

#### **NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION NEWSLETTER**



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# ABSTRACTS OF PAPERS READ TO THE N.Z.A.A. BIENNIAL CONFERENCE, MAY, 1977

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#### Introduction:

The Association's 1977 biennial conference was held in the Hutton Theatre, Otago Museum from 17th to the 22nd May, 1977. The abstracts printed below are given in the order in which papers were read. My thanks are due to all those who submitted abstracts. Special thanks are given to those who submitted short abstracts. I hope many of the papers presented will be published without delay.

#### Symposium on Historical Archaeology:

Jim Allen, "Historical Archaeology in the Antipodes"

Despite the fact that a good deal of public money has in recent times become available both in Australia and New Zealand for archaeology dealing with their respective colonial pasts, so-called "historical archaeology" has so far attracted little sympathy from its professional and amateau colleagues working in other areas of the discipline. The paper examines various historical and theoretical explanations for this situation and arrives at the conclusion that the overriding factor is that, as yet, historical archaeology has seldom risen above a "Gee Whiz" preoccupation with the quaintness of the artefacts recovered and the building foundations uncovered. In other words archaeology in the colonial period has yet to demonstrate that it has anything to say of importance to the subject generally. Its antiquarian introspection, and its role in the preservation of the national heritage (however important) does not automatically qualify it to be taken seriously by other disciplines which incontrovertibly do investigate the past in a scientific fashion.

The paper warns against allowing historical archaeology to develop only within the public service sector of archaeology in Australia and New Zealand, arguing that the inherent limitations of that approach need to be tempered with the freedom of inquiry fostered only in universities. The paper further argues that historical archaeologists should look beyond the use of archaeology to merely extend and illustrate traditional documented history, and that rather they should be attempting to formulate projects in archaeological terms, where documentary sources are used like ethnographic sources in more conventionally acceptable prehistoric situations. In New Zealand and Australia, where the prehistoric and historic periods merge so recently and so easily, and where the ethnographic basis has forged a distinctively Australasian school of archaeology, unique opportunities exist to utilise the archaeology of the historic period for the development of both theory and method in archaeology generally. In the Antipodes we may be doing ourselves and archaeology a disservice by trying to separate from the general discipline something called historical archaeology.

Euan McQueen "Industrial Archaeology in a Nation of Recent European Settlement".

Industrial archaeology has been traditionally studied in nations with major industries developed during the full course of the Industrial Revolution. Nations of more recent European settlement, such as New Zealand, have applied and adapted particular aspects of longer-settled countries' industrial technologies within a shorter time span. The paper sets out to show that there is much of interest and relevance to provide a basis for studying industrial archaeology in New Zealand: indeed there is perhaps a greater opportunity to record early industrial features than is the case in larger and longer settled countries.

Nigel Prickett "The Archaeology of the Taranaki Land Wars"

The struggle for land in Taranaki lasted for a generation and was marked by 4 periods of military activity: the first Taranaki War (1860-1861), Second Taranaki War (1863-1866), White Cliffs Scare (1869) and the Parihaka Campaign (1879-1891). About seventy redoubts, blockhouses and stockades were established by imperial troops and local European forces. The differing forms these fortifications took reflect their varied functions. The location of sites and groups of sites illustrate particular phases of military activity and document the course of the war. The distribution of the sites accurately reflects the nature of the conflict which was concerned fundamentally with the expansion of the New Plymouth settlement.

Mary Newman "Aspects of the Historical Archaeology of the Central North Island"

Archaeological work by Trevor Hosking on the Tongariro Power Development was mainly concerned with historical sites. The results of a site survey indicate that more than two thirds of sites recorded belong to the post-European period and are related to specific activities. Economic features play an important part in this post-European settlement of the central North Island.

The dates of excavated sites range from the early post-contact period through to the early twentieth century. The evidence from two sites in particular has been used to augment documentation of historical events in the area.

Charles Higham "Historical Archaeology in Central Otago".

From the middle of the 19th century, Central Otago was settled first by the large run holders and then by successive waves of gold miners. The result was a rapidly changing cultural landscape, and much environmental modification.

Fieldwork in two areas now threatened by civil engineering has shown that the survival of early European sites is uneven. In the Maniototo the large gold workings at Hamilton's and Garibaldi scar the hillsides round the Taieri flood plain, and some miners habitations, water races and machinery survive. Buildings associated with early run holdings are seen at Hamilton's homestead complex, and there is some rapidly deteriorating evidence for the subdivisions of the 1870's.

The aridity of the Cromwell area has helped preserve buildings of ephemeral materials there, and there is much evidence for early European occupation, with the notable exception of the transitory mining towns.

Excavation at a rock shelter in the Cromwell Gorge documented Chinese and prehistoric occupation there. Indeed, the richness of the area's archaeological evidence has led to the Historic Places Trust appointing an archaeologist to work there for the duration of dam construction.

Jim McKinlay "Clay Tobacco Pipes: their usefulness for New Zealand Archaeology".

Clay tobacco pipes have been successfully used overseas for the dating of sites from the early 17th to the mid 19th centuries. The method has been based on typological or decorative features of bowls, makers' marks, or the application of a mathematical formula to larger collections of stem fragments. This latter method has interested New Zealand archaeologists, but appears to have little application to the dating of New Zealand sites. However, as importing sources of New Zealand pipes appear to be quite restricted, a fuller examination of pipe collections from already dated sites may enable narrower time spans to be established for New Zealand historical sites.

Nigel Prickett "Recent Excavations at the Omata Stockade, Taranaki".

Excavations were undertaken at the Omata Stockade, N108/39, near New Plymouth, in January and February, 1977. The stockade was built by local settlers in 1860 and occupied for some years by local forces. Excavations revealed the stockade walls, a bastion and the main gate. Evidence of an earlier Maori occupation of the hill was given by three rua pits. Artefacts recovered include clay pipes, bottles, stone jars, buttons, musket balls, bullets and other items.

Jack Diamond "Historical Archaeology".

My experience in the field of Historic Archaeology has revealed an almost complete lack of interest in this science, yet many of its branches offer unique opportunities for study not only for those with academic qualifications, but for those with business acumen and trade skills. The address will centre around the objectives and development of Historic Archaeology, the reasons for lack of interest in this science, together with ways in which this can be overcome. Slides of an old brickyard and the wide variety of artefacts retrieved before its demolition in 1971 will be used to illustrate the address.

Bruce W. Hayward "Historical Development of Kauri Driving Dams".

Kauri driving dams were used from the 1850's to 1940. There are no records and few photographs of dams built before 1900. Thus this study relies basically on field archaeological surveys of dam sites.

The first dams were similar in design to those in use overseas and include clay dams, crib dams and low angle rafter dams. Development of New Zealand's unique "kauri dam" of the twentieth century can be traced through the following changes.

- 1. Introduction of loose plank gates (1850's 1860's).
- 2. Introduction of stringer dams (1860's).
- 3. A trend from low angle (30-45 degrees) to steeper angle faces (45-70 degrees) (1870's 1880's).
- 4. A decline in the number of cills (1870's 1880's)

- 5. Introduction of swinging rafter gates (1890's).
- 6. Iron toms decreased in size before disappearing (1890's).

7. Introduction of wooden toms (1870's)

8. Phasing out of mortice and tenon joints (1870's).

9. Chains replaced by wire ropes (circa 1900).

10. Introduction of knockers to assist tripping (circa 1900).

Sally Burrage "An Early European Stone Structure on the Port Hills, Christchurch".

Archaeological work by the Canterbury Museum Archaeological Society has been concerned mainly with site surveying. A permit was obtained from the Historic Places Trust to investigate an early European stone structure discovered during site surveying. This had previously been reported as the remains of a cottage. Archaeological methods used in the investigation are discussed, the assistance received from the Christchurch Gas Company, the Army Department and the Soil Science Department at Lincoln College in interpreting some of the discoveries made is detailed and the reasons for concluding that this was not the remains of a cottage but an early European Dipping complex are explained. Slides are used to illustrate the paper.

## Symposium on Underwater Archaeology:

Jim McKinlay "Shipwreck Investigation and Legislation".

The surviving remains of vessels wrecked on the New Zealand coast over 100 years ago are subject to the Trust Act and, in some respects, to the Antiquities Act. Where wrecks have been abandoned by their former owners, a salvor must obtain an agreement from the Ministry of Transport under the Shipping and Seamen Act. Current agreements make provision for the Trust to be notified of recovered materials. Adequate supervision of shipwreck investigations is very difficult, as is meaningful discussion with diver groups. There is considerable concern at the almost total lack within New Zealand of adequate facilities for the proper conservation of materials recovered from shipwreck investigations or salvage.

John Campbell "The Prospects for Underwater Archaeology in New Zealand".

Some 1700 ships have been wrecked in New Zealand waters. Each one could tell us a little about ships, New Zealand and the people of the times. Each ship is a time capsule which was equipped to sustain a small slice of society for many months at a time. There is very little chance of the site being contaminated by objects and customs prevailing after the time of occupation. Much of the artifactual material will be as new (the cargo) rather than worn out and discarded as in most historic land sites.

The harbours, estuaries, rivers and lakes will yield many examples of prehistoric interest such as eel weirs, sunken villages, canoes and trade routes.

## Symposium on Archaeology and the New Zealand Historic Places Trust:

John Daniels "The Historic Places Amendment Act 1975: the Trust's 21st Birthday Present?"

The Historic Places Amendment Act 1975 gave the Trust real statutory powers for the first time. The Act was greeted with some caution by the Trust, and the Trust's role caused corresponding doubt in the archaeological community.

However, the acceptance of the responsibility by the Trust, and the acceptance of the Tuust in this role by the N.Z.A.A., were very significant developments in New Zealand archaeology.

The major problem for the Trust in the immediate future is not money but trained personnel. New ways must be found of using archaeological skills from all sources.

Much also needs to be done to interpret archaeology to the public; a major public education effort is needed. Existing reserved archaeological sites need to be better managed and interpreted, and some excavated and restored for public display. Adain Challis "The New Zealand Register of Archaeological Sites (N.Z.R.A.S.)".

The New Zealand Historic Places Trust is about to implement proposals for the N.Z.R.A.S. A computer system for the storage and retrieval of non-intensive site records is envisaged, based on the pilot scheme devised by Foss Leach. The N.Z.R.A.S. should be regarded as an additional system parallel to the N.Z.A.A. Site Recording Scheme, providing data retrieval facilities. It is hoped that before long the application of N.Z.R.A.S. to problems of research and site protection will be exploited fully by the Trust and N.Z.A.A. members.

Jim McKinlay "The Archaeology Section of the New Zealand Historic Places Trust".

The archaeology section of the Trust, which is now established in new premises, is responsible to the Trust Council, through the Archaeology Committee, for two basic functions - the establishment and maintenance of the New Zealand Register of Archaeological Sites, and, the control of a system of permits and authorities and the organization and direction of archaeological salvage programmes. Major difficulties facing the Section include the physical impossibility of the numerically minimal staff establishing an effective nationwide operation at the local level, and the legal application of the legislation. The Trust will continue to depend on the assistance and the resources of the wider archaeological community.

## Symposium on Science and Archaeology in New Zealand:

Foss Leach "Science and Archaeology in New Zealand"

It is argued that whatever differences are found between archaeology and science both in terms of their methods of analysis and structure of logical argument are trivial, and that archaeology therefore is a science in much the same way as biology is a science. It is further argued that the tendency of archaeologists to theorize and then cast about for evidence which might verify this theory is a deplorable strategy for a number of reasons, including ethical ones. Following Karl Popper, it is suggested that the growth of archaeological knowledge should follow a process of conjectures and refutations. An example of this procedure is given in which a theory advanced by Roger Green in 1964 is verified by a process of refutation.

#### Phil Houghton "The Polynesian Mandible"

Some findings from a study of prehistoric New Zealand mandibles are presented. Over 80% are of the rocker form and the remainder generally closely approach this form. Distance statistics indicate that mandibles from the central North Island and East Coast North Island are somewhat removed from the form of mandible found in other parts of the country. The central North Island group has a low incidence of the rocker form, while the east coast group is smaller in size. An explanation is advanced for the rocker form of the Polynesian mandible, based on the very open cranial base angle found in this group.

John Dennison "Citrate Estimation as a Means of Determining the Sex of Fragmentary Human Skeletal Material".

There are occasions when the sexing of bone is rendered difficult by its fragmentary nature or by an absence of morphological characteristics. It is now known that the female organism accumulates a larger amount of citrate in its bone tissue than does the male organism. A chemical method of measuring the citrate level present in bone and its use in sexing archaeological specimens, is described. Results to date are proving satisfactory, future work is indicated in this promising field.

Doug. Sutton and Yvonne Marshall "Archaeological Bird Bone Assemblages from Chatham Island: an interpretation"

Two prehistoric assemblages of bird bone from the southwest coast of Chatham Island are described. The range of species present, the minimum number per species and the representation of body parts for the five most frequently represented species are illustrated. Four principal fowling strategies are suggested. This paper has since appeared as No. 12 in the Working Papers in Chatham Islands Archaeology series.

Ian Smith "The Prehistoric Distribution of Fur Seals in New Zealand.

Analysis of an assemblage of fur seal bones from Tairua (N44/2), Coromandel Peninsula, indicates the presence of fur seal breeding colonies in that area during the prehistoric period. This suggests a markedly different pattern of distribution than is extant today. The factors that appear to limit the present distribution of fur seals are considered, and from these reasons for the apparent reduction of fur seal distribution during the prehistoric are postulated. Two of the major reasons appear to be climatic change and human predation

## Symposium on the Multiple Settlement of New Zealand:

Janet Davidson "The Multiple Settlement of New Zealand"

Theories of multiple settlement of New Zealand have been the rule rather than the exception. Over the years, such theories have become more restricted in scope, from those involving successive migrations of culturally unrelated groups, to those concerned with near contemporary settlement by closely related groups from different parts of Eastern Polynesia. Further consideration of multiple settlement requires the identification of regional variants of early New Zealand cultures and of suitable sources for such variants. Lack of sufficient archaeological evidence, particularly from possible Eastern Polynesian source areas, is likely to be a problem for a long time to come.

Garry Law "Over the Ocean and Into the Trees"

A probabilistic consideration of the nature of the settlement of the margins of Eastern Polynesia leads to two conclusions. Firstly that it is most unlikely that each of the marginal areas received only one colonising voyage, and secondly that the most likely order of last contact is the reverse of the order found if the areas are listed in order of decreasing ease of contact. Attempts to find the settlement order by comparative studies will determine an order of last significant contacts if multiple settlement has occurred. In Eastern Polynesia the comparatively derived settlement order is consistent with an order of last settlement making multiple settlement seem a real occurrence.

Roger Green "Pottery, the Marquesas and Settlement of New Zealand".

The question of whether New Zealand was settled more than once during the early part of its sequence by groups from Eastern Polynesia must consider the possible time interval in which this could have occurred. There are a series of items in Eastern Polynesia which various authors have used to set upper and lower limits. Groube, for example, noted the poi pounder, the enclosed form of marae, and late adze types in Eastern Polynesia which do not appear in New Zealand, as setting upper limits. As Davidson indicated in her introduction to this Symposium, these certainly date after 1300 A.D. with the true limit being closer to 1500 A.D. Other items such as pottery have been

used to set lower limits. This was based on the claim that Marquesans made and used pottery until 1000 or 1100 A.D., and the expectation, as yet unrealised, that evidence for the use and manufacture of pottery would be found elsewhere in Eastern Polynesia. For this reason the Marquesas (or other island group) making pottery would have to be excluded as one possible source for settlement of New Zealand, particularly if it was close to or before A.D. 1000, on the assumption that the excellent clay resources of New Zealand would not only have favoured the continuation or reinstitution of the practice but would probably have also fostered its further development.

Three competing hypotheses can be considered. first, advanced by Suggs and Sinoto, argues for limited pottery manufacture in their two earliest phases with a duration of some 700 years. The second, suggested by Green, is that all pottery found to date in the Marquesas is in secondary position, and that the earliett levels before A.D.300 from which it was derived during which pottery was being manufactured in some quantity have not yet been excavated. The third, arrived at in discussion between Green and R. Law, is that the pottery found in the earliest contexts in the Marguesas is in secure contexts and was imported before its manufacture ceased in Western Polynesia. The empirical content supporting the three hypotheses is 12 sherds, 3 of which are definitely of exotic (Fijian?) origin. On the basis of their temper the rest could have been made on any oceanic high island including the Marquesas. It is argued that the 2 sherds from Uahuka and the 1 from Ho'oumi are not sufficient evidence to argue for pottery manufacture in those sites and that either import or an item in secondary position are more likely explanations. Nor are the 9 sherds from Ha'atuatua judged sufficient evidence to argue for pottery manufacture there during the earliest period, now that three of them have proved to be of exotic Rather the third hypothesis that all nine are in fact of exotic origin from a voyage starting in Western Polynesia seems more likely than the second, just as Sinoto initially assumed from their scarcity. The possibility of limited attempts to produce some pottery locally in imitation of the imported pieces is judged less creditable than the probability that all were imported given the fact in a sample as small as 9 pieces, 3 are imported. The conclusion is that the present evidence is not sufficient to claim that pottery was ever manufactured in Eastern Polynesia and that the Marquesas is not excluded by finds of pottery there as a possible homeland for settlement of New Zealand after the earliest Marquesan settlement period dated between A.D. 300 and 600.

## Symposium on Ngai Tahu Migration: fact or fantasy?

Helen Leach "The Ngai Tahu Migration: a case of over simplification"

The successive migration into the South Island of two groups of North Island Maoris known as Ngati Mamoe and Ngai Tahu has for many years been accepted as historical The sudden appearance on the late Otago sites of cannibalism, earthwork fortifications and such artefacts as whalebone patu, elaborate composite fish-hooks, flakes and nephrite 2B adzes supports the interpretation of major cultural replacement. In contrast the existence of a distinct southern dialect argues either that the migrants were a minority, or that the dialect was once spoken in the North Island from which the tribes came. Analysis of genealogies and traditions suggests that the model of a twofold migration is a 19th century European simplification. Re-examination of the Pari Whakatau according to hapu instead of tribal affiliations removes many elements of inexplicable treachery which puzzled European recorders.

Janet Davidson "The Ngai Tahu Migration: A North Island View".

Tribal migrations have often been regarded as an acceptable explanation for culture change in New Zealand prehistory. In particular, the view that the Ngai Tahu and Ngati Mamoe were responsible for the introduction to the South Island of a "Classic Maori package", has been widely If different parts of the package, such as accepted. warfare, horticulture and certain artefact forms are examined separately, however, this view becomes hard to sustain. is suggested that horticulture may have been practised in the northern South Island from an early date, and that certain kinds of Classic Maori artefacts, notably adzes and ornaments of greenstone, may have originated in the South Island. movement of small groups of people from the North Island to the South Island may have had little to do with the spread of ideas and new traits.

Michael Trotter "The Ngai Tahu Advance in Southern Marlborough: the archaeological evidence".

Published "traditional histories" state that three Marlborough sites - Peketa, Omihi and Pari Whakatau - were consecutively occupied and abandoned by the Ngatimamoe in the face of the Ngaitahu advance from the north. archaeology of these sites was examined in conjunction with other evidence, and compared with that from a traditionally Ngaitahu site, Te Raka-ahineatea in North Otago. dates for the sites are: Peketa (S49/23) 280± 50 B.P., 340±50 B.P.; Pari Whakatau (S55/7) 340±40 B.P.; Te Rakaahineatea (S146/4) 211± B.P.

Foss Leach "The Ngai Tahu Migration Viewed From the Wairarapa"

Many South Island traditions state that the origin of the Ngai-tahu was the Wairarapa. North Island genealogies and traditions were examined to see how these might correlate on this matter. The research suggested six main points:

Perhaps KAHU (Kahungunu) and TAHU (Tahupotiki) are the

same eponymous ancestor.

The split of the Ngai-tahu from the Kahungunu may have 2. been much later than generally believed.

There were at least three migrations which could be 3.

called Ngai-tahu migrations.

The number of people actually involved in these 4. movements was very small.

The dialect known as Kaitahu is a misnomer, since it 5. is unlikely to have ever been spoken by North Island imigrants.

6. Whatever cultural influences resulted from these movements are best attributed to people from the Wellington district and not the Wairarapa.

## Symposium on Current Research:

Ian Lawlor "Interpretation of Surface Evidence on Aorangi, Poor Knight Islands".

Aorangi Island, the second largest island in the Poor Knight Island group, was surveyed during December 1976.
Surveying focussed on: (1) the nature and extent of 'site areas'. (2) a tabulation of locally available resources. The whole 68 hectares was found to be a veritable site and one can only speak of locations ('site areas') characterized by a particular form of archaeological evidence; 29 such areas were noted. Archaeological evidence ranges from unique surface distributed cultural material to the dominant stone structures (embankments, platforms, field systems, mounds, walls). An interpretation of combined evidence suggests that these Islands could have supported a permanent population in prehistoric times.

Aileen Fox "Maori Pa of the Auckland Isthmus: an Archaeological Analysis".

The construction and defensive methods of the Maori terraced pa on the volcanic cones on the Auckland isthmus was discussed in the light of recent field surveys. A group with late earthwork defences was defined, comprising Mt Hobson, Mt St John, Mt Wellington and One Tree Hill. The archaeological dating evidence was compared with the historical evidence based on Maori oral traditions recorded in the Orakei judgement of 1869.

This paper will be published in the Records of the Auckland Institute and Museum for 1977.

Peter Pearce "Buses on Hamlins Hill".

Continuing archaeological research on the site of Hamlins Hill has revealed excavated evidence of possibly related features. Some structures, which have been determined as houses, suggest that there are possible internal relationships within the settlement. To help explain the interpersonal behaviour patterns within the settlement and to discuss spacing behaviour on the site, observations were carried out on live populations in buses to see how they located with respect to others and in a set environment. The results of the observations of people on buses were used as an analogical model to help explain the possible spacing of houses on Hamlins Hill.

Bruce McFadgen "Archaeological Excavations at Lake Poukawa".

No abstract available.

Bruce McFadgen "Wellington Goldfields: a study in Historical Archaeology".

Two periods of gold mining at Wellington are discussed: 1869-1872; and 1880-1885. The most important locality was the Terawhiti district, where there are remains of gold mines, crushing plant, tramways, and hut sites.

Rod Wallace "Palaeo-environmental reconstructions based on landsnail shells from Wairarapa archaeological sites".

Vegetation surrounding five Wairarapa archaeological sites at occupation was reconstructed using sub-fossil landsnail shells from within them. BR3 and BR4 at 1150-1270 A.D. contained three species all indicating grassland. BR2 at 1750 A.D. had eight species indicating dense shrubbery or scrub. All three sites were on Black Rocks Peninsula. The early vegetation was interpreted as fire induced, the later as regrowth following the area's abandonment by man.

Sites Ml and M3 in the Matukutuku Valley were surrounded by sparse coastal forest and broadleaf-podocarp forest respectively. Ml dates to 1180 A.D. and M3 to 1480 A.D. The good fit with other environmental data demonstrates the methods value.

Doug Sutton "Archaeology of the Little Sister, Chatham Islands".

Recent fieldwork on the Little Sister off the Chatham Islands is reported. Substantial surface evidence including stone-lined platforms was found. Four small excavations were undertaken (N.Z.H.P.T. Permit 1976/18). The analysis of charcoals and pollens is underway. The results, with radiocarbon dating, will assist the study of the history of the albatross colony on the island which is being undertaken by C.J.R. Robertson, Wildlife Service, Department of Internal Affairs, Wellington.

This paper has since appeared as No. 10 in the Working Papers in Chatham Islands Archaeology series.

Jenny Cave "Experimental Replication of Bird Bone Artefacts".

Excavations at the Waihora Mound site, Chatham Island, recovered artefacts formed of bird limb bones, shaped to a point at one end only. These have commonly been called 'awls'. The validity of this name, which assumes function, was tested by experimentation. Consideration of artefact morphology indicated a preference for a step-bevelled 'awl' in the assemblage while the smooth-bevelled and other variants were less common. The experiments suggested the method of manufacture was by hammering using a hammerstone, and grinding with coarse-grained sandstone. The preferred raw materials were hollow, near circular limb bones of petrels and penguins. It is considered likely that they were used for perforating soft materials with a plunge action, and for that 'awl' is an appropriate name.

Brian Allingham "Recent Work at Pleasant River, North Otago".

During November and December, 1976 eight one metre squares were excavated behind the foreshore of an eroding coastal prehistoric site (S155/8) near the mouth of Pleasant River. Excavation was confined to two localities. Fish bone and artefacts associated with fishing were well represented in both areas. A predominance of estuarine over rocky shore shellfish was noted in one area. Seal and moa bone were found with many flakes. The material recovered is still under analysis and samples have been submitted for radiocarbon dating.

Arthur Cox, Neville Turner and Cyril Maude "The Recording of Maori Rock Art in North Otago".

They spoke on the work of the North Otago Scientific and Historical Society in recording rock art. The talk was illustrated with slides and polythene transparencies showing some of the discoveries.

Kelly Tarlton "The Search for and Discovery of Anchors Lost in 1769 by the French Explorer de Surville at Doubtless Bay, New Zealand".

The material presented has been published in The International Journal of Nautical Archaeology and Underwater Exploration 6(1):64-70, 1977.

## Symposium of Future Directions in New Zealand Archaeology:

The conference concluded with a Sunday morning session on future directions. Roger Green led the discussion with an informal address and discussion followed.

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