

ABORIGINAL OCCUPATION IN THE DUDLEY-JEWELLS SWAMP AREA

BY

L. K. DYALL

The Jewells Swamp is, even today, a haven for various types of waterfowl and fish, and the surrounding bushland supports a considerable amount of wildlife. To the aborigines, these represented food, and I am now reporting the archeological evidence that the Awabakal tribesmen did actually hunt around the Swamp.

The creek system draining into the Swamp extends westwards into the gravelly hills along Tingira Heights and Mount Hutton, northwards to the clay hillsides of Charlestown and Whitebridge, and eastwards onto sandy heaths. My survey included the Freshwater Creek and the Dudley-Redhead Heath, the Dudley Lagoon, and the nearby coastline. There are, then, many types of natural habitat, and it is of great interest to see what uses the aborigines made of them.

While there is some geographical unity about the area covered by the Map, we must not assume that it was occupied by a group of aborigines who hunted nowhere else. The Reverend Threlkeld, writing from his mission station at Belmont in 1828, referred to a group of 64 aborigines who hunted over the area between the Swansea Channel, Newcastle Harbour, and Cockle Creek.

It was not practicable to survey the southern arm of the Swamp, for the eastern bank has been rutile mined and the township of Belmont stands on the western side.

## THE REDHEAD DUNES SITE

The largest campsite (number 1 on the map) was in the tall sand dunes just south of the creek which drains Jewells Swamp to the ocean. This camp had long been known for the large numbers of microliths (see Figure, item 4) which could be found there.<sup>2</sup> No sign of it remains after rutile mining in 1967.

The campsite covered an area of several acres along the lower slopes of sand dunes which rose to 100 feet. Between these dunes and the ocean beach there was a string of swamp freshwater pools. This camping ground was cleverly sited to take advantage of the sea breeze and the shelter of the scrub on the dunes, while the tall dunes behind it prevented clouds of mosquitos drifting across from Jewells Swamp. From this camp, the aborigines could gather pipis along the ocean beach, catch fish and shellfish around the rocks at Redhead, hunt waterfowl in the Swamp, or forage over the heath to the north. It was not their only coastal camp: the digging of a sewer trench along the north bank of the creek, and around to the Redhead Surf Clubhouse, a

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few years ago uncovered much evidence for camping in the sandhills along the rear of the beach. This evidence was largely in the form of stone implements and waste flakes from the fashioning of these implements, but also included heavily-weathered shellfish of types found at the rocky headland.

I believe that these fairly large camps are located here precisely because they did enable the aborigines to forage for food over a wide variety of habitats. So far as I can establish by talking to people who knew the Nine Mile Beach before it was mined for rutile, there were no large aboriginal camps along it. The reason, of course, is that the open beach could not provide either the variety or quantities of shellfish and fish to be found where this beach meets the rocky headland at Redhead.

The Redhead dunes site was not ideal for intensive study when I first saw it in 1965; part of it was covered with dumps of mine chitter, and most of the shells lying about came from modern-day shellfish bakes. The stone flakework of the natives had eroded out to lie loosely on the surface and it is therefore impossible to assign any date to this camp. Nevertheless, over a thousand implements were collected to provide an idea of the range of stone tools the aborigines manufactured. Some of these tools are illustrated in the Figure, and in my previous article<sup>3</sup> on the Newcastle aborigines.

### CAMPSITES ON THE SWAMP MARGINS

There are a number of campsites on the margins of Jewells Swamp (see Map). No evidence of food-gathering activities remains, but there would certainly have been fishing and fowling, supplemented by hunting and foraging in the bush. At some locations, the *Macrozamia* is plentiful and its fruit would have been a staple carbohydrate. This fruit is poisonous<sup>4,5</sup> but was rendered safe to eat by some process which may have been roasting.<sup>5</sup>

While most of these sites were very minor ones, those labelled 2 and 3 on the Map had a thin scatter of flaked stone covering an acre or more, and show quite clearly that the Swamp did provide adequate food for small groups of the aborigines.

There is very little evidence of native camps on the hill-sides to the west of the Swamp, but the task of spotting their stone flakes on these scrub-covered and often gravelly slopes is difficult. Possibly the apparent absence of camps is real, for surely no aborigine in his right mind would sleep on lumps of gravel when within a mile's walk of the comfortable sandhills which border the Swamp in most other places.

Aboriginal Occupation in the Dudley-Jewells Swamp Area (cont.)

## CREEK AND HILLSIDE CAMPS

In September 1971, extensive bushfires cleared the dense scrub from the northern and eastern areas of the region covered by the Map, and the opportunity was taken to survey for native camps.

In sandy areas, these camps have been covered by as much as a foot of windblown sand since the aborigines last lived here. Aboriginal material would never be seen were it not for the hundreds of sandpits which have been dug, and I have also kept a lookout when the topsoil was stripped for rutile mining along the eastern side of Jewells Swamp. Clay hillsides are much more difficult to survey for signs of aboriginal camping, and would be well-nigh impossible were it not for the scores of vehicular tracks which act as "sills" to trap flakes of stone washing down the slopes. There are so many topsoil disturbances that a major campsite (which might cover half an acre and involve thousands of stone flakes) would probably not remain undetected in my survey, unless perchance it lay under a township. Without doubt, many of the small camps were missed, but enough have been located (see Map) to give a general picture. The distribution shows that the aborigines roamed over the entire creek system.

The evidence for these camps is usually a few man-made flakes of chert (which is foreign to these creeks), and perhaps a few flaking cores (Figure, item 2) and stone implements. Such slight evidence of camping suggests a one-night stop by a small family group, or that some time was spent there at making bark canoes or wooden implements from suitable trees. Cockle shells are present at some camps, which indicates that the hunting or work parties sometimes started off from some tidal mudflat, probably on Lake Macquarie.

The creeks generally flow across clay, gravels, or coarse conglomerates, but in some places they have beds of fine-grained sandstone quite suitable for grinding edges on stone axes. A number of such axe-grinding grooves were found alongside permanent water (see Map), but never in groups larger than three. Axe-grinding grooves usually occur in much larger groups, so their scarcity in these creekbeds is consistent with a pattern of transitory camping by quite small groups of aborigines.

I know of only two examples of edge-ground stone implements from this area. One, in the collection of Mr Harry Morton ("Harry's Museum" at Warners Bay), is a fine stone axe from Dudley. The other (Figure, item 5) appears to be either a skinning knife or a large chisel blade.

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### COASTAL HEATH CAMPS

The Freshwater Creek is a permanent stream with sandy banks on which *Macrozamia* plants grow in dense stands. The presence of aboriginal camps is therefore expected, though naturally they occur at some distance from the main camps at Redhead Beach. The largest of the coastal heath camps, just south of the Dudley Old Folks' Home, is one convenient to the marshes to the south, the lagoon to the west, and the rocky ocean shore at the bottom of the cliff. Modern day rock fishermen use only three pathways down the seacliff which extends from Redhead to Dudley, and there is evidence (sites 4, 5 and 6 on Map) that the natives used all three in order to collect shellfish from the rocks.

The Dudley Lagoon, like Jewells Swamp, harbours many waterfowl, and there are signs of a moderate amount of native camping on a sandy ridge at its southern edge.

In view of the dense and often prickly scrub which covers the sandy slopes from the sea cliff westwards to the margins of Jewells Swamp, one marvels that naked hunters were ever able to move through this area. The answer of course is fire; early navigators from Captain Cook onwards noted large fires along our coasts. Some large fires were deliberate, such as those lit on the coastal heaths around Brisbane Water in winter<sup>6,7</sup>, while others might have started through smoking possums from trees<sup>8</sup> or game from the scrub<sup>9</sup>. After each fire, it would be possible to hunt across these heaths for a month or so, and no doubt tracks were developed and kept passable.

### DETAILS OF THE ABORIGINAL WAY OF LIFE

#### (a) Sources of stone for implements

Obtaining suitable stone for fashioning implements forms one cornerstone of an aboriginal economy. The predominant stone used throughout the Redhead area was chert, with minor amounts of tuffs, quartzites, and quartz. Examination of the waste flakes, and "cores" left after these flakes have been struck off, shows that the lumps of raw stone were waterworn. There are no such boulders in the creek systems, so presumably the stone was obtained from the seashore. The most likely sources of chert and tuff are Little Redhead and Murdering Gully, where large aboriginal stone workshops exist.<sup>3</sup> The only closer source I can find is at the foot of the cliff at Dudley, where chert makes up a small proportion of the boulders. The location (site 7 on Map) is quite unsuitable for camping, and the only evidence for use of this chert consists of just one flaking core (Figure, item 2).

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Quartzites are more readily available, there being a pebble beach below the Redhead water tower, and there are suitable coarse gravels west of the Pacific Highway, but quartzites are not as satisfactory as chert for fashioning stone implements.

The Table reveals a fair amount of variation in the degree of usage of tuffs and quartzites; probably because the numbers of stone flakes are often too small for reliable statistical treatment. Also, for some unknown reason, an unusually high proportion of Bondi points and geometrics were made at the Redhead dunes camp, and resulted in many thousands of tiny waste flakes of chert which have biased the statistics on rock usage at this site. The count of the flaking cores left there (see Table) may give a better idea of the preference to use the various kinds of rock available to the aborigines.

(b) Evidence on foodstuffs

Usually, aboriginal campsites at the coast are marked by heaps of bleached shells, whose lime preserves numbers of broken bones of fish, fowl, and mammals which can tell a story about the aboriginal diet. Unfortunately, the campsites around Redhead were too transitory to lead to such an accumulation of shell, and there are no preserved bones.

There are modest numbers of turban and whelk shells along the sandhills near the Redhead Surf Club pavilion, and likewise at sites 4, 5 and 6 along the clifftops, which indicates that the natives combed the rock platforms for these shellfish. There was a substantial amount of pipi shell scattered over the main campsite in the dunes. Cockle shells also occur at most of the sites shown on the Map, but not in large numbers. The cockle thrives on saltwater mudflats, as also do the oysters whose shells were found at a Dudley camp. While it is not impossible that Jewells Creek had a muddy estuary at some time in the past, these cockles and oysters were probably carried across from Lake Macquarie. The distance from Dudley to Croudace Bay on Lake Macquarie is somewhat over five miles.

These cockles were possible carried across to Jewells Swamp and the seacoast to use as fish lures. Judge Advocate David Collins has recorded how the Sydney natives spat chewed cockle into the water, both to attract fish to lines and to lure them out from under rocks to within reach of the fish spear.<sup>13</sup>

Aboriginal Occupation in the Dudley-Jewells Swamp Area (cont.)(c) Ceremonial sites

In 1971 Mr V. Wardell showed me a most interesting fist-sized lump of white quartz which he had uncovered in the topsoil while clearing scrub from his property in Tirriki Road, Charlestown. One side of this lump had been broken away to reveal a mass of lustrous crystals, some of them an inch long and an eighth of an inch across. Such a "geode" is found only in vesicular lavas, the nearest examples of which would be 30 miles away at Morna Point or Kulnura. It is highly likely that this geode is a "magic stone" brought to Charlestown by the aborigines. It is recorded by W.J. Enright<sup>10</sup> that the young men of the Worimi tribe around Port Stephens carried a piece of crystal in a small bag after being initiated at the Keepara ceremony, and several authorities<sup>11,12</sup> consider the Awabakal natives of Lake Macquarie and those of Port Stephens to belong to the same tribe.

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Full details of the aboriginal campsites described in this article, and the stone implements collected at them, have been lodged with the Australian Museum, Sydney.

REFERENCES:

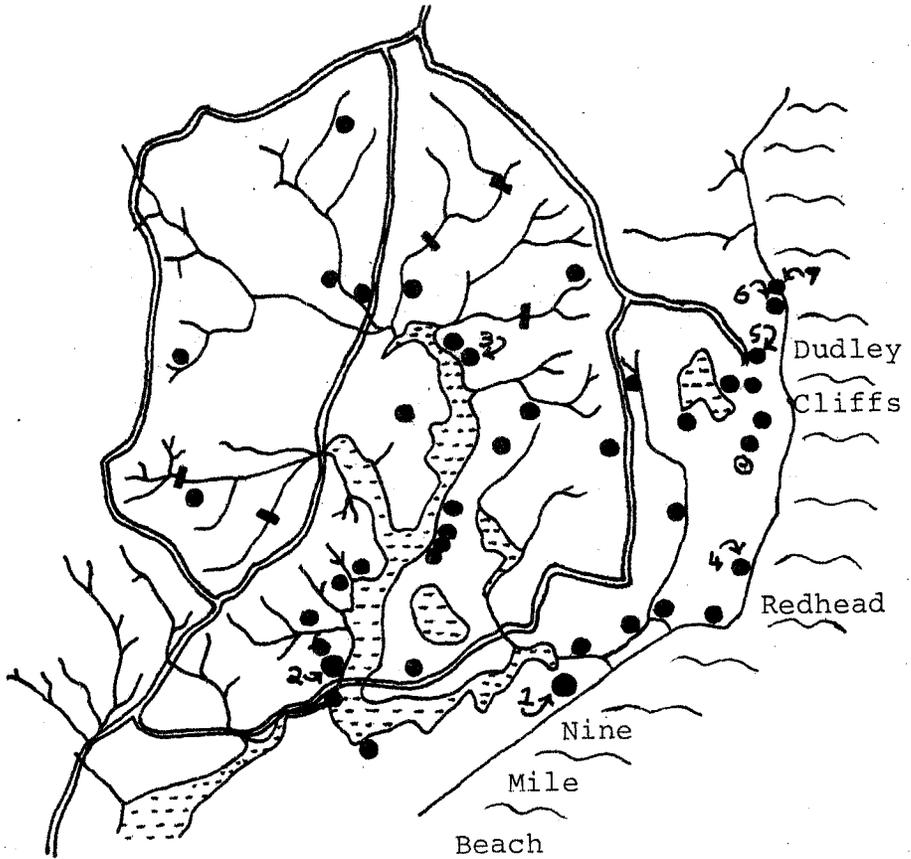
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13. Reference 9, p.286.

TABLE  
Aboriginal Use of Various Rock Types

	Chert	Tuffs	Quartzites	Quartz	Other	TOTAL
			Redhead Dunes			
No. of implements	1027	34	37	0	25*	1123
% composition	92	3	3	0	2	
No. of waste flakes	13457	507	428	57	253	14702
% composition	92	3	3	<1	<2	
No. of flaking cores	66	13	2	0	0	81
			Other Redhead Beach Sites			
No. of implements	68	34	2	1	5*	109
% composition	62	31	2	0	5	
No. of waste flakes	1049	234	73	44	19	1419
% composition	74	17	5	3	1	
No. of flaking cores	5	0	1	0	0	6
			Jewells Swamp Sites			
No. of implements	103	7	11	0	1	122
% composition	84	6	9	0	1	
No. of waste flakes	1351	69	111	37	0	1568
% composition	87	4	7	2	0	
No. of flaking cores	32	4	1	0	0	37
			Freshwater Creek-Dudley Heath Sites			
No. of implements	22	3	8	0	0	33
% composition	67	9	24	0	0	
No. of waste flakes	324	31	68	8	1	432
% composition	75	7	6	2	0	
No. of flaking cores	14	1	2	0	0	17

\* The majority of these were made of glass. It was not practicable to include glass in the waste flake counts. (The glass came from bottles and other items of glass brought into the area by early white settlers.)

August, 1972



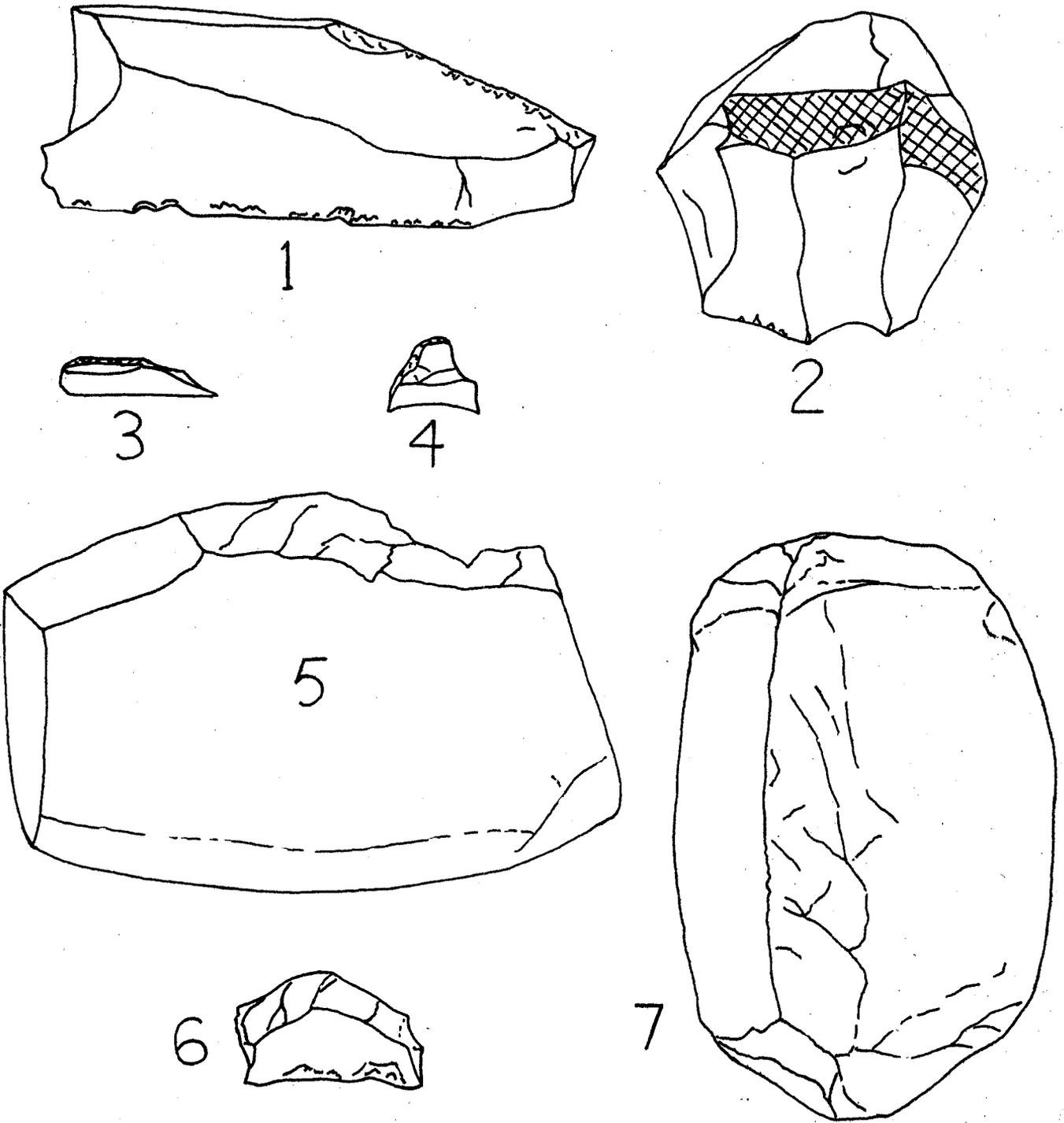
LEGEND TO MAP

- Aboriginal campsite. The numbered sites are referred to in the text.
- ▮ Axe-sharpening groove in creek bed.
- ▬ Major road
- - - Swamp

Scale: 1 mile to the inch

## LEGEND TO FIGURE

1. Chert slice (17cm long but shown at half size) from Jewells Crossing. Note the extensive signs of rough use.
2. Chert core (shown at half size) from the north end of the pebble beach below Dudley. The hatching shows the original surface of a water-worn boulder.
3. Bondi point (2.7 cm long) of chert, from Jewells Crossing. The back of this knife-like implement has been carefully blunted.
4. Geometrical microlith (1.5 cm long) of chert, from Dudley Lagoon. The back has been blunted by delicate chipping.
5. Edge-ground implement of tuff, shown at natural size, from the Redhead dunes site.
6. Chert "elouera" scraper (3.2 cm long) from Jewells Crossing, with much evidence of retouch along its straight cutting edge. Most scrapers are not nearly so elaborate.
7. Quartzite cleaver, shown at natural size, from near Whitebridge. The back (left-hand side) is plain, while the right-hand edge has been sharpened by extensive flaking on the reverse side.



FIGURE