

TWOHILL, NICHOLAS F.

SITE SURVEY OF THE
LOWER KUAOTUNU VALLEY

Nicholas F Twohill 1990

HPT.

993.

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Prepared for the New Zealand Historic Places
by Nicholas F. Twohill

PLAN
OF
TOWNSHIP OF KUAOTUNU (Not a Registration District)

Surveyed by *Mr. A. Phillips* Sept 1890.

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INTRODUCTION

A survey of archaeological values in the lower Kuaotunu Valley on the Kuaotunu Peninsula of the Coromandel Peninsula was carried out between 8 November 1990 and 20 November 1990 by the writer through a grant from the New Zealand Historic Places Trust.

The survey was to record the prehistoric, historical and industrial archaeological sites in the Kuaotunu Valley. The valley remained a survey gap on the Coromandel coastline in the New Zealand Archaeological Association's Site Record File and the New Zealand Register of Archaeological Sites. Kuaotunu is part of a region significant to New Zealand prehistory and development of New Zealand archaeology. Tahanga, Opito, Sarah Gully and Skipper's Ridge are situated on the Kuaotunu Peninsula. R.A. Simpson (1964:5,6) writes in his publication This is Kuaotunu of "extensive pas", burials and artefacts as signs of prehistoric occupation in the valley. Its early European history is not known. Reed (1952:85) states: "Gold was discovered at Kuaotunu as early as 1856, but it was not until 1889 that it developed into an important industry." It is possible that timber was being taken out of the valley by the early 1880s (See ML 3549.3 [Cadastral Map] Kuaotunu Number 1 Block, Otama produced before the Native Land Court at Shortland on 12 December 1881. L. Furey brought this source to my attention). It can be inferred that there was a small number of European settlers and a larger number of Maoris at Kuaotunu in the late 1880s, who dug for kauri

gum and produced timber (A.M. Isdale, pers. comm.). With the discovery of the Try Fluke reef in the upper part of the valley in 1889 by Charles Kawhine, goldmining was the principal economic activity during the 1890s and 1900s, serviced by several mining towns. Once the mines had closed down, farming became the mainstay at Kuaotunu.

The survey set out to identify and describe what remained in the Kuaotunu Valley landscape from prehistoric occupation to the gold-mining era to add another perspective to prehistoric and historical knowledge of its past, and for record purposes.

SITE SURVEY

Previous Surveys A.G. Buist visited and recorded pa Sites T10/194, 195 and 196 in 1964. D.R. Simmons did a sketch plan of T10/195 in 1972. S. Easdale and C. Jacomb surveyed Thames-Coromandel District Council Reserves along the Kuaotunu Beach in 1982 and recorded shell midden Sites T10/646, 647, 648 and 649. New Zealand Forest Service archaeologists, I. Lawlor and L. Furey, inspected a proposed land purchase on the west side of the valley in 1985. Their inspection was a reconnaissance only and sites found were not registered. (National Archives, Auckland, BADY A584).

Method Some historical sources were referred to before fieldwork, to provide a better understanding of historical and industrial sites that were expected to be found. Such sources can also, in certain instances, give information on Maori settlement.

The survey in November 1990 was done by one person who covered land in private ownership in the Kuaotunu Valley. The method of survey was, in general, to walk along the tops of ridges, spurs and subsidiary spurs looking for archaeological surface features. An intensive coverage was achieved during fieldwork as the area was mainly farmland and pasture. Dense thistle occurred on only several spur tops which prevented close examination. Farm roads were also walked along to check banks for possible features in their cross-sections. Kuaotunu Beach was included in the survey, but coastal plants behind the beach usually matted the ground.

Result Seventy-five prehistoric, historical and industrial archaeological sites were recorded over a ten day period. While it was the original intention of the survey to cover all the valley in this period, only part was surveyed. The area covered is shown on a map between pages 6 and 7. Two and a half days were lost through bad weather. However, the high density of sites found in the survey area slowed progress.

The Kuaotunu Beach from the Kuaotunu Domain to Mynderman's Road was walked along. The lower part of the valley's west side was then covered. This area went from Mynderman's Road, south to a pine plantation on G. Simpson's property, and across to SH 25 near Kuaotunu village. Sites recorded on the west side were predominately prehistoric. One gully at the end of Irishtown Road was examined on the east side as far as the Otama-Kuaotunu dividing ridge (also known as the Waitaia Ridge). A very high proportion of gold-mining prospecting sites were recorded in this area.



A view of thistle growing along a spur at GR 5390 9325



Obsidian flakes which Mr and Mrs Brown have come across on their property, on which pa Site T10/196 is situated.

An obsidian flake was found on the surface. It was located where a bulldozer had block-cut an access road. Four stone adzes were uncovered during bulldozing at the time. The south bank in the block-cutting's cross-section shows a square-shaped black stain. These adzes were photographed and attached to Site Record Form Findspot T10/800. Another stone adze, found in the same locality, has also been photographed and included in T10/798.

The condition of the sites was on the whole considered to be good. Where modification has occurred, such as from land slips, damage remained localised. The appearance of sites in the ground ranged from the well-defined to the ill-defined.

Tangata whenua On approaching tangata whenua of Kuaotunu, Ngati-Hei, to discuss aspects of the survey, such as special protection for significant sites, tangata whenua advised that they had lodged a claim with the Waitangi Tribunal. The claim centres around ceded land at Kuaotunu.

The Kuaotunu community and archaeology The Kuaotunu Anti-Mining Action Group (KAMAG) is developing from a role of protesting into one involved with planning. This development, with endorsement from the local Ratepayers' Association and input from the Royal Forest and Bird Protection Society, has recently stimulated specialist studies to be prepared in the areas of sociology, and coastal, water and environment management at Kuaotunu. Archaeology is being included as part of the environment management project. H. Brown is undertaking the archaeological study. At this preliminary stage, he is researching Kuaotunu's

prehistory and history by going to published sources, maps and plans held by different archival repositories to reconstruct its past (E. Penny and H. Brown, pers. comm.).

THE KUAOTUNU ARCHAEOLOGICAL LANDSCAPE

Gazeteer of Sites The frequency of the sites recorded at
Kuaotunu is:

<u>Site Types</u>	<u>Number</u>
Adit Portal	5
Adit Portal/Prospecting Trench	1
Adit Portal/Prospecting Trench/Prospecting Pit	1
Botanical Evidence	9
Burial	1
Findspot	1
"Made" soil	1
Pa	2
Pit	5
Pit/Terrace	9
Pit/Terrace/Midden	1
Pit/Terrace/Platform/Midden	2
Pit/Terrace/Trench	1
Platform/Pit	1
Platform/Terrace/Midden	1
Prospecting Trench	5
Prospecting Trench/Prospecting Pit	2
Road	1
Stonework	2
Terrace	18
Terrace/Midden	5
Town	1

 75 sites

Kuaotunu: Area covered during the site survey in 1990 indicated by green shading.

Distribution of Sites recorded at Kuaotunu during 1990 survey.

Red/Shading = Historical/Industrial Archaeological Sites
Blue/Shading = Prehistoric Sites

Key to Site Types Abbreviations:

ap	= adit portal
ap/pt	= adit portal/prospecting trench
ap/pt/pp	= adit portal/prospecting trench/prospecting pit
b	= burial
be	= botanical evidence
fs	= findspot
"m"	= "made" soil
pa	= pa
p	= pit
p/t	= pit/terrace
p/t/m	= pit/terrace/midden
p/t/p/m/	= pit/terrace/platform/midden
p/p	= platform/pit
p/t/m	= platform/terrace/midden
p/t/t	= pit/terrace/trench
pt/pp	= prospecting trench/prospecting pit
rd	= road
sw	= stonework
t	= terrace
t/m	= terrace/midden
town	= town



Site Distribution The distribution of sites at Kuaotunu is illustrated on a map between page 6 and 7.

Site Description Sites have been described on New Zealand Archaeological Association Site Record Forms and have been filed with the Association's Coromandel Filekeeper and the New Zealand Register of Archaeological Sites.

The survey area is divided into four parts in the following summary description of the sites recorded: Kuaotunu Beach, Kuaotunu River floodplain, the west side of the Kuaotunu Valley; and the east side of the valley.

(i) The Kuaotunu Beach is sandy and has sand dunes behind the beach. The dunes are generally matted with low-lying coastal vegetation and trees, which include pine and macrocarpa. Houses and baches have been built on the dunes (between reserves) and gardens and lawns laid. West of Stocker's Corner, the land juts out steeply and the beach becomes markedly rocky and stony to about as far as Mynderman's Road. SH 25 is directly above the beach along this section and debris from road formation and maintenance has spilt on to the beach. The bank is also densely covered with such plants as ice-plant, daisies, flax, convolvulus, etc.

A search made for Midden Sites T10/646, 647, 648 and 649 in the beach reserves was unsuccessful. None of the sites was relocated. Vegetation and shifting sand in the dunes are likely to cover (and uncover) any archaeological evidence along here.

<u>Site Number</u>	<u>Grid Ref.</u>	<u>Site Type</u>	<u>Description</u>	<u>Condition</u>
	(Edition 1 1988)			

T10/778	5415 9405	Burial	Maori Reserve. Located in sand	
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(Tangata whenua believe that the sand dunes along the beach should be treated as a wahi tapu.)

(ii) The Kuaotunu River Alluvial Floodplain lies behind the sand dunes. On SO 5929 of 1890 the alluvial floodplain is shown to be a mixture of swamp, manuka and Maori cultivations beside the Kuaotunu River. There were also whare beside the old river course (P. Johnson, pers. comm.). During goldmining, the river was made into a sludge channel (See Simpson 1964: 35, 36 and 37). The river's course was changed in 1895 and slimes and tailings were deposited along its length from overflow. Part of the flat was used also as a recreation ground at this time. Pasture was eventually established where there had been sterile ground from the slimes and tailings. The area remains predominately farmland, with a domain and pockets of housing beside SH 25 and near the Cemetery Reserve. It was wet and soft underfoot on lower ground when the survey was made, particularly in the locality where the river was redirected and where small creeks from gullies flow down to the Kuaotunu River.

<u>Site Number</u>	<u>Grid Ref.</u>	<u>Site Type</u>	<u>Description</u>	<u>Condition</u>
T10/779	5390 9380	"Made" soil recorded historically on higher ground beside river.	Gardens	High ground is covered in grass and sedge in otherwise low-lying sometimes boggy river floodplain

(iii) The West Side of the Kuaotunu River alluvial floodplain is rolling hill country within the Manaia Hill Group (Jurassic), which culminates in a dividing ridge. The ridge in the survey area divided the Kuaotunu Valley from Kuaotunu West, and it is along this high ridge that the prehistoric sites were found to be concentrated. The area is broken up by small gullies and gulches which drain into the Kuaotunu Valley, West Kuaotunu Valley or on to the Kuaotunu Beach. The soil grouping is Marua hill soil, a yellow-brown earth. Grass is now the dominate covering, with patches of indigenous bush at the heads of gullies, pine and light scrub. Several spur tops could not be checked for sites because of dense thistle. The hills end abruptly and high above the Kuaotunu Beach, while they tend to descend more gently to the river floodplains. Pa site T10/781 is in bush in 1890 in SO 5929.

<u>Site Number</u>	<u>Grid Ref.</u>	<u>Site Type</u>	<u>Description</u>	<u>Condition</u>
<u>Prehistoric</u>				
T10/780	5340 9360	Terrace	One terrace 9.4m long by 6.6m wide.	Good
T10/781	5355 9350	Pa	Small ridge pa with defensive transverse trenches, terraces, pits & shell midden. (Sketched)	Good. Farm roading. Some features are vague
T10/782	5350 9350	Terrace	Two terraces (i) terrace is 5m long by 2.8m wide. (ii) terrace is 4.8m long by 2.9m wide.	Good
T10/783	5345 9350	Terrace/ Midden	One terrace 4.1m long by 2.6m wide. Shell midden with cockle, tuatua, scallop & cook's turban eroding from hillside.	Fair. Farm roading
T10/784	5350 9345	Botanical Evidence	Dense mix of indigenous trees including karaka.	-
T10/785	5320 9350	Platform/ Terrace/ Midden	Platform app. 18.7m long by 10m wide. Terrace below 10m long by 3m wide. Broken up shell midden eroding from hillside.	Good
T10/786	5325 9335	Stonework	Three heaps of stacked stones.	Good
T10/787	5330 9335	Pit/ Terrace	Open pit app. 5m long by 3.1m wide by 0.2m deep One terrace 5.7m long by 2.6m wide.	Fair

<u>Site Number</u>	<u>Grid Ref.</u>	<u>Site Type</u>	<u>Description</u>	<u>Condition</u>
T10/788	531 9365	Botanical Evidence	A dense mix of indigenous trees, including karaka.	-
T10/789	531 9360	Pit	One open pit 2.3m long by 1.3m wide by app. 0.3m deep.	Fair
T10/790	5300 9350	Terrace	One terrace app. 12m long by 3.9m wide.	Fair
T10/791	5295 9350	Terrace	One terrace 22.7m long by 4.8m wide.	Very good (possible road)
T10/793	5290 9360	Pit/ Terrace/ Trench	Two terraces (i) 4.8m long by 3.8m wide (ii) 6.4m long by app. 3.3m wide. Two-sided trench 12.8m long by 1.2m wide by app. 0.3m deep. Open pit 3.3m long by 2.4m wide by 0.9m deep.	Good (possible prospecting trench)
T10/794	5285 9360	Terrace	One terrace app. 24m long by 15m wide.	Good
T10/795	5270 9355	Terrace	Three terraces (i) 6.8m long by 2.2m wide (ii) 51m long by 11.4m wide (iii) 6.9m long by 3m wide. Shell midden comprising cockle & tuatua eroding from a terrace bank.	Very good
T10/796	5255 9350	Botanical Evidence	A dense mix of indigenous trees including karaka.	-

<u>Site Number</u>	<u>Grid Ref.</u>	<u>Site Type</u>	<u>Description</u>	<u>Condition</u>
T10/797	5270 9350	Terrace/ Midden	Two terraces (i) app. 32.2m long by 17.6m wide. (ii) 13m long by 4.8m wide. Shell midden eroding from hillside.	Good
T10/798	5280 9330	Stonework	Aligned stones. Stone adze found in vicinity.	-
T10/799	5285 9325	Platform/ Pit	Platform app. 10m long by 7m wide. Open pit 5m by 5m by 0.4m deep.	Fair
T10/800	5275 9335	Findspot	Dark green obsidian flake.	-
T10/801	5270 9330	Terrace	One terrace app. 5m long by 3.4m wide.	Good
T10/802	5295 4340	Botanical Evidence	A dense mix of of indigenous trees, including karaka.	-
T10/803	5295 9325	Pit/ Terrace	Open pit app. 3m long by 2m wide by 0.3m deep. One terrace app. 5m long by 3.8m wide.	Good
T10/804	5280 9315	Pit/ Terrace/ Platform/ Midden	Small complex of platform, terraces & pits. Midden eroding from hillside. (Sketched)	Good. Farm roading & fenceline
T10/805	5260 9305	Pit/ Terrace/ Midden	Two terraces (i) app. 9.8m long by 4m wide (ii) app. 7.5m long by 3.2m wide. An open pit app. 2.9m long by 2.4m wide.	Good

<u>Site Number</u>	<u>Grid Ref.</u>	<u>Site Type</u>	<u>Description</u>	<u>Condition</u>
			Shell midden comprising cockle, scallop, tuatua & whelk eroding from hillside.	
T10/806	5280 9210	Terrace	One terrace app. 9m long by 5m wide.	Good
T10/807	5275 9295	Terrace	Three terraces (i) 6.6m long by 2.2m wide (ii) 5m long by 2.5m wide (iii) app. 7.9m long by 2.4m wide.	Good
T10/808	5280 9270	Pit/ Terrace	Two terraces (i) 8.3m long by 6.8m wide (ii) 5.7m long by 3.3m wide. An open pit 2.5m long by 2.4m wide by 0.4m deep.	Very good. Fenceline
T10/809	5270 9280	Terrace/ Midden	Two terraces (i) app. 12m long by 4.8m wide (ii) 6.7m long by 4.8m wide. Shell midden eroding from steep hillside.	Good
T10/810	5265 9280	Terrace	One terrace app. 6.6m long by 2.4m wide.	Good
T10/811	5290 9300	Terrace/ Midden	Seven Terraces (i) 6m long by 2.6m wide (ii) 4.3m long by 2.5m wide (iii) 5m long by 2.1m wide (iv) 10m long by 3m wide (v) 4.3m long by 2.7m wide (vi) 4.8m long by 2.4m wide	Good

<u>Site Number</u>	<u>Grid Ref.</u>	<u>Site Type</u>	<u>Description</u>	<u>Condition</u>
			(vii) 7m long by 3.9m wide. Shell midden eroding from hillside.	
T10/812	5300 9300	Botanical Evidence	A dense mix of indigenous trees, including karaka.	-
T10/813	5300 931	Terrace	One terrace 12m long by 2.5m wide.	Good
T10/814	531 931	Terrace	One terrace 4.3m long by 2.7m wide.	Good
T10/815	5295 9290	Terrace	One terrace app. 7.5m long by 5m wide.	Very good
T10/816	531 9285	Pit/ Terrace/ Platform/ Midden	A platform app. 13.5m long by 8.5m wide. Platform bordered by three terraces app. 2m wide. Lower terrace 7m long by 6.7m wide. One open pit app. 0.2m deep.	Good. Farm roading
T10/817	531 9280	Terrace	Possible terrace 4.6m long by 3.5m wide.	Good.
T10/818	5290 9280	Terrace	Two terraces (i) 4.4m long by 2.9m wide (ii) 5m long by 3.7m wide.	Very Good
T10/819	5290 9270	Terrace	One terrace 3.7m long by 3m wide.	Very good
T10/820	5285 9265	Pit/ Terrace	One terrace 8m long by 2.9m wide. Two shallow open pits (i) 1.7m long by 1.7m wide (ii) 1.5m long by 1.3m wide.	Good

<u>Site Number</u>	<u>Grid Ref.</u>	<u>Site Type</u>	<u>Description</u>	<u>Condition</u>
T10/821	5295 9275	Botanical Evidence	A dense mix of indigenous trees including karaka.	-
T10/822	5300 9265	Pit/ Terrace	One terrace 5m long by 3m wide. Two open pits (i) 3.2m long by 1.5m wide by 0.3m deep (ii) 3.4m long by 1.9m wide by 0.2m deep.	Very good
T10/823	5210 9265	Pit/ Terrace	One terrace 4.2m long by 3.8m wide. One open pit 5.3m long by 2.1m wide 0.5m deep.	Good
T10/824	5320 9275	Botanical Evidence	A dense mix of indigenous trees including karaka	-
T10/825	5330 9280	Pit	Two open pits (i) 3.5m long by 2.2m wide by 0.5m deep (ii) 3.3m long by 1.7m wide by 0.3m deep.	Very good
T10/826	5325 9265	Pit	One open pit 4.2m long by 4.2m wide by 1m deep.	Excellent
T10/827	5330 9290	Pa	A small hill <u>pa</u> with a platform, terraces, pits & defensive transverse trenches. (sketched)	Very good. Farm roading & fenceline
T10/828	5320 9295	Botanical Evidence	Light mix of indigenous trees including karaka.	-
T10/829	5325 9300	Terrace	One terrace 4.5m long by 2.7m wide.	Good

<u>Site Number</u>	<u>Grid Ref.</u>	<u>Site Type</u>	<u>Description</u>	<u>Condition</u>
T10/830	5340 931	Pit/ Terrace	One terrace 9.7m long by 3.2m wide Five open pits (i) 5m long by 2.1m wide by 0.2m deep (ii) 3.3m long by 1.6m wide by 0.5m deep (iii) 4.4m long by 3m wide by 0.5m deep (iv) 5.5m long by 3m wide by 1m deep (v) 3m long by 2.1m wide by 0.5m deep.	Very good. Fenceline
T10/831	5355 9315	Pit	One open pit 5.3m long by 2.7m wide by 0.7m deep.	Very good
T10/832	5375 9305	Pit	One open pit 3.5m long by 1.8m wide by 0.5m deep.	Very good
HISTORICAL/INDUSTRIAL				
T10/792	5295 9355	Adit Portal	One adit portal 1.7m high by 0.8m wide.	Good. Some collapsing
T10/833	5390 9305	Adit Portal	One adit portal 0.8m high by 1m wide.	Good. Some Collapsing

(iv) The East Side of the Kuaotunu River alluvial floodplain is steep hill country. It also comes under the Manaia Hill Group. This side's ascent culminates in the broad Kuaotunu-Otama dividing ridge. Recording was restricted to the Irishown Road

gully which lies between the Tahunatorea Stream gully (which has regenerating bush) and a spur on which pa Site T10/194 is positioned. The area covered is in grass. Its soil belongs to the Rangiora hill soils, a yellow-brown earth. Grass is the predominate vegetation, while the deep, narrow and steep gully floors are usually under a tree canopy, such as manuka. This small area, with its high density of industrial archaeological sites, presented an intact example of an early gold-mining prospecting landscape.

<u>Site Number</u>	<u>Grid Ref.</u>	<u>Site Type</u>	<u>Description</u>	<u>Condition</u>
PREHISTORIC T10/837	5465 941	Pit/ Terrace	Seven terraces & one open pit. (sketched)	Good
T10/839	5475 941	Terrace	Two terraces (i) 4.7m long by 3.4m wide (ii) 7m long by 3.5m wide.	Very good
T10/845	551 9415	Botanical Evidence	Light mix of indigenous trees including karaka	-
T10/846	5475 9395	Terrace	Four terraces (i) 7.2m long by 6m wide (ii) 6.6m long by 6m wide (iii) 8.2m long by 5.7m wide (iv) probable terrace covered by coastal cutty grass.	Good

<u>Site Number</u>	<u>Grid Ref.</u>	<u>Site Type</u>	<u>Description</u>	<u>Condition</u>
T10/850	5500 9395	Pit/ Terrace	One terrace 9.2m long by 8.8m wide. Three shallow open pits (i) 2.5m long by 1.9m wide (ii) 2.4m long by 1.9m wide by 0.3m deep (iii) 2.1m long by 1.9m wide.	Good
HISTORICAL/INDUSTRIAL				
T10/834	5430 9310	Town	Lower township of towns which serviced the gold- mining industry in the Kuaotunu Valley.	-
T10/835	5465 9390	Road	A side-cutting app. 2.6m wide connects end of Irishtown Road with mine workings on Kuaotunu - Otama Ridge.	Good
T10/836	5455 941	Adit Portal	One adit portal 1m wide by 0.9m high. Fronted by mullock dump.	Very good. Some collapsing
T10/838	5470 941	Adit Portal/ Prospect- ing Trench/ Prospect- ing Pit	One collapsed adit portal, fronted by mullock dump. One pit 2.5m long by 2.3m wide by 1.7m	Fair. Possible distur- bance from road formation

<u>Site Number</u>	<u>Grid Ref.</u>	<u>Site Type</u>	<u>Description</u>	<u>Condition</u>
			deep. T-shaped trench (i) 3.9m long by 2m wide by 1.5m deep (ii) 5.6m long by 1.6m wide by app. 1m deep.	
T10/840	5485 9415	Adit Portal/ Prospect- ing Trench	One adit portal app. 1.7m high by 1.6m wide. Fronted by mullock dump. A terrace by portal 3.9m long by 2.3m wide. Two trenches (i) 2.9m long by 1.4m wide (ii) 10m by 1.3m wide by 0.2m deep.	Good. Some collapsing
T10/841	5490 9420	Prospect- ing Trench/ Prospect- ing Pit	Two trenches (i) 7.3m long by 2.2m wide by app. 0.9m deep (ii) 6.8m long by 1.8m wide by 0.9m deep. One pit 2.7m long by 2.3m wide by 0.7m deep.	Good
T10/842	5480 941	Adit Portal	One adit portal is 1.8m high by 1.4m wide. Fronted by terrace 6.7m long by 2.9m wide.	Excellent. Some collapsing
T10/843	5485 941	Adit Portal	One adit portal 0.9m high by 0.9m wide.	Good. Some collapsing
T10/844	5490 941	Prospect- ing Trench	One trench is app. 18.7m long by 1.2m wide.	Good
T10/847	5480 9400	Prospect- ing Trench/ Prospect- ing Pit	Five trenches in area (i) 7.7m long by 2m wide by 1m deep. This opens onto a terrace floor	Good

<u>Site Number</u>	<u>Grid Ref.</u>	<u>Site Type</u>	<u>Description</u>	<u>Condition</u>
			6.6m long by 5m wide. (ii) 1.9m long (iii) 1.7m long by 1.3m wide (iv) possible trench 2.3m long by 1.8m wide. (v) 17.4m long by 1.3m wide. Two pits (i) 2.8m long by 1.6m wide (ii) 1.9m long by 1.6m wide by 0.3m deep.	
T10/848	5490 9400	Prospect- ing Trench	Five trenches in an area (i) 3.7m long by 1.7m wide (ii) 5.4m long by 1.7m wide (Two possible trenches near the second trench) (iii) 4.3m long by 0.8m wide (iv) 2m long by 1.4m wide (v) 4m long by 0.8m wide.	Very good
T10/849	5495 9405	Prospect- ing Trench	One trench app. 5.1m long by app. 1.2m wide. Portal in hillside is 0.8m high by 0.7m wide.	Good
T10/851	5505 9395	Prospect- ing Trench	One trench is app. 6.8m long by app. 0.7m wide by app. 0.6m deep. Terrace below is 4.3m long by 2.3m wide.	Good
T10/852	5505 9400	Prospect- ing Trench	One trench is 7.9m long by 1.3m wide by app. 0.5m deep.	Fair. Some collapsing steep

DISCUSSION

(i) Prehistoric Sites A feature of site distribution on the west side of the Kuaotunu Valley is the concentration of terraces, shell midden, platforms, pits, stonework (possible aligned stones and heaps of stones) and artefacts along and in the immediate vicinity of a high dividing ridge between two valleys. Pa have immediacy in this arrangement, relatively complex units which had capacity for food storage, living and defence. The sites overlook gullies which drain either directly on to the coast or into the river valleys. There is a relative absence of sites further down the gullies, apart from occasional pits and terraces on spur tops. A small cluster of terraces and shell midden are positioned above the resource-abundant Kuaotunu River floodplain, again in close proximity to a pa.

Site distribution at Kuaotunu is related to protection, where sites are not far from pa, and land use. Stands of indigenous trees at the heads of gullies were recorded during the survey as they, on the basis of plant continuity, are a reminder of how the environment may have been reshaped to be efficiently utilised once the indigenous forest had been removed. In Halawa Valley on Molokai Island in Hawaii, for example, Kirch (1975:12) found human-induced changes evident in the vegetation cover, where flora and vegetative patterns represented present conditions and reflected more than 1000 years of human interference. He subdivided Halawa Valley into six microenvironmental zones based on resource potential (1975:16): Neritic (for fish); littoral (shellfish); alluvial floodplain (fish, grasses, reeds and wet-taro horticulture); taluvial slopes

(dry horticulture); cliff (possibly for stone); and upland forest (wood, fibre, bark, wild vegetables and birds). Such a Polynesian high island model may be applied at Kuaotunu where the same pattern is evident.

The following scenario is developed from surface evidence, where sites on the west side ridge overlook the coast and landscape (or "gardenscape"), and its spurs and gullies branch down to the rivers' floodplains. At the head of these gullies was the upland forest, with trees selected for their resource usefulness, such as karaka, tawa, nikau and tree ferns. With its large number of pits, pa Site T10/827 appears to have been a defended "store-house" in an area of abundance. Further down the gullies, raupo still grows in gully floodplains. Occasional pits and terraces on lower spur tops suggest produce and processing floors, near less steep and broader spur toes given over to bracken fern. Shifting horticulture was carried out near creeks in sheltered gullies and gulches in this lower area, and is evidenced by possible stonework. Beyond the gullies' mouths, there are the river alluvial floodplains. The Kuaotunu River floodplain is shown to be a swamp and place of cultivation in 1890. Beyond the floodplain lie the littoral and neritic zones, which midden demonstrate to have been exploited.

(ii) Historical/Industrial archaeological sites As stated previously, the east side (in the one gully surveyed) presents an intact early gold-mining prospecting landscape, with adit portals, trenches, pits, road and a town. By referring to historical sources, explanations for the concentration of these

prospecting site types here can be found. A perusal of P.E. Cheal's survey plan of the Kuaotunu Goldfield in 1895 suggests that lower prospecting was directed in locating the Try Fluke lode, which is shown to extend along the Kuaotunu Valley. As another source, Fraser (1907:136) backgrounds prospecting in this area:

"One of the most conspicuous features on the crest and flanks of the Waitaia Ridge are the white terraces and 'shoadings' of siliceous sinter, the products of hot springs that formerly existed along its whole length. The most characteristic terrace formation occurs on the crest of the ridge at a point 50 chains southeast of Black Jack Hill, the accumulation being disposed as nearly horizontal layers. The material, which is white or slaty-coloured, and often vitreous, is in places of flinty nature, or again is finely crystalline. During the period of mining activity, adits were extended from the range-slopes under certain of these sinter cappings, in the hope that they might be connected with ore-bearing fissure-veins, but no veins of any description were encountered."

There were no traces of gold or silver, and mining operations were not developed.

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