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ARCHAEOLOGICAL RESEARCH AND MANAGEMENT STRATEGY:

THE NELSON-MARLBOROUGH REGION

by

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ABSTRACT

A short synthesis of the archaeology of the Nelson–Marlborough region is presented as a basis for discussing research and management priorities. Over 85% of recorded pre-European sites are coastal. There are many gaps in inventory coverage and detailed investigations have been limited. A justifiable list of sites of high archaeological significance cannot be produced in the current state of knowledge, but important regional themes are identified. All sites should be considered significant until demonstrated otherwise. Because the majority of sites lie off land held or managed for conservation purposes, protection strategies should be applied generally, particularly to coastal localities. The possibility is explored of relating management strategies to zones having particular archaeological characteristics. A philosophy, a logic, and a structure for archaeological management responsibilities are outlined. The processes of statutory protection through the Historic Places Act 1980, and the management of sites on conservation lands are seen as core operational functions. The principal project requirement is for systematic field inventory as a basis for applying a range of protection measures to archaeological landscapes on different scales.

1 INTRODUCTION

Archaeological resource management is the preservation and protection of archaeological sites, areas, and materials, for the purposes of conserving their scientific and cultural values, providing for understanding and appropriate interpretation of them, and safeguarding the interests of future generations. For archaeological resources which are part of the Maori cultural heritage it involves obligations to the Maori people. In this paper the archaeological subject matter is discussed to clarify certain issues, and the Maori community dimension is not investigated. Similarly, specific legal powers and protection mechanisms, and current government structures, archaeological staffing, and management capacity are not discussed. This paper examines the priorities of archaeological management with reference to the Nelson–Marlborough region.

The practice of archaeological management demands that choices are made. It may be decided that a certain range of activities will take place applied to certain archaeological sites and areas, and that other possible activities, sites or areas will receive less attention or none at all. As archaeological management uses public funds in the public interest, there is the expectation that any expenditure must relate to clearly justified national or regional priorities. The question how to arrive at a comparative assessment of archaeological sites and areas and of alternative archaeological management activities is therefore unavoidable.

Sheppard (1989) has outlined a method designed to identify archaeological priorities nationally and regionally. The method, developed with reference to extensive international experience and debate, is to produce regional syntheses of archaeological knowledge and to use them to prescribe programmes of research and management. This paper is a case study of this approach. It presents a summary synthesis of the state of archaeological knowledge to set the scene. A more detailed synthesis of pre-European archaeology is being published separately (Challis 1991). Information gaps and research requirements are seen to emphasise the need for site protection. Discussion of the assessment of significance, both of individual sites and of archaeological landscapes, points to elementary procedures and criteria to be applied in localities or zones. A structure for archaeological management and a list of priority projects are set out. The theme throughout is the definition of management priorities in the light of current knowledge.

2 THE PROGRESS OF ARCHAEOLOGICAL RESEARCH

Knowledge of the archaeology of the Nelson–Marlborough region is based upon a variety of observations over many years. The most widely known investigation is that by Duff at Wairau Bar (Duff 1956). Pre-European archaeology had been of passing interest for a century before this. For example, burials were discovered at Kaikoura in the late 1850s (Dell and Falla 1972) and oven and midden sites were investigated in the Cape Campbell area by the lighthouse keeper in the 1870s (Robson 1875, 1876). In the Nelson region in the late nineteenth and early twentieth centuries the ethnologist F.V. Knapp developed a knowledge of sites and stone technology (Butts 1980). Subsequently the metasomatised argillite quarry sites of the Nelson Mineral Belt (Skinner 1914, Thomson 1918, Duff 1946), and soils on the Waimea plains and near Motueka thought to have been modified by the Maori for kumara cultivation (Rigg and Bruce 1923, Rigg 1926), received attention. In the Marlborough Sounds, Rutland (1894, 1897) and Elvy (1926) took a particular interest in pits, and in the Vernon Lagoons, Wairau, apparent canals were described (Skinner 1912). After Wairau Bar, Duff (1961) turned his attention to pits at Pari Whakatau, Claverley.

Following the establishment of a national site recording scheme by the New Zealand Archaeological Association in 1958, pioneering exploratory surveys were undertaken in the Kaikoura area (Fomison 1959), in the Marlborough Sounds (Palmer 1959) and in north west Nelson (Wilkes 1960). Archaeological groups from the Canterbury Museum and the Nelson Historical Society were active in excavations such as: South Bay

Kaikoura, Omihi and Seddon's Ridge south of Kaikoura, Rakautara cave and Clarence north of Kaikoura, and again at Pari Whakatau and Wairau Bar (Fomison 1963, Wilkes 1964, Trotter 1966, 1972, 1975a, 1975c, Trotter and McCulloch 1979, Eyles 1975); and Triangle Valley rock shelter near Farewell Spit, Anapai in north west Tasman Bay, and Tahunanui and Rotokura near Nelson (Wilkes *et al.* 1963, Millar 1964, 1967, 1971, Butts 1977, 1978). Metasomatised argillite quarries were recorded and assessed (Walls 1974, Keyes 1975). University projects investigated the stratigraphy of midden deposits on D'Urville Island (Wellman 1962) and in Tasman Bay (Anderson 1966) and Maori horticulture at Clarence (McFadgen 1980), and considered the evidence of Maori occupation afforded by Captain Cook's sojourns in Queen Charlotte Sound, by early surveyors' records of Tasman Bay and Golden Bay, and by private and museum collections of artefacts (Orchiston 1974).

From the mid-1970s a series of site recording projects arose out of the interest of individuals, out of the land management responsibilities of government agencies (the Department of Lands and Survey and the New Zealand Forest Service), and out of the growing functions and capacity of the New Zealand Historic Places Trust. Parts of D'Urville Island (Prickett and Walls 1973, Prickett and Prickett 1975, 1976), areas of coastline in the Marlborough Sounds (Trotter 1974a, 1975b, 1976, 1977a, 1977b, 1977c, 1978a, 1978b, 1987), the Motueka district (Challis 1978), Clarence (Trotter and McCulloch 1979), Triangle Valley and Farewell Spit (Bagley 1975, Court 1978) and earthwork sites generally (Brailsford 1981) were explored. There were surveys of exotic forestry areas (Nevin and Nevin 1979a, 1979b, 1980, Jones 1982a, Bagley 1985a), the Abel Tasman National Park coastline (Jones 1980a) and historic gold mining (Bagley 1981, Barber and Hayward 1985, Lack 1988a, Mouat 1980, Rautjoki 1981, Taylor 1983, Walker 1981).

Resulting from the provisions of the Historic Places Amendment Act 1975 and the Historic Places Act 1980, site investigations took place in advance of proposed developments, for example, at Takahanga, Kaikoura (Trotter 1974b, Edson 1976, McCulloch and Trotter 1984, Trotter and McCulloch 1980), and at Parapara, Golden Bay (McFadgen and Challis 1979). Metasomatised argillite flaking areas at river sources were investigated in the north branch of the Maitai River, Nelson (Witter 1985), prior to reservoir construction, and quarry sites were investigated in forestry-related circumstances (Jones 1984a). Other investigations near Nelson (Walls 1979, Walls and Hurst 1979) and at the Fyffe site (Avoca) at Kaikoura (Trotter 1980, McCulloch 1982, McFadgen 1983, 1987) were inspired by archaeological protection considerations.

In recent years small investigations and surveys initiated by the New Zealand Historic Places Trust or the Department of Conservation have continued in areas of development or land use impact (e.g., Bagley 1985a, 1985c, Barber 1989b, Foster 1990, Huffadine 1984, 1988, Lack 1989b). Some strategies and recommendations for archaeological management have been suggested (e.g. Jones 1980b, 1981b; Bagley 1985b, 1985e). Some historic structures are being recorded (e.g., Lack 1988b, 1988c, 1989a). A doctoral thesis on aspects of the archaeology of the Nelson region is in preparation at Otago University (Barber 1989a).

3 SUMMARY SYNTHESIS OF PRE-EUROPEAN ARCHAEOLOGY

The distribution of recorded archaeological sites thought to be pre-European which results from this combined research activity is overwhelmingly coastal (e.g., recorded oven sites, Fig. 1). The coastal zone afforded an abundance of hunting, fishing and gathering resources. The capacity of coastal districts for kumara horticulture where local climate provided frost protection was comparable with parts of the North Island. By comparison, the bulk of the interior was mountainous and cool, trailed through and exploited for resources, particularly of stone.

Metasomatised argillite from the Nelson Mineral Belt was utilised in large quantities (Walls 1974, this paper Fig. 2). Suitable stone was broken out from outcrop quarries, from hill boulders, and from the beds of rivers draining the belt such as the Motueka (Challis 1978: 94, Jones 1984, Witter 1985). There were systems of base camps and transit camps linking the source sites with coastal settlements where preform finishing took place (Millar 1971, Walls 1979). The material was processed on sites from Farewell Spit (Court 1978: 46) to Wairau Bar (Anderson 1989: 124) and was traded throughout the country (Moore *et al.* 1979). Where dated this activity appears to have occurred in the thirteenth to fifteenth centuries (for these and other details see Challis 1991). Some mainland quarries may have been exploited later (Walls and Hurst 1979). Other stone utilised included chert (Moore 1977) and limestone (Orchiston 1974: 2. 64–65) in coastal Marlborough, quartzite in Golden Bay and andesite in eastern Tasman Bay (Orchiston 1974: table 2.15). All these materials require closer geological definition and sourcing studies.

Evidence of horticulture has been recorded in 80 situations throughout the coastal zone. Maori plaggen soils (soils containing gravel or sand transported and deposited for horticultural purposes: McFadgen 1980) are in stratigraphically early contexts (probably thirteenth to fifteenth century) at Greville Harbour, D'Urville Island (Wellman 1962), and Parapara Spit, Golden Bay (McFadgen and Challis 1979). Stone row systems, some with stone mounds, have been recorded on D'Urville Island, in the Marlborough Sounds and on the Marlborough coast, notably at Titirangi and Clarence (Trotter and McCulloch 1979, Trotter 1977c, Prickett and Walls 1973). Many more examples may remain to be recorded. Horticulture may span the entire pre-European period, and appears to have been substantial in various coastal areas at different times.

Archaeological pit features of various sizes and shapes are common in coastal situations throughout the region. Rectangular pits with or without raised rims with the long side 3 m or more and with a depth of over a metre may have been for kumara storage (e.g., Duff 1961). Shallow pits generally 300 mm or less in depth, with flat bottoms and sharp sides, some with one open side, where excavated appear to have been dwellings with trodden floors, hearths and occupation debris, for example, at Peketa south of Kaikoura and at Titirangi (Brailsford 1981: 132, Trotter 1977c: 16). Pits 2 m across or less, too small to have been dwellings, are common on D'Urville Island and may have been for storage (Prickett and Prickett 1975: 117). Some irregular or large pits on coastal fluvial terraces were borrow pits associated with Maori plaggen soils (e.g., Brailsford 1981: 74, Challis 1978: 31, McFadgen 1980: 11). No pits have been excavated on D'Urville Island where there is the greatest recorded concentration.

Fig. 1 Distribution of oven sites.

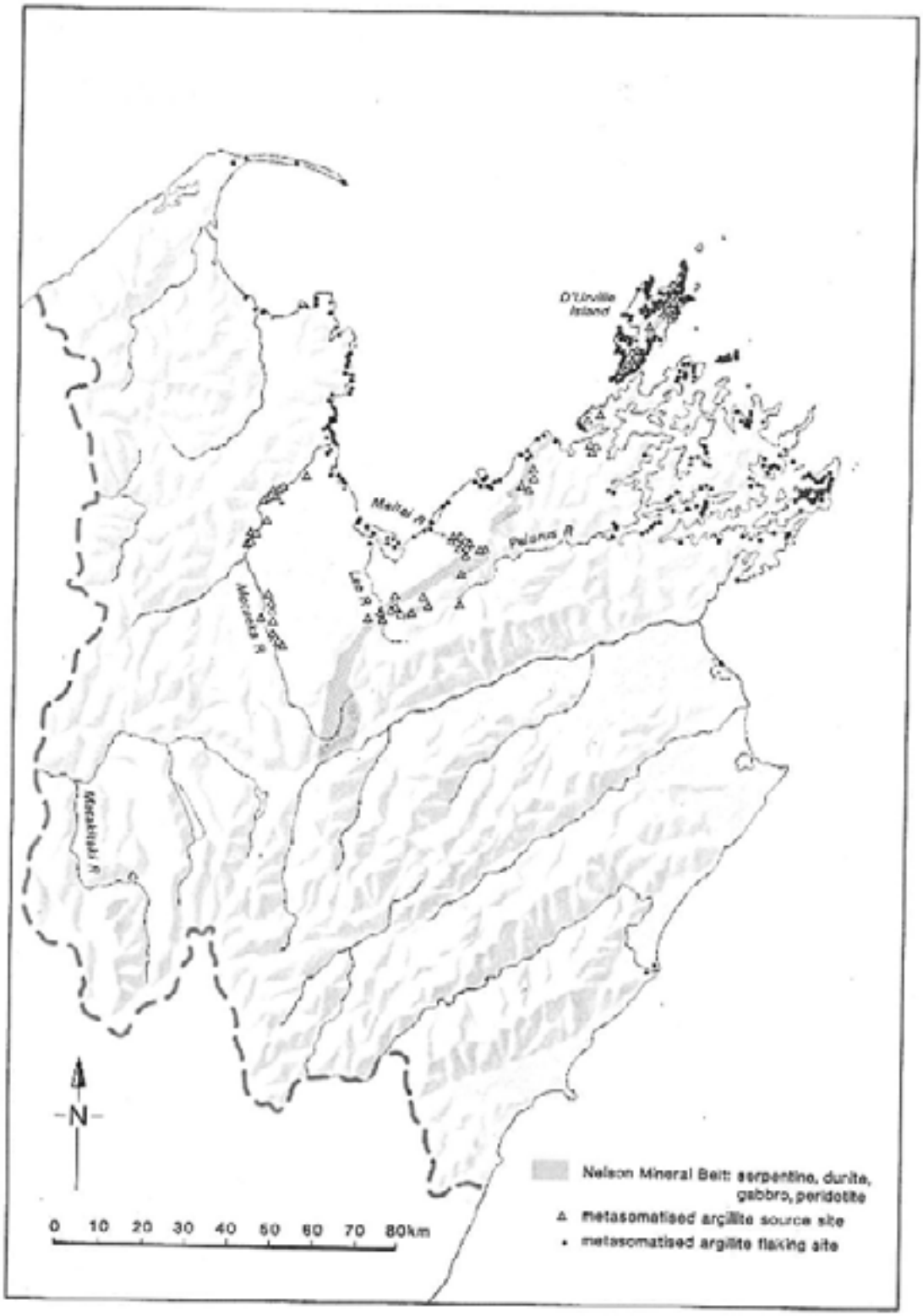

Fig. 2 Distribution of metasomatised argillite exploitation. (Source of geological data: New Zealand Geological Survey 1978.)

Terraces recorded commonly range between 11 _ 4 and 6 _ 3 m and are associated with settlement sites and dwellings on the basis of early European illustrations (Brailsford 1981: 19–32) and excavations in Marlborough (Brailsford 1981: 101, Trotter 1977c: 12). Houses have also been excavated on level surfaces, notably as posthole patterns at Wairau Bar (Anderson 1989: 124). A porched rectangular house at Takahanga (McCulloch and Trotter 1984) accords well with the larger sort of Maori dwelling seen by Europeans (Prickett 1982).

Defended pa are common in the coastal zone (approaching 100 recorded sites). Where chronological indicators exist (artefacts and radiocarbon ages) they are uniformly late (Challis 1978: 22, Brailsford 1981: 87, 101, 133, Duff 1961, McCulloch and Trotter 1984). Pa with transverse ditches are the commonest form (60 sites). There are fine examples of the ring ditch type in the Kaikoura area (Fomison 1959, Brailsford 1981: 114, 123–126). Terraced pa have been recorded particularly on the Marlborough coast.

Detailed analysis of midden materials has been carried out only for Rotokura in eastern Tasman Bay (Butts 1977, 1978) and for Avoca, Kaikoura (Trotter 1980). The more general extent and significance of, for example, archaeological bird bone deposits is unknown. Radiocarbon ages of sites associated with moa bone focus in the thirteenth to fifteenth centuries. Quantities are small except at Wairau Bar, and human association is far from clear in some cases. Seal bones have been recorded at 43 sites in the region (Fig. 3). Site associations suggest wider availability in the earlier period (Smith 1989). Bones of the polynesian dog have occurred in all excavated middens. Fish and shellfish exploitation appears to have been general.

The usefulness of the over 50 radiocarbon age determinations from the region is limited by problems of inbuilt age, depositional uncertainties, questions of comparability of ages derived from differing materials, and wide standard deviations in some cases. Overall the ages suggest that occupation was well established by the thirteenth century and that some activity is arguable for the twelfth century. Analysis of artefacts shows a typological change in adzes, from sharply profiled flaked Wairau Bar types early, through to more rounded forms such as the 2B, some with the chin ridge feature, later. Fish hooks likewise demonstrate a sequence, from one piece bait hooks and minnow lures early, through the development of two piece bait hooks perforated and notched for lashing, to barbed, serrated and knobbed hooks later. Stratified sites of recurrent occupation such as Titirangi and Rotokura hold promise of defining and refining processes of cultural change.

4 MAORI–PAKEHA CONTACT AND RECORDED EUROPEAN SITES

The first recorded meeting of Maori and European in New Zealand took place in Golden Bay on 18 December 1642 (Allan 1965: 6–9; Salmond 1991: 75-83). The anchorage of Abel Tasman's two vessels was probably off Wainui Inlet or the Tata Islands. On 19 December the cockboat of the *Zeehaen* was rammed by a canoe and four Dutchmen were killed. Tasman left the country without setting foot on land.

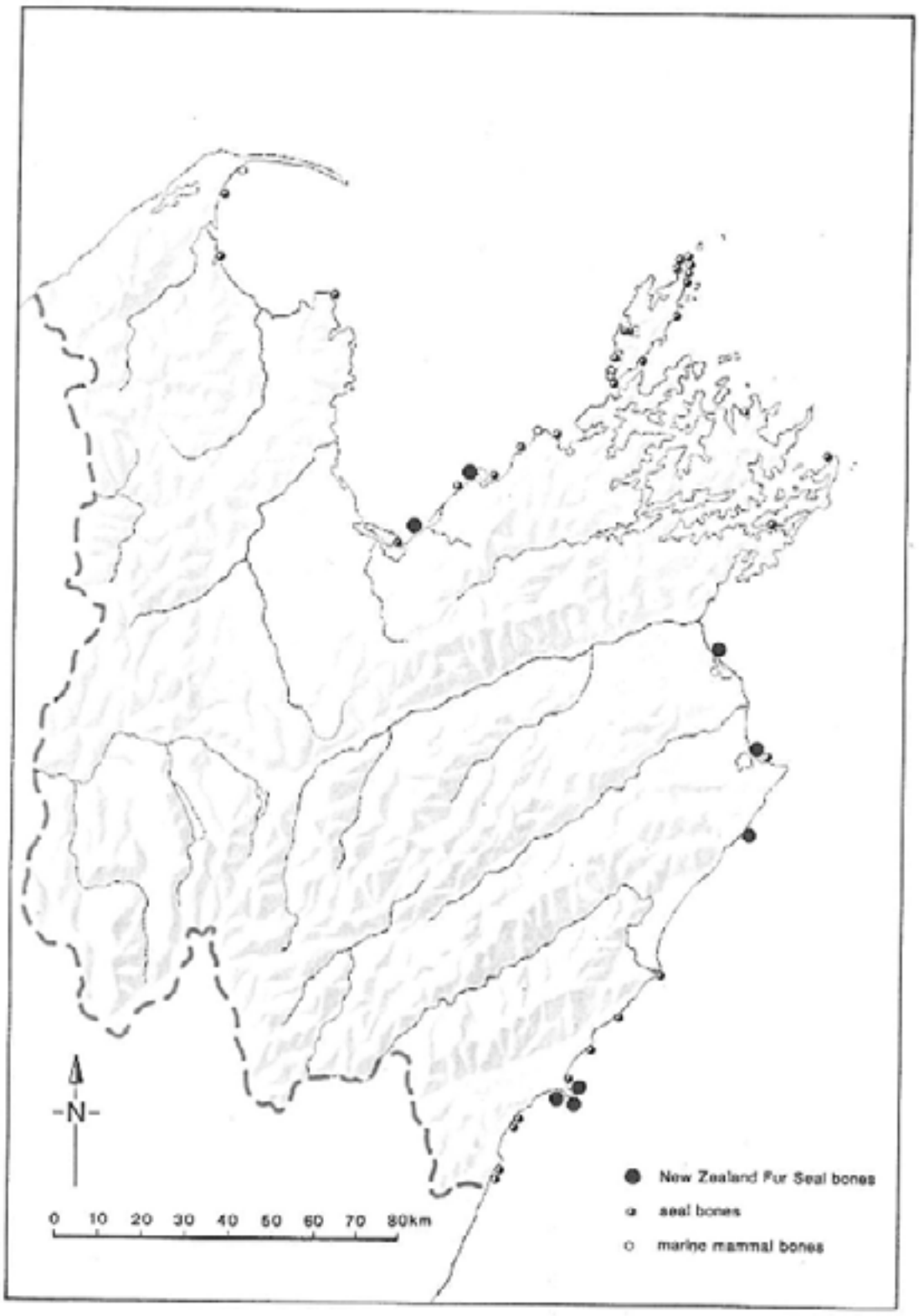

Fig. 3 Distribution of middens with seal bones.

Captain James Cook encountered a disturbed situation in Queen Charlotte Sound on the first of his visits in 1770. A population of 300 to 400 was dispersed among the sounds, but focused on defended pa on islands and promontories (Allan 1965: 10–12, Simmons 1987a: 39–43). On the second voyage Cook found few people he had met in 1770 and many settlements were abandoned. Again in 1777 there had been fighting locally. Observations of Maori social and economic behaviour and material culture form a benchmark for interpretation (e.g., Orchiston 1974, 1975, Brailsford 1981, Simmons 1981, 1987a, 1987b, Trotter 1987).

European commercial intrusion in Marlborough commenced with sealing in the 1790s. Shore whaling stations were established from the late 1820s at Te Awaiti in Tory Channel, and in Port Underwood at Kakapo Bay (P27/77) and Cutters Bay (P27/81, Jones 1982b). Observations of the Maori in this transition period were made by the Russian expedition in Queen Charlotte Sound in 1820 (Barratt 1987) and by the French navigator Dumont D'Urville in Tasman Bay in 1827 (Wright 1950).

By this time skirmishes preparatory to the Ngati Toa invasion from Kapiti were occurring. The Wairau was taken first, followed by the Kaikoura coast and Nelson, Tasman Bay and Golden Bay (Burns 1980: 146, 165, 189). Ngati Toa allies occupied some areas. Coastal palisaded kainga were a common settlement type. Other areas were depopulated.

As elsewhere in New Zealand the missionary preceded the politician with visits by the Wesleyan William White in 1836 and the Anglican Samuel Marsden in 1837. In 1840 the Rev. Samuel Ironside established himself at Ngakuta at the head of Port Underwood (P27/86; another site associated with Ironside is at Mokopeka Bay, Q27/78).

By the late 1830s the retention of land was a major issue for the Maori. There had been efforts to purchase West Whanganui, Golden Bay, Nelson, and the Wairau, and the New Zealand Company had moved to acquire the South Island north of the forty third parallel. The land guarantee in the Treaty of Waitangi inclined Maori chiefs to agree to it (Orange 1987: 80). The Rev. Henry Williams collected 27 signatures on 4–5 May 1840 in Queen Charlotte Sound, and 13 on D'Urville Island on 11 May. He was followed by Major Thomas Bunbury at Guards Cove, Port Underwood, on 17 June when 9 signed; and on the same day at Horikaka Pa, Horahorakakahu Island (P27/95), the Queen's sovereignty over the South Island was proclaimed on the basis of cession. The proclamation by Lieutenant Governor Hobson on 21 May of sovereignty over the South Island on grounds of discovery made these signatures and the proclamation politically superfluous at the time, but their historic significance endures.

Proceedings leading to the European settlement of Nelson continued. Explorations for the New Zealand Company by Moore, Barnicoat, Cotterell, Peanter, Heaphy, Spooner, Fox, Christie and Brunner, and later for the government by Haast, provide a primary reference to Maori activity. Survey prior to agreement led to the Wairau incident on 17 June 1843 (Allan 1965: 241–263, Burns 1980: 239–24). The settlers in Nelson built Fort Arthur (O27/57) in fear of further troubles.

Transport was mainly by sea. Associated archaeological sites have not been systematically recorded: only two shipwrecks, the *Helena* and the *Messenger* on Farewell Spit (N24/5, 6), and three wharves on the Whanganui Inlet (M25/113, 117–118). Recorded sites associated with land transport are the Newton Flat hotel site in the Buller Gorge (L29/13), Stewart's accommodation house at Golden Downs, Motueka Valley (N28/12), a roadman's or drover's hut at West Whanganui (M25/96), and the Spooner tunnel on the Nelson to Glenhope railway (N28/20). Archaeological sites of European rural activity have generally not been recorded except in the context of detailed surveys. Twenty locations of house sites or European midden have been recorded; saw mills at Quartz Creek, Wairau North Bank (O28/4), Matakitaki (M30/6) and North Branch, Riwaka (N26/190); flax mills at Kohatu in the upper Motueka valley (N28/13) and Coal Point, Whanganui Inlet (M25/89); a lime kiln at Golden Downs (M28/28); and hop kilns in the Nelson region at Skeat River, Dovedale, and Hoults Valley (Lack 1988b, 1988c; M27/20, N27/153, N28/26).

Archaeological remains of the goldfields of the nineteenth century and the Great Depression are locally intensive (Bagley 1981; Williams 1974: 33-38, 43-45, 70-73). Some fields on conservation lands have been surveyed in detail (already noted), so that over 200 of the 250 European period sites recorded in the region are goldfield sites (Fig. 4). Other historic mines recorded are for chrome in the Nelson Mineral Belt at Bush Hill, Croisilles (O26/60), and in the Dun-Roding area (N28/22, 23, 25, Johnston 1987), silver at Richmond Hill, West Whanganui (M25/45), iron at Onekaka, Golden Bay (M25/26), and coal in West Whanganui and at Pakawau, Golden Bay (M25/89, M25/24 and 25).

5 GENERAL ARCHAEOLOGICAL PROBLEMS

It is intended that research questions should be derived from a synthesis of the archaeological heritage, so that gaps in knowledge, contradictions in interpretation, and problems requiring attention should form the basis of a research plan (Sheppard 1989: 5–6). This deductive approach has been followed in the United States where state research plans are formulated under the National Historic Preservation Act (discussed in Schaafsma 1989).

An indication of the extent of systematic field survey is shown in Fig. 5 (see also Bagley 1985b). Although many gaps in the distributions are on rugged coastlines and inhospitable land, others are on more accessible coast, lowlands, and coastal low hill country. Gross coastal gaps in survey are apparent, mostly in Marlborough: for example the Marlborough coast from Tirohanga to Clarence and from Needles Point to Cape Campbell; Clifford Bay and Lake Grassmere; parts of the Marlborough Sounds such as the northern shore of Queen Charlotte Sound, parts of Tory Channel, much of Pelorus Sound and Tawhitinui Reach; Croisilles Harbour and the coast north to French Pass and into Admiralty Bay; and the Ruataniwha Inlet, Collingwood. Few areas behind the coastline have been explored, with notable gaps being the foothills, particularly in Marlborough (e.g., the Redwood, Dashwood, and Wither Hills and the Kaikoura foothills), and the plains and valleys (e.g., the Wairau, Waimea, Takaka, and Aorere plains, and the southern flats and foothills of the Marlborough Sounds).

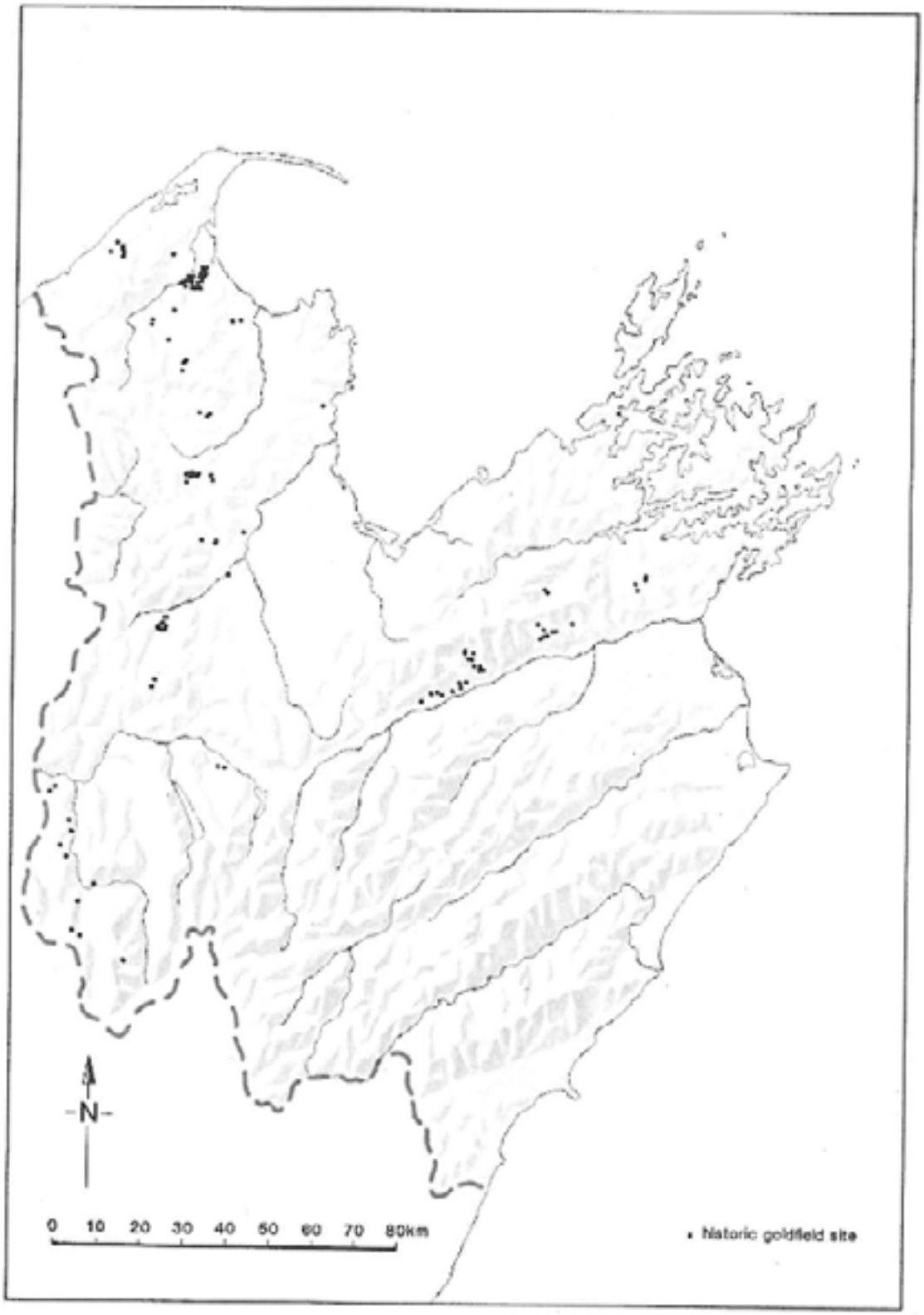

Fig. 4 Distribution of historic goldfield sites.

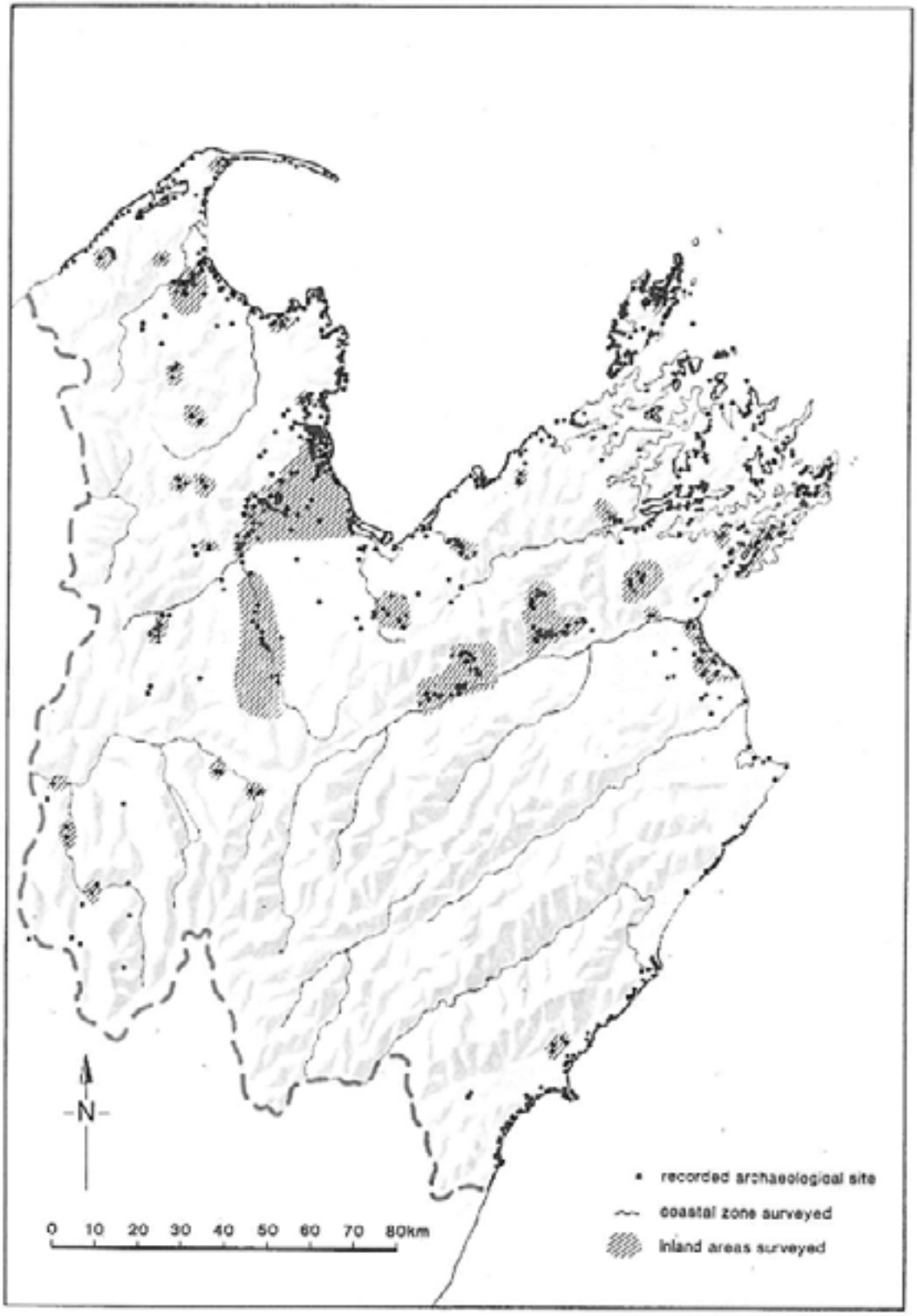

Fig. 5 Distribution of recorded archaeological sites.

Elsewhere survey coverage is incomplete. For example, there are unsurveyed areas on both the east and west coasts of D'Urville Island (Prickett and Prickett 1975: fig. 1) and unrecorded sites in Port Underwood from Rarangi to Ocean Bay. Although some sites on the Wairau coast and the neighbouring lagoons, plains, and terraces have been recorded over the past 30 years, the opportunity for systematic survey of the context of Wairau Bar remains open. Inland, unrecorded quarry sites are suspected in the Nelson Mineral Belt, and Maori sites are rumoured in the Travers and Matakitaki valleys. Historic goldfield sites on private land in the Whakamarina (Marlborough) and Pupu (Golden Bay) areas have not been recorded. Most projects have ignored European sites, so that some types such as shipwrecks are almost absent from the file (Campbell 1974).

Many existing records require verification. For example, some for eastern Golden Bay (Wilkes 1960) and the Kaikoura peninsula (Fomison 1959) are now over 30 years old. Some projects did not result in site record forms (e.g., the Kaikoura plains, Orchiston 1974: fig. 3.22). Frequently the records are brief and give little indication of the nature, condition, and extent of sites, or rely on exposures eroding at the time of recording. Few records include precise lithic or faunal identifications.

The recorded site distributions are also distorted by processes of land use. Generally, intensive forms of land use such as arable farming, market gardening, orchards, urban development and exotic forestry may be considered zones of significant destruction of sites (see Fig. 6). However, the same land use processes have expedited the discovery of sites, and important evidence can survive. For example, the Maori plaggen soils of the Waimea and Motueka–Riwaka plains were exposed by intensive cultivation and were mapped in anticipation of further horticultural development. Similarly, river-side stone flaking areas are hard to locate unless disturbed, for example by cropping or roading in the Motueka valley. Although coastal and urban housing has been archaeologically destructive, for example in the Kaiteriteri area and on the Kaikoura peninsula, successful excavations have been undertaken in residential sections (e.g., Tahunanui, Millar 1971). Surveys in exotic forests have led to nucleations of site records, for example in the Marahau Forest (Foster 1990). In these ways, potentially destructive land uses have led to archaeological discoveries seen as clusters in the site distributions.

Conversely, undeveloped land, principally land held for conservation purposes (Fig. 6), may be considered to be the zone of archaeological site survival. However, much of it is rugged inland country where sites may be rare. In coastal areas dense vegetation may hinder survey and cause gaps in the distributions, and some types of site such as Maori plaggen soils may escape discovery altogether. The progressive development of massive forest trees and associated soil formation processes are archaeologically destructive.

The best conditions for archaeological site recording exist where bush has been cleared for pastoral farming without use of heavy machinery. For example, in the Marlborough Sounds the uncovering of the land in the second half of the nineteenth century brought to light extensive evidence of pits, terraces, middens, cooking places, and artefacts (Rutland 1897: 221). Subsequent cycles of regeneration and clearance have reduced the evidence in many areas, but where the pastoral regime has been maintained and has been sufficiently extensive to avoid tillage and levelling, both site survival and site

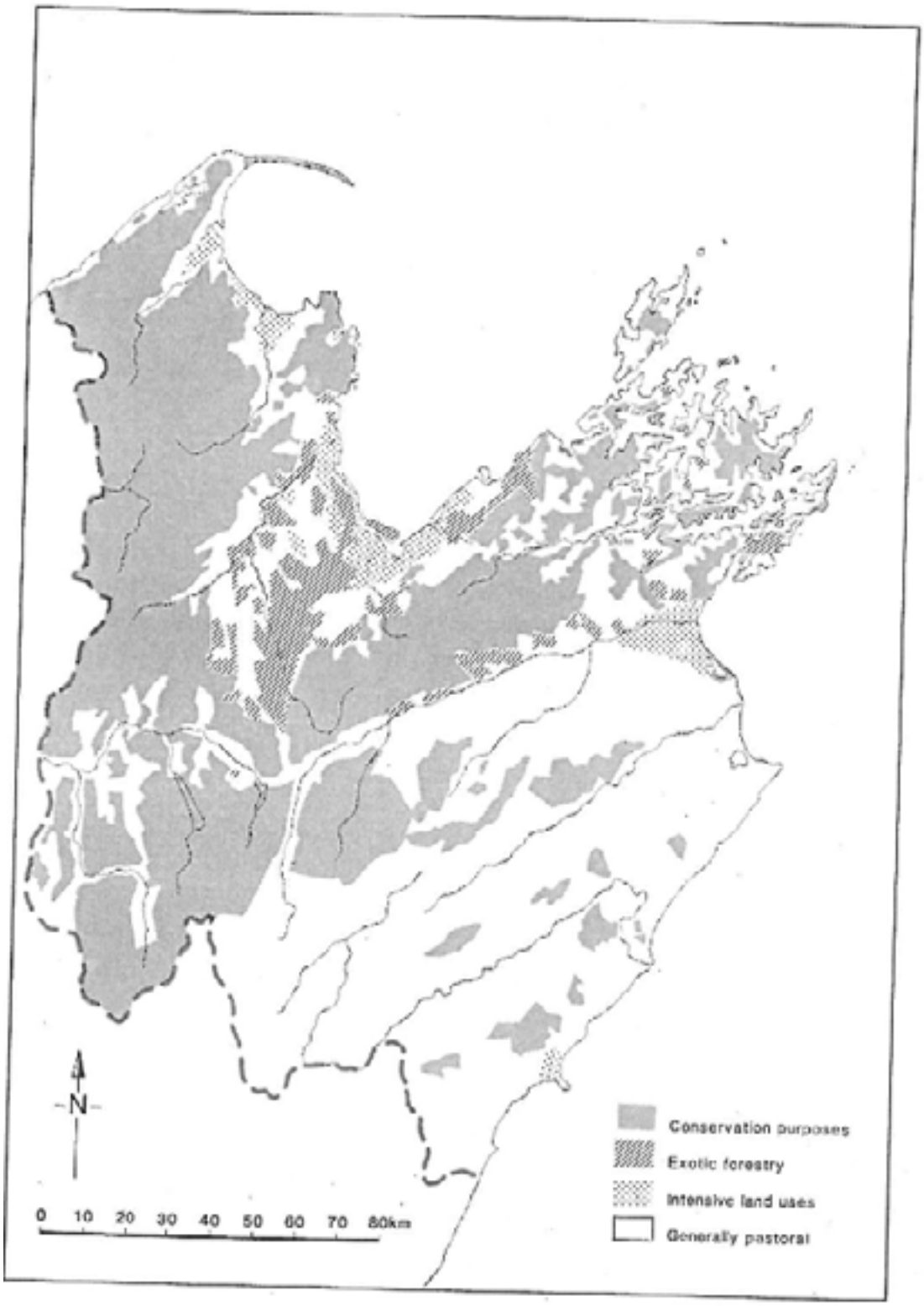

Fig. 6 Distribution of exotic forestry, intensive land uses, and land held or managed by the Department of Conservation.

visibility are likely to be good. Archaeological landscapes such as D'Urville Island have consequently attracted attention (over 340 recorded sites out of 2000 for the region as a whole). Land under different conditions is likely to be under-represented in the records.

Natural erosion processes, although archaeologically destructive, also provide positive conditions for site recording by exposing midden and flaking evidence. For example, deflation of dunes led Robson to archaeological discoveries in the Cape Campbell area in the 1870s, and Scarlett and Orchiston took advantage of similar exposures a century later (Robson 1875, 1876, Scarlett 1979: 81–83, Orchiston 1977). Stabilisation of dunes by revegetation may have masked much of what might remain. Marine erosion affecting archaeological deposits has been severe in Golden Bay from Puponga to Collingwood, in Tasman Bay from Riwaka to Mapua, and around the Kaikoura peninsula (Gibb 1978). Given that erosion processes and relatively open access make site recording easy, the concentration of recorded site distributions in the marine strip is to an untested extent a consequence of good archaeological visibility. For example, archaeological material on the foreshore is a common form of recorded evidence in the Marlborough Sounds, where slips, fluvial deposits, and vegetation mask large areas of adjacent land.

Surface wear and erosion associated with modern recreational land use similarly may assist archaeological recording, but is destructive. Sites on the Kina peninsula near Motueka, at Grossis Point, Mapua, and at Kerr Bay, Rotoiti (Huffadine 1988), have been affected. Development of facilities on recreation lands has been destructive in Tasman Bay.

Archaeological site distributions are therefore the result of various processes: in part the accumulation of evidence laid down by past human activity; in part the subsequent natural and cultural processes of destruction, exposure, and masking which have acted upon it; and in part the pattern of archaeological exploration. Out of these processes have arisen the incomplete distributions on which current research conclusions and management decisions are based. Possibly up to 90% of sites in an area may not be apparent from surface indications (Fowler 1974: 128). Studies of patterns of discovery and survival of archaeological evidence are warranted (cf. Stevenson 1975).

General problems also arise out of excavation activity. Most excavations have been on a small scale by international comparison and have not proceeded far in determining the structures present. Various reports are incomplete and other excavations have not been reported at all. Much lithic and faunal material remains unanalysed. Progress would, therefore, be made by analysis of previous excavation results without engaging in further sampling in the field. Particularly desirable is the publication of artefact sequences (e.g., Rotokura and Titirangi), faunal and lithic materials (e.g., chert from Marlborough sites including Wairau Bar), and built structures (e.g., Peketa and Clarence).

Limited excavation and incomplete analysis and reporting have meant that the region has been poorly represented in wider systematic studies. Specialised work on lithic sourcing and the exploitation of particular species has been of value in recent years: for example, moas and moa hunting, the role of the dog, marine mammals, and obsidian sourcing (Anderson 1989, Bay-Peterson 1979, Smith 1989, Seelenfreund and Bollong 1989). While these projects have considered data from the region, the small quantity

available has meant that knowledge of its archaeology lags behind that of other areas to which in consequence some studies more particularly refer (e.g., fish hooks, Hjarno 1967). Few local or sub-regional analyses exist, so that opportunities for comparative studies are limited. Although progress has been made in the investigation of some regional themes (e.g., goldfields, Maori plaggen soils, metasomatised argillite quarries), none has been investigated on a regional scale. In particular middens are poorly understood.

There is, therefore, a wide range of archaeological research opportunities. These include interdisciplinary topics such as the investigation of faunal history and exploitation (e.g., avifauna, mollusca, fish, marine mammals), lithic characterisation and sourcing studies (e.g., metasomatised argillite, chert, quartzite), and environmental change (e.g., local climates, vegetation changes, and coastal and fluvial processes). Systematic archaeological studies might include the location and investigation of stratified occupational sequences including early sites, detailed mapping and investigation of types of evidence such as metasomatised argillite quarries, horticultural evidence and defended pa, recording of provenanced artefact collections, and European themes such as shore whaling stations, shipwrecks, rural industries, and urban growth. Particular questions arise from current problems of interpretation, such as the existence, age, and economic importance of Maori plaggen soils in the Tasman Bay lowlands; the relative chronology of metasomatised argillite quarries; the environmental, archaeological, and chronological context of Wairau Bar; and further investigation of structures such as pits, terraces, and defences. Detailed area studies of cultural and landscape change are also desirable.

Many of these research opportunities are of great potential impact. For example, there is the question of archaeological bird bone deposits in eastern Marlborough and its relevance to an understanding of species distributions and extinctions. The extensive avifauna identified from Marfells Beach (P29/2) and Mussel Point (Q29/1) is of indeterminate context (Scarlett 1979: 81–83). Field data on the existence, nature, extent, and stratigraphic context of sub-fossil and midden bird bone deposits in the area from Wairau Bar to Clarence are necessary. Similar potential projects await attention, for example, in the Waimea estuary and on D'Urville Island.

On the basis of the foregoing discussion it is suggested that a range of research approaches is necessary: exploratory field inventory; follow up of previous work (verification of field inventory and analysis and publication of excavated materials); research on specific archaeological problems and areas; and interdisciplinary studies relating to geology, climatology, botany, and zoology. This mix of inductive and deductive approaches is appropriate to a field science and to the current state of knowledge. A general summary of some opportunities under this classification is outlined below. These are of necessity general topic areas. The inadequacy of existing information is such that there is uncertainty that the priorities identified are the right ones. For the same reason, narrower definition of objectives and localities should be left to assessment procedures at sub-regional level (such as those discussed in section 9 below). In many cases it would require preliminary field work. However, the degree of generalisation should not be seen as advocacy of unsystematic or incomprehensive work. Positive identification of materials is the crucial requirement, as much in field survey as in analysis of excavated materials.

6 OPPORTUNITIES FOR RESEARCH

The following priority classes are suggested:
■ = To commence as soon as possible
● = To commence within 5 years
♦ = Other topics

6.1 Exploratory field survey/inventory

■ Clifford Bay and Lake Grassmere, with particular reference to sub-fossil and archaeological bird bone.

■ Marlborough coast, particularly from Cape Campbell to Needles Point, and Tirohanga to Clarence.

■ Lower Wairau plains and terraces, with recording of provenanced artefacts as a guide to site location, and with particular reference to horticulture.

■ Parts of the Marlborough Sounds including Pelorus Sound, Tawhitinui Reach, parts of Queen Charlotte Sound, Tory Channel, and the southern flats and foothills.

● Recording of shore whaling stations.

●Selected parts of Wither Hills, Redwood Hills, and Dashwood Hills, with particular attention to pits.

● Coastline from Croisilles Harbour through French Pass to Admiralty Bay, with reference to systems of stone exploitation.

● Takaka valley, Aorere valley, and Ruataniwha inlet.

● Rarangi to Ocean Bay, Port Underwood.

♦Kaikoura plains and foothills.

♦Waimea plains, with recording of provenanced artefacts as a guide to site location.

♦ Recording of shipwrecks (Campbell 1974).

♦ The archaeology of Nelson city.

♦ Search for unrecorded metasomatised argillite quarry sites, mainland and D'Urville Island.

♦Unsurveyed goldfield areas including those on private land, (e.g., Whakamarina, Pupu).

♦ Unsurveyed areas on D'Urville Island, east and west coasts.

♦ Follow-up of reports of sites in the Nelson Lakes National Park, Travers, and Matakitaki.

6.2 Follow-up of previous work

6.2.1 Field survey. Most of the areas surveyed over ten years ago require verification. For example:

■ Golden Bay coastal areas generally, particularly Puponga to Collingwood, including reference to early European records (in progress).

■ Vicinity of Wairau Bar and lagoons, Rarangi to White Bluffs, with reference to changing settlement and economic systems.

■ Kaikoura coast, areas affected by storms.

● Kaikoura coast, other areas, Needles Point to Tirohanga, and Clarence to the Conway River, with reference to horticulture.

●Location and condition of mainland river and stream metasomatised argillite flaking areas.

6.2.2 Excavations. Progress would be made by analysis of materials already excavated. For example:

♦ Publication of previous investigations, in particular of stratified sites, with illustration of artefact sequences; for example: Wairau Bar, Rotokura, Titirangi, South Bay, Anapai, Clarence, Peketa, Omihi, Bells Island.

♦ Analysis of excavated lithic materials, accurate identification and sourcing of all collections.

♦ Analysis of excavated chert assemblages, Wairau Bar, in particular.

♦ Analysis of unpublished faunal material from previous excavations.

♦ Recording of provenanced artefact collections in museums and private hands: Golden Bay, Waimea–Nelson, Marlborough Sounds, Wairau Plains, inland areas generally.

6.3 Research on nominated archaeological problems

6.3.1 Questions arising from current interpretations

● Investigation of the environmental context, archaeological context, stratigraphy, and chronology of Wairau Bar.

● Investigation of the existence, age, and economic significance of reputed large areas of Maori plaggen soils on the Riwaka, Motueka, and Waimea plains, and investigation of local climate.

♦ Investigation of the age of mainland metasomatised argillite quarry sites, thought to be late, whereas large scale activity is thought by some to have been early. (For research potential, see Jones 1988.)

♦ Investigation of metasomatised argillite flaking floors to understand the technological procedures in use. (For research options, see Jones 1984b.)

♦ Investigation of pa on the Kaikoura coast to determine the nature and extent of contrast with other parts of the region.

♦ Further investigation of pit function: dwellings or storage, earth ovens and borrow pits.

♦ Further investigation of terrace function: houses or gardening.

♦ Investigation of inland activity generally.

6.3.2 Systematic studies

● Location of undisturbed stratified occupational sequences.

● Detailed mapping programme on metasomatised argillite quarries, mainland and D'Urville Island.

● Detailed mapping of horticultural evidence in Marlborough, Conway to Titirangi.

♦ Location, investigation, and dating of early archaic sites.

♦ Further investigation of pa, mapping where not yet carried out, classification, and field criteria for definition of terraced pa.

♦ Excavation of dwelling structures.

♦ General sub-regional investigations, for example, West Whanganui and Port Underwood.

♦ Research on patterns of exploitation and use of local stone materials, for example, Golden Bay quartzite, Marlborough limestone, serpentine, and reputed sources of nephrite and other greenstone in the Nelson Mineral Belt and Golden Bay.

6.4 Interdisciplinary topics

● Investigation of the archaeology of bird exploitation with particular reference to extinct species: Wairau, Grassmere, Waimea, D'Urville, Nelson Haven, Golden Bay, inland sites.

● Stratigraphy of coastal Holocene deposits associated with archaeological settlement patterns, Marlborough coast generally.

♦ Middens, investigation of faunal material: mollusca, fish, marine mammals, birds, dogs, etc.

♦ Lithic sourcing studies, metasomatised argillite and chert, for example.

♦ Investigation of environmental change, climate and vegetation, particularly in Marlborough.

It is recognised that this list of research opportunities is, on the one hand, formidable and ambitious, and on the other hand, conservative and limited in vision. Research questions of the future may be both more expansive and more specific. It is not expected that programmes of investigation covering all these objectives should proceed immediately, although some are in progress or planned. The function of this analysis is to focus attention on the implications: that questions such as these and beyond these are of relevance to cultural and natural history in the long term, that the archaeological resource holds such answers as there are, and therefore that the archaeological resource should be protected and conserved. This is the primary responsibility of management, which has been taken into account in the suggested priority classes in the above list. In practice, however, which specific sites are to be regarded as priorities for protection? The issue of comparative assessment must be considered.

7 ASSESSMENT OF SITE SIGNIFICANCE

The New Zealand experience of site assessment reflects extensive overseas experience and literature. An early proposal (Green 1963) was to classify sites into two groups: sites of national historic importance which were to be scheduled and protected (up to 1,000 sites nationally), and archaeological remains worth excavating and recording for which no additional protection would be sought (the majority of sites). This proposal foundered partly because the implied protection in perpetuity of selected sites could be over-ruled by various New Zealand statues (McFadgen 1966). There was concern that no account could be taken of the development of archaeological techniques and interests in the future (McFadgen and Daniels 1970: 161–163). It was recognised that both the perceived importance of and the potential threat to a site could change over time, and, therefore, that each site should be considered on its merits at the time of threat.

Assessment of site significance became common in site recording projects in the 1970s (e.g., Challis 1976). Jones (1981a) reviewed the accumulated experience of site evaluation, and described the three categories applied by the New Zealand Historic Places Trust in the context of surveys of sites in afforestation land: sites to be preserved, sites to be investigated or reassessed, and sites to be modified or destroyed after recording. There was agreement that it is necessary to grade sites for management purposes on the basis of intensive surveys in land development situations, where it is to be decided which sites should be investigated or preserved (e.g., Foster 1990).

It is recognised that there are snags in site assessment. For example, because of the unknowns which exist below the surface, excavations may be necessary to establish the value of sites to science and the public good. Further, site variety is such that it is not

feasible to compare the relative values of differing features, so a diversity of types of site merits protection. However, in practice there is a qualitative distinction between sites where structural, faunal, or artefactual deposits survive intact, and sites which are disturbed or destroyed. Generally the former are more significant than the latter because of the archaeological information contained. Examples of the former include undisturbed remnants of once extensive sites, and intact archaeological landscapes. Examples of the latter include material relocated by erosion processes such as deflation, landslip or wave action, and ploughed sites with no cultural material below the ploughsoil. Authoritative distinction between intact and disturbed/destroyed sites should be the first step in a formal assessment procedure. The second step should be to consider the pattern of intact evidence in relation to criteria such as representativeness, rarity, internal diversity, age, time depth, inter-site association, landscape context, historical association or documentation, and inter-disciplinary implications (as discussed by Sheppard 1989: 7–8; and Jones 1981a), and to adjudicate relative significance.

Unfortunately present records do not provide sufficient basis for such decisions. Most management purposes require reassessment of sites in the field (carried out for some sites in coastal Tasman Bay, Bagley 1985d; and proposed for the rest of the Nelson region but not implemented, Bagley 1985b). It might be possible to cream off certain recorded sites as meriting special long term protection. However, unsurveyed areas, resurvey requirements and partial inspections, already discussed, have the consequences that such a list would exclude many sites because of inadequacies in the records and would leave many localities with no listed sites. This reduces confidence that the priorities identified might be the right ones. Archaeological evidence in any locality is significant to the locality. An example is a site with evidence of stone working near Wharanui on the Marlborough coast recorded nearly 20 years ago (P29/16, Orchiston 1974: T206, S17) and not revisited since. In the first place it is not known whether intact material remains at the site, but if it does, unless it can be proved that this evidence is duplicated in other sites in the vicinity, the site should be regarded as significant and meriting protection. To prove otherwise would itself require an archaeological investigation. What can be said is that any occurrence of stratified material is to be regarded as significant until proved insignificant in the light of other archaeological evidence (cf. Schaafsma 1989: 48–50), and that decisions about site significance and disposability should be made in localities on the basis of field work designed for the purpose.

Cumulative progress in inventory is, therefore, required. This includes general programmes of exploratory examination of unrecorded areas, and verification of earlier survey (lists 6.1 and 6.2.1 in Opportunities for Research, above). Areas of threat to sites through development pressure, specific projects, or erosion require field work designed to assess significance. As archaeological sites and landscapes vary from locality to locality, there is merit in recognising that assessment criteria may be drawn up in the context of such field projects. Sites may then be evaluated in relation both to general criteria (as discussed by Jones 1981a and Sheppard 1989) and to criteria appropriate to the particular area. Under these circumstances it may be possible to allocate sites to one of three categories (following Jones 1981a: 170): sites which should be preserved; sites where preservation is desirable and which merit reassessment or investigation in the

context of any development proposals; and sites judged to be low priority where it is felt that, in circumstances of threat, a watching brief and adequate recording would be desirable.

Although a justifiable list of representative significant sites cannot be produced at this stage, regional criteria relevant to the process of assessment can be derived from the synthesis summarised here. Jones (1981a: 175–176) has suggested general criteria: relevance to regional studies, factual content (structures, functions, artefact sequences), contribution to thematic studies, and theoretical value (e.g., the role of Wairau Bar in the development of archaeological thought). The following specific regional values relate to these ideas. Although information is limited, some archaeological landscapes and areas linking with these values and warranting protection are noted. Any such list should be updated over time as understandings and knowledge develop.

8 THEMES OF REGIONAL SIGNIFICANCE

8.1 Maori archaeology

- Sites of stratified pre-European occupation of all periods including those with sequences from early through to late (e.g., Titirangi, Rotokura, Grossis Point Mapua).

- Wairau Bar, type site of early material culture and burial, and all other sites in the lower Wairau area.

- The exploitation of Nelson Mineral Belt metasomatised argillite (e.g., outcrops; boulder, river and beach sources; D'Urville Island and the mainland; and associated patterns of base camps and coastal sites).

- Sites relating to bird populations immediately prior to and during human occupation (e.g., lower Wairau, Lake Grassmere area, Waimea estuary, Nelson Haven, D'Urville Island, Golden Bay).

- Evidence of Maori horticulture, including areas where the evidence may be large scale and intensive (e.g., Clarence, Titirangi, Wairau, D'Urville Island, Waimea, Motueka).
-
- The exploitation of stone materials other than metasomatised argillite, (e.g., Marlborough chert, Golden Bay quartzite, Amuri limestone).

- Midden deposits generally, and on coastal Holocene deposits; faunal and environmental evidence largely unstudied, with interdisciplinary significance (e.g., fish, shellfish, marine mammals, avifauna).

- Patterns of inland resource use (e.g., exploitation stations, base camps and trails, birding sites, lithic exploitation, isolated sites in foothills).

- Landscapes of fortified pa, pits, and terraces on coastal hills (e.g., the Kaikoura peninsula and coast, the Marlborough Sounds and D'Urville Island, Tasman Bay, Rangihaeata to Puramahoi in Golden Bay).

- Coastal landscapes of pre-European settlement in areas comparatively undeveloped (e.g., West Whanganui, Abel Tasman National Park, D'Urville Island, Marlborough Sounds).

- Patterns of coastal lowland settlement and economic use (e.g., beach, spit, bar, island, and plain sites).

8.2 Maori–pakeha contact

- 1642: Abel Tasman in Golden Bay, first encounter of Maori and pakeha, historical significance of an archaeological landscape.

- 1770–1777: Captain Cook in Queen Charlotte Sound, and associated sites and artefacts.

- 1840: Declaration of British sovereignty over the South Island, Horahorakakahu, Port Underwood.

- 1843: The Wairau incident, event of Maori–pakeha conflict over land, related sites of Wairau Maori activity not yet defined.

- Eighteenth and nineteenth century kainga and associated sites and resource use.

8.3 European archaeology

- From the 1790s: sealing in the outer Marlborough Sounds.

- From the late 1820s: whaling stations at Te Awaiti and Port Underwood and possibly elsewhere in Marlborough.

- From 1840: missionary settlements at Ngakuta and elsewhere.

- Remains of mining, notably gold, silver, chrome, iron and coal.

- Remains of shipwrecks.

- Remains of rural industries.

- The archaeology of urban development (e.g., Nelson city).

On the basis of this list, all archaeological evidence is of potential significance. In development situations where archaeological sites are under threat, any sites relating to any of the listed values should be regarded as significant. If destruction is to occur, prior

investigation may be warranted. Consequently all coastal areas, the Nelson Mineral Belt, the Motueka valley, all historic mining areas and other sites and areas on an individual basis warrant site protection vigilance. The regional values are also relevant to the assessment of land to be selected for protection or to be disposed of from the conservation estate. The question of defining a structured management strategy remains.

9 MANAGEMENT STRATEGIES

9.1 Towards a regional management strategy

Archaeological data usually consist of site records or excavation results which, when mapped, become points (e.g., the dots on Fig. 1–5). On the other hand, town and country planning and natural resource management practice characteristically proceed to define areas of resource protection or permitted classes of land use which, when mapped, appear as zones. Allen (1988) has identified this latter procedure as an alternative approach to archaeological management. Although isolated features do exist, individual sites often come together in tracts of archaeological landscape in which many features representing a chronological succession occur. There might be merit in defining landscape units with particular archaeological characteristics, and working towards different management strategies appropriate for each unit. The approach appears not to require the grading of sites individually although it could incorporate recognition of the values of particular places. It would also appear to afford some protection to the proportion of evidence not visible on the surface within any areas to which a form of management or protection might be applied. The utility of this approach on a regional scale will now be explored.

One possible point of departure lies in the distinction between land held for conservation purposes and other land. Archaeological management zones might be determined by separating out land held or managed by the Department of Conservation (hereafter referred to as the conservation estate) as one category, and by dividing the rest into land use categories of distinctive archaeological impact such as pastoral farming, exotic forestry, or forms of intensive use such as orcharding, market gardening, cropping, and residential development. The resulting pattern is shown in Fig. 6. Differing management strategies could be applied to the four land use categories: integrated conservation plans for management units of conservation estate; intensive survey, protection of designated areas and regular monitoring in exotic forestry; and specific arrangements for known sites, and advocacy, investigation and advice in areas of intensive land use.

There are disadvantages to a regional application of such a strategy. Land held for conservation purposes in Nelson–Marlborough is characteristically mountainous and not coastal. There are notable exceptions: Farewell Spit, the Abel Tasman National Park, parts of the Marlborough Sounds and short strips of the eastern Marlborough coast; but perhaps 75% of the coastal zone, and consequently the majority of recorded archaeological sites, lie outside the conservation lands to which integrated strategies emphasising archaeological protection might apply. Most sites therefore lie in areas where management programmes would probably be inferior and might be progressively

reduced. In particular the majority of Golden Bay, Tasman Bay, D'Urville Island and the Marlborough coast including the Kaikoura peninsula are excluded. It is not justifiable to allow archaeologically largely arbitrary land use definitions to dictate the limits of archaeological site protection. Furthermore such a strategy appears to place the principal hope for archaeological conservation in the area of potential conflict between natural and archaeological resource management objectives. In areas of the conservation estate, where priority is given to the protection and enhancement of the natural environment, the archaeological heritage might succumb to a regenerating or restored vegetation. There is also a problem of scale. On the one hand the mosaic of land use is so complex that zones of archaeological interest do not emerge; yet on the other hand the scale is too broad to indicate local patterns of, for example, marine erosion, recreational use, or coastal reserve which might constitute necessary theatres of archaeological protection. The exercise of comparing the distribution of the conservation estate (Fig. 6) with the distribution of recorded archaeological sites (Fig. 5) is not fruitless, however. Because the majority of sites are seen to lie outside the conservation estate, it follows that policies and programmes for archaeological resource management should also be applied beyond the conservation estate.

An alternative point of departure is to attempt to define broad management zones on the basis of archaeological characteristics such as: site density, site type, and ecological, natural resource, and land use characteristics. Fourteen zones might be distinguished (Fig. 7). These to some extent follow ecological zones already established (McEwan 1987), but most boundaries have been altered to take account of archaeological characteristics. For example, D'Urville Island has been allowed to stand by itself. The Motueka Valley has been separated out as a discontinuity in distribution patterns. The Mineral Belt relates to metasomatised argillite utilisation. The Golden Bay and Tasman Bay zones include substantial estuarine areas and fluvial coastal plains. The Wairau zone, focused on Wairau Bar and Lake Grassmere, includes the plains and hills behind. The Granite Coast and Sounds zones constitute distinctive coastal environments, as do the West Whanganui and Kaikoura zones. The North-West Nelson and Richmond inland mountainous zones have areas of historic gold mining activity which the Inland Marlborough and Moutere Gravels zones do not. Some of these zones, on current knowledge, appear to incorporate distinctive archaeological values of great importance (e.g. D'Urville Island, the Mineral Belt and Wairau: refer section 8).

The archaeological relevance of these zones and in particular of many boundaries may be disputed. How justifiable are the boundaries between Tasman Bay and D'Urville and between D'Urville and the Sounds? Archaeological distributions generally focus on a narrow coastal strip and on geological resources, so that there are enormous archaeological differences within zones, for example, in the Wairau zone between Wairau Bar and Blenheim city, or in the North-West Nelson zone between the Rolling River goldfields and a neighbouring unexploited catchment. The scale is too broad to distinguish archaeological areas of importance for planning purposes.

However, when comparing the zones (Fig. 7) with the distribution of the conservation estate (Fig. 6) it is apparent that there is little conservation estate in some zones (Kaikoura, Wairau, Tasman Bay, Golden Bay, Motueka River, Moutere Hills) and little

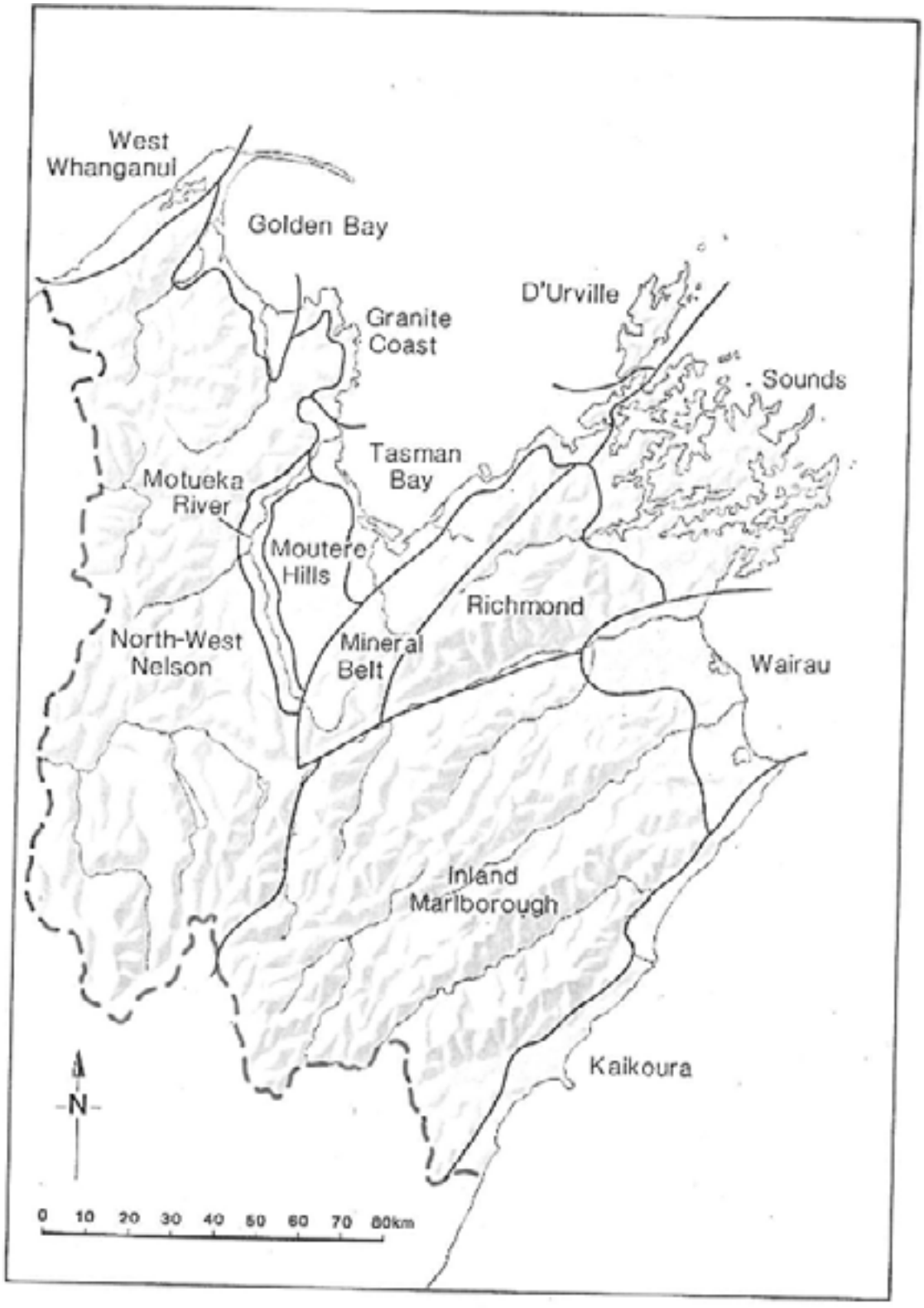

Fig. 7 Proposed archaeological zones.

coastal conservation estate in others (West Whanganui, D'Urville). On the other hand the inland mountainous zones have substantial to dominant proportions of conservation estate (North-West Nelson, Mineral Belt, Richmond, and Inland Marlborough). The Sounds zone has some areas in conservation estate, and most of the granite coast is incorporated in the Abel Tasman National Park. These differing proportions, with ecological differences, suggest that it may be possible to define varying management strategies applicable to each zone. In explanation, preliminary comments are given below. References indicate that for some of these zones, and for some areas within others, management strategies and recommendations already exist, at least in part.

9.2 Preliminary zonal management strategies

9.2.1 Kaikoura. There are recorded archaeological landscapes, including the Kaikoura peninsula and Clarence, but little conservation estate in the context of moderate site threat from erosion, development and recreational use, and substantial areas are insufficiently surveyed. Strategies might include surveys, Cape Campbell to Clarence and Kaikoura plains, protection measures for specified sites and landscapes (e.g. Trotter and McCulloch 1991), and maintenance regimes for sites in recreation areas or prone to storm damage.

9.2.2 Wairau. Wairau Bar is the focus, other sites are little known, and there is continuing attrition of sites by both intensive and pastoral land uses. Strategies might involve surveys in Clifford Bay and the hinterland of Wairau Bar, surveys of representative areas elsewhere, extension of the protected area by various measures, monitoring and maintenance of sites where necessary, and public advocacy and interpretation.

9.2.3 Tasman Bay. There is a coastal distribution of recorded sites, rich in faunal and artefact material, many sites are damaged by urban, agricultural and recreational use, and decay rates are thought to be high.
Strategies might include protection arrangements for known sites (as suggested in Bagley 1985c, 1985d, 1985e), site maintenance and interpretation in public lands, surveys in unrecorded or special interest areas (Bagley 1985b), and general advocacy and advice.

9.2.4 Golden Bay. Coastal sites are affected by development pressures and long-term marine erosion, little land is protected, fluvial plains have not been surveyed and few sites have been investigated. Strategies might include survey and resurvey in the coastal and lowland areas (Bagley 1985b), specific protection measures for nominated archaeological landscapes (e.g. reserve proposals, Jones 1981b), and routine liaison with owners and territorial authorities over planning applications to reduce the loss of sites.

9.2.5 West Whanganui. This is a relatively undeveloped area, with little conservation estate, where sites have been recorded, but not intensively investigated. Strategy might involve encouragement of protection of all sites through liaison with owners and territorial authorities in conjunction with Golden Bay.

9.2.6 D'Urville. Surveys have demonstrated a dense and varied archaeological landscape. Strategy might involve survey of unsurveyed areas, and a form of heritage

protection status for the whole island, involving advice to owners and management agreements (see Jones 1980b).

9.2.7 Granite coast. Many coastal archaeological sites exist in the context of high natural landscape values, substantially in national park. There are recreational and vegetational pressures within the national park and development pressures outside it. The strategy could aim to further integrate archaeological survey, monitoring, protection, and interpretation into national park management practices; and might involve protection of specified sites, interpretation in recreational areas, monitoring and advice outside the national park (as recommended in Jones 1980a: 23-25; see also Brailsford 1982: 16-17; Foster 1990).

9.2.8 Sounds. Archaeological site density varies. Some areas are inhospitable, some are conservation estate, and some are not surveyed. Strategies could include survey and updating of survey, protection of sites and areas by acquisition or other means, monitoring and interpretation of nominated sites and areas, and general advice and advocacy services to the sounds community (see Bagley 1985b; Campbell 1974).

9.2.9 Mineral Belt. Archaeological sites are associated with geological exploitation. Strategy could include the physical protection of sites in exotic forestry areas, and programmes of recording, monitoring, interpretation, and advocacy, designed to maximise preservation (discussed in Jones 1980b; see also Barber 1989b: 7-8; Lack 1989b).

9.2.10 North-West Nelson and Richmond. Strategy could include further programmes of recording, protection and interpretation of goldfield sites and other known sites in the conservation estate (e.g. Bagley 1981; Barber and Hayward 1985: 77-79; Huffadine 1988), and recording and advocacy relating to sites on other land.

9.2.11 Inland Marlborough and Moutere Hills. Few sites have been recorded. Strategy might include recording of provenanced artefacts as a guide to site location, and general advocacy and advice.

9.2.12 Motueka River. River bank flaking sites are fragile and vulnerable to cultivation and development. Strategy might include verification, protection, and monitoring of intact sites, and public advocacy and advice. (For these and other recommendations, see Bagley 1985a: 5-6.)

This preliminary survey indicates that it would be feasible to provide each zone with a more detailed analysis and archaeological management strategy, integrated with the needs of ecological conservation and the continuing impact of land usage. Some of the suggested management activities have already been pursued. The landscape or planning zone approach, while not particularly helpful on a regional scale, might be usefully focused in smaller areas to establish patterns of intervention to reduce the rate of archaeological resource decay. It is suggested that the trial application of this approach constitutes a priority for operational research.

There are common requirements among the management activities suggested. These are incorporated into the regional strategy that follows, but two stand out and clear from the work of Bagley and Jones quoted above. First is the need for systematic field inventory as the basis for protection. Second is the need to apply a range of available protection measures to sites and landscapes on different scales, including acquisition, heritage covenants, heritage orders, management plans, management agreements, district scheme protection zones, schedules and ordinances, and planning application procedures. It is through these measures that archaeological protection can be integrated with other land management objectives. The definition, explanation and trial of these alternative arrangements is also an operational research priority.

10 A PROGRAMME OF ARCHAEOLOGICAL MANAGEMENT

To plan for immediate large scale progress in the understanding and management of the archaeological resources of the region might appear unrealistic. However, much has been achieved through inventory and management programmes by the Department of Conservation and its forerunners, through investigations and surveys related to statutory decisions and through grants for site recording by the New Zealand Historic Places Trust, through the work of museum staff and Archaeological Association members, and through postgraduate research. Cumulative progress can build on these beginnings.

The archaeological management problem may be summarised at this point. About 2000 sites have been recorded in the Nelson–Marlborough region over the past 30 years. They constitute neither the present visible resource nor the total existing archaeological resource. Knowledge of the archaeology of the region is patchy and preliminary. Existing records do not make possible a listing of sites thought insignificant, or a listing of all sites thought important. While some areas can be nominated as meriting particular site protection vigilance, it is appropriate for all sites to be assumed significant until proved otherwise. Recognising individual sites does not do justice to the archaeological evidence of the region in any case. Although isolated features do exist, there are large tracts of archaeological landscape, variously of settlements, cultivations, defences, quarry sites and mining areas. Approximately 75% of the archaeological resources of the region, including some such notable archaeological landscapes, lie off conservation land, particularly in coastal areas. It follows that policies for archaeological resource management should apply beyond the conservation estate.

In the face of this a broad statement of philosophy may be useful. The archaeological heritage is a non-renewable resource, reducing by attrition. It represents irreplaceable evidence of the cultural and natural past relating to and extending beyond collective community memory. It survives within the landscape, and within that context it should be protected. Partnership with the Maori community at all levels in the guardianship and curatorial care of Maori archaeological sites and materials should form an operational underpinning, because of the relationships between the community and the cultural heritage. The spiritual, cultural, historical, ecological, scientific, social and educational significance of archaeological resources should be recognised. The primary goals of management should be both conservation and where appropriate public appreciation: that is, to ensure the protection and survival of a broad range of

archaeological resources in all localities, and to provide for appropriate understanding and interpretation in the present day.

Given this political basis, the logic of events in archaeological management begins with legal protection. The focus and strength of the existing Historic Places Act 1980 is the provision that no site may be damaged without an authority from the New Zealand Historic Places Trust. This assumption that all sites are significant and that their fate should be considered in the light of circumstances at the time of an authority application is appropriate to archaeological understandings of the region. Operation of these statutory controls at national and regional level includes inspections and investigations, particularly in development situations and in advance of destruction, and advice and liaison services to the public, local authorities and major land use interest groups. Out of this context, proposals may arise for permanent protection for specific sites and areas by a range of means.

Archaeological and community knowledge is the foundation of such statutory decision making: systematic field inventory of sites in the landscape, and also an understanding of current research relating to the sites, structures and materials meriting protection. Fieldwork is therefore needed (see Bagley 1985b), particularly exploratory surveys in unknown areas and periodic reassessment and validation of records and the promotion of archaeological research. It is recognised that a proportion of evidence remains invisible from surface indications. Field inventory and research, with the Maori interest, provides the environment for statutory protection.

From this basis the logic of archaeological management extends to proactive advice and liaison in the town and country planning and general resource management planning processes: the encouragement of appropriate zonings, schedules and ordinances, and routine liaison and advice to local authorities, major land use interest groups and private owners particularly related to development proposals, to attempt the aversion of threats to archaeological sites. The work includes response to enquiries, publicity, publications, education and interpretation.

The foregoing activities relate to all sites and areas. A further dimension of management by public agencies involves archaeological resources on land held or managed by the Department of Conservation (referred to as the conservation estate), ensuring physical protection and appropriate use. Inventory and assessment are the foundations of this responsibility. Inventory exists for some conservation estate, for example, Abel Tasman National Park, Triangle Valley, and some historic gold mining areas (Jones 1980, Bagley 1975, Barber and Haywood 1985, Lack 1988a, Mouat 1980, Taylor 1983). However, a comprehensive identification and evaluation of sites on conservation estate is not yet possible, and a medium term plan towards this end is desirable, particularly in the pockets of protected land in the Marlborough Sounds and the open Marlborough coast. Inventory off the conservation estate, as is currently in progress in coastal Golden Bay, is also necessary to evaluate the adequacy of what is already protected and to determine priorities for wider protection.

On the basis of the foregoing discussion a conceptual structure for an integrated regional archaeological management service is proposed. Progress has already been made in many of these areas.

11 A STRUCTURE FOR MANAGEMENT RESPONSIBILITY

11.1 Iwi partnership

- To establish and maintain protocols and networks for cooperative understanding and operational partnership in guardianship and curation of Maori archaeological sites.

- To promote the involvement of the Maori people in archaeological conservation through opportunities for training, inventory, research, liaison, site maintenance and interpretation.

11.2 Statutory protection

- To operate and advocate statutory controls: New Zealand Historic Places Trust permits, authorities and mitigations.

- To provide and encourage public services of archaeological advice and liaison linked with local authority procedures.

- To devise and implement specific protection mechanisms for specified sites and areas, including acquisition, heritage orders, covenants, protection zones and ordinances, and management plans and agreements.

- To apply statutory protection in the light of the Maori interest in Maori sites and in the light of archaeological field inventory and research.

11.3 Inventory and research

- To carry out and to support site inventory with particular reference to unexplored areas, unrecorded forms of evidence, and the need for validation and condition reporting.

- To promote and keep track of research by others in the region.

- To promote the integration and constructive use of the work of all archaeologists and other interested persons.

11.4 Management planning

- To establish and review archaeological conservation strategies for broad zones within the region.

- To ensure account is taken of archaeological sites in all other types of management and conservation planning.

- To specify areas and sites for particular protection in the light of the Maori interest in Maori sites and in the light of field survey and research.

11.5 Town and country planning

- To initiate and advocate consideration for archaeological resources in district scheme reviews and in regional planning.

- To maintain systems of cooperation and liaison with land use interests, the public and local authorities to pro-actively avert threats to sites.

11.6 Public relations and advocacy

- To provide public advice and liaison services and to respond to initiatives and enquiries.

- To advocate the protection and maintenance of sites through leaflets, publications and projects.

- To present programmes of public education and training.

- To provide opportunities for participation in the conservation and interpretation of archaeological sites.

- To present archaeological site interpretations.

11.7 Direct management by the Department of Conservation

- To prepare and implement strategic, management and conservation plans for broad zones, archaeological areas and sites.

- To ensure physical protection of sites.

- To present interpretation of sites.

- To ensure that archaeology is included in all landscape assessments and in the selection of land held for conservation or to be disposed of.

- To assess all developments, proposals and activities for impact on sites.

- To provide training and education programmes for staff and others.

In general terms, of the elements of this conceptual structure, iwi partnership (11.1) is ethically mandatory. Operation of the machinery of statutory protection (11.2) and management of the archaeological resources in the conservation estate (11.7) are also legally obligatory. These are three core areas of essential operational activity. The remaining areas of inventory, planning and advocacy (11.3–11.6) require longer term development, and might be regarded as those project areas where economies might be sought in times of stringency. However, it has been argued in this paper that progress in strategic zonal planning and inventory is necessary for evaluation of priorities and site significance. These activities provide the basis for the quality of decision making both in statutory protection and the management of the conservation estate.

Different approaches to strategic planning have been discussed. One is to set aside certain sites for long term protection and to allow the remainder to take their chance without protection. However, in the present state of knowledge it is insupportable to nominate certain sites as irrelevant or expendable. Another approach is to select certain landscapes or zones for long term archaeological management and to give less or no attention to the remainder. This proposal has some merit, but if it was to concentrate

attention on the existing conservation estate to the exclusion of the majority of sites in other areas it would be unacceptable. The alternative advocated here is to divide the region into broad zones and to draw up management strategies that apply varying policies and activities to each zone.

A prerequisite for any management decision is inventory information. Given the present state of knowledge inventory should be a long term strategic priority. Areas requiring survey have been discussed. The information should be sufficient for decisions about the protection of archaeological landscapes and sites throughout the region through a range of mechanisms and arrangements. Although information is currently limited, clear cut cases for protection are already identifiable and have been noted. Some of these are large and most are off the conservation estate (e.g., the whole of D'Urville Island, the Kaikoura peninsula). Forms of heritage protection status should be investigated. With progressively increased attention to detail, management plans and agreements of various kinds on the level of the individual land holding may become the main procedure for incorporating archaeological protection into other routine land use objectives.

It follows therefore that project priorities for archaeological management action derive directly from two foundations: first the existing state of archaeological inventory, and second the progress of strategic planning. The balance of project requirements will change over time, for example between exploratory inventory, follow-up assessment, systematic investigations, interdisciplinary topics, and local area studies. The balance will differ from region to region. In the light of this discussion the following projects are recommended as current priorities in the Nelson– Marlborough region.

12 PRIORITY RESEARCH PROJECTS

12.1 Field inventory and assessment

12.1.1 In areas archaeologically little known

- Marlborough coast: Clifford Bay and Lake Grassmere
- Marlborough coast: Cape Campbell to Needles Point
- Marlborough coast: Tirohanga to Clarence

12.1.2 In areas of development pressure

- Lower Wairau: plains, lagoons, terraces, bars
- Parts of the Marlborough Sounds

12.1.3 In areas of erosion

- Golden Bay, Puponga to Collingwood (in progress)
- Kaikoura coast, areas affected by storms

12.1.4 On land held or managed by Department of Conservation

- A programme to develop full coverage _Particularly pockets of coastal Marlborough

- Particularly parts of Queen Charlotte Sound, Pelorus Sound and Tennyson Inlet

12.2 Applied research and protection

- Definition, assessment and full explanation of alternative available protection measures: acquisition, heritage orders, heritage covenants, management plans and agreements, district scheme protection zones, schedules and ordinances.

- Application of the landscape or planning zone approach to establish priorities and patterns of protection: Wairau zone, Sounds zone, Kaikoura zone.

- Pilot project of systematic liaison and advice with local authorities and owners relating to planning applications: Golden Bay Service Centre, Tasman District Council.

- Pursuit of archaeological heritage protection status and associated procedures relating to major archaeological landscapes: D'Urville Island, Kaikoura peninsula.

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