of waterfowl spend the late winter and the spring on Lake Claremont and that some continue to breed there, at least when the season is wet. These include the Pink-eared Duck (both years). The nesting of this species on Lake Claremont has been recorded previously (Rook, 1963).

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AN ABANDONED ABORIGINAL CAMP SITE, NEAR PARABURDOO, WESTERN AUSTRALIA

By G. B. WHITFIELD*

ABSTRACT

Stone artefacts at an abandoned aboriginal camp have recently been discovered 17 km south of Paraburdoo. The camp site is in flat terrain and encircles a 6 m high chert-breccia outcrop, the summit of which overlooks the surrounding country for several kilometres. A cave exists in the rock outcrop. Artefacts found include spear points, grind-stones, a hand axe, various types of scrapers, cutting-flakes and microliths.

INTRODUCTION

The author was attracted to the vicinity of the camp site by black and white agate in a dry creek bed 17 km south of Paraburdoo.

Paraburdoo is a fairly new 'iron ore' town, situated 980 km north northeast of Perth, and there is a void in the literature about the history and culture of the early aboriginal people of this area (*i.e.* the southern portion of the Hamersley Range Province).

From the agate-bearing creek bed, the only significant topographical feature, in an otherwise flat terrain, is a 6 m high, 23 m long and 12 m wide outcrop of white chert-breccia 120 m to the west. On approaching this outcrop angular black and grey chert fragments begin to appear in the scree which is mainly white chert-breccia. Many of the black and grey chert fragments, on closer inspection, show deliberate flaking and trimming along one or more margins. At the rock outcrop black and grey chert fragments are abundant and beneath this outcrop there is a cave 4.2 m long, 2.5 m wide and 1.1 m high. The floor of the cave is covered by a deposit of fine sand about 15 cm thick, and the ceiling is smoke-stained.

GEOLOGY

The area of the camp site consists of Recent colluvium and Lower Proterozoic sediments of the Wyloo Group. The rock types present are banded quartzite and chert (these yielded the black and white agate), dolomitic limestone, chert breccia and calcrete. No outcrops of dolerite or black and grey chert were found. This indicates that the materials

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forming most of the relicts were collected elsewhere and transported to the site.

CAMP SITE

The camp site is in a flat area strewn with cobbles and pebbles of rounded and angular white chert breccia, has no trees and surrounds a 6 m high chert breccia outcrop. The cave beneath this rock outcrop provides the only shade in the area. Water was probably obtained from a creek bed (now dry) 600 m to the west, where tall trees and thick scrub still exist. A map of the camp site is given in Figure 1 and a section through the rock outcrop is presented in Figure 2. No engravings were observed on the rock outcrop.

The boundary of the camp site is vague due to the random and wide scattering of the stone artefacts which may indicate that the site is fairly old. At the site, along with the stone relics, were found a tektite and a devil's dice (composed of limonite pseudomorphing pyrite). Mitchell (1949) suggests that the aboriginal people may have believed that tektites were magic stones possessing magic properties.

ARTEFACTS

Implements found on the camp site are all of stone and consist of chert, quartz or dolerite (Figure 3). The following were recognised; six

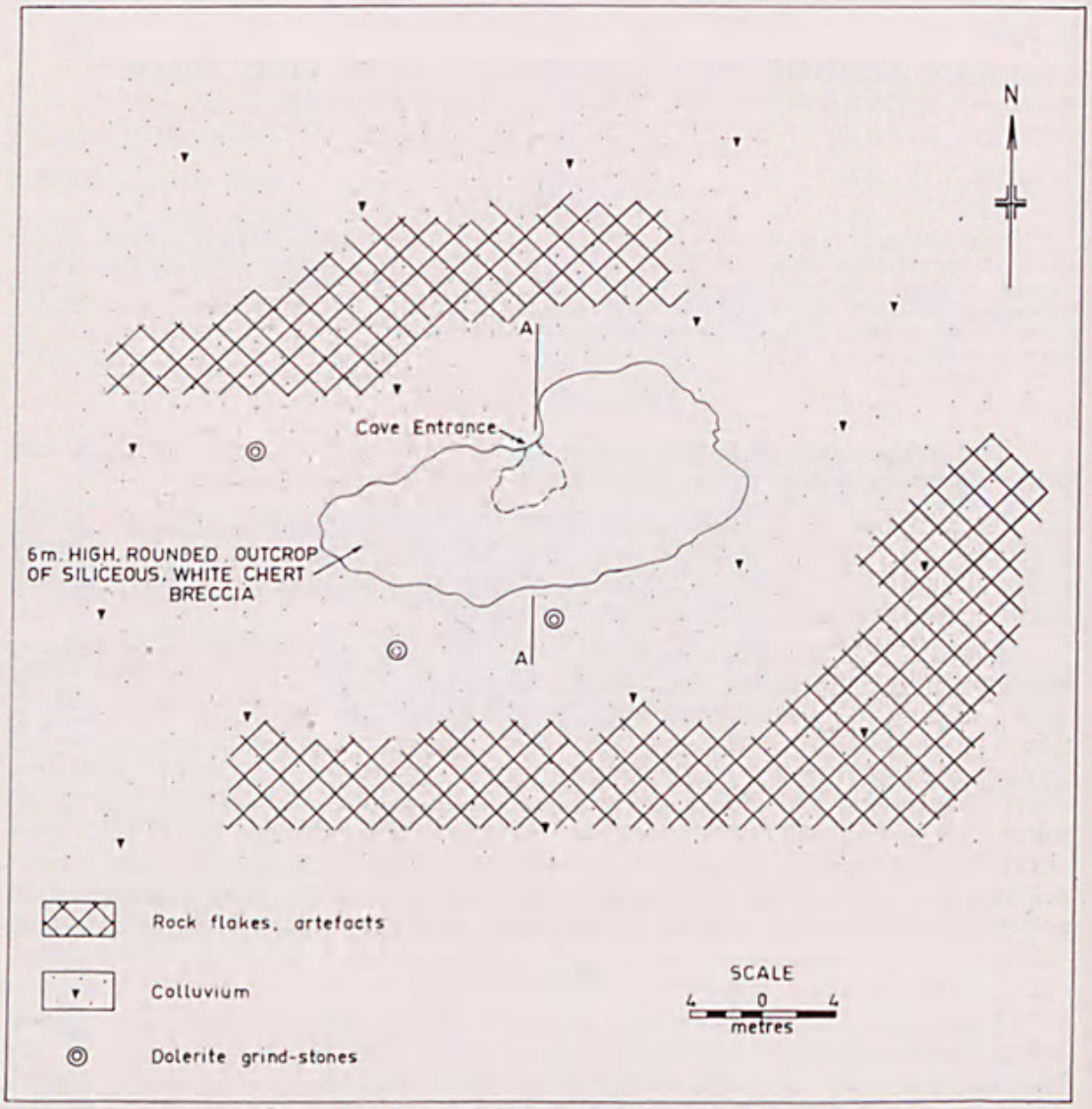

Fig. 1.—Map of camp site, near Paraburdoo, Western Australia. Rock flakes often partly trimmed. Colluvium incorporates prolific white chert breccia scree.

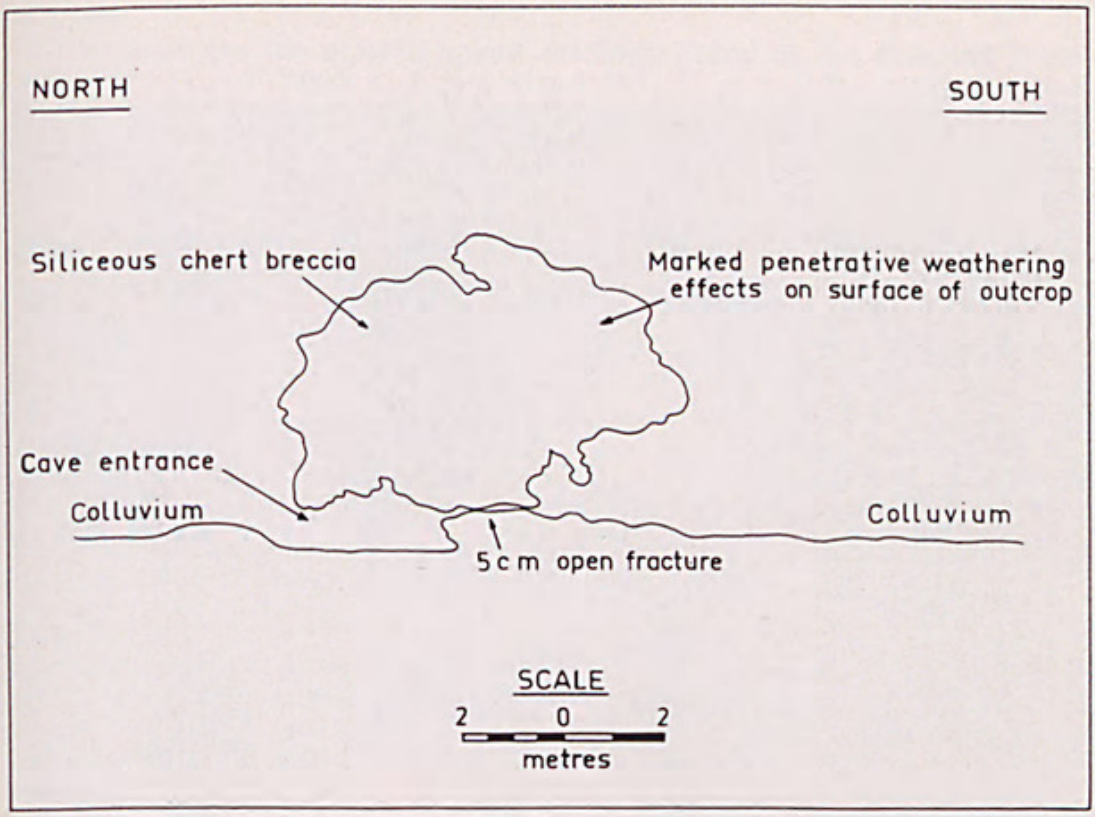

Fig. 2.—Section of 6 m high chert breccia outcrop showing position and shape of cave. Section along AA, looking east.

spear points, three grind-stones, two rounded stones used on the grind-stones, one hand axe, nine scrapers of various types, two cutting-flakes and four microliths.

Spear points

These are made from chert or quartz and range from 37 mm to 63 mm in length.

The black or grey chert spear points are leaf-shaped, symmetrical points, each possessing fine, regular trimming on two converging lateral margins and one or two median ridges. The trimming is on both surfaces hence the spear points are of biface type.

The quartz spear point has a broken point-tip and is of Pirri-type with delicate trimming on two lateral margins of one surface. The outer surface has a median ridge that extends from the unmodified butt end to the opposite end where the point-tip has been fractured off. The inner surface is flat.

Grind-stones

The grind-stones are slab-like and are composed of fresh dolerite. They range from 250 mm to 305 mm in length, 185 mm to 253 mm in width and 27 mm to 74 mm in thickness. Each has a very smooth, broad, shallow depression on one or two flat surfaces.

Within 3 m of one of the grind-stones were found two rounded stones of dolerite each roughly 90 mm in diameter, with one rather flat, polished area. Presumably, they were used on the grind-stones during the grinding process.

Hand axe

This implement, 106 mm long and 110 mm wide, is made of fresh dolerite. It is wedge-shaped and rounded on the proximal margin with the cutting-edge showing bifacial trimming. The two lateral margins are broad, flat planes produced by grinding and on one of these surfaces there are two finger grooves. This axe resembles one illustrated by Mulvaney (1969).

Fig. 3.—Artefacts from the Paraburdoo camp site. (a) biface-type spear point; (b) Pirri-type spear point with broken off point-tip; (c) broken biface-type spear point; (d) biface-type spear point; (e) and (f) cutting-flakes; (g) geometrical microlith; (h) micro-two-side scraper; (i) micro-semi-discoidal scraper; (j) semi-discoidal scraper; (k) nosed scraper; (l) bimarginal point scraper; (m) concave scraper; and (n) one-side scraper. Three fifths natural size.

Scrapers

Scrapers are the most frequent artefacts found at the camping place. They are made of black and grey chert and red jasper and range between 26 mm to 62 mm in length. The scrapers are of differing shapes, some being irregular, and each possesses a working-edge formed by trimming along part or the whole of the margin of a suitable flake.

Six scraper types have been recognised at this locality. Each type depends on the general shape and the number of, and shape or shapes, of the working or scraping-edges. Varieties of scrapers found include two-side and one-end, semi-discoidal, nosed, concave, bimarginal point and one-side scrapers (Figure 3).

Cutting-flakes

These implements belong to the fortuitous cutting-flake tools described by Mitchell (1949). Two cutting-flakes or 'cutters' of black chert were found, each about 20 mm by 30 mm in size. They have sharp cutting-edges with some fine trimming. The shape of each implement is irregular but, with the cutting-edge pointing down, each fits comfortably into one's right hand between thumb and index finger.

Microliths

The types of microliths found include one geometric, a triangle, and three different types of micro-scrapers. The triangle is quartz and measures 25 mm in length and 16 mm in width. Its shape is isosceles and it shows fine trimming on all three margins. This artefact is similar to one drawn in McCarthy (1967).

Types of micro-scrapers found comprise micro-semi-discoidal, micro-two-side and micro-end scrapers. The micro-semi-discoidal scraper consists of black chert, is 32 mm long and has coarse trimming on the complete periphery. Two prominent parallel median ridges are also present. The micro-two-side scraper is made of brownish red chert, is 33 mm long and is elongate. The two lateral edges show fine regular trimming. The micro-end scraper (21 mm long) is made of grey chert and is trapezoid in form with the distal end being distinctly rounded from use. The two lateral margins are thin and show fine trimming. This implement was possibly hafted as the proximal end is relatively thick with a triangular cross-section.

CONCLUSIONS

The camp site was a favoured location for a small aboriginal population and provided shelter, nearby water and game. The summit of the rock outcrop was possibly valued as a strategic point for viewing movements of neighbouring peoples.

ACKNOWLEDGEMENTS

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Mr T. Wallis took the photograph forming Figure 3 and Mr M. Groves prepared Figures 1 and 2.

Dr J. Glover read the text.

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