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## I.—TRANSPORT.

1. As a matter of choice, the native will rather wade across a stream than go to the exertion of swimming it, and will often make a comparatively long detour to find a suitable ford. On occasion, the overhanging timber being suitable, he will climb over on the interlacing branches. Sometimes he may effect his purpose by utilising a log that happens to have fallen in the proper direction or to have been purposely placed there, such a natural bridge has a special name given it, and in the case of the Endeavour River Natives is known as walmba, the same term as is applied to the forked limb put against a tree in order to climb it, or to act as a sort of platform on which to rest, while cutting out a bees' nest, etc.

Though perhaps occupying country adjacent to the banks of a river, it certainly does not follow that its presence indicates any capability of the local blacks being able to swim. Both on the Burke and Georgina Rivers I noticed this peculiarity, which in the latter case was perhaps explicable by the fact that the lands on the further side were claimed by another tribe, and that consequently the necessity for crossing not having arisen, the art had either not been practiced or had fallen into disuse.

2. Where natives do know how to swim, the posture assumed varies in different localities, and will be described when dealing with the whole question of postures generally. If saddled with impedimenta these are carried, according to size, either in the teeth, on the head, or in a bark or dug-out wooden vessel propelled in front of them. When on the head, the weight is often balanced (as is usually the case when the transport is on land) by a head pad (KYI. CKn, *mordi*), made in the form of a thick circular ring, out of tea-tree bark, or grass; when a vessel is utilised, it is either one of the ordinary domestic water-troughs, "koolamons," etc., or else specially made for the occasion out of a length of bark tied up at both ends.

3. When about to cross any large stream, the native, if by himself, will guard against possible accident from crocodile or shark, by practising certain auguries, some of which have already been detailed<sup>2</sup>. When in company, such practices are usually discarded, all his companions swimming across in more or less close formation with a good deal of splashing and shouting. Where however necessity demands that a known crocodile-infested river has to be crossed, and there is no canoe, the black manages it by diving, a method which I had an opportunity of

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<sup>2</sup> Roth—Bull. 5—Sect. 104.

witnessing on the Lower Normanby River (Princess Charlotte Bay). Gliding silently below the surface of the water, he keeps close to the bottom; if it is too wide, he loses no time in coming up for a breath of fresh air and down again: should he come across one of these saurians, he immediately stirs up around him the dark mud on the river bed, and makes good his escape very much on the same lines as a cuttle-fish when in danger. Similar precautions are taken in this same district when a black is diving for lily-seeds in any suspected pool, etc., there always being some friend of his or hers watching, either from the banks or an overhanging tree; the latter, on seeing the shadow or long streaky film of fine bubbles indicating the approach of the reptile, immediately splashes the water surface violently with some heavy stick, etc., and so gives the signal to the individual below, who quickly makes up the bank by crawling and kicking up the mud as already described. The Princess Charlotte Bay Natives never consider it safe to swim even silently on the surface of these waters, however clear they may be, when crocodiles are about. In the neighbourhood of the Proserpine River, the blacks will sometimes drag a heavy hooked club attached to a long rope across the stream to make sure that there is nothing lurking below to endanger their crossing.

A river in flood is met by diving across close to the bottom, where the natives say the current is never so strong. In taking the water for diving from a height, I have only observed the position of feet first.

4. At the mouth of the Mitchell River, and some of the rivers to the south of it, as well as, I am told, on a few of the creeks to

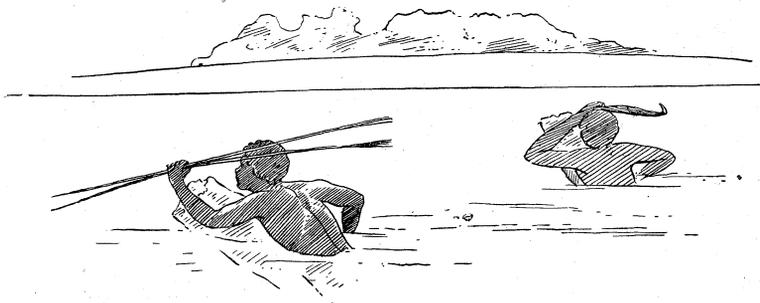


Fig. 1.

the northward, the cut trunk of some very light tree (? White Mangrove) is utilised as a float. Such a log is cut to about

between five and six feet long, and when in the water can easily support the native who stretches himself upon it straddle-leg, with the thicker butt-end in front, somewhat in the position of a child riding a hobby-horse, and so paddles himself along; being able to keep his balance with the one hand, he can thus have the other free to carry his spears, etc. (Pl. i., fig. 1, and fig. 1). To see these logs for the first time, lying as they were here and there on the sides of the river-banks, and to suggest the purpose for which they were intended, would certainly have constituted a puzzle which, without ocular demonstration, I should never have guessed. Upon enquiry, as to how they had come to practise such a manner of transport the blacks told me that having the body so much out of the water, they could swim these estuaries with much greater ease. On the other hand, I cannot refrain from hazarding the opinion that the employment of the float in this manner may at the same time serve the purpose of protective mimicry from the attacks of crocodiles, which literally swarm in these waters, the thinner end of the float, which projects behind after the nature of a tail, giving the swimmer all the appearance, at no considerable distance, of one of these saurians; that the natives here have but little dread of these creatures may be gauged from the fact that on the occasion of a visit of the Government ketch 'Melbider' to the Mitchell River, eleven crocodiles were to be seen at one and the same time from the vessel's deck.

On the eastern coast-line, floating logs were in use at the Keppel Islands up to the time of my last visit in 1897—the few remaining survivors have since been removed—and were employed on those occasions when necessity forced the blacks to swim across to the different islands, and even on occasion to the mainland, the nearest distance from Big Keppel being at least six miles. Having floated a pandanus log, up to as much as thirteen or fourteen feet in length, according to the number in the party, the leader of the gang guides its lesser extremity with the one hand (say the left), and swims along with the other; the man behind, resting his right hand on number one's loins propels himself with his left; number three holds onto number two with his left, and swims with his right, and so on. The most skilful part of the manœuvre would appear to be in the proper use of the leg so as to prevent its impeding the progress of those behind. When the leader gets tired, his place is taken by another, and if all require a few minutes' rest, they have the float to hold on to.

5. Log-Rafts are met with among the scrub-blacks from the Tully to the Russell and Mulgrave Rivers, the coastal ones

employing bark-canoes. On the Lower Tully, amongst the Malanpara Tribe, the raft or warra-jan (Pl. i., fig. 2) is manufactured of two kinds of timber, the ponol and the pedu (*Grewia pleiosigma*, F.v.M.) Four, sometimes five logs of one or other material, are cut off blunt at each end, no attempt being made at pointing them so as to better resist the friction of the water, and tied, while afloat, with a length of lawyer-cane at the two ends only. The tying consists of two parts (fig. 2); first round the outside logs

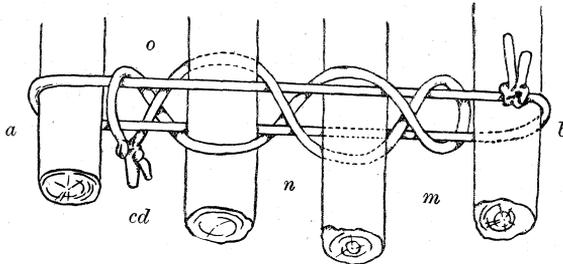


Fig. 2.

(ab), and fixing the cane at any spot suitable (x); and secondly, fixing together the upper and under portions of the cane itself, as well as the intermediate logs, by what may be called a frapping turn. This is effected with another cane, represented loose (cd) in the figure, which after being tightened up at the first interspace (m), has its extremities brought over through the next interval (n), tightening up again, and passing through the last intervening space (o), where it is finally fixed. These log-rafts are used rather in times of flood than at others, and are generally discarded after use. Sometimes there are a few small pieces of timber placed crosswise at one extremity, and on them a piece of tea-tree bark, sand, etc., may be laid; a fire can thus be kept burning. So far as the shape of the raft is concerned, sometimes the outer, sometimes the inner logs project; there is certainly no attempt at uniformity or any approach to making a bow or stem. No blade or paddle is used for its propulsion, only a pole which can both steer and punt it. It can be worked by one or two occupants; in the latter case with a pole on either side, but apparently no regular time is kept in their movements.

6. A somewhat different manner of Raft is to be seen on the Wellesley Islands. It is V-shaped (Pls. ii. and iii), composed of numerous light saplings ("White Mangrove") with butts all at one end, the larger logs underneath and at the sides, all tied together fore and aft, a cross-tie connecting the two loops to

prevent them from slipping; over the wider portion of the raft is placed a bundle of dried grass, upon which the traveller squats and paddles himself along.

7. Bark-Canoes are made either of one, two or three sheets of bark, and in the main are river-craft, though on the East Coast they are often taken across to the neighbouring islands, and on the West Coast out on the sea, but only when the wind and weather are favourable.

Those built of a single sheet are found on the Gulf Coast, extending from the Batavia and Ducie Rivers down to the Archer River, and on the eastern littoral along an area reaching from the Johnstone River to a little below Cardwell. That their area of distribution on the latter coast was much further south than this within very recent times is rendered highly probable from the fact that the Keppel Islanders, who possessed no canoes when I first came amongst them, made me models of the single-sheet type to explain the craft they used to have in days gone by. These models were all the more interesting in that the only traces of bark canoes that were discoverable amongst the neighbouring mainland natives of the Fitzroy River were of the three-sheet type.

The manufacture of such single-sheet canoes is practically the same on both coast-lines, the existing differences being only in detail. At the Tully River (East Coast) the bark employed is obtained from at least five different timbers, known under their local Mallanpara names as nupa, kirau, kiri, yabandai, and kalkara, of which only the first has been identified as *Calophyllum tomentosum*, Wight. The method of stripping has already been explained<sup>3</sup>. I was further informed that the bark



Fig. 3.

from these particular trees will strip more or less at any time of the year, i.e., not necessarily only at the end of the wet season when the sap is up. The sheet of bark, according to length required, having been removed, one of its ends is heated over a fire to render it pliable, and the whole length then folded long ways, with the outside of the bark outwards; the end which has been heated is next clamped in a vice. This vice is made of two switches (fig. 3) tied tightly below around a stiff bundle of grass, bark, etc., so as to form a kind of fork, the 'leg' of which is implanted firmly into the ground; the 'arms' are subsequently tied over the end of the folded length, which is thus held tightly in position (fig. 4). The name given to this piece of apparatus is yuku nambil-nambil (yuku=tree, log, timber; nambil=to squeeze). A spreader or

<sup>3</sup> Roth—Bull. 7—Sect. 1.

stretcher, any strong piece of timber, is next jambed into position so as to outline the future shape of the canoe, and also to serve as a guide for cutting off from the end projecting beyond the vice that portion which will subsequently constitute the bow. The cutting, which is effected with a strong sharp-edged shell (usually *Cyrena jukesii*, Desh.) is done from below upwards, through both portions of the fold simultaneously. It is not a straight incision, but curved more at the bottom than at the top, the operator standing face to face with

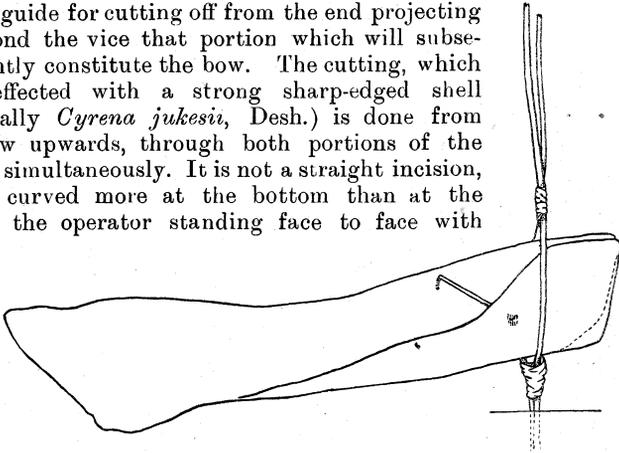


Fig. 4.

the extremity of the bark and cutting towards himself. After being cut into shape this bow end is finely sewn, or rather over-cast to use the correct term, with a split strip of lawyer-cane (*Calamus*), through holes which are drilled with an artificially-pointed wallaby bone. At the same time some tea-tree bark (which swells when moistened) is included in the over-casting of the extreme lower limit of the cut, where water is very likely to enter owing to the tendency to stretch and split consequent upon the extreme degree of flexion to which the bark-length is subjected. The sewing completed, the clamp is opened, and the other end of the bark-length similarly treated to form the stern, but in this case a wider spreader is used, the stern of these canoes being always made somewhat wider than the bows. Usually, by the time this stern of the future canoe is ready to be clamped, it has been already sufficiently exposed to the sun to make it pliable enough for working, otherwise, it is heated over the fire. With both spreaders still in position two strong withies, tapered at both ends to give greater flexibility, are attached to the inner top of either side of the vessel by over-casting with similar materials as before, and sewn in with them are unsplit lengths of *Calamus* or *Flagellaria indica*, Linn., the whole constituting the gunwale. It may be noted that though the withies start from the extreme limit of the stern, they do not as a rule reach quite up to the bow (fig. 5), on the other hand the unsplit *Calamus*, etc., surrounds both stern and bows completely. To strengthen

the canoe, some five or six pieces of bark, after being bent well into position, are made to lie inside and crosswise; these are pressed against the inner surface of the vessel by means of as many ribs, formed of split cane, which are prevented springing out of position by being forcibly tucked under the gunwale. A single tie is now sewn across the top at about the centre of the vessel, so as to prevent the two sides springing apart (from the action of the ribs) after the removal of the spreaders, which finally takes place. Last of all, a hole is made

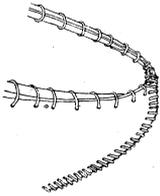


Fig. 5.

at the top a little to one side of the bow, and through it is fixed the rope to which the anchor in the shape of a heavy stone or piece of rock is attached. Such a canoe (Pl. iv., fig. 2) has fairly abrupt ends, is usually small, being intended for one person only, and in the example which I saw manufactured took a little over a day to make, this including the removal of the bark from the tree. I am informed that it will last a long while provided it is kept away from the sun under a good shade; should it crack, the tear is sewn up with intervening tea-tree bark and covered with bee's-wax usually, with one or other of their gum-cements on occasion; when in use, the occupant assumes a kneeling position (Pl. iv., fig. 1) with buttocks resting on the heels, his weight as low down as possible, and paddles himself along by means of a small oval-shaped piece of bark or a large pearl-shell held in each hand, the movements of one following those of the other. This bark-paddle is called *parambi*, the same name as is applied to the crest of a Cassowary. He carries a shell-bailer and often a fire, or else the materials and sand for making it on.

8. The single-sheet bark-canoe of the Gulf Coast, *e.g.* of the Batavia and Pennefather River Natives, is built on identical lines, a similar clamp being brought into requisition. The main differences lie in the absence of any special gunwale, and ribs, and the peculiar arrangement of spreaders and ties. To keep the sides in position two spreaders or stretchers (fig. 6), bluntly-pointed pieces of stick, are put in, their effect being counteracted by two, sometimes three, ties, made of twisted vine, which are fixed into

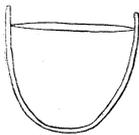


Fig. 6.

opposite sides of the vessel and stretched by means of two forked sticks placed cross-wise, their bases resting on extra pieces of bark (fig. 7). Minor differences are to be found in their general size, which varies according as they are constructed to carry from one to five or six people, in their more sloping extremities,

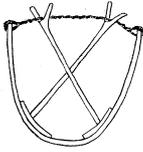


Fig. 7.

which ride the water higher than those on the East Coast, and in the fore and aft-portion being hardly distinguishable, the keel sloping away to the stem only a little more gradually at the narrower bows than at the wider stern. Furthermore, during the process of sewing up the cut ends, the over-casting commences at about the centre of the cut, the lower and upper portions being next respectively completed. The bark employed is obtained from *Eucalyptus tetradonta*, F.v.M. (NGG. arai-i). These canoes are worked with a single paddle (Pl. v., fig. 1, and fig. 8) held in both hands, and used on one or other side as may be required; the paddle (NGG. ngamba) is of interest in that it is an example of a 'natural form,' being constituted of the spatulate root of *Bruguiera rheedii*, Blume (NGG. tcherda), or *Cerriops candolleana*, Arn. (NGG. larchanama). The natives are very expert in balancing themselves on these frail structures and can even manage to stand up and throw a spear. The Rev. N. Hey, Superintendent of the Mapoon Aboriginal Mission on the Batavia River, has seen one of these canoes tipped over in the open sea, emptied of the water, and clambered into again by its occupants. When not in use, the vessel may be kept high and dry in the shade, or else left in the water. For transport on land it may be carried on the heads of one or more persons walking Indian-file.



Fig. 8.

8a. The names of the different parts of these single-sheet bark canoes on the Tully and Batavia Rivers, as applied by the local Mallanpara and Nggerikudi Tribes, respectively, are as follows:—

|                                    | Tully R. | Batavia R.     | English equivalent.  |
|------------------------------------|----------|----------------|--|
| Canoe as a whole.. .. .            | ku-kai   | truno          | = bark   |
| bows .. .. .                       | ngorn    | pai            | = fore-head  |
| stern .. .. .                      | mono     | mo             | = buttocks   |
| keel (unsewn portion) ..           | chu-cha  | mbo-ini        | = back, dorsum   |
| „ (sewn portion) .. .. .           | kanga    | andro-ana      | .....  |
| inside .. .. .                     |          | churo .. .. .  | = inside of anything<br>= median depression of chest and abdomen.      |
| gunwale.. .. .                     | .....    | mbau-o .. .. . | = adjacent breast & abdominal walls on either side of this depression. |
| spreader, stretcher.....           | .....    | lo .. .. .     | = any piece of wood.   |
| tie .. .. .                        | .....    | doan-donno     | .....  |
| forked support for the tie .. .. . | .....    | la-ta .. .. .  | =trunk of a tree.  |

9. Canoes made of two sheets of bark were seen on the Tully River and are said to require a much longer time for their manufacture. The keel is sewn first, the extremities only after alternately repeated wetting and drying. Their *raison-d'être* is apparently the want of a suitably sized sheet to allow of folding; they have no special name to distinguish them from the *ku-kai* already described.

10. The three-sheet type of bark-canoe is to be seen at the present day in use amongst the natives on Whitsunday and adjacent islands (Pl. v., fig. 2), though within the present generation its limits extended certainly as far south as the mouth of the Fitzroy River, where the local Tarumbal Blacks made me some models in 1894, by which time canoes of any description had ceased to be in vogue. Cut into more or less of a diamond

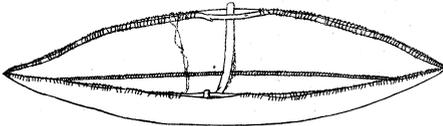


Fig. 9.

shape, one sheet forms the bottom of the vessel, the other two the sides (fig. 9). On the Fitzroy River the timber used was iron-bark, though the bottom

piece was some times replaced by blue gum, and the completed vessel, from six to seven feet long, was known by the name of *winta*, *koka* or *okka*, and *wallo*. Mr. W. T. Wyndham<sup>4</sup>, gives a short description of such a canoe in the old days from Central Queensland, and told me that it was the same as what he saw subsequently on the coast-line:—"There is one kind of bark-canoe they make in Central Queensland that I have assisted in making, and do not recollect having seen in New South Wales. The builder cuts three sheets of bark into an oval form, he inserts one sheet in a hollow in the ground, with the ends resting one on each side of the hole, he then puts a log or some other weight in the centre of the bark so as to cause the two ends to turn up, fire often being used to get them into the proper shape, the ends are then pared rather thin; the peel of some fibrous root (generally from a species of *ficus*) is used as a thread to sew the bark together; the two pieces of bark are placed on their sides, and the bottom sewn on to them by using an awl, a roll of the paper tea tree plant is used to caulk the cracks, two saplings are sewn inside to stiffen the outer rim of the canoe all round, and the *okka* is finished." The Whitsunday Island specimens usually have stretchers to keep the two sides apart. On occasion I have

<sup>4</sup> Wyndham—Journ. Roy. Soc. N.S. Wales, xxiii., i, 1889, p. 40.

seen a more or less central tie, or a tie fore and aft, in addition : fixed right forward in the bows is an upright fork upon which the harpoon rests. A single paddle with a lanceolate blade is used, and is certainly very different from the model made for me by the Fitzroy River Natives, which was somewhat after the nature of a gradually-tapering comparatively short stick, the thicker extremity being whittled down on the one side only, into a shallow more or less concave blade. The material used for the Fitzroy paddle was said to have been originally made from "brigalow," but more usually from the less heavy "bottle-tree."

11. Dug-Outs, in the condition met with along the Queensland Coast-line, are, like many other objects of Ethnological interest observable in Cape York Peninsula, of Papuan origin, and shew modifications in proportion with the distance from the area of main contact. At the same time it must be remembered that, certainly within the last eighty years, the Torres Strait Islanders (all of them Papuans) would travel south a long way down the Barrier Reef during the north west season, and return with the south east. In its original form, the dug-out canoe consists of a body with two outriggers, of which the suppression of one constitutes the primary modification, their method of construction (attachment of boom to float, etc.), forming the secondary. The body—the 'dug-out' as its name implies—is made from a suitable tree-trunk fashioned more or less at each end into a recognisable bow and stern respectively, and hollowed out with native-gouges, etc., and firing, as already described. The timber used varies with what is available in the different areas:—Thus, on the Endeavour River I found it to be *Bombax malabaricum*, D.C. (KYI. nanggarbura), *Eccacaria agallocha*, Linn. (KYI. melaba), *Alstonia verticillata*, F. v. M. (KYI. morrangal), and *Sonneratia acida*, Linn. (KYI. pornupan); at Cape Bedford, *Canarium australasicum*, F.v.M. (KYI. gundar), and *Gmelina macrophylla*, Benth. (KYI. detchi); at the Batavia River *Bombax*, etc. It is distinctly a sea-going craft as compared with the bark-canoe. The original form of double-outrigger dug-out is found on both shores of the Cape York Peninsula; at the Batavia River only, on the Gulf side, and in the neighbourhood of Cape Grenville on the east coast. It is noteworthy that now and again during the north west season foreign dug-outs are washed ashore, at the mouth of the Batavia.

12. On the Batavia River, the outer side of the body of the dug-out is but little worked, except of course at the ends, where there is a projecting ledge beyond the excavated part (fig. 10); that at the bows forms a sort of platform, that at the stern a kind of lip,

with the result that the line of keel makes a somewhat graceful angle with the former, but an almost abrupt ending with the latter. It is on the projecting platform that the hunter stands

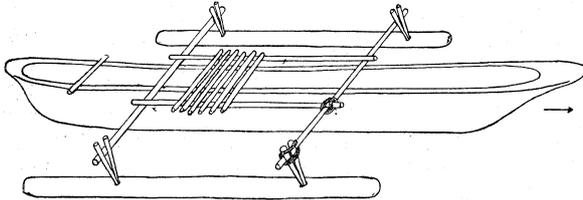


Fig. 10.

when on the look-out for turtle, etc. It was ascertained that the butt end of the tree-trunk ultimately forms the bows, which accordingly ride wider and higher when floated. The greatest breadth in the bilge is not very markedly larger than the space between the gunwale; the sides tumble in but slightly. Two booms are fixed cross-wise over the body (fig. 10), at about between the middle and outer thirds (the anterior third being the greater), by means of a rope passed through a hole drilled in the gunwale, and their ends are fastened by pegs to the float lying at each side; each set of two pegs, lying on a forward slope, is wedged below into a single mortice in the float, while above, its separated components are tied to the front of the boom. When a central staging is required, this is built up of two sticks tied parallel with the sides of the vessels, on to both booms, and smaller pieces in close apposition laid upon them transversely. The occupants, other than the one standing on the projection at the bows, sit either on the booms, on pieces of wood laid across the gunwale, or the stern ledge; there is of course room for them to sit only one behind the other, and if there is but one man steering he will have his place at the stern. The timber used for the float is not usually the same as that employed for the body, but of a more buoyant variety.

13. From Night Island down to Claremont Point, the afterboom is close to the stern (fig. 11), both booms being made to pierce the gunwale over which they are lashed to pegs driven through the sides below. Furthermore, the extremities of the booms are lashed on to the float direct, without any intervening pegs, an arrangement whereby the whole centre of gravity of the vessel is raised, the consequence being that the occupants have to squat in the bottom of the canoe (Pl. vi., fig. 1). There may be a small peg forward, to attach the line to. The paddle, worked in all

dug-outs with both hands, on either side of the canoe alternatively, is fairly similar in all these northern types, with a long comparatively-narrow blade.

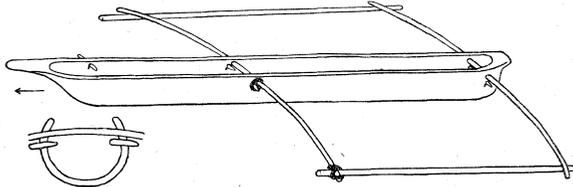


Fig. 11.

14. From the Flinders Group down to Cape Grafton there is a suppression of the left (port-side) outrigger, and following upon this—to ensure rigidity of the surviving float, an increase in the number of booms; to restore the centre of gravity of the body to the vertical is the intervention of comparatively large pegs between the boom-extremities and the float. At the same time, travelling from north to south, the stern projection gradually becomes more and more developed, until it closely approximates that of the bows, both extremities simultaneously changing from oval to square. The booms are all double, *i.e.*, in sets of two, and form a staging on to which the spears and harpoons may be laid or tied. On the authority of reliable natives I learn that Cape Grafton constitutes the southern limit of the dug-out, and that any such vessels found below this are not of local coastal manufacture.

15. Between the Flinders and the Endeavour Rivers two wash-boards are lashed on to the outer sides of the gunwale, with or without an intervening coil of tea-tree bark, and through their upper free margins the double booms are pegged (figs. 12 and 13). Though I have spoken of these narrow planks as wash-boards—and

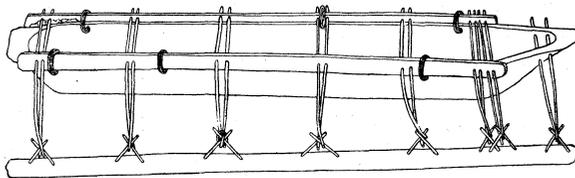


Fig. 12.

they probably serve that purpose—I fail to understand their signification unless they give indication of the lateral supports of

the Papuan central staging : they have already disappeared at the Bloomfield River, where the booms pierce the gunwale direct (Pl. vi., fig. 2). The number of double booms will depend upon

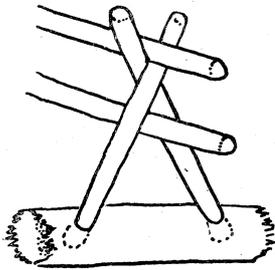


Fig. 13.

the size of the vessel, not less than four nor more than eight having been observed, a double one occasionally being made to pierce the extreme bows direct ; their two components are lashed—one above, the other below—to the angle formed by the tops of the crossed pegs morticed into the float. Two double-booms are sometimes placed in very close apposition. At Cape Bedford, where the best specimens of canoe are to be seen, and whence the cast-offs and inferior ones

are traded to Cooktown, the pegs are made from a special timber (KYI. dadetchin), while the floats are cut from a peculiarly light wood which is cast up on the beach, and preserved until required. The bow-end of the dug-out being made from the (wider) butt-end of the tree, it happens that the distance of attachment of the float from the side of the body is somewhat nearer in front than behind : in other words, the total width of the vessel as a whole is practically the same fore and aft, an arrangement which would appear to be advantageous. Here at Cape Bedford, the dug-out is generally dragged down to the water's edge by three individuals, then put in the shallow water, and punted along with two poles—one at the bows, the other at the stern—until such time as the water is deep enough for the paddles to be made use of. At Flinders Island in 1902, I saw a dug-out canoe with stretchers placed within it cross-wise apparently with the object of preventing the sides approximating too much, an arrangement which recalled the crossed forked sticks supporting the ties in the Pennefather River bark canoes. The Bloomfield River dug-outs only differ from the Cape Bedford and Flinders type in the absence of wash-boards.

16. From the Mossman River down to Cape Grafton the dug-out is cut very square at either extremity (Pl. vii.), it often being very difficult, in the absence of the outrigger, to distinguish bow from stern, the former if anything being the larger ; neither is raised above the level of the body. The space between the gunwale is extremely narrow, the sides being cut to overlap ; the occupants sitting on the double-booms are obliged to have their legs crossed one over the other, and yet I have known five or six people at

one time travelling all the way from Port Douglas to beyond Cairns in this apparently uncomfortable and cramped position. This variety of dug-out can be made from at least five kinds of timber, and will range up to fifteen or sixteen feet in length. I am doubtful as to the original local type of paddle<sup>5</sup>.

17. I attach the native names of the different parts of these dug-outs at the Batavia River (Nggerikudi language) and Cape Bedford (Koko-yimidir language), together with the meaning of the words where known.

| Part.                | Batavia R.   | Cape Bedford. | Meaning.   |
|----------------------|--------------|---------------|--|
| Dug-out (as a whole) | partara      | wangga        | .....  |
| Body                 | .....        | banchirn      | .....  |
|                      | churongganna | .....         | = any excavation or hollow.  |
| „ platform at bows   | or-kana      | .....         | .....  |
| „ bows               | pai          | .....         | = fore-head.   |
|                      | .....        | wagga         | .....  |
| „ stern              | mo           | .....         | = buttocks.  |
| „ keel               | .....        | guramun       | .....  |
|                      | .....        | mo-ku         | = backbone.  |
| „ inside             | nbo-ini      | .....         | = the dorsum.  |
|                      | .....        | wau-wu        | = inside of anything.  |
|                      | churo        | .....         | = middle line of sternum and abdomen.                                  |
| „ outside            | mbau-o       | .....         | = adjacent portion of breast & abd. walls on either side of this line. |
|                      | .....        | yirmbar       | = rib.   |
| „ wash-board         | .....        | yirmbar       | =? (cf yirmi=lips)   |
| Boom                 | .....        | dabbul        | =? (cf tabul=nose-pin)   |
|                      | ar           | .....         | = hand   |
| Float*               | ar-temma     | .....         | = little finger  |
|                      | .....        | darman        | .....  |
| Pegs                 | .....        | kanna-kanna   | =? (cf ga-na=digging-stick)  |
|                      | landru-i     | .....         | = any splinter.  |
| Rope for tying       | pro-alatanna | gumbin        | = any rope or string.  |
| Paddle               | .....        | biribe        | .....  |

18. I have purposely refrained from making any notice of the Torres Strait Island sailing craft (dug-outs), which although visiting the neighbourhood of Cape York, are of Papuan interest,

<sup>5</sup>The Kungganji Blacks of Cape Grafton speak of the float as bunul, the local term for mullet, indicative of its habit of skimming along the surface of the water.

and do not come within the scope of a work dealing with Australian Ethnography. At the same time mention may be made here of the toy sailing boats made by the boys at Mapoon (Batavia River), with a single outrigger, always on the weather-side, which can be shifted from port to star-board and *vice-versa* as occasion requires; how far this innovation is due to civilising influences under missionary auspices, it is impossible to say.

At Cape Bedford the blacks have native names for European made vessels. A steamer is known as gol-ngoï, but the actual etymology of the word is not known; a boat is called yulal, a term signifying any flat piece of wood, and so applied to the planks with which it is built.

19. In the Brisbane District<sup>6</sup> a canoe was called kundul, the same term that was applied to every kind of tree-bark except that of the tea-tree, which was known as rguduru. The tree which was particularly used for making canoes was the bulurtchu or "bastard mahogany," the bark of which did not split, but when this was not obtainable recourse was had to the diura, one of the "stringy-barks," though this was liable to crack during the progress of manufacture. The canoe was always made out of one sheet of bark, from ten or twelve to as much sometimes as twenty feet long, which was removed from the tree, during spring-time, as follows:—The native would climb up to the necessary height and make a deep transverse cut the whole circumference of the tree, with a vertical one where convenient; while still up, he would pick off all the rough outer scales with a small spatulate pointed stick (which had its special name), and as he descended lower and lower would both lengthen the vertical cut, and peel off the bark, finally cutting it off below after having been thus cleaned. When removed, this sheet of bark was tied round at each end to keep it funnel-like, fires lighted inside, and the whole piece kept revolving, not only to prevent it catching alight but also to get it uniformly heated. This process rendered the bark more pliable, with the result that when subsequently the men standing at either extremity bent each up, it could easily be crinkled, folded, and skewered, in a manner almost identical with the pleat-type of bark trough,<sup>7</sup> save that the adjacent surfaces of each fold were not pressed into such close apposition. The gunwale was strengthened by fixing along its inner edge a long withe of wattle (*Acacia*, sp.) or nannam (*Malaisia tortuosa*,

<sup>6</sup> From information given me by Mr. T. Petrie.

<sup>7</sup> Roth—Bull. 7—Sect. 58.

Blanco), and overcasting with a split length of yurolo (*Flagellaria indica*, Linn.), which was also similarly employed for overcasting the two wooden skewers. The bark vessel, as now constituted, was inclined to curl in at the sides with the heat of the sun; this was counteracted by means of a stick placed cross-wise, which was prevented slipping by tying its nicked ends to the under surface of the gunwale. If a small canoe, the cross-piece was fixed at the centre, but if large, one would be placed fore and another aft; both ends of the canoe were similar and indistinguishable. The vessel was propelled by the individual (male) standing up in the centre and using a long pole, up to ten feet long and a couple of inches diameter; it was a sort of punting movement (not touching bottom of course), the pole being used on one side of the vessel alternately with the other according to the course to be steered. Some of these big canoes would carry as many as ten people, but with the larger vessels, one man would usually punt at the bows, and another at the stern; the passengers always sat low down on their haunches at the bottom of the boat. In the smaller canoes, there might be two or three gins by themselves, especially when they went for short distances, to the little islands for crabs, oysters, and cobra. In all these vessels there was always a fire kept glowing on some clay at one end, and, in case of leakage, a shell-bailer<sup>8</sup> or niugam (*Melo diadema*, Lamk.), and some whitish clay<sup>9</sup> which, if necessary, would be plugged into the split. Canoes were identical whether intended for fresh or salt water.

## II.—TRADE AND BARTER.

1. On the Bloomfield River (*R. Hislop*), the articles of home-production for trade and barter were dilly-bags, spears, wommeras, edible pipe-clay (within recent years), best kind of fighting-stick, shields and swords (in the old days), several varieties of gum-cements, and red ochre. These would be bartered for stingaree-spears, shell-ornaments, yellow ochre, edible pipe-clay (in the old days), shields and swords (in recent times). There were no particular individuals to effect the exchange, each one acting on his own behalf, nor were there any restrictions as to which of their neighbours they might barter with. The principal time of barter was during the laying-season at King's Lake country, *i.e.*, whenever there happened to be a sufficient supply of

<sup>8</sup> Roth—Bull. 7—Sect. 55.

<sup>9</sup> Roth—Bull. 7—Sect. 15.

food to attract them<sup>10</sup>. There was apparently no conception of relative values, and though not a regular practice, members of the same tribe would interchange.

2. At Princess Charlotte Bay, the Koko-rarmul of the Morehead River give the Koko-warra (whose 'country' extends along the course of the Normanby and Deighton Rivers) reed-spears, iron-scrap, European tomahawks, etc., getting in return melo shell, grass-reed-spears, nautilus-shell necklaces, stingaree spears and fishing-nets. The Endeavour and Bloomfield River Blacks travel up in the direction of the Laura River, and supply the Koko-warra with red-ochre, white-clay, grass-tree spears, etc., which are paid for with the same articles as are supplied to the Koko-rarmul.

3. The Cape Bedford Blacks send out or export iron tomahawks, iron digging-sticks, nautilus-shell, different kinds of dilly-bag, pearl-shell chest ornaments and melo-shells. In return, they obtain forehead-bands, kangaroo-tail sinew, kangaroo bones (of a certain kind to be specially used for making bone awls), quartz-tipped spears, bark troughs, and a rough kind of fixed grind-stone. They travel in barter along the Northern Coast-line as far as, very probably, the Flinders River. They only come south to the North Shore (Endeavour River) encampment, opposite Cooktown, owing to their employment in the township, but this is only of late years. Captain Cook<sup>11</sup>, it is noteworthy, when speaking of the Endeavour River Natives, is made to say:—"They had indeed no idea of traffic, nor could we communicate with any of them—they received the things that we gave them, but never appeared to understand our signs when we required a return."

4. For purposes of trade and barter it may be said that the Cairns, and until recent years, the Cape Grafton Blacks travel along the coast-line between Port Douglas and the Mulgrave River; the Barron River Natives wander up the coast as far as Port Douglas and inland up to Kuranda and Mareeba; the Russell River boys 'walk about' to the Pyramid Mountain, the Mulgrave and Johnstone Rivers, and Cairns; whilst the Johnstone River Natives travel to between Clump Point and Liverpool Creek. Dealing now solely with the Cape Grafton Blacks, it

<sup>10</sup> In the Bouli District, it would appear that the trading season commenced with the full maturity of the Pituri plant, the local narcotic (see Roth—Ethnol. Studies, etc., 1897, Sects. 224, 229-234), while at Brisbane (*T. Petrie*) it was when the Bunya nuts were ripe.

<sup>11</sup> Hawkesworth's Edition, London, 1773.

would appear that, prior to the institution of the Yarrabah Missionary settlement, the following list comprised the trade-articles of home production :—bicornual dilly-baskets (taken or sent to Port Douglas, the Mulgrave and Barron Rivers, Mareeba and Herberton), grass-bugle necklaces (for the Mulgrave and Russell Rivers), four-pronged fish-spears (Mulgrave and Upper Russell Rivers, Johnstone River, Clump Point, etc.), straight spear-throwers without the shell-haft (for the Mulgrave, Johnstone and Russell Rivers), bent or moon-shaped spear-throwers, large fighting shields, and long single-handed swords (all for the Barron River and northwards). The imports constituting the Cape Grafton northern trade, coming mainly from the Barron River and Port Douglas, included the following :—hour-glass woven-pattern dilly-bags, round base basket dilly-bags, beeswax necklaces, straight shell-hafted spear throwers, a variety of bamboo spear, square-cut nautilus-shell necklaces, and cockatoo top-knot head-dresses. The southern foreign trade, which used to come in either directly or indirectly from the Mulgrave River, comprised :—long swords, boomerangs, shields, opossum-string armlets, and the large oval-cut pearl-shell chest ornaments, the last mentioned being said to have reached the Mulgrave River via Atherton and Herberton, whither it was believed to have been brought from the Gulf Country. The trading, amongst the Cape Grafton Blacks, was not carried out by any particular members of the community, the bartering being apparently personal, each one doing business on his own account.

5. Amongst the Tully River Natives, there are collective names for goods coming, not going, from one or other direction :—

(a) Irakanji (another name for the chau-an basket dilly-bag) implies collectively all the imports from the north and west.

(b) Kuu-yin (another name for the kwi-auchal pearl-shell chest ornament) includes all the goods that come in from the south.

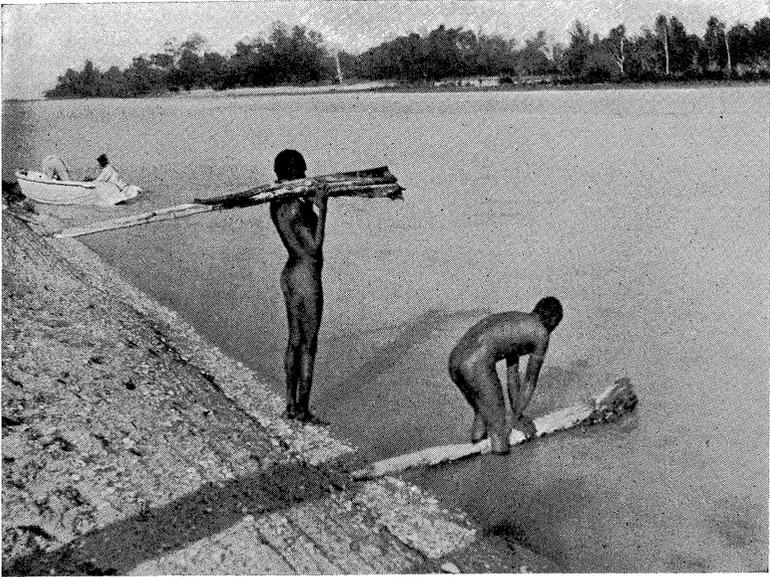
On the other hand, there is not much barter going on nowadays. To the Clump Point Blacks, these Tully River boys (the Mallanpara) give *Heleocharis*, getting the *Cryptocarya bancrofti* nut in return : to the Cardwell Natives they barter dilly-bags for which they receive bark-blankets, etc.

6. The Pennefather River Natives apparently do not carry on much in the way of trade ; they travel but a comparatively short distance up and down the coast-line, and never to any great distance inland. Their northern neighbours, the Mapoon, obtain from the northern shores of Port Musgrave the 'ombo' spears, for these they give bamboo and stingaree-spears, which they have obtained from the Pennefather River men.

EXPLANATION OF PLATE I.

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- Fig. 1. Logs of light wood used as floats for crossing water.—Mitchell River, &c.
- „ 2. Logs tied together forming a simple primitive raft. The man propelling the structure with a pole had attended a prun (Bull. 4—Sect. 15), his head and face being more or less still covered with feather down.—Tully to Russell and Mulgrave Rivers.



1

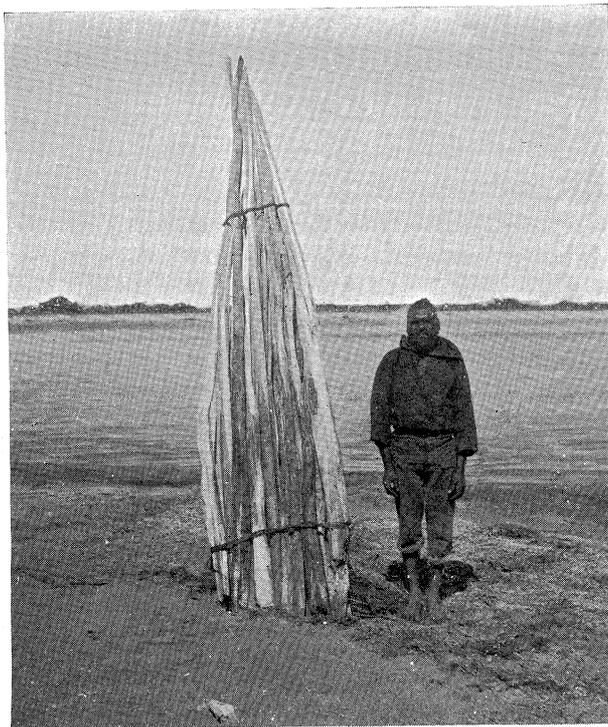


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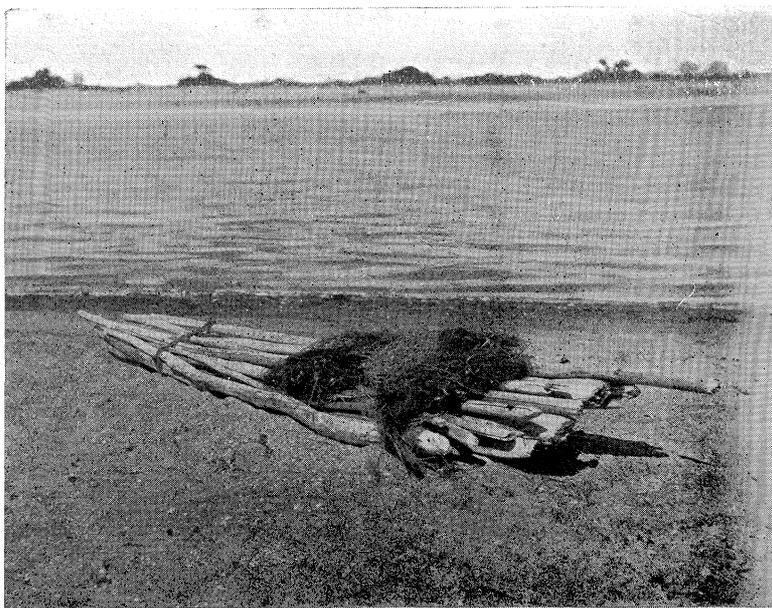
EXPLANATION OF PLATE II.

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- Fig. 1. V.-shaped log raft of numerous light saplings, with butts all at one end.—Wellesley Islands.
- „ 2. The same form of raft with seat of dried grass, &c.



1

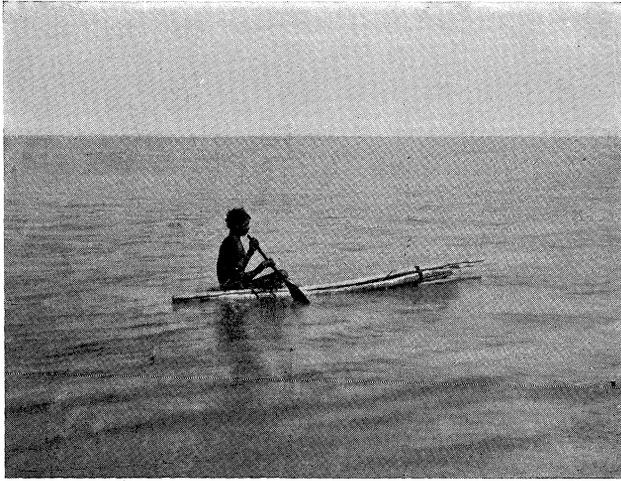


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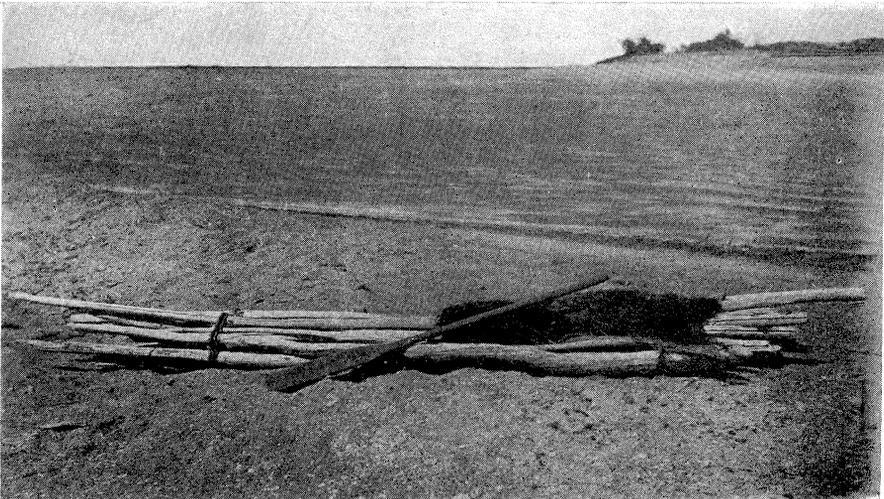
EXPLANATION OF PLATE III.

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- Fig. 1. V-shaped log raft afloat, showing method of propulsion.—  
Wellesley Islands.
- „ 2. The same ashore, with grass seat and paddle.



1

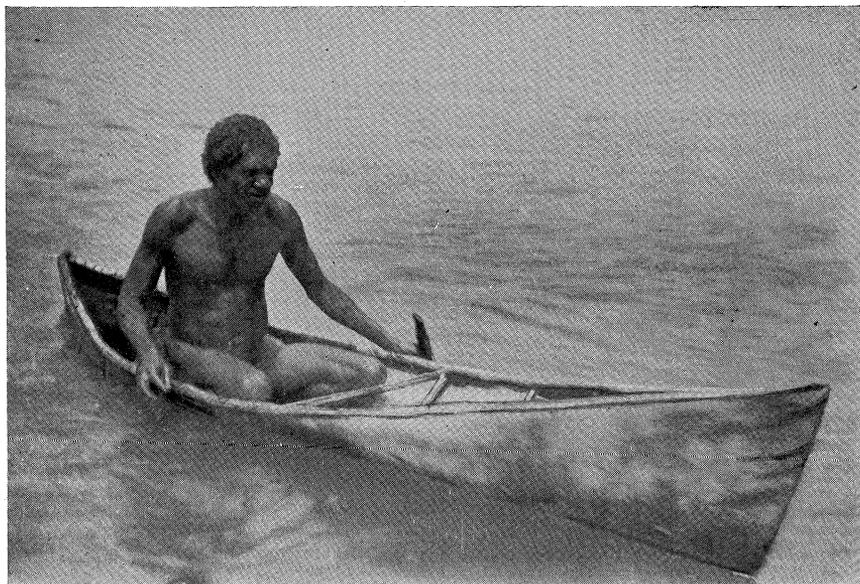


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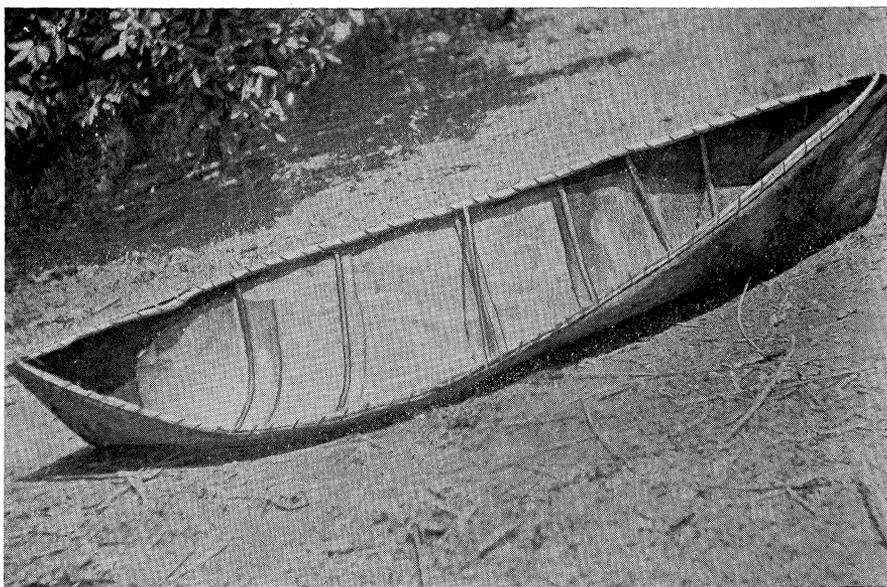
EXPLANATION OF PLATE IV.

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- Fig. 1. Single-sheet bark canoe with blunt straight ends.—Gulf Coast (Batavia and Ducie Rivers to the Archer River).
- „ 2. The same afloat showing capacity for one occupant who kneels resting his buttocks on his heels, and paddling with two oval pieces of bark.



1



2

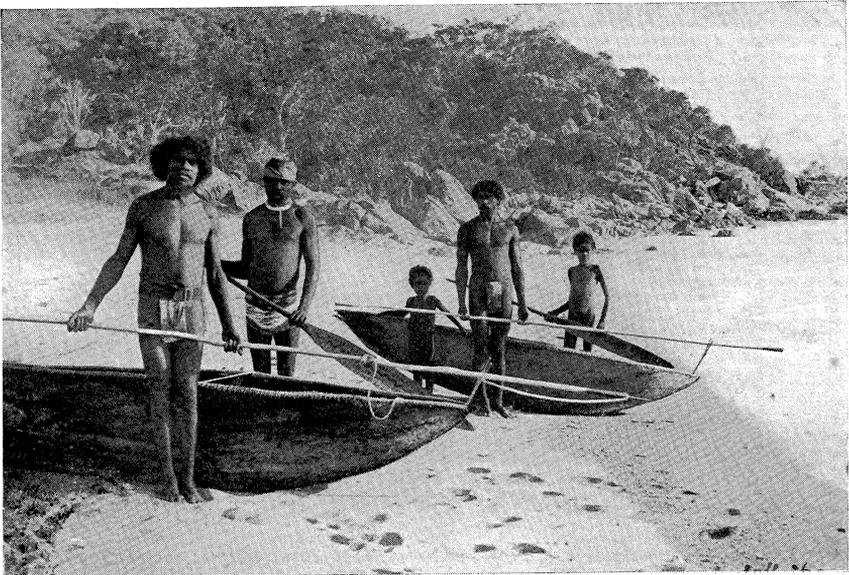
EXPLANATION OF PLATE V.

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- Fig. 1. Single-sheet bark canoe with oblique ends, showing method of spreading the sides by means of a stretcher, and means of propulsion.—Gulf Coast (Batavia and Pennefather Rivers).
2. Three-sheet bark canoes.—Whitsunday Island.



1



2

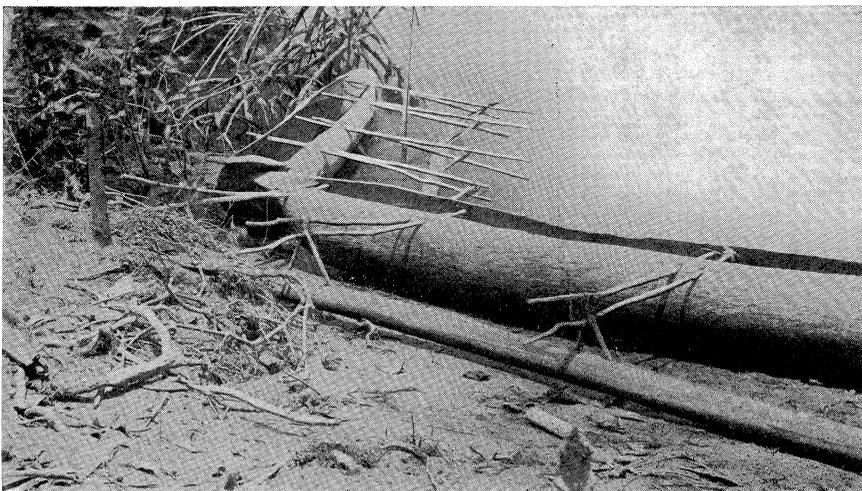
EXPLANATION OF PLATE VI.

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- Fig. 1. Dug-out with outriggers, and projecting terminal lip or platform for the hunter to stand upon.—Batavia River.
- „ 2. Dug-outs showing position of booms and method of attachment to the floats or outriggers.



1



2

EXPLANATION OF PLATE VII.

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Fig. 1. Dug-out cut square at either extremity; with one outrigger, capable of carrying five or six people.—Mossman River to Cape Grafton.

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