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NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION NEWSLETTER



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A Reconnaissance at the Waitaki River Mouth, Otago

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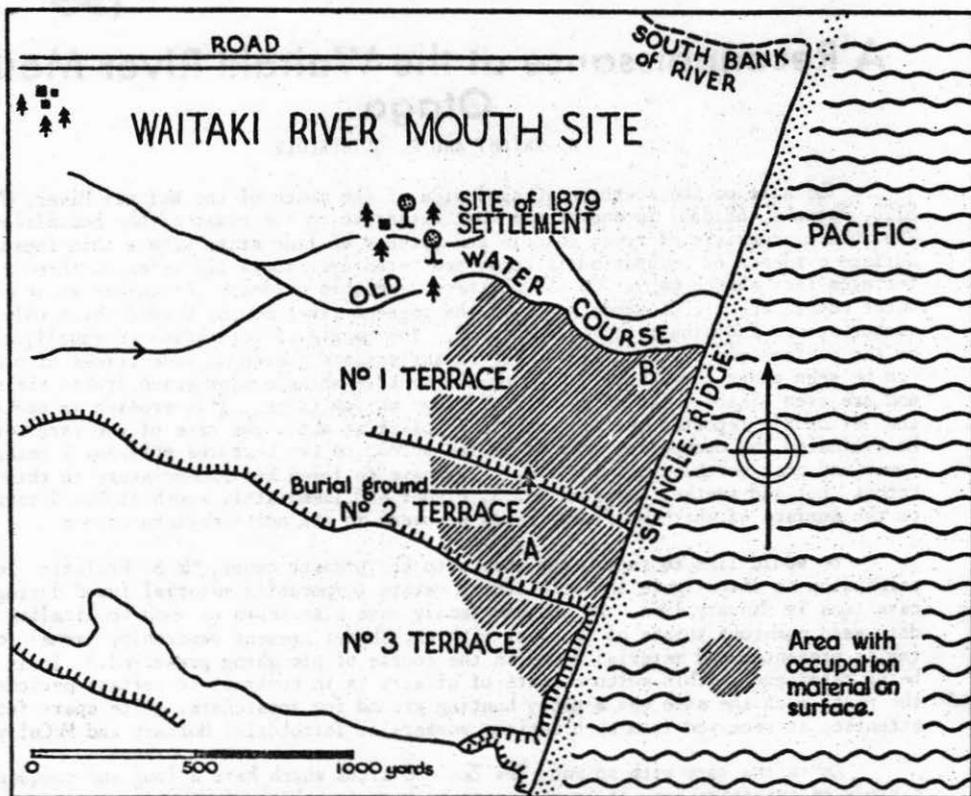
The site on the southern (Otago) side of the mouth of the Waitaki River, (NZMS 1, S128, Waitaki, 681835) is one of the most extensive on the coast of the South Island. The subsoil consists of river shingle and patches of fine silt, with a thin topsoil, and surface evidence of occupation is today scattered over about 125 acres on three river terraces (see sketch map). On the northern side this evidence terminates at an old water course about 1000 yards south of the present river mouth, beyond which only a few anchor stones and sinkers have been found. The margin of occupation is equally clear on the western and southern sides, but on the eastern (seaward) side traces of middens can be seen under the landward edge of the massive shingle bank which fronts the sea and are even visible also on the seaward edge at low tides. This erosion is continuous, and Teviotdale reported that it was taking place at about the rate of one yard per year.¹ He estimated the occupation area to be 150 acres, on two terraces only, No. 1 being the lower and most northerly of the two.² We have followed his nomenclature in this report, but add another terrace, No. 3, higher and immediately south of No. 2 terrace, on the surface of which we found traces of ovens in its north-eastern corner.

We would like to record our thanks to the present owner, Mr S. Willetts, for permission to investigate the site and to retain temporarily material found during excavations in January 1961. He and his family have also shown us much hospitality and discussed numerous points of interest with us. Under present ownership, casual fossicking is prevented and material found in the course of ploughing preserved.³ It is now being catalogued. This welcome state of affairs is in contrast to certain periods in the past, when the site was a happy hunting ground for fossickers, quite apart from the attention it received from such serious workers at Teviotdale, Hornsey and McCully.⁴

As is the case with so many New Zealand sites which have a long and chequered history of investigation, it is necessary to know something of previous exploration at the Waitaki Mouth. It has attracted attention since 1926, when No. 1 terrace was ploughed, apparently for the first time, exposing moa bones and middens which were then quickly eroded. McCully and Hornsey subsequently worked both here and on parts of No. 2 terrace, as did Teviotdale in 1931 and 1936-37. In the latter season, he was assisted by Mr P. George, a member of the Otago Anthropological Society, with whom we have discussed several aspects of the work done both then and during our own investigations.⁵

Despite the use of the plan in Teviotdale's published report,⁶ and of the notes in his diary now housed in the Hocken Library, it was impossible to locate with precision the areas in which Teviotdale worked. Furthermore, the persistent weathering of the surface of the site was intensified in 1952 when No. 2 terrace was ploughed - perhaps for the first time. This included the area shown on Teviotdale's plan, about 250 yards west of which Mr Allan Willetts found some of the adzes referred to by Duff.⁷ No. 3 terrace has also been ploughed.

Thus today erosion and ploughing, to say nothing of excavation, have destroyed the surface indications of stone pavings and rectangular and round huts which so attracted the attention of earlier workers. Our present knowledge of these structures at sites rich in moa remains is depressingly meagre - and the significance of the Waitaki Mouth site as it was in the 1920's can hardly be exaggerated. Would it be possible, today, to rescue any of this information in adequate detail? Hence our reconnaissance.



We had three aims:-

1. To make contact with interested persons in the locality and examine collections in private hands;
2. To record the area of occupation as at present known from surface finds;
3. To carry out trial excavations at selective points on Nos 1 and 2 terraces, in an attempt to locate some of the features mentioned by Teviotdale, and to discover if any stratified deposits remained below the plough level, which extended some 6 ins below the present ground surface.

We were successful in aims 1 and 2, some results of which have already been mentioned, but only partly successful as far as aim 3 was concerned.

As noted above, the subsoil consists mainly of river shingle. This is very difficult to dig, for even when disturbed the fill is often of the same material, hard to distinguish from the natural.^o On No. 2 terrace, using Teviotdale's plan but also guided by the advice of Mr Willetts, we laid out a 10 ft grid and excavated a number of test squares in the region of the most westerly of the 5 hut sites plotted on the plan, to see if any trace of it now remained (sketch map, area A). In the plough level were found fragments of 'quartzite' and obsidian and one small piece of nephrite. In certain places, the loose natural shingle was replaced by beds of finer and more compacted

shingle, which could be revealed by careful scraping and brushing, but these were of irregular size and followed no determinable plan. In one square close to the lee of the bank of No. 3 terrace, a layer of fine, hard silt lay beneath the topsoil, with a narrow depression exposed diagonally across the excavated portion. Both this and the attenuated beds of compacted shingle may be remains of house floors cut into by previous excavators. It was obvious, however, that too much disturbance had taken place for us to be sure about this, and that the area required extensive examination by a larger team of excavators than was available. One possible post-hole was found. This consisted of a deposit of very fine shingle shaped like an inverted and truncated cone, 5 ins in diameter and 9 ins deep, which differed markedly in texture from the natural matrix.

A study was made of the section of the river bed exposed in the cliff face to ascertain what natural features may be expected during excavations.

We concluded that any future attempt to determine the features of these 5 hut sites, nothing of which was visible from air photographs taken during a special sortie, would have to face the possibility of retrieving only limited data with such diagnostic features as entrances and post holes probably destroyed or at least difficult to recognise in such an uncompromising subsoil. It remains to be seen if air photography after ploughing on this terrace will provide any further evidence.

It should be noted at this point that the so-called 'Mystery Stone' on No. 2 terrace, mentioned by Teviotdale⁹ and other writers, and part of the local folklore about the site, has now been ploughed up. From extensive trenching it would appear that none of it remains in situ. Fragments were found on the surface of the bank of No. 2 terrace, however, and in view of the conflicting nature of the specialist reports about the 'stone' in Teviotdale's report, some were retained for further analysis.

We also carried out a test excavation on No. 1 terrace. In an area of extensive midden and oven remains close to the encroaching shingle bank and near the southern margin of the old river bed mentioned at the beginning of this report, a trench 56 ft long by 3 ft 6 ins wide, lying due north and south, was cut across one of the many areas where the surface was noticeably blackened by disturbed oven charcoal (sketch map, area B). The trench revealed a midden layer at a maximum depth of nearly 3 ft, sealed by yellow, silty clay; a trace of a similar layer directly beneath it at the northern end without any clay sealing, and a higher midden layer, in parts narrowly sealed by a similar clay layer and in parts broken into-presumably by the plough. The presence of the silty clay between two of the midden layers suggests either flooding or a temporary change in the course of the river - which are both liable to happen today. There was no apparent difference in the character of the material found in these midden layers, but at least the existence of stratified deposits on the site, though not perhaps important in themselves, has now been demonstrated. At the southern end of the trench was found a shallow pit, with a maximum depth of 4 ins, which had been cut into the silt forming the natural in this area. It contained moa bones, both whole and splintered fragments, and a certain amount of charcoal. The top had been disturbed by the plough. It should be noted that Teviotdale reported finding a cache of over 40 fragments of moa tibiae in an artificial hollow in a hut floor on No. 2 terrace.¹⁰ Another artificial hollow was found on No. 1 terrace, described as '...a storehouse or workshop... (on the bottom of which) ... was a large block of sandstone which had been used as a grindstone...'. On this terrace he and Mr George also found two natural hollows, one filled with moa bones, the other with oven stones, charcoal, moa bones, and quartzite flakes.¹¹

The few artifacts recovered in the course of the excavation were of Archaic type, as are most of those in the Willetts collection. As Teviotdale mentioned, how-

ever,¹² there has been some local Maori occupation in post-European times. In 1879 a number of families were evicted from their settlement at Omarama and came to live on a reserve not far from the Archaic site!³ A few Classic Maori artifacts have been picked up on or near this reserve and are in the Willetts collection. It was reported to us that some years ago the bones of an adult and a child were found in this area, but we were unable to check this. It is the burial ground relating to this post-European settlement, enclosed within a fence exactly 1 chain square, which lies at about the centre of the site, west of the 'Mystery Stone'. We know of no skeletal remains from the site associated with Archaic material.

Later in the year, after winter ploughing, it was possible to record in more detail the distribution of ovens on No. 1 terrace. Despite disturbance, they stood out clearly from the surrounding topsoil, and this distribution was then checked from air photographs taken during a special survey of coastal sites from Dunedin north to the Waitaki River. The air photography confirmed the area estimated by surface finds, and it is worth noting that the subsequent crop of rape reveals in colour and increased growth the same demarcations.

It will be seen that it is still possible to carry out useful work at the Waitaki Mouth site, though the limitations imposed by previous disturbance must be recognised and respected. We hope to extend this work at a later date.

References

1. TEVIOTDALE, D. 1939 'Excavation of a Moa-Hunters' Camp near the mouth of the Waitaki River,' *Journal of the Polynesian Society*, 48, 167.
2. TEVIOTDALE 1939: 168.
3. Much of the collection was discovered during ploughing on No.2 terrace in 1952. Comparatively little has been found since; during the ploughing of No. 1 terrace this year, at least seven adzes were recovered.
4. We are grateful to Mr H.S. McCully for meeting us at the site to discuss a number of questions about its investigation.
5. Mr George was able to supplement some of the data in Teviotdale's notebooks.
6. TEVIOTDALE 1939: fig. 1.
7. DUFF, R.S. 1956 *The Moa-hunter Period of Maori Culture*, (Second Ed.), 73.
8. We should like to thank those members of the Otago Anthropological Society and the North Otago Scientific and Historical Society who took part in the excavations.
9. TEVIOTDALE 1939: 170 - 173.
10. TEVIOTDALE 1939: 174.
11. TEVIOTDALE 1939: 169.
12. TEVIOTDALE 1939: 169.
13. STEVENSON, G.B. 1947 *Maori and Pakeha in North Otago*, 137 - 142.