Type Profile*. Australian Heritage Commission Technical Publication Series No.4.
- Jones, K. 1981 Site ranking: the New Zealand Historic Places Trust criteria for field surveys. *New Zealand Archaeological Association Newsletter* 24(3): 164 - 178.
- Kerr, J.S. 1996. *The Conservation Plan: A Guide to the Preparation of Conservation Plans for Places of European Cultural Significance*. National Trust of Australia, Sydney.
- Lambrick, G. 1992. The importance of the cultural heritage in a green world: towards the development of landscape integrity assessment. In L. Macinnes and C.R. Wickham-Jones (editors), *All Natural Things: Archaeology and the Green Debate*: 105-126. Oxbow Monograph 21.
- Pearson, M. and S. Sullivan. 1995. *Looking After Heritage Places: The Basics of Heritage Planning for Managers, Landowners and Administrators*. Melbourne University Press, Melbourne.
- Schaafsma, C.F. 1989. Significant until proven otherwise: problems versus representative samples. In H. Cleere (editor) *Archaeological Heritage Management in the Modern World*: 38 - 51. Unwin Hyman, London.
- Smith, L. 1996. Significance concepts in Australian management archaeology.

- In L. Smith and A. Clarke (editors) *Issues in Management Archaeology*: 67 - 78. Tempus 5, University of Queensland, St Lucia.
- Schiffer, M.B. and G.J. Gumerman. 1977. *Conservation Archaeology: A Guide for Cultural Resource Management Studies*. Academic Press, New York.
- Startin, B. 1989. Preservation and rescue: the Monuments Protection Programme and the use of professional judgement. In G. Trozsig and G. Vahlne (editors), *Archaeology and Society*: 309 - 313. Nordic Secretariat of ICAHM, Stockholm.
- Startin, B. 1997. Assessment of field remains. In J. Hunter and I. Ralston (editors), *Archaeological Resource Management in the UK: An Introduction*: 184 - 196. Sutton Publishing/Institute of Field Archaeologists.
- Tainter, J.A. and G.J. Lucas 1983. Epistemology of the significance concept. *American Antiquity* 48 (4): 707 - 719.
- Walton, T. 1999 *Assessing the Archaeological Values of Historic Places: Procedures, Methods and Field Techniques*. Science & Research Internal Report 167. Department of Conservation, Wellington.