NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION NEWSLETTER

the floor of the northern pit.

The potential of the site seems to lie chiefly in :-

(1) the existence of structures of an unusual type in a stratigraphical context;
(2) the fact that the site is yielding artefacts in close, though not in clear primary, association with the structures;
(3) the reasonable probability that the occupation of the site was prolonged and that the lowest level of occupation will prove to be early in date. This is suggested by two factors: the pits are filled to their tops with spoil and over the whole site a sand blanket with well-developed soil profile similar to that at Sarah's Gully obliterates all subsoil disturbance;
(4) the possibility that under local soil conditions wooden objects may be at least partially preserved.

The Society plans to continue its testing of the site dur the May Vacation.

A SURVEY OF SITES ALONG THE COROMANDEL COAST by Roger Green

Introduction:

While the problems of North Island archaeology are many, they all start with a basic necessity: that is, the location of sites capable of yielding the necessary information. The most successful solution to this problem is the survey of a region which previous archaeological research indicates should contain sites with the needed information. My intention is to show that intensive work in a restricted region selected for its potential can yield valuable results. As such, this is a plea for other members of the association to undertake similar projects, making their results available through the newly instituted site recording program.

The sites discussed below are numbered, described and will be filed in accordance with the association's recording scheme. Thus, the details of each site and its location are available to all members for the purposes of legitimate research. Location here, however, is given only with respect to major harbours, beaches, or nearby settlements. One site, N 44/2, has subsequently been investigated more fully, and a detailed report on that will be forthcoming.

The Survey:

Archaeological research pointed to the east coast of the Coromandel Peninsula as one region likely to contain sites in the

form of stratified middens with fairly long and datable chronologies, perhaps demonstrating the relationship between Moa-hunter and Maori remains. That this ideal site exists, however, except in the mind of the archaeologist is doubtful, so that middens fulfilling one or more of these conditions were sought. The work of the Auckland University Archaeological Society had already demonstrated the existence of stratified Moa-hunter sites along the eastern coast of the Coromandel Peninsula above Mercury Bay, described elsewhere in the Newsletter. Much further south, from the East Cape to Hawkes Bay, other beach middens had been investigated by Wellman and Pullar which contained stratified sections in association with both volcanic ash showers and water-borne "black" pumice. (See Pullar's report elsewhere in this Newsletter; also Pullar 1959, J.P.S.: in press). Finally, I wished samples of obsidian and pumice and information on its association along this coast in connection with other projects. For all these reasons, an investigation of the beach middens along the eastern coast of the Coromandel Peninsula below Mercury Bay seemed very desirable.

When the services of a member of the association, Mr R.G.W. Jolly, made this investigation possible, three days of intensive survey work were undertaken. I should like to record here my many thanks for his considerable help. While we concentrated on beach middens as being the most productive of results for our purposes, site record forms were also filled out for the pa's that came to our notice. The following list summarizes our results, but no claim is made for its completeness. Indeed, there are still many sites to be recorded, and most of the pa's should be surveyed and those forms completed as well. The middens below are described by their most striking feature or features.

Whiritoa Beach - N 53/1: working floor or midden with moa, cetacean, and small bird bone associated with black pumice and obsidian: N 53/2: ridge peak pa; N 53/3: series of pipi and mussel shell middens, some with obsidian.

Whangamata Harbour - N 49/1: headland pa; N 49/2: pipi shell midden with obsidian.

Opoutere Beach - N 49/3: series of stratified middens with only the upper layers containing large amounts of pipi shell. Obsidian and black pumice secondarily associated in deflation areas of the midden. N 49/4,5,6: each a separate pipi shell midden; N 49/7: ridge peak pa; N 49/10: pipi shell midden with obsidian, black pumice found on beach below; N 49/11,12,13,14: each a separate pipi shell midden.

Hikuai - N 49/8: ridge peak pa; N 49/9: circular ridge peak pa.

Tairua Harbour - N 44/1: ridge peak pa; N 44/2: stratified midden, the lower a moa-hunter layer associated with firepits, artefacts, obsidian, and several shades of pumice including gray, the upper a pipi and cockle shell midden with human bone; N 44/3: deflation basin near dune with human bone; N 44/4: pipi shell midden.

Hahei Beach - N 44/5: pipi shell midden with obsidian; N 44/6: pipi shell midden; N 44/7: headland pa; N 44/8: ridge peak pa.

Coroglen - N 44/9: ridge peak pa.

Results:

The primary result of the survey, of course, is a record of twenty-six sites to which other investigators interested in this region can refer and from which they can gain some knowledge of what to expect and where to look. In addition, seven obsidian collections, localized as to type of site and cultural layer, were recovered for further study. More important, the suspected existence of Moa-hunter sites south along the eastern coast of the Coromandel Peninsula to Whiritoa Beach was confirmed. Another promising stratified site at Opoutere was fully recorded, the lowest level of which may well be of Moa-hunter age, but proof of this will have to await excavation. Finally, black and white water-borne pumice, as well as various shades in between, were found in association with two Moa-hunter deposits and noted on three beaches as present-day drift material. Some of these results are worthy of some further discussion.

Pumice:

In view of the announced hypothesis of Dr H.G. Wellman that there is a "black" pumice with a date in the early centuries A.D. which forms a distinctive and thus datable horizon along the east coast of New Zealand from Waimarama, south of Napier, to Mercury Bay on the Coromandel Peninsula (Pullar 1959, J.P.S.: in press), it might be well to record here the exact nature of its occurrence with respect to these sites. At Whiritoa, pumice from black through various shades of gray and greenish gray, as well as the usual white, occur along the beach and are exposed in the various deflation areas. Pieces were also found at one site in association with shell, tool flakes, obsidian and moa bone. On Opoutere Beach, a similar range of colour in water-borne pumice was observed on the beach. While no primary associations with midden deposits could be demonstrated, a secondary association in a deflation basin with

cultural material is probably worthy of further investigation.

At Tairua, the site faces not on the open sea, but the harbour, and is well above the present high tides. In the lower cultural level, but neither above nor below it, were a number of pieces of well-rounded pumice in white, tan and gray. Again, the association was with the Moa-hunter material. Although the rounding suggests a water-borne source as the original transporting mechanism, the question of how they got on the site is more problematic. The 10° slope of the site over an old dune surface does not suggest a water-borne source for the final deposition there of the pumice. In fact, the similarity in range of colours to those available today on the ocean beaches of this coast, coupled with its confinement in this case only to the cultural layer, makes it more likely that a human agency was involved in its final transport to the site. At any rate, substantial evidence for a seam or lens of black pumice as a distinct horizon has not been forthcoming, and the hypothesis can be neither proved nor disproved on the evidence gathered. All one can say is that the mere occurrence of gray or black pumice in moa cultural layers at Tairua and Whiritoa is not necessarily natural.

One other thing observed was the large size of many pieces of black pumice, when compared with those of the Gisborne region, suggesting that this coast is nearer to the source.

Moa-hunter Sites:

As Duff (1956:279) noted, the existence of other genuine Moa-hunter sites in the North Island is to be expected, and his study of the distribution of their artefacts suggested the Coromandel Peninsula as one likely region. Before they are accepted, it might be well, however, to place on record the evidence which leads me to believe these are Moa-hunter sites as defined by Duff.

Before doing this though, I should like to note that in the two instances where the sites were stratified, the content of lowest cultural level was different from those above. Also the content of the Moa-hunter site on Whiritoa Beach was quite different from the other middens observed there. What appear to be the more recent middens, stratigraphically, in nearly every case are similar to those associated with most pa sites I have seen and consist primarily of pipi and cockle shells. In contrast, the Moa-hunter middens have few if any of these shells, but contain many large mussels, limpets, periwinkles and pauas in that order, along with the bones of seal, whale, and a variety of birds beside the moa.

Whiritoa: The evidence for moa-hunter sites on this beach comes from a number of directions. First, there is site N 53/1

which contained moa bone kindly identified by Mr R.J. Scarlett, which will be subjected to further study. The bones came both from the cultural layer still in position covered by four to six feet of dune sand, and also from the living floor recently exposed by the sea. The possibility of secondary association from a geological viewpoint can almost be excluded. This I checked very carefully. But it is impossible to say that people did not pick up sub-fossil moa bone from elsewhere and bring it to the site. The deposit is very shallow, two to four inches at most; the living surface shows both a difference in composition and sufficient consolidation to cause it to weather differentially. Thus, a short period of occupation followed by accumulation of dune sand is suggested. While artefacts were lacking on the site, there is sufficient evidence to demonstrate human activity.

While no artefacts were found at this site, fortunately other areas of the beach have produced a number of moa-hunter types now in the possession of various local collectors, to whom both Mr J. Golson and I are indebted for the following information. In the collection of Mr Jolly there are four adzes from the north end of the beach, all of argillite. Following the Duff classification (1956: 139-194), one is a typical 4A, and the second a chisel-like variation of the same type. The third is a 3B, very much like the Hawaiian adze pictured by Duff, while the last is a type 5 side-hafted adze without definite indications distinguishing a tang. Part of a one-piece fishhook from moa bone and a tattoo chisel like No. 1222 figured by Duff (1956:224) were also found by Mr Jolly. The collections of Errol Willis of Auckland contain two more type 4A adzes and a large number of one-piece moa bone fishhooks with line attachments and inturned points similar to those figured by Duff and identical with those found on the Opito sites. Finally, the collection of Harry Claxton in Thames has a bone reel from the south end of the beach and another side-hafted adze from the northern end. (J. Golson, personal communication). Thus, the major components of the moa-hunter artefactual assemblage, as well as moa-bone in association with occupation layers, is known on this beach. Further investigation along proper lines would probably establish beyond doubt the existence of genuine moa-hunter sites.

Tairua: As noted above, the evidence for this as a moa-hunter site will be discussed in more detail in a forthcoming report. Suffice it to say here, that the association between large quantities of moa bone, seal, duck, petrol, shag and fish, all identified by Mr Scarlett and submitted for further study, with shells in quite different proportions to those of the overlying

midden was confirmed by excavation. Excavation also revealed additional bone, artefact material, obsidian and a number of hangi pits. The lower cultural layer is separated from an overlying and more recent pipi and cockle shell midden by four to five feet of sterile dune sand. The upper midden is in turn buried under another four to five feet of sand. Again, the lower cultural layer was shallow, scarcely more than six inches in depth except in the area of the firepits.

Conclusion: As stated in the introduction, my intention was to locate and to record on the site record forms, information of value, where it will be available to all members of the association for further research. This report I hope will stimulate others to do the same. The results indicate, I think, the value that similar projects could have, if others will take more than a passing interest in the newly instituted site recording scheme.

FROM THE MUSEUM

MAORI REPAIRS TO SPECIMENS by V.F. Fisher

Occasionally specimens, illustrating the fact that the Maori, in olden times repaired objects in daily use, find their way to the Auckland Museum. Sometimes they are added to the permanent collections, but in some instances they are sent in for inspection and comment. It is perhaps only natural that when a Maori craftsman had expended much skill and patience on some article for a special purpose, that any minor damage which it suffered should, if possible, be repaired.

Many years ago a teacher brought to the Museum a fine, whalebone comb (heru). As usual, it was well finished and decorated with a neat piece of carving on the curved edge. An examination revealed that one of the teeth had been broken and about two-thirds of the tooth was missing. However, repairs had been effected by lashing a short piece of bird bone, two inches in length to the broken stump. To ensure that the attached piece of bone was securely lashed, a fine notch had been cut at the top, thus reducing the possibility of the new portion working loose. If my memory serves me rightly, a fine flax seizing had been used.

Flax was not the only lashing material employed for repair work. In North Auckland the wiry, tough stems of the climbing mangemange fern (Lygodium articulatum) were used either whole or split. This material was especially favoured for lashing damaged