Assessing the archaeological values of historic places:

procedures, methods and field techniques

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Abstract

The archaeological values of historic places need to be assessed for a variety of purposes. 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 under the provisions of either of these two pieces of legislation, or for management purposes such as prioritising expenditure. This paper reviews some of the contexts in which assessments of archaeological values occur, examines the current framework and criteria for assessing archaeological significance, recommends standardisation of methods and procedures, and considers the techniques available to archaeologists to gather information for the assessment process. The concept of significance has limitations as a tool and there are often practical difficulties with translating significance into clear recommendations in particular circumstances. There is, nevertheless, a need for an explicit statement of appropriate methods and procedures to promote consistency of approach and to dispel concerns that there is a lack of transparency in the system for assessing archaeological, and other heritage, values.

1. Introduction

1.1 BACKGROUND

The International Charter for Archaeological Heritage Management (ICOMOS 1990) defines archaeological heritage as 'that part of the material heritage in respect of which archaeological methods provide primary information. It comprises all vestiges of human existence and consists of places relating to all manifestations of human activity, abandoned structures and remains of all kinds (including subterranean and underwater sites), together with all the portable cultural material associated with them.'

Many forms of standing structures are routinely and properly recorded as archaeological sites, or as a component of them. Legislation often has separate provisions for buildings and for archaeological sites, however, so generally for a structure to count as an archaeological site it must be in a ruined or derelict state and must have 'little prospect of economic use' without extensive rebuilding (e.g. Cadw 1996: 2). Buildings are not, as a rule, described as archaeological sites if they are in current use, although such structures may, nonetheless, have archaeological values (Wood 1994).

Archaeologists have developed a framework in which to make assessments and management decisions concerning archaeological resources. This framework began to emerge in something like its present form in the early 1970s (for example, Schiffer and Gumerman 1977). Central to this framework is the concept that archaeologists assess the scientific significance of archaeological materials by reference either to their potential to provide evidence about the past or their ability to represent a class of archaeological phenomena (Bowdler 1981, 1984a: 405, 1984b; Hiscock and

Mitchell 1993: 1; Pearson and Sullivan 1995: 150-153; Briuer and Mathers 1997). Representativeness is in many ways a surrogate for potential, as protecting a representative sample of places allows for changes in knowledge about the past and for the largely unpredictable future shifts in research problems.

1.2 AIMS AND SCOPE

Current New Zealand legislation provides an overall framework for assessing archaeological values. It is within this framework that decisions should be made about procedures and criteria to promote a consistent approach to the assessment of archaeological values. Accordingly, the aims of this project are to:

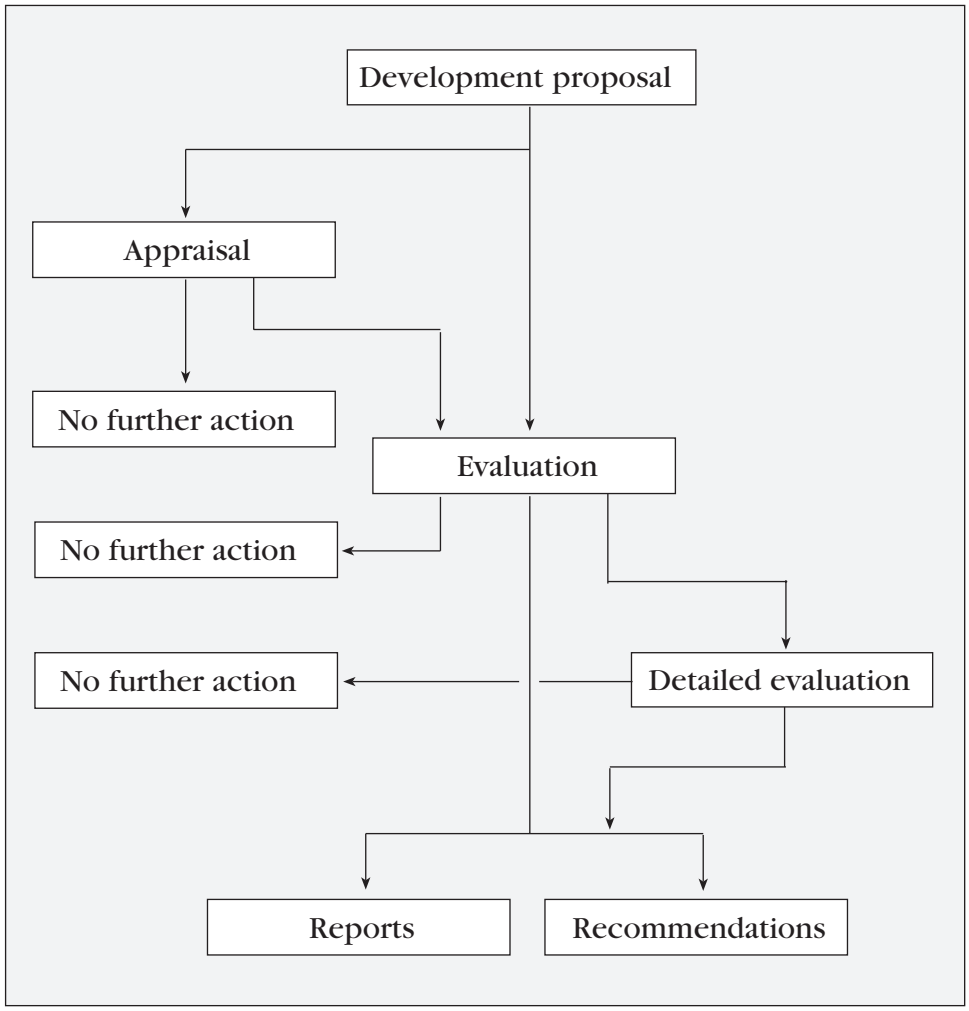
1. Develop an explicit statement of appropriate procedures and methods for assessing the archaeological values of historic places consistent with current legislation and based on current best practice, both in New Zealand and overseas.
2. Provide for greater clarity of the roles and responsibilities of archaeologists and promote 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.
3. Develop a general framework for the later production of detailed best practice guidelines or codes.

In developing a proposed framework for assessing archaeological values in the New Zealand context, models from Australia, Canada, the United Kingdom and the United States have been considered and useful features have been borrowed and adapted to local circumstances. In spite of the many differences among these countries, there is considerable agreement about what factors make a place important and this has resulted in legislation and practice with a close resemblance in New Zealand, Australia, Canada, the United Kingdom, and the United States. It has been widely recognised that archaeological values alone provide an insufficient basis for assessing historic resources and they have increasingly been incorporated in a wider, international model for managing heritage places, which has been developed under the general auspices of ICOMOS. Although this paper deals only with archaeological values, it is recognised that assessment of other values, such as Maori values, will also be required.

2. Assessment procedures

Archaeological assessments are required for a variety of purposes. They are commonly undertaken for an application for an authority to modify or destroy an archaeological site under the Historic Places Act 1993 or for a resource consent under the Resource Management Act 1991, for registration of historic places under either of these two pieces of legislation, for identifying places for protection, and for management purposes such as preparing a Conservation Plan or for prioritising expenditure. Depending on focus, the assessment will tend to have an emphasis either

Figure 1. Stages in assessing archaeological values.



on potential to provide evidence about the past or on representativeness. This section is mainly concerned with assessments done for development purposes and hence with potential to provide evidence about the past. The same general approach does, however, apply to all assessments.

Current legislation (Resource Management Act 1991, Historic Places Act 1993) requires an evaluation of archaeological resources before decisions are made on their destruction, mitigation or protection. Most proposals go through a number of stages during a developer's project planning. An effective way of minimising the likelihood of adverse impacts on archaeological sites is to involve an archaeologist at an early stage in the planning process. At present archaeologists are often involved late in the developer's planning process when much of the detail has already been settled. Depending on when the documentation and assessment of archaeological values begins, there may be a one, two or three stage procedure, usually conducted by archaeologists, which runs in conjunction with those of the developer. These stages or levels of assessment are difficult to describe formally given the absence of an accepted nomenclature. It is recommended that a terminology be adopted to identify the stages in the current archaeological assessment process. This will not only facilitate formal description but will also allow for the later development of best practice guidelines. Assessment is employed as a general term for the process and the three levels of an assessment are termed **appraisal**, **evaluation** and **detailed evaluation**. A schematic diagram showing the stages for assessing archaeological values in a development proposal is shown in Figure 1. These stages or levels of

assessment are separate from, but may lead to, a programme of site investigation required to mitigate the damage to, or the loss of, an historic place.

Under the Resource Management Act 1991 and the Historic Places Act 1993, development projects require consideration of archaeological values and the likely impact of the development on those values. There is no assumption in the relevant legislation that archaeological values should be preserved or protected *in situ,* although the Resource Management Act imposes a duty to avoid, mitigate or remedy adverse effects. In practice, very few places assessed for significance in the resource management or planning process are preserved or protected *in situ* whether in New Zealand or overseas. In resource management decisions, archaeological 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 known in the literature as preservation *by record*, as opposed to preservation *in situ*.)

2.1 APPRAISAL

An appraisal or initial information review involves checking development proposals to identify potential risks to archaeological sites. This is essentially a preliminary screening mechanism using archaeological expertise, existing records, and predictive models as a guide to the presence or likely presence of sites within the area of proposed development. Documentary evidence may also be important for identifying possible impacts on 19th and 20th century historic places. The results will determine whether further evaluation is needed. It is a very important stage in the assessment procedure and is best undertaken as soon as the outline of the development proposal is put together.

Local bodies may check applications for a consent under the Resource Management Act 1991 to determine if the applicant needs to carry out a fuller investigation of potential adverse effects on historic places and consult with iwi. Such checks may be done in part by reference to site inventories or predictive models prepared by archaeologists but it is important to note that such checks are not necessarily carried out by archaeologists.

2.2 EVALUATION

This stage is to determine—as far as is reasonably possible from existing records, new fieldwork and discussions with landowners and other knowledgeable individuals—the nature of the archaeological resource within a specific area. Existing sources employed may include NZAA Site Records (Appendix 1), maps, aerial photographs, published literature and historical documents. Fieldwork may include site survey, mapping, probing, augering, cleaning down existing exposed sections, or test-pitting, depending on circumstances. It involves defining the location, extent, nature and importance of the archaeological values of a place and determining the likely impact of development plans. Enough information is obtained to form a view of the significance of the values but without intensive subsurface investigations. An evaluation would normally satisfy the information requirements of the Historic Places Act authority or Resource Management Act consent processes or provide sufficient evidence for the purposes of a Conservation Plan. If an evaluation does not produce sufficient information then a further, more detailed, stage of assessment may be warranted.

2.3 DETAILED EVALUATION

This stage involves an intensive programme of site investigation. It is designed to address any outstanding issues identified at the evaluation stage and to provide any additional information required to enable a firm recommendation to be made for the destruction, mitigation, or protection of the archaeological remains. The investigation will usually involve invasive techniques, such as machine trenching, so will require prior approval from the New Zealand Historic Places Trust. Although it is only rarely employed, an equivalent stage of site investigation may be required as the first part of an excavation programme as a condition of an authority issued under the Historic Places Act 1993. In these circumstances it is usually followed by a review of objectives and costs for a further stage of excavation.

2.4 RISKS

Ignorance or evasion of the assessment process are major risks to archaeological sites. This risk is greatest at the appraisal stage. While it is desirable that appraisals are done by qualified people, many projects are currently screened, if at all, only by local government using recorded sites or predictive models to determine the likely impact on archaeological sites. The onus is often on the developer to decide whether to call in an archaeologist to undertake an evaluation. Often no further action will be taken.

The incorrect diagnosis of the presence or absence of sites is the fundamental risk of the assessment process itself (Darvill, Burrow and Wildgust 1995: 7-8). The failure to identify a site at an early stage of planning almost inevitably results in the loss of the site. Other risks are the mis-identification 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. This will often need to include invasive techniques. The potential gains of collecting further information, however, need to be balanced against the costs.

2.5 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 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 they too are usually advisors and not decision-makers. The various decision-makers in this process may be considering a range of matters and attempting to find a balance among them.

2.6 INTEGRATING OTHER VALUES

Legislative criteria of significance usually do not provide a practical basis for assessment (Kerr 1996: 11). They are usually 'catch-all' in their approach, allowing for the inclusion of a wide range of interdependent and overlapping values. Archaeological values are likely to be only one of a number of potential values to be considered. The Historic Places Act 1993 s32 (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. Pearson and Sullivan (1995: 134) recommend the approach to assessment taken in the ICOMOS Burra Charter. The Burra Charter identifies aesthetic, historic, scientific and social as criteria, which encompass all other values and which are not mutually exclusive.

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). This is no longer appropriate as the legislation provides for a range of assessments to be carried out in parallel or in conjunction with each other. In practical terms, however, archaeologists are often called on to locate, describe and evaluate a range of historic places, not just archaeological sites or values. They must be prepared to report on, to at least a preliminary stage, any form of heritage place including historic buildings. In these circumstances, the appropriate professional standards should be employed, and additional expertise should be sought if necessary.

Archaeological values often focus on places that are also of significance to iwi and there are often circumstances where it is appropriate for an archaeologist to take on the role of liaison with iwi, and co-ordinate their contributions to obtain a coherent and more useful assessment for the client. This co-ordinating role may also be undertaken when working with other heritage assessors such as conservators or architects (Kerr 1996: 17–18). If consultation with iwi over a project is undertaken for a client for some purpose arising from the Historic Places Act 1993 or the Resource Management Act 1991 then the relevant established standards for this consultation must be met.

Some legislation (e.g. Resource Management Act 1991) implies that considerably greater weight should be placed on some values. Maori values, in particular, have a special position in heritage legislation and practice. Maori often argue that they have a right to a deciding voice in the management of historic places of significance to themselves and are often concerned about the interpretation of, and the use of evidence about, such places by others. This custodial role is recognised by archaeologists, who claim a particular role in relation to archaeological values for themselves. Different criteria need not, however, be set up as a hierarchy of more and less important variables (Briuer and Mathers 1997: 33). The weight given to the different criteria should instead depend on the context and the objectives of the assessment. An attempt should be made to document the different values involved and to integrate them in a constructive way. In the final analysis, however, archaeological values may complement or compete with the other imperatives in the decision-making process.

2.7 QUALIFICATIONS AND TRAINING

Determining the nature, extent and importance of archaeological remains is difficult, particularly since the necessary evidence is often buried below the ground 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 an 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 (Apland and Kenny 1989: 40). In other places, a professional qualification is also required, either certification or its equivalent (Davis 1994).

In New Zealand there is currently no minimum academic qualification and there are no mechanisms for certifying archaeologists. It is doubtful whether certification, which in effect regulates entry into a profession, is an appropriate instrument for the New Zealand situation and emphasis probably needs to be placed on accountability for performance and compliance with professional standards and best practice guidelines.

3. Assessing the significance of archaeological values

3.1 THE CONCEPT OF SIGNIFICANCE

It is implicit in most legislation and practice that not everything can or must be saved, that priorities must be established, and that this is done by assessing significance. Significance is largely synonymous with importance. Two aspects of significance need to be addressed. What criteria are appropriate in determining why the archaeological values of a place are significant? How is the degree of significance to be assessed?

An archaeological assessment is primarily concerned with the importance of a site as evidence of past human use or as a representative of a class of archaeological phenomena. Significance is not immutable and requires matching of the archaeological resource with current knowledge and research problems. The degree of detail 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 changes in land-use, an assessment should spell out clearly and precisely the nature and level of significance of a place in terms of an explicit set of criteria. Checklists have been developed in various countries to provide guidance in the assessment of places. To promote a systematic and consistent approach, one set of criteria, developed in the United Kingdom in the 1980s, is

recommended because of its general usefulness and versatility. The list of criteria is not intended to be exhaustive or inflexible and adjustments may be needed to suit particular circumstances.

The criteria are intended to apply to archaeological sites of any origin, including Maori.

3.2 A FRAMEWORK FOR ASSESSING SIGNIFICANCE

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). Specially written syntheses of the archaeology of an area or type of site, or review of the current literature, 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. Such statements are often termed research designs or research agendas and values cannot be assigned independently of them (Carver 1996).

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, demonstrate knowledge of the relevant literature, including a critical assessment of what has previously been accomplished.

An inventory of known archaeological resources is a necessary, but not sufficient, basis upon which to assess the significance of archaeological resources. As Peason 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 (Appendix 1) is large but contains records of very variable quality and the geographical coverage is uneven.

Any system of assessment is crucially dependent on good information. A definitive level of knowledge is seldom achieved in practice, however, 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 1993, which assumes that the public has an interest in the information contained in archaeological sites and that the damage or destruction of sites constitute an irreplaceable loss. Archaeological sites are, in a sense, like historical documents. The more limited the information available, the more necessary it is to begin with the assumption that a place is significant until proven otherwise.

3.3 CRITERIA FOR ASSESSING SIGNIFICANCE

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 national Monuments Protection Programme (Darvill, Saunders and Startin 1987; Startin 1989, 1997). They are also used to assess sites in the planning process (Association of County Archaeological Officers 1993: 19). The eight criteria are:

period, rarity, documentation, group value, survival/condition, fragility/vulnerability, diversity, and potential. The eight criteria and the amplified criteria employed in the Monuments Protection Programme are listed in Appendix 2. The criteria are versatile and potentially have wide application in the assessment of archaeological values (Darvill, Saunders and Startin 1987; Lambrick 1992). They can be used to address issues of potential to provide evidence and of representativeness. They can be applied in a national, regional or local analytical context, although internationally a regional focus is usually regarded as the most satisfactory.

The use of these criteria is not new to New Zealand, but the way in which they would be used is, and some minor re-definition and modification of the overall approach is desirable to suit New Zealand circumstances. An assessment for resource management (planning) purposes would consist of (1) criteria which provide a context by characterising the class of place; (2) criteria which assist in comparing one place relative to other similar places; (3) criteria which address archaeological components of statutory or other criteria. Each criterion is used to focus on particular aspects of a site or class 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 (Pearson and Sullivan 1995: 151). Criteria will differ in their relative importance according to the purpose of the assessment. No set weighting is given to any particular criterion.

3.4 CHARACTERISING THE CLASS

- **currency**: the likely age and duration of use of the particular class of site.
- **rarity**: the extent to which a class of site is represented by any surviving or known examples.
- **diversity**: the extent to which a class is diverse in form.
- **representivity**: the extent to which this class of site is representative of a given period.

3.5 COMPARING PLACES

- **survival/condition**: the extent to which a site has survived both above and below ground in comparison with other examples of this class of site.
- **diversity**: the extent to which a site contains features characteristic of the class as a whole.
- **group value**: the association with sites of the same or other classes or as part of a relict landscape.
- **potential**: the extent to which a site is likely to contain recoverable information from both above and below ground.

3.6 OTHER ARCHAEOLOGICAL VALUES

- **amenity value**: potential of the archaeological values of a site as a visual, educational, or recreational resource.

- **conservation value**: potential of archaeological values to enhance the value of a site by integrating archaeological values with other conservation values.

The last two criteria may be used to introduce relevant archaeological considerations or to forge links with other non-archeological criteria which may have archaeological aspects. 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 non-archaeological values reinforce each other and give a place a greater overall significance than it would otherwise have had.

Assessments done to select places for protected area status or for registration purposes may place greater weight on criteria such as documentation, survival/condition, and fragility/vulnerability. It is emphasised that the intention in adopting a particular set of criteria is not to create a rigid approach but to provide a framework ensuring that all factors relevant to an assessment are properly considered.

It is recognised, as previously noted, that assessment of other values may also be required. This statement deals with archaeological values and production of such an archaeological assessment does not necessarily limit, remove or replace the need for the assessments of other values.

3.7 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). This practice may be appropriate when comparing place with place to build up a register but it is more difficult to achieve with any degree of rigour when assessing only one or two places in the context of a proposed development. The latter situation requires a focus on the immediately known potential of the site under threat and, since almost any action has financial implications, has a more restricted range of likely outcomes. For some assessments, ranking is an entirely superfluous exercise.

The problems with ranking are that, not infrequently, assessment is based on incomplete knowledge both of the archaeological values of the historic place concerned and the wider context which provides 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 constant review in the light of changing knowledge. Ranking systems have usually 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). This puts sites in one of three categories either for protection, further evaluation or no further action. It represents a pragmatic solution to problems of dealing with large scale development.

The Monuments Protection Programme in the U.K. (Darvill, Saunders and Startin 1987) employs a method of scoring each criterion to help rank sites. This can work well when there is good information on all relevant sites but this is rarely the case in practice. 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).

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. The terms are used here only to describe the context or analytical focus employed for a particular assessment.

4. Field techniques in the assessment of archaeological values

4.1 EVALUATION

The purpose of the assessment will determine the techniques that are most appropriate. For some management purposes, such as developing Conservation Plans, some techniques are entirely inappropriate as they conflict with the management emphasis on protection of the original fabric. An emphasis on minimising the use of intrusive techniques is less of a concern where a site is under imminent threat.

Fieldwork carried out at the evaluation stage may include site survey, mapping, probing, augering, cleaning down existing exposed sections, test-pitting or trenching, depending on circumstances. Local people may be able to provide information about features that were formerly or usually visible but are not apparent at the time of the visit. For the purposes of evaluation or detailed evaluation, techniques are required that will assist with two tasks in particular:

- to determine the presence or absence of sites in areas where there are few or no surface indications of archaeological remains; and
- to investigate and describe the extent and character of archaeological remains. A range of techniques in use is listed in Appendix 3. There is a natural preference at the evaluation stage for quick and cost-effective techniques. The limitations of current site discovery techniques and the constantly changing character of the landscape mean that it is unlikely that all evidence of past human activity will be identified in any given area. Statements will normally be made on the basis of incomplete evidence.

For an archaeological survey, the area to be surveyed is usually determined by the amount and extent of the potential impact of the proposed development. The methods and techniques used in the survey will vary with the kinds of data to be collected. Survey methods and techniques are fairly standard world-wide and most countries, including New Zealand (Appendix 1; Daniels 1979), have a site record system for documenting the locations and descriptions of archaeological sites.

The intensity of coverage of the survey area will depend on variables such as:

- the amount and quality of information already on record
- the ground cover

- the visibility of various classes of site
- the likelihood of unrecorded sites
- the anticipated use of the data.

In general, the less that is known about an area, the more intensive the survey should be. The more information that is collected, including information on environmental and physical context, the more realistic and reliable any recommendations are likely to be. Large scale contour plans are often available as a base for mapping the locations of archaeological features and meet the need for precise locational information.

An accurate plan of the archaeological features of a site is usually regarded as essential to an assessment, although this may not always be achieved in practice.

Aerial photo interpretation provides an important source of information which may be used to guide subsequent fieldwork. The lack of visible features on a photograph, however, can never prove that an area is devoid of archaeological remains, only that when the photograph was taken there were no traces visible.

There is a professional ethic among archaeologists that their work should be designed and executed in ways that ensure minimal intrusion and damage to archaeological remains (e.g. IFA 1994: 7; Davis 1994: B11). There is a strong emphasis in New Zealand on extracting as much information as possible from remains visible at the ground surface. The predominant use of a limited range of mostly surface-evaluation techniques at the evaluation stage reflects both the ethics of conservation archaeology and the need to contain costs. Since 1976, statutory consent has been required under the Historic Places Act 1993 for invasive archaeological investigations. The statutory procedure and the requirement for consultation with iwi have helped to discourage the use of invasive techniques. Iwi may regard invasive investigations as inappropriate in some circumstances. The trade-off for limiting sub-surface investigation, however, is lesser confidence in the knowledge gained regarding the nature, extent, and significance of the site. Limited sub-surface investigation is usually seen as essential to the process overseas, particularly at the later stages of an assessment. Subsurface investigation can assist in avoiding sites and reducing costs, while minimising impacts on values.

Probing is an invasive technique but has minimal impact on a site. Its usefulness is restricted by soil conditions—it is more effective in moist, lighter soils—but it does provide a way of delimiting the extent of subsurface midden deposits without using more destructive methods.

Augering has a greater, but restricted, impact on a site but the information provided is often severely restricted. It may assist in the task of determining the extent of the archaeological and natural deposits below the surface.

Test pits, usually hand dug, are a commonly used technique. They are often used at the evaluation stage of an assessment. They have severe limitations for detecting many types of archaeological remains and are best used for specific tasks such as defining the extent of a deposit. Test pitting is relatively non-destructive compared with machine trenching, but to investigate a site adequately a considerable number of pits would be required. Size of testpit and layout of pits are important variables (Champion, Shennan and Cuming 1995: 38–40).

The limitations of these techniques needs to be emphasised. Probing, augering, and test pits may fail completely in revealing the nature and significance of a site and a knowledge of other sites in the region then provides a necessary guide to potential of the site and the need for detailed evaluation.

4.2 DETAILED EVALUATION

This stage is a more intensive programme of site investigation and, although a range of techniques is available, machine trenching is the method used in many situations. This is because machine-dug trenches are regarded as an effective method, capable of being dug quickly and inexpensively, and allowing for an acceptable level of detection and description of archaeological remains. Champion, Shennan and Cuming (1995) discuss techniques and sampling designs that give the best predictions of the presence of archaeological remains or help to adequately characterise the remains. Although addressing the U.K. situation specifically, much of their discussion has wider application. In the U.K., some 2–5% of an area is usually investigated by trenching to obtain what is regarded as an adequate sample for assessment purposes. Exploratory trenching is seldom done on this scale in New Zealand.

Other techniques in common use in the U.K. have been used infrequently in New Zealand. Geophysical survey, of which there are three basic types, is little used for practical and interpretative reasons. This sort of survey is usually regarded as a specialist area. The detection of buried archaeological features using geophysical techniques depends on identifying differences between the physical properties of the feature itself and the surrounding soil. Different techniques and different instruments have different merits and limitations. Even when archaeological remains are detected, it is often difficult to determine the nature, quality, and age of the remains. Irwin and others (1997) concluded that geophysical measurements alone were inadequate to define archaeological sites without associated sub-surface testing. Use of geophysical survey techniques is usually only justified if they are quicker and cheaper than digging, for which they are never a substitute. There is, nonetheless, potential for further development of these methods in terms of better resolution of data and use of computer graphics to improve representation of data and interpretation.

5. Conservation plans

Conservation Plans are a relatively new concept, deriving from international conservation standards and procedures, but they bring together processes long familiar in all kinds of historic conservation work (Association of Local Government Archaeological Officers 1997). Kerr (1996) has been an influential text. Organisations like the New Zealand Historic Places Trust and the Department of Conservation have an approved format for the plans they produce. The Department of Conservation format is specifically designed for use with both buildings and archaeological sites. The ICOMOS New Zealand Charter emphasises the least possible loss of material of heritage value.

Conservation Plans derive their potential strength from combining an assessment of **significance** (from which they start) with **a strategic framework for future use and care**. Whilst their preparation may be prompted by particular repairs or sets of proposals, they are intended as basic long-term documentation, and are flexible, and capable of being developed as circumstances change. Their preparation may require several professional skills, and they often bring together several different groups and interests (Association of Local Government Archaeological Officers 1997).

A Conservation Plan normally covers six main areas:

- Description of history and physical features
- Assessment of significance
- Record of existing place and past modifications
- Statement of conservation principles and processes employed
- Issues, options, and recommendations
- Detailed work prescription

Assessment of significance is based on the criteria used for registration under the Historic Places Act 1993. The individual elements making up a historic place may also be ranked in terms of their contribution to the overall significance of the place. Conservation Plans produced by the Department of Conservation have an emphasis on detailed work prescriptions comprising both remedial work specifications and regular maintenance specifications.

6. Statutory provisions for consent procedures

6.1 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 is:

- 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 core 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 a research strategy 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 legislation as it apparently excludes other values, particularly Maori values. The provisions are, however, less privilege than concession. They are finely balanced in terms of private rights versus public good and it is doubtful if a more conservation-orientated approach based on other values would be politically acceptable. There is an erroneous public perception that heritage must be kept. One of the strengths of the potential to provide evidence approach is that it allows for a range of mitigation options and does not reduce to a simple 'keep it or lose it' dichotomy.

The quality of information supplied with applications for authorities needs to be of a sufficient standard that processing can proceed with minimal further clarification. The following paragraphs, drawing on material from the Association of Local Government Archaeological Officers (1997) and Gumbley (1995), 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** 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 location and likely extent;
- 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 appraisal, evaluation, or detailed evaluation. Archaeological interest may be in above-ground structures, as well as those features or structures below ground.

6.2 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. Judge Sheppard has recently confirmed that 'archaeological remains (including koiwi) are natural and physical resource from which people and communities may in a metaphysical way take spiritual and cultural strength and comfort, and a sense of identity' (Decision No. A55/97 In The Matter of the Resource Management Act 1991 and In The Matter of an Application Under Section 320 for an Interim Enforcement Order Between Nganeko Minhinnick, Danny Roberts, David Wilson, Huakina Development Trust (Application ENF 60/97) Applicants and Watercare Services Limited First Respondent and the Minister of Conservation Second Respondent). Accordingly, 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.

7. Statutory provisions for registers

The term 'register' is used in this document to mean any list or schedule of historic places assessed for significance and 'listed' or 'scheduled' in a district or other plan to inform the public and to promote preservation or protection of heritage places.

7.1 HISTORIC PLACES ACT 1993

The Historic Places Act 1993 s32 (1) 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. Information and assessments required for registration are detailed on the *Registration Proposal Form for Historic Places and Historic Areas* available from the New Zealand Historic Places Trust.

An archaeological assessment of significance will be based on the potential of the site to provide evidence about the past or on representativeness. While a site needs to satisfy only a single criterion to be eligible for registration, other values will often

provide additional weight. The categories are not mutually exclusive and an archaeological site may well have historic, aesthetic and other values which need to be assessed. An assessment should lead to a full statement of all the ways in which a place is significant. It should not, however, be a list of every conceivable reason for significance (Pearson and Sullivan 1995: 176).

7.2 RESOURCE MANAGEMENT ACT 1991

The roles and responsibilities of District and City Councils and unitary authorities, as set out in Section 31 of the Resource Management Act 1991, basically require them to establish, implement and review objectives, policies and methods to achieve integrated management of the effects of use, development and protection of land and associated natural and physical resources. The extent of these responsibilities is clarified in the Second Schedule, Part II, which refers specifically to protection of historic places: 'any matter relating to the management of actual or potential effects of any use, development or protection on natural, physical or cultural heritage sites and values including land form, historic places and wahi tapu'.

The Act also identifies the relationship of Maori and their culture and traditions with their ancestral lands, water sites, wahi tapu and other taonga as a matter of national importance (section 6(e)).

7.3 DISTRICT PLANS

The responsibilities of District and City Councils under the Resource Management Act 1991 are to be achieved primarily through district plans, which must fit within the 'have regard to' and 'consistency' frameworks of Section 74 and 75 relating to national policy statements, regional plans, and management plans prepared under other Acts. Objectives, policies and methods including rules, are the basic framework of a district plan.

The district plan will include the public rationale for the types and levels of protection desired. Registers or schedules must be notified through the public process of preparing and making operative a district plan.

Most territorial local authorities use criteria for scheduling derived from the Historic Places Act 1993 but some have different methods and criteria. The Auckland Regional Council (1997) recommends thirteen criteria for assessing heritage significance in their region. The criteria are: historical, tangata whenua, community association, commemorative, symbolic, educational, archaeological, scientific, technological, architectural, context, rarity and integrity. Assessments done for registration or scheduling purposes need to be take account of the use of different criteria from district to district and the need to consider criteria other than just those related to archaeology to justify a proposal for registration of an archaeological site.

8. Conclusions

There is a need to establish clear and explicit methods and procedures for assessing archaeological values. This paper proposes the introduction of terminology to describe the different levels of detail appropriate to different circumstances. The terms proposed are **appraisal**, **evaluation** and **detailed evaluation** and the level of investigation associated with each stage has been outlined. This framework provides for the later development of more detailed best practice guidelines or codes.

The use of a well-tried set of criteria of significance is also recommended. The criteria are minimally adapted from their original context and could make a substantial contribution to clarifying the process of assessing archaeological values. 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 which 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.

Evaluations 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 evaluations are done for management or registration purposes. Archival research may also be an important component of some evaluations. 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 of the various proposed procedures and approaches. It does, however, provide an outline of a system which 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.

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Appendix 1

NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION SITE RECORDING SCHEME

The New Zealand Archaeological Association (NZAA) Site Recording Scheme was established in 1958 to encourage the recording of information about archaeological sites. It is a paper-based record system which may contain plans, section drawings, photographs, artefact drawings, and field notes. CINZAS (Central Index of New Zealand Archaeological Sites) is an electronic index to the paper records maintained by the Science & Research Division, Department of Conservation. The Site Recording Scheme is endorsed by New Zealand Historic Places Trust and Department of Conservation as the national record system for archaeological sites and it currently contains over 51 000 records.

The Site Recording Scheme is an inventory, a record of 'what is where'. It contains registered places but it is not primarily concerned with significance and it is not a register of places of verified significance.

Information from the Site Recording Scheme is available to members of the public.

Appendix 2

ASSESSMENT CRITERIA FOR MONUMENTS PROTECTION PROGRAMME (U.K.)

The eight criteria used in the U.K. may be defined for the New Zealand context as:

- **period**: the likely age and duration of use of the particular class of site and the extent to which this class of site is representative of a given period.
- **rarity**: the extent to which a class of site is represented by few surviving or known examples.
- **documentation**: the level of documentation, historical and archaeological, available for a site or class of sites.
- **group value**: the association with sites of the same or other classes or as part of a relict landscape.
- **survival/condition**: the extent to which a site has survived both above and below ground in comparison with other examples of this class of site.
- **diversity**: the extent to which a class is diverse in form and the extent to which a site contains features characteristic of the class as a whole.
- **fragility/vulnerability**: the fabric, form, and structure of a site and the effect of this on survival. Also the situation of the site within the landscape and its vulnerability to deterioration or destruction.
- **potential**: the extent to which a site is likely to contain recoverable information from both above and below ground.

Two supplementary criteria have been found useful:

- **amenity value**: the potential of the archaeological values of a site as a symbolic, visual, educational, or recreational resource.
- **conservation value**: the potential of archaeological values to enhance the value of a site by integrating archaeological values with other conservation values.

The criteria adopted for the Monuments Protection Programme (Darvill, Saunders and Startin 1987) are based on an analysis of the above. The expanded criteria fall within three broad categories: (1) criteria which provide a context by characterising the class of place; (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.

Characterisation

- **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.

Discrimination

- **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.

Assessment

- **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.