

ETHNOLOGICAL NOTES.

No. 1.

By

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(Plates xix-xxxi and one Map.)

INTRODUCTION.

The Australian Museum ethnological collections have been enriched of late years by the addition of a number of rare and interesting specimens of Australian and South Sea native handiwork. It was considered, therefore, that an illustrated description of some of the more striking pieces would form a slight contribution to the study of the material culture of these peoples.

Many of these acquisitions, particularly from the South Seas, were discovered during stocktaking, incidental to a change of ownership of a long established curio store in this city. The opportunity has been taken also to embody in these contributions, a description of other specimens, which seem to have a special interest, or are hitherto undescribed. "Ethnological Notes No. 1" will be devoted to Australian acquisitions, especially certain flaked stone implements which have been recently discovered in the Newcastle, Port Stephens, and Lake Macquarie districts.¹

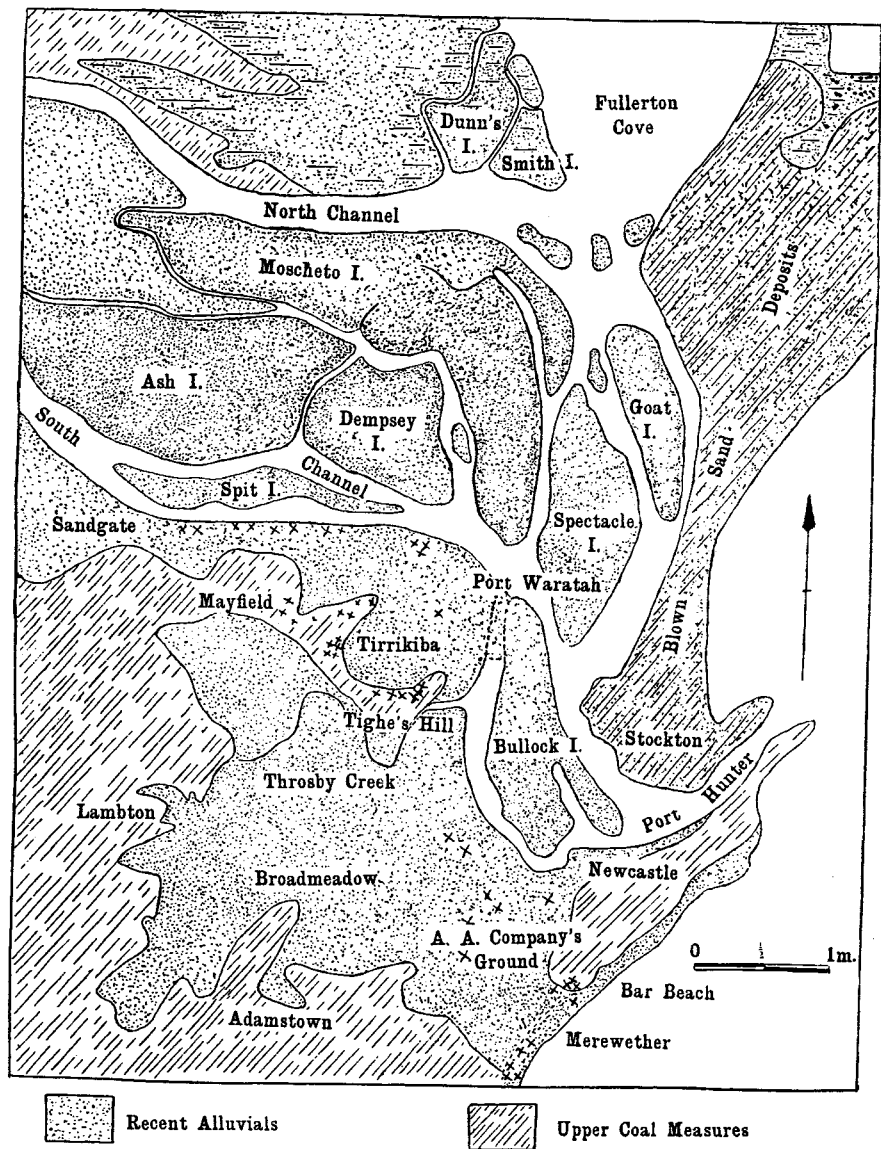
In introducing the subject of aboriginal stone implements, particularly the flaked varieties, one does so with a certain amount of caution. On the one hand the form of many has been well established; and on the other, in our present state of knowledge, it is not wise to dogmatize regarding their uses. The trained eye can readily recognize artifacts and give them tentative names, but care should be exercised when comparing aboriginal stone handiwork with old world forms. These comparisons should have no application beyond serving as a convenience; parallelism or cultural analogy should not be suggested or even implied. Moreover, the uniform behaviour of siliceous material, under percussion and pressure, gives character to flakework wherever found.

PRIMITIVE FLAKED CELTS.

(Plate xix.)

For miles along the bank of the south channel of the Hunter River west of the Broken Hill Proprietary's works, the shore is largely composed of midden material. To break down and

¹First noticed by the late D. F. Cooksey, of Mayfield, who introduced the writer to the Newcastle collecting grounds and contiguous coastal "workshops."



xx Localities where aboriginal flakes have been found.

examine the contents of this area would entail enormous expense and considerable time. At intervals, however, aboriginal stone implements are revealed by tidal erosion, and other natural causes. The specimens shown in Plate xix, figs. 1 and 2, were thus obtained by the writer in the vicinity of Sandgate. Both are of grey (Merewether?) chert, and were originally large flakes produced by percussion and subsequent shaping. The larger is snub-nosed and blunt, but chipped on all edges save the proximal end. The smaller (Pl. xix, fig. 2) has the same general appearance, but differs at the distal end, where it is much thinner and narrower. The reverse sides of both show the bulb of percussion and the conchoidal fracture. The specimen illustrated in Plate xix, fig. 3, is composed of porphyry, and was found in a shell midden at Morna Point, south of Port Stephens, New South Wales. Porphyry is a local material, the headland being composed of this rock. The occurrence of two of these implements, and others which are to follow, in the middens of Morna Point, and in association with quantities of siliceous flakework, makes their authenticity as aboriginal artifacts unassailable. The reverse sides of these implements are slightly convex.

Apart from the materials used, these three figured implements have much in common, namely, the thick unchipped butts, the uniform and relative position of the bulb of percussion, and the marginal treatment shown by each. These characters favour the belief that they were all made for a similar purpose, namely, for breaking marine and estuarine shells to expose the edible molluscs.

Plate xix, fig. 4, illustrates a rather irregular and multifaceted implement from the shores of Lake Macquarie. Being composed of chert, it is also quite possible that it is an adaptation of a fortuitous block. The bruising incidental to percussion is indistinct or negligible, whereas the narrow end has been fashioned into a cutting or chopping edge. Such an implement would be useful as an "oyster stone."²

CHIPPED-BACK STONE IMPLEMENTS.

(Plates xxi-xxii, xxiv and xxv, figs. 1-4a).

Of the chipped-back implements described here some are intimately comparable with the productions of the Aurignacian people of the Upper Palæolithic Period in Europe.³ The occurrence of these implements was first noticed by Mr. D. F. Cooksey, who informed the writer that those of a certain type (Plate xxiv, figs. 2-3a) were scattered about in moderate profusion on vacant ground, in the vicinity of the post office at Tirrikiba, a suburb of Mayfield, Newcastle, New South Wales. They were found on a bank thirty feet above the silts of the Hunter delta, which here forms a flat

² Cf. Roth.—North Queensland Ethnography, Bulletin No. 7, 1904, pl. xviii, figs. 144-149.

³ Breuil.—Revue Anthropologique, xxi, 1, January, 1911, p. 33, fig. 4.

area about one mile wide, between the raised land at Tirrikiba and the present course of the Hunter River. As is shown on the sketch map, alluvial flats of similar character extend from Tirrikiba to Lambton and Merewether. They are low and swampy in places, covered now with fresh and brackish water, but also supporting a growth of salsolaceous herbage, which indicates the presence of salt water in the past.

In these swamps shell beds also occur but the tests are no longer inhabited by molluscs. The Tirrikiba-Tighe's Hill bank is part of the coal measure series, and here shells of the oyster, cockle, and whelk are found in association with the flakework, conclusive evidence that it was once a camp site. Other shell middens and camp sites in the district occur on the recent alluvials, and extend all along the bank of the Hunter from Port Waratah to Sandgate.

During Tertiary times the estuary of the Hunter extended as far inland as Maitland and sea water surrounded the Tirrikiba-Tighe's Hill headland. The gradual silting up of this estuary is described by Etheridge and David,⁴ who also give details of raised beaches in the Maitland district. On these raised beaches no traces of man have been found, for with the combined discharge of the Hunter, Williams, and Paterson Rivers, this area became more rapidly filled with sediment. In the locality of Newcastle, however, silting took place much more slowly, and, at the time when the aborigines first settled there, the flat land at Tirrikiba was a salt-water arm of the sea, in which marine shells were abundant. The camp sites which were discovered by Mr. Cooksey along the river bank towards Sandgate, in the Australian Agricultural Company's ground, and out to Merewether (see accompanying map), are of more recent origin and belong to a period when the estuary was filled in and the river became the source of food supply. On this account the implements⁵ found above the thirty feet contour line might be ascribed to comparative antiquity.

On this bank digging was extensively carried out, but without signal result. Scrapers were found in large quantities, also waste material and "cores," but there was a remarkable absence of all but four or five of the specialized form about to be described. It would appear that they were to be found only on the surface, which had been thoroughly combed by Mr. Cooksey, who possessed a remarkable series of these implements. Several of the small "la gravette" type of scarifiers,⁶ or chipped-back knives were unearthed, and the estuarine shells already mentioned were scattered throughout the dark sand to a depth of four feet. The

⁴ David and Etheridge.—Records of the Geological Survey, N. S. Wales, II, 2, 1890, pp. 37-52, pl. iii.

⁵ See Plate xxiv, figs. 2-3a.

⁶ Cf. Sollas.—Ancient Hunters and their Modern Representatives, London, 1911, fig. 116.

flaking material used at this Mayfield or Tirrikiba site was a grey chert, now organically stained, a stone which occurs *in situ* at Merewether, about three miles to the south-east.

As a rule the typical Mayfield form (Pl. xxiv, figs. 2-3a) differs from those from other localities in the district. They resemble more than anything else the cell of an orange, colloquially called a "quarter," though some examples are blunt at one end.⁷ The largest found at Tirrikiba is in the Cooksey collection, and measures 113 × 60 × 40 mm. Those shown in Plate xxiv, figs. 1-5, are in the Australian Museum. The specimen shown in Plate xxiv, fig. 4, composed of a jasperoid rock, and probably incomplete, was found by the writer in a rock shelter near the ferry wharf, Bay Street, Lane Cove River, Port Jackson. Others of a diminutive character, but quite distinct from the slender "scarifiers" so common in the coastal dunes of New South Wales and Victoria, have been found at Garie, National Park, and deposited in the collection of the Department of Geography, University of Sydney. These two latter finds obviously extend the range of this type of chipped-back implement beyond the Newcastle district.

Other types of chipped-back implements, comparable but not identical with those described above, have been found at Merewether, Morna Point, Red Head, and Anna Bay. Altogether there appear to be four distinct varieties which are summarized as follows:—

1. Massive, and of grey chert. (a) From Merewether, 178 × 80 × 60 mm., and 148 × 80 × 60 mm. (Cooksey collection); 146 × 86 × 72 mm. (Department of Geography, University of Sydney) (Plate xx, figs. 1-2). (b) From Bar Beach, Newcastle, 150 × 75 × 52 mm. (C. W. Loch collection). (c) From Red Head, near Newcastle, 169 × 78 × 60 mm. (Cooksey collection).

2. Massive, crudely made of (a) porphyritic rock and basalt, from One Mile Beach, Anna Bay, New South Wales (Plate xxi, figs. 1-2, and Plate xxii, figs. 1-2); (b) of porphyry from Morna Point (Plate xx, fig. 3); (c) of felsite from the original land surface, back from the beach, south of the entrance to Lake Macquarie (Plate xxi, fig. 3).

3. Medium sized,⁸ of grey chert and more elegant finish, from Tirrikiba and Bar Beach (Plate xxiv, figs. 1-3a and figs. 5 and 5a).

⁷ An uncurved chipped-back knife "from Australia," hafted with skin and cord is figured by Evans in "Ancient Stone Implements of Great Britain," London, 1872, p. 264.

⁸ Cf. Chatelperron (Aurignacian), Breuil.—Revue Anthropologique, xxi, 1, Jan., 1911, p. 33, fig. 4; and Sollas, *ibid.*, fig. 114.

4. A small type in chert, from Merewether, Mayfield, Red Head, and Morna Point (Plate xxv, figs 1-2*a*), resembling the "semi-circular" knives described by Horne and Aiston.⁹ The small "scarifiers," comparable with the *la gravette*¹⁰ form of the Aurignacian, also occurring in Egypt and Kenya, Africa,¹¹ and elsewhere, were found at all the sites in the Newcastle district, and in great profusion at Red Head. At the last-named site, a variety (Plate xxv, figs. 3 and 3*a*) with a slight¹² dorsal depression near the distal end, was also present in sufficient quantity to be considered a normal form.

The Anna Bay (One Mile Beach) occurrence of flaked stone implements consisted of patches in wind-swept troughs between the sand dunes situated about a furlong from the sea.

OTHER FLAKED IMPLEMENTS.

Beside the massive "choppers" already referred to, other interesting forms were found. One large crescentic implement in porphyry, resembling in outline the "gigantic" form described by Horne.¹³ was discovered (Plate xxii, fig 3). The writer was hesitant about accepting implements of this material, but local evidence, such as small heaps of "spawlings" where work had been carried on, covered by sand, and subsequently disclosed by the wind, was all convincing.

A triangular scraper (Plate xxiii, fig. 5), with one cutting edge, and a crudely flaked "celt" in porphyry (Plate xxiii, fig. 1) was also found. The "reverse" of this unique (?) specimen is unworked, though the "bulb of percussion" is well defined. As evidence that the local aborigines were not altogether unacquainted with ground implements, as distinct from simple flakework, a normal olivine-basalt axe (Plate xxiii, fig. 2) was found, in association with the porphyry artifacts already described.

It is obvious that where siliceous material was abundant, or available in quantity by trading, ground implements could be dispensed with. This is instanced by the profusion of chert spawlings on the camp sites south of Merewether, New South Wales, where this material could be obtained in plenty from the adjacent cliffs. This rule seems to apply generally.¹⁴

⁹ Horne and Aiston.—Savage Life in Central Australia, London, 1924, fig. 73, opp. p. 98.

¹⁰ Cf. Sollas, *ibid.*, fig. 116.

¹¹ De Mortillet.—Revue de l'Ecole d'Anthropologie, 1896, pp. 378-405; Cowper—Man, xi, No. 1, 1911, article 5, pp. 6-13; Seligman—*loc. cit.*, xxvi, No. 8, 1926, p. 133; Etheridge and Whitelegge—Records of the Australian Museum, vi, No. 4, 1907, pp. 238-241 (see also papers quoted); Johnson—Man, 1914, article 75.

¹² Horne.—Aboriginal Stone Implements of South-Eastern Victoria, Melbourne, 1921, fig. 10.

¹³ Horne.—*Loc. cit.*, fig. 27.

¹⁴ Cf. Spencer.—The Arunta, London, 1927, ii, pp. 536-7.

For the most part it would appear also that the aborigines of coastal New South Wales did not flake (or quarry) their axes, and then, by attrition, provide them with a blade. The two kinds most frequently found are the flaked axe, used as such, and the river pebble of requisite shape, ground at one end to form a blade.

In former years Lake Macquarie, New South Wales, supported a large aboriginal population.¹⁵ As a collecting ground for stone implements it is practically untouched. An effort has been made, not without success, to interest the local residents in these relics, which can be picked up on, or in the vicinity of the lake shores. Two unusual forms, *inter alia*, have come to light, namely, a triangular (Plate xxiii, fig. 3) and rectangular (Plate xxiii, fig. 4) artifact. The first named, from Speer's Point, possesses a bulbous reverse, and shows evidence of secondary treatment along the working edge. The rectangular implement, assuming it to be such, is more asymmetrical, and might be an adaptation of a fortuitous block. Its edge is also trimmed. This latter specimen is from Cockle Creek, which is likewise a lakeside locality. The Museum is indebted to the Rev. A. J. Barrett for both of these specimens, and many other examples of normal flakework, such as scrapers and knives.

On a recent visit to Lake Macquarie the writer discovered a flaked axe in the vicinity of a midden south of Croudace Bay. It is of siliceous material, one side showing the "bulb of percussion" and the conchoidal fracture. The figured side (Plate xxxi, fig. 3) is characteristically faceted.

AN INCISED STONE.

(Plate xxv, fig. 5.)

This curious relic is portion of a basaltic slab of some unknown form. It bears a series of crescentic markings. In outline the specimen resembles the head of the aboriginal hurling weapon in wood known as a *lil-lil*. The bevelled end is thinned down to what might be tentatively termed the blade. The reverse side is plain except for the incised outline resembling a human hand, *minus* the thumb. The original outline of the object in its entirety is not known. As it shows a recent clean fracture at one end, an effort was made to obtain further portions, but without result, the finder having died. It was ploughed up in orchard land at Galston, near Hornsby, New South Wales.

Dimensions.—Length 190 mm., breadth 86 mm., thickness 20 mm., weight 1 lb. 3½ oz. Presented to the Australian Museum by Mr. L. Lawry Waterhouse.

¹⁵ Threlkeld.—An Australian Language, Sydney, 1892.

MASSIVE FLAKED CHOPPER.

(Plate xxxvii, fig. 1.)

A broad-bladed implement or weapon composed of ferruginous quartzite. The shape has been attained by coarse flaking, extending almost over the entire surface. This is not represented as a unique specimen, for the writer has been informed of another example in the South Australian Museum, Adelaide. As the working edges show no sign of contact with other stones, except that which is associated with its manufacture, and as it is far too unwieldy for use as a weapon, the writer offers the suggestion that it was used for bark-stripping. Weight, 7lb. 12oz.

Found on Kallara Holding, Darling River, New South Wales, and presented to the Australian Museum by Mr. C. G. W. Officer.

NARDOO MILLS OF UNUSUAL FORM.

(Plate xxvi.)

These nether stones of quartzite, or desert sandstone, are quite unlike the common slab-like examples usually seen in museums. The figured specimens were found, along with eight others of similar type, in the sandhills between Lake Boolabooka and the Darling River, west of Trida, beyond Condobolin, New South Wales. Transverse and vertical dimensions are shown in the plate; weights 32½ and 26½ lb. respectively. Their discovery was incidental to the extension of the western railway system in 1925. They formed part of a large consignment of aboriginal seed-grinding equipment sent to the Australian Museum by Mr. V. W. Mahoney, Officer-in-charge.

DOUBLY-GROOVED CONICAL IMPLEMENT.

(Plate xxvii, fig. 2.)

This stone object, of unusual form, having features comparable with those of the cylindro-conical stones of western New South Wales,¹⁶ has other special characters which make it of interest. Composed of a compact igneous rock, and more or less oval in section medially, it is finished to a remarkable degree by what is usually termed "pecking." Two well defined grooves encircle it, and the pointed end, while showing no signs of wear, is regularly tapered to a symmetrical cone. Its use is conjectural. Found on the surface at Condobolin, New South Wales.

Dimensions.—Length 267 mm., diameters 82 to 98 mm., circumference 280 mm., weight 6 lb. 4 oz. Presented to the Australian Museum by Mr. C. J. McMaster, formerly Commissioner for Western Lands.

¹⁶ Harper.—Proc. Linn. Soc. N. S. Wales, xxiii, 3, 1898, pp. 420-36; Etheridge—Memoirs Geological Survey of N. S. Wales, Ethnol. Series, No. 2, 1916; Horne and Aiston—Savage Life in Central Australia, London, 1924, pp. 164-172 (bibliography, p. 165).

BONE IMPLEMENTS.

(Plate xxv, fig. 4.)

This bone relic is portion of the proximal end of the right tibia of a kangaroo. The inner margin has been roughly broken, leaving the marrow channel exposed for the entire length. The lower and denser portion has been worn to a V-shape and possibly formed the working edge. As an alternative to its being a tool, it has been suggested that it was a handle or socket,¹⁷ and the seven definite transverse grooves were cut for lashing purposes. It also bears many other ancient and irregular scars, and signs of considerable handling. The precise use of this implement, assuming it to be such, is at the best conjectural. It may have been used as a graver, or for prising open shell fish. Its association with an aboriginal midden lends itself to the latter belief. Found at a shallow depth, when removing shell and hearth refuse, on the banks of Mooney Mooney Creek, Hawkesbury River, New South Wales. Length 213 mm. Presented to the Australian Museum by Mr. Joseph Rose.

JINKEE, OR JINGEE.

(Plate xxx.)

One of these sacred sticks has been presented to the Museum by Mr. C. W. Horn, who supplied the information that it was obtained "about twenty years ago at Cue," Murchison district, Western Australia. It is cylindrical or cigar-shaped; of light timber resembling sandalwood, and stone-incised all over. After several attempts, a satisfactory rubbing was made (Plate xxx, fig. 2). The decorative treatment consists of a series of twelve concentric circles regularly arranged in four rows of three, each set divided from its neighbour by concurrent wavy lines. Faint pricking is discernible around the "lower" series of circles, which are separated from one another by a well defined groove. Where space allows the "upper" extremity has been similarly fluted.

In searching for similar material and data concerning these jinkees, the writer approached Mr. J. F. Connelly, of Perth, one who has travelled largely amongst the aborigines of the western State. Mr. Connelly in his helpful way submitted rubbings of several jinkees in his collection. These were obtained in the area between Mt. Margaret and north-east Kalgoorlie. The following data were also supplied: "These carved or incised magic sticks are considered to be the sole property of the Bulyoo (medicine-man), and are reputed to possess the power (magic), of locating (within or without the tribe) the evil spirit that is responsible for the troubles and visitations, real or imaginary, a native may suffer in the form of internal pains or disorders, or some such sickness. A form of massage by the Bulyoo man often sets the patient right

¹⁷ Cf. Worsnop.—The Prehistoric Arts . . . of the Aborigines of Australia, Adelaide, 1897, pl. 56, fig. 4.

again." From another source¹⁸ the following information was obtained: "In the Mt. Margaret district these jinkees are made and used by the doctors of the tribe. They are supposed to help them in diagnoses, to learn from them when a hostile party is approaching, or to stop the wind and bring rain when it is necessary. If a woman should gaze on one she will drop dead. Initiated men will gather around these sticks and speak to them with a pathos not shown at any other time."

Four different designs have so far been recognized, namely, the spiral (Plate xxxi, fig. 1), the concentric (Plate xxx), concentric "squares" (Plate xxxi, fig. 2), and the chevron.

The concentric and spiral motive is well known in Central Australia. According to a resident missionary,¹⁹ these circles, or churingas, amongst the Arunta tribe, indicate a camp or locality. Spencer and Gillen consider that these designs have a varied interpretation, governed by the totem of the people who manufacture and use the churingas.

Both the concentric and spiral circles are elementary designs, and world-wide in their occurrence.²⁰

As man usually does not go outside of nature for his ideas, the human eye would suggest the one, and a coiled snake the other. Nevertheless these simple though universal art motives could be arrived at without intention.

ABORIGINAL SCOOPS OR SHOVELS.

(Plate xxviii, figs. 1 and 2.)

These spatulate implements, now rare, had a very restricted distribution, namely, the country in the vicinity of the western river system of New South Wales, notably the Lachlan-Darling area. They were first noticed by Sir T. L. Mitchell²¹ and referred to by Worsnop.²² Mitchell records them as being used for "digging roots and larvæ from ant-hills," but "not used on the Lachlan."

A local name for the implement was yamma, such being ascertained in 1883 by the late Robert Grant, formerly taxidermist at this Museum. They were also noticed and recorded at a later date by Mr. K. H. Bennett, who described them²³ as "wooden shovels used for unearthing the lace-lizard (*Hydrosaurus*) and other reptiles, and also for uncovering the roots of eucalyptus trees for the purpose of obtaining water from them."²⁴ Grant informed the

writer that he saw an aborigine using one for removing cooked meat from the camp fire. The two shovels described are old pieces, bearing evidence in the regular pitting, so noticeable on old wooden artifacts from this region, of having been made entirely with stone tools. The Museum possesses four others, each with a tapering handle, and not crutch-headed as shown in one of those figured. One of the tapered form is figured by Edge-Partington²⁵ as from the Murray River.

The only aboriginal implements approaching the yamma known to the writer, are the hardwood dishes resembling the bowl of a spoon used by the natives of Western Australia²⁶ and elsewhere for a similar purpose.

Dimensions.—Plate xxviii, fig. 1, length 2 feet 5 inches, maximum breadth $5\frac{1}{2}$ inches, depth of bowl $1\frac{1}{4}$ inches; Plate xxviii, fig. 2, length 3 feet $6\frac{1}{2}$ inches, maximum breadth $2\frac{1}{2}$ inches.

CARVED LIL-LIL.

(Plate xxviii, fig. 3.)

This weapon has been selected for description, firstly on account of its banner-like blade, in which it differs from those figured by Etheridge,²⁷ and secondly because of the fine linear carving which covers it more or less on both sides. The main design is fluctuate or serpentine, with parallel flutings in different directions filling up the interspaces, and on what might be termed the chopping edge. On the opposite side the serpentine motive is still more pronounced, though not so tortuous; and the flutings are in part somewhat curved. These weapons are sometimes carved over the entire surface.²⁸ No definite locality was supplied with this specimen, but it may be ascribed tentatively to the Murray River.

Length 2 feet $7\frac{1}{4}$ inches, blade $7\frac{1}{2}$ inches.

CARVED BOOMERANGS.

(Plate xxix, figs. 3 and 4.)

Boomerangs of this type have been ably described by Etheridge,²⁹ Roth,³⁰ Graebner,³¹ and others, but as the two about to be noticed differ in the carved designs, it is thought advisable

¹⁸ R. S. Shenk, St. Margaret Mission, Morgan, W.A.

¹⁹ Fide H. J. Hillier, Lutheran Mission, 1910.

²⁰ Spencer and Gillen—The Native Tribes of Central Australia, London, 1899, pp. 141-151; cf. Etheridge (R. Jnr.)—Records Austr. Mus., iii, 1, 1897, pp. 1-6; Rout, E.—Maori Symbolism, London, 1926, pp. 182 and 287.

²¹ Mitchell, T. L.—Three Expeditions into the Interior of Eastern Australia, I, London, 1838, pp. 332-3; *loc. cit.*, ii, pp. 23 and 344.

²² Worsnop, T.—*Ibid.*, p. 108-9.

²³ Quoted from "Descriptive List of Australian Weapons, Implements *et cetera*, from the Darling and Lachlan Rivers, in the Australian Museum. Collected by Mr. H. K. Bennett, of Mossiel." Government Printer, Sydney, 1897.

²⁴ The water-quest is described in the Proceedings of the Linnean Society of N. S. Wales, viii, 1883, p. 214.

²⁵ Edge-Partington and Heape.—Ethnographical Album of the Pacific Islands, First Series, ii, Manchester, 1890, pl. 354, No. 18.

²⁶ Brough Smyth.—Aborigines of Victoria, Melbourne, 1878, i, p. 341.

²⁷ Etheridge.—Internat. Arch. für Ethnog., x, 1, 1897, pp. 8-16.

²⁸ Edge-Partington.—*Loc. cit.*, Third Series, 1898, pl. 102, No. 23.

²⁹ Etheridge.—Proc. Linn. Soc. N. S. Wales, ix, 2, 1894, pp. 193-200, pl. xv; *loc. cit.*, 1896, x, 1, pp. 14-22, pls. ii-v; *loc. cit.*, xi, 2, 1897, pp. 260-2.

³⁰ Roth.—Ethnological Studies, Brisbane, 1897, pp. 143-5, Sect. 241, pl. xvii, figs. 309-10.

³¹ Graebner.—Globus, xc, 1906, p. 238.

to figure them. Plate xxix, fig. 3, illustrates a fine piece of aboriginal workmanship, the design consisting of a series of five triple-line rhombs, each concentrically lined with delicate and regular incisions. At the junction of each rhomb is a series of chevrons, while the outer margins of the weapon are marked with parallel flutings.

Length 2 feet $4\frac{3}{4}$ inches, greatest breadth $2\frac{1}{4}$ inches. Said to have been obtained at Gympie, Queensland.

Plate xxix, fig. 4, depicts an example finely carved down the centre with a series of conjoined ovals. In the interspaces on the margins similar elongate figures are incised. Weapons of this description are normally carved on one side only.

Length 2 feet $7\frac{1}{4}$ inches, greatest breadth $2\frac{3}{4}$ inches. From central west Queensland. Presented by Mr. William Dixson.

CARVED BOOMERANG-LIKE STAVES.

(Plate xxix, figs. 1 and 2.)

These implements are modern, and their use, if any, can only be surmised. Their special interest lies in the art expressed upon them which is typically aboriginal. The surface of the larger (Plate xxix, fig. 2) is divisible into four zones, separated by narrow panellings of zig-zag lines. The blade on the left bears a representation of an echidna (?), and a series of five emus. On the narrow part, or "waist," of the implement are two snakes, two lizards and two plain turkeys. The right blade is ornamented with two platypuses, two emus and another small bird figure (? ibis).

The surface of the smaller implement (Plate xxix, fig. 1) is divided into three zones, with a representation of a kangaroo on each blade. Two emus and two snakes occupy the narrow part of the implement. The reverses of both pieces are plain. All the animal designs are cross-hatched and the eyes omitted. Both said to be from Gympie, Queensland. The Director of the Queensland Museum, Mr. H. A. Longman, informed the writer that examples of this modern work are represented in that institution.

Dimensions.—(Plate xxix, fig. 2) length 3 feet 4 inches, breadth $6\frac{3}{4}$ inches; (Plate xxix, fig. 1) length 2 feet $6\frac{1}{2}$ inches, breadth $6\frac{3}{4}$ inches.

SHELL SPOON.

(Plate xxviii, fig. 4).

This implement, or utensil, consists of a short hardwood stick roughly split at one end to accommodate an oval and concave piece of Melo shell. In general appearance it resembles aboriginal handi-

work, the wooden portion being comparable with similar handles for holding iron bits, as figured by Roth.³² It is also possible that the Melo section served a secondary purpose, as the butt-end of the handle bears evidence of burring where it has been struck, a condition produced when the slot possibly held a metal blade.

Overall length $10\frac{1}{2}$ inches. Queensland (?).

ACKNOWLEDGEMENTS.

Acknowledgement is due to the late D. F. Cooksey, of Mayfield, who originated the exploitation of the Newcastle collecting areas; to Mr. M. S. Stanley for generous field assistance; to Miss L. D. Hall, B.Sc., for the topographical and geological observations; and to Mr. S. G. Gray for the field map of this area re-drawn from Miss Hall's sketch.

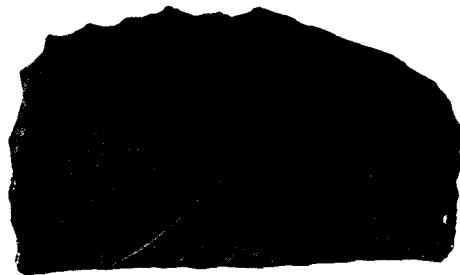
³² Roth.—North Queensland Ethnography, Bulletin, No. 7, Brisbane, 1904, Section 31, pl. xvi, figs. 128-129.

EXPLANATION OF PLATE XX.

CHIPPED-BACK IMPLEMENTS.

Figs. 1-2. Glenrock Lagoon, south of Merewether, New South Wales.
In the collection of the Department of Geography,
University of Sydney. $\frac{2}{5}$ and $\frac{7}{10}$ natural size.

Fig. 3. Morna Point, south of Port Stephens, New South Wales.
 $\frac{7}{10}$ natural size, in porphyritic rock.



1



2



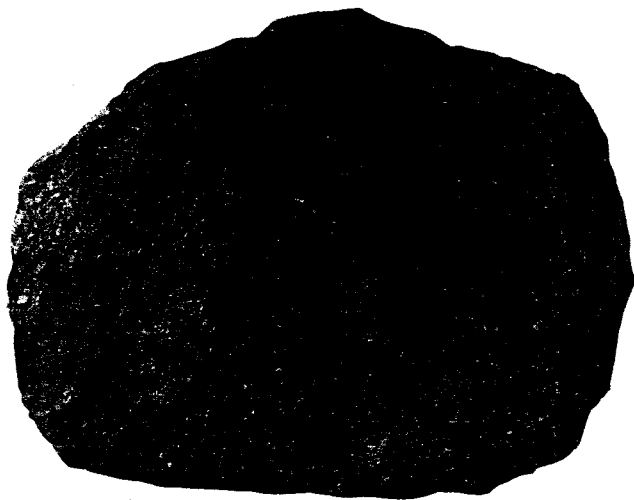
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EXPLANATION OF PLATE XXI.

CHIPPED-BACK IMPLEMENTS.

Figs. 1-2. Composed of basalt. One Mile Beach, Anna Bay, south of Port Stephens, New South Wales. $\frac{1}{5}$ and $\frac{1}{10}$ natural size.

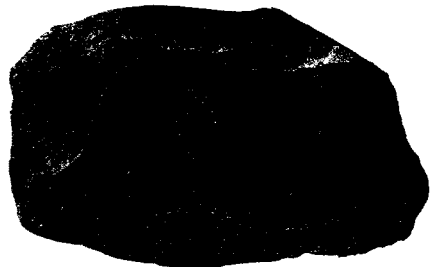
Fig. 3. Composed of felsite. Beach south of entrance, Lake Macquarie, New South Wales. $\frac{1}{10}$ natural size.



1



2

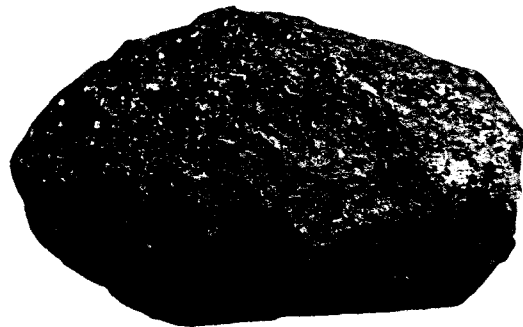


3

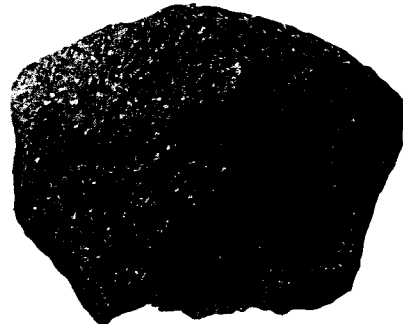
EXPLANATION OF PLATE XXII.

Figs 1-2. Massive chipped-back implement, composed of porphyritic rock. One Mile Beach, Anna Bay, New South Wales. $\frac{7}{10}$ and $\frac{1}{2}$ natural size.

Fig. 3. Crescentic knife, or scraper. One Mile Beach, Anna Bay, New South Wales. $\frac{7}{10}$ natural size.



1



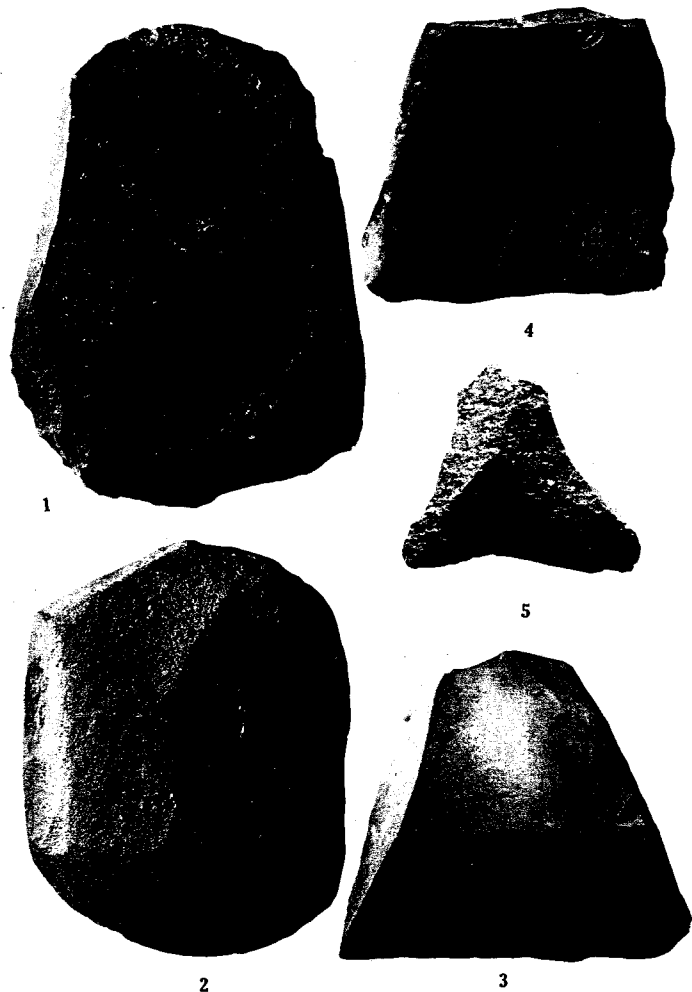
2



3

EXPLANATION OF PLATE XXIII.

- Fig. 1. Flaked "Celt," composed of porphyritic rock. One Mile Beach, Anna Bay, New South Wales. $\frac{3}{5}$ natural size.
- Fig. 2. Normal ground-axe in olivine-basalt. One Mile Beach, Anna Bay, New South Wales. $\frac{7}{10}$ natural size.
- Fig. 3. Triangular implement in chert. Speer's Point, Lake Macquarie, New South Wales. $\frac{7}{10}$ natural size.
- Fig. 4. Rectangular implement. Cockle Creek, near Lake Macquarie, New South Wales. $\frac{7}{10}$ natural size.
- Fig. 5. Triangular scraper, composed of porphyritic rock. One Mile Beach, Anna Bay, New South Wales. $\frac{7}{10}$ natural size.



EXPLANATION OF PLATE XXIV.

CHIPPED-BACK IMPLEMENTS.

Figs. 1-1*a*. Glen Rock Lagoon, south of Merewether, New South Wales. $\frac{3}{8}$ natural size.

Figs. 2-3*a*. Mayfield, Newcastle. $\frac{3}{8}$ natural size.

Figs. 4-4*a*. Rock Shelter, Lane Cove River, Port Jackson, New South Wales. $\frac{3}{8}$ natural size, in jasperoid rock.

Figs. 5-5*a*. Bar Beach, Newcastle, New South Wales. Natural size.



1



1*a*



2



2*a*



3



3*a*



4



4*a*



5

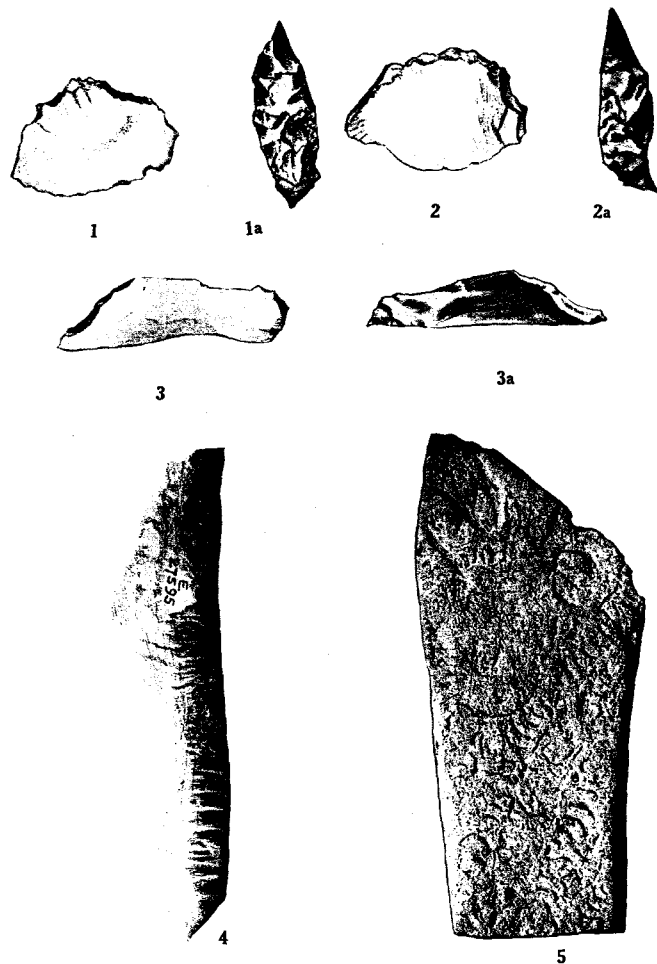


5*a*

G. C. CLUTTON, Photo. (1-4).
JOYCE K. ALLAN, del. (5).

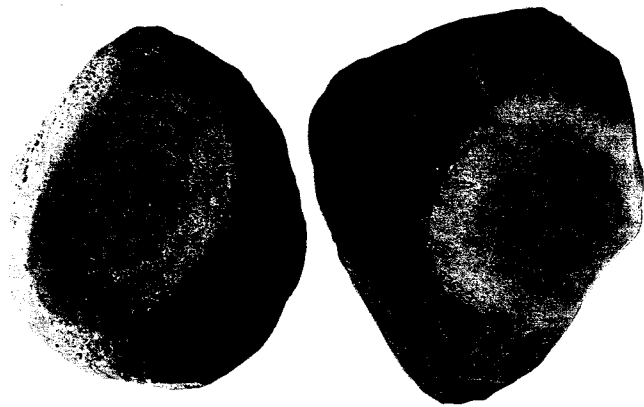
EXPLANATION OF PLATE XXV.

- Figs. 1-1a. Chipped-back knife, Mayfield, Newcastle, New South Wales. Natural size.
- Figs. 2-2a. Chipped-back knife. Sand dunes, south of Redhead, New South Wales. Natural size.
- Figs. 3-3a. Chipped-back knife. Sand dunes, south of Redhead, New South Wales. Natural size.
- Fig. 4. Bone implement, from kitchen-midden. Mooney Mooney Creek, Hawkesbury River, New South Wales. $\frac{2}{5}$ natural size.
- Fig. 5. Incised stone. Galston, near Hornsby, New South Wales. $\frac{1}{2}$ natural size.



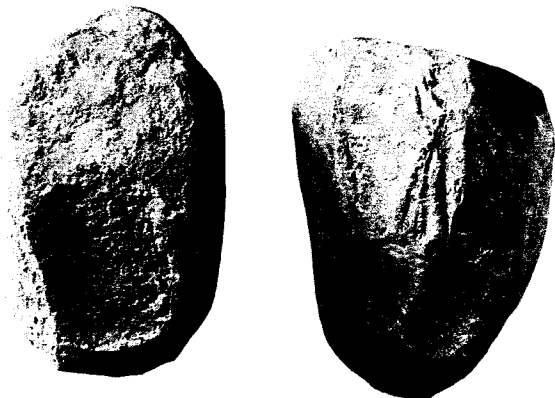
EXPLANATION OF PLATE XXVI.

Nardoo Mill Stones. Sand hills between Lake Boolabooka and the Darling River, western New South Wales.



1

2



1a

2a



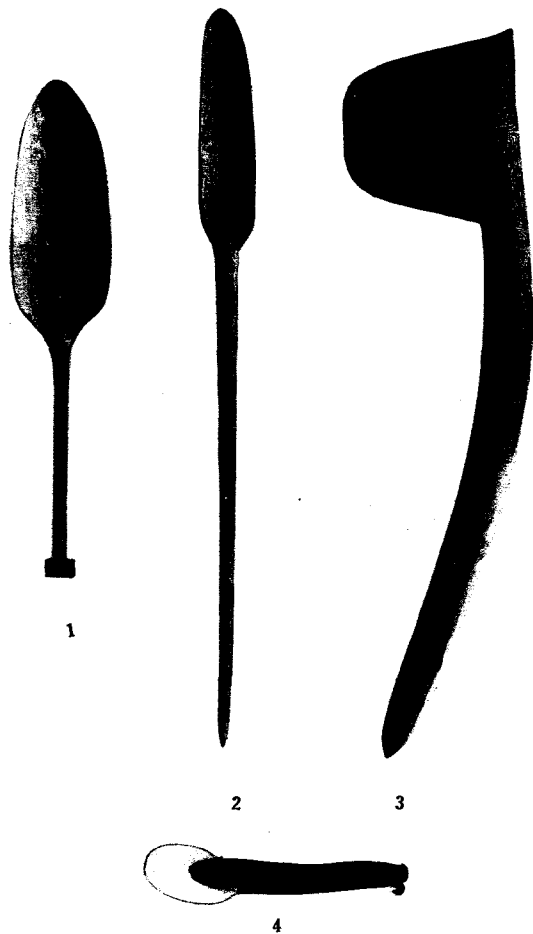
EXPLANATION OF PLATE XXVII.

- Fig. 1. Flaked Chopper. Kallara Holding, Darling River, western New South Wales. $\frac{1}{2}$ natural size.
- Fig. 2. Doubly-grooved conical implement. Condobolin, New South Wales. $\frac{1}{2}$ natural size.



EXPLANATION OF PLATE XXVIII.

- Figs. 1-2. Wooden shovels. Western New South Wales. $\frac{1}{8}$ natural size.
- Fig. 3. Carved Lil-Lil. Lower Murray River, South Australia. $\frac{1}{8}$ natural size.
- Fig. 4. Shell Spoon. Endeavour River, Queensland. $\frac{1}{8}$ natural size.



EXPLANATION OF PLATE XXIX.

Figs. 1-2. Boomerang-like Staves. (?) Gympie, Queensland, $\frac{3}{20}$ natural size.

Figs. 3-4. Carved Boomerangs. Queensland. $\frac{1}{6}$ natural size.



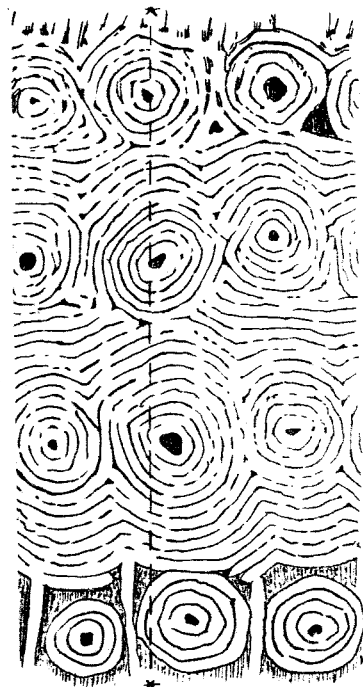
EXPLANATION OF PLATE XXX.

Fig. 1. Sacred Stick or "Jinkee." Cue, Western Australia. $\frac{1}{4}$
natural size.

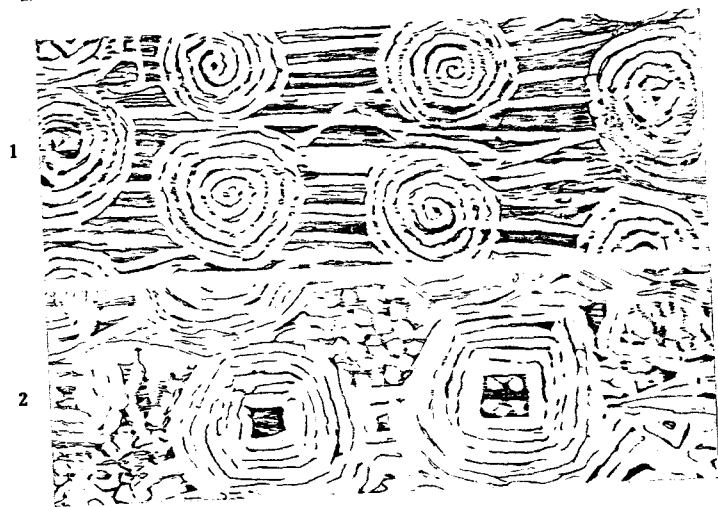
Fig. 2. Ditto. Details of carving. $\frac{1}{2}$ natural size.



1



2



EXPLANATION OF PLATE XXXI.

Figs. 1-2. Rubbings of "Jinkees" in the J. F. Connelly collection,
Perth, Western Australia.

Fig. 3. Flaked Axe. South of Croudace Bay, Lake Macquarie,
New South Wales. $\frac{1}{2}$ natural size.



J. F. CONNELLY, del. (1-2).
G. C. CLUTTON, Photo. (3).