

VII.

AN ARCHÆOLOGIST'S STUDY OF THE ADMIRALTY ISLANDERS. By
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There is a weapon which is extensively made and used at the present time by the inhabitants of the Admiralty Islands, and which seems to me to teach some useful lessons. It consists of a flake of obsidian, fastened to the end of a long thin stick. This flake is entirely undressed. From the flakes struck off the core of obsidian, those suitable for the purpose are chosen, and are used without any further preparation. The characters, therefore, of these stone weapons bracket them with palæolithic implements, and consequently the condition of those who use them deserves examination by the archæologist.

The first thing I have to point out is that the Islanders are believed to be entirely without the knowledge of any metal. In the fullest sense they appear to be in their Stone Age. It is true that they have now some axes and adzes made of soft hoop iron, which they have quite recently obtained through barter with European and American ships visiting them. But their only weapon of offence continues to be the handled obsidian flake. They are said to use nothing else. They have neither bows, slings, throwing sticks, ulas, nor clubs. These handled flakes are not used as spears or lances, but are thrown by the hand at an enemy, without even a cord attached to them as in New Caledonia. The shaft or handle merely enables them to throw, point-first, a sharp-pointed stone. They have no shields, and no weapons to be used at close quarters. In short, their only way of attacking an enemy is what amounts to throwing pointed stones at them, these stones being attached to handles in order to secure their reaching the object, at which they are thrown, point-first.

It appears, therefore, that these people are armed for war in nearly as rude a way as can be imagined. But other things show that the palæolithoid weapon, to which I have referred, is found in the hands of a palæolithoid man,—that is, of a man in the condition which we commonly accept as that of the man who used what we know as

palæolithic implements and weapons. Other things, I say, in the usages of the Admiralty Islanders, point in the same direction as this rude weapon, in so far as they seem to harmonise with the want of inventiveness and knowledge, which is seen in their not having provided themselves with a more efficient weapon. To some of these things I shall now draw attention.

Two bunches of grass, one in front and one behind (which is the longer) constitute the whole clothing of the women. The men wear, in the usual T-bandage manner, a strip of bark cloth about 5 feet long and 6 to 8 inches wide. It is in the form of a sac, open at both ends, apparently the bark of the cut limb of a tree, loosened by beating and then drawn off. The islanders are not known to have any true native cloth.

The men do not always wear this loin cloth. When they do not wear it, their only clothing is a shell (*Ovulum ovum*) on the penis, so worn usually that its narrow mouth nips and flattens the penis behind the glans. The inner whorls are cut out, but not so as greatly to widen the mouth. When the bark cloth is on, the shell is usually carried in a small bag hung round the neck. If they do not show the penis bare there appears to be no sense of indecency, and boys wear the cloth before they assume the shell.

Both men and women wear armlets, and neck, nose, and ear ornaments, made generally of shells, but the women are not decorated to the same extent as the men,—a fact which is held to indicate a very low state of savagery.

Whatever the condition of these islanders is, it is one which has not as yet been in any way affected by contact with cultured and civilised people. Indeed, we have only in quite recent times learned anything about them. The existence of the islands was first made known to Europeans by Le Maire and Schouten, who sailed past them in 1616, but did not attempt to communicate with the shore. They were next visited in 1767 by Captain Carteret, but he did not land, neither did Maurelle, who visited the islands in 1781, nor Hunter, who visited them in 1791. In the following year, 1792, they were visited by D'Entrecasteaux, and he also left without landing. In 1843

the American clipper "Margaret Oakly" visited the islands, and her crew landed at many points. An account of this visit has been written by J. T. Jacobs. After this there is no published account of any visit till 1874, when Saunders was there, and found the inhabitants friendly. The visit of the "Challenger" took place in 1875, and in the admirable accounts of what was then seen and done we have practically our first knowledge of these islands and their inhabitants. It is to these accounts that I am indebted for the information which I possess, and out of which I propose in this paper to draw some lessons. Since the date of the Challenger's visit, the islands have been several times visited—in 1876, 1879, and 1883—by Baron N. de Miklucho-Maclay, but I have not seen any account of these visits. Between 1843 and 1874 there is almost a certainty that the islands were visited by whalers and other ships, though there is no published record of such visits. One evidence is found in the obsidian weapons, gourds, &c., which existed in the Christy and British Museum Collections, before the Challenger Collections were given to the British Museum.

We have here, therefore, a primitive people, who have only recently become known to us, and who have not yet been affected by contact with the more advanced races. They know nothing of metals. Their only weapon is an unpolished and undressed sharp-pointed obsidian flake. They have no bows and arrows, no shields, and no clubs. They go almost naked. Their men are more highly decorated than their women. They have no great chief, as I have omitted to state. They are spread in small groups over the numerous islands, each group having a chief, who governs in virtue of physical and probably also intellectual superiority, and who is not treated with any ceremonious respect. All these things are in harmony. They all fit in to the notions we have of the palæolithic man, and seem to entitle us to regard them as at least palæolithoid. This, I think, would be a fair conclusion from what I have said regarding these Admiralty Islanders if I stopped here and said no more. But I have more to say, and I believe that I cannot say it without greatly modifying the ordinary meaning of such a view. We may still have to regard these islanders as men in the Stone Age. The modification of view may be a modification only of our view of the men

who did actually use the weapons and implements, which we know as palæolithic, and which are found in circumstances indicating a very great age. We may be led to conclude that the really palæolithic men do not necessarily show a want of capacity and inventiveness in every direction, though their only weapon may appear to have been an unpolished and undressed stone, and that they may have shown a considerable capacity and a clever inventiveness in various directions, all traces of which would totally and quickly disappear, either with their disappearance off the face of the earth, or, what is practically the same thing, with their disappearance through a rise in culture and civilisation.

In the further study of the condition and usages of the Admiralty Islanders, with the object just indicated, perhaps the first thing to point out is, that though their only weapon is an undressed obsidian flake, and though they make knives and cutting implements, such as the razor, and the smaller flakes, yet they have some tools of other materials.

The tool, for instance, in most common use is a small adze, consisting of a natural crook of wood, on which is bound a *Terebra Maculata* shell, ground down until only one lateral half of it remains. Almost every man is said to carry one of these adzes, but the shell is now sometimes replaced by a piece of hoop-iron, obtained by barter from ships visiting the islands. The natives will only accept iron as barter in a shape which admits of its being used without any process of manufacture.

Large adze-blades made of *Tridacna* and *Hippopus* shells also exist. They are very roughly made, only the actual edge being ground. None of these were seen mounted, and they appear to have gone out of use.

Axes were also obtained, made of hard volcanic rock, and these have ground surfaces, and are triangular in form. They are mounted in a very primitive way, being merely jammed in a slot cut in a club-like billet of wood, near its end. These are not common. Only one mounted specimen was obtained by the Challenger.

Another tool is also mentioned. Pieces of pearl oyster, usually semicircular in shape, ground to a thin edge on the rounded border, are said to be used as knives to cut cordage.

We have here, therefore, adzes, axes, and knives, made either of shells or of a very hard stone; and all of them are ground to a cutting

edge. The islanders are thus acquainted with and practise grinding extensively as regards shells, and to a small extent as regards stone. Why, then, do they never dress, grind, or polish the flakes of obsidian? That question I cannot, of course, definitely answer. But I may be permitted to ask whether their reason may not be that obsidian yields flakes which do admirably what is wanted without any dressing or grinding, and that, as the weapon must be, and is, made in very large numbers, being thrown at the enemy, and almost certainly lost, just as would happen to flint-tipped arrows, if the fight is on the sea, it would be a waste of time to dress or grind? It is not from want of knowledge, at least as regards grinding, because they practise it.

If the islanders were swept out of existence, and the islands were long after visited and explored, the relics of a past occupation which would be found would be the following:—(1) a very large number of small and large flakes of obsidian (fig. 1); (2) a considerable number of shell implements, which had been ground; (3) a few implements of a hard volcanic stone, which had also been ground; and (4) perhaps also a few ornaments made of shell, to which I shall afterward refer. There would not be a trace left of the many other objects which I am about to mention. Even the sticks to which the flakes of obsidian are attached would have disappeared. The reference to these sticks brings me to the next point in my study of the condition and usages of the Admiralty Islanders.

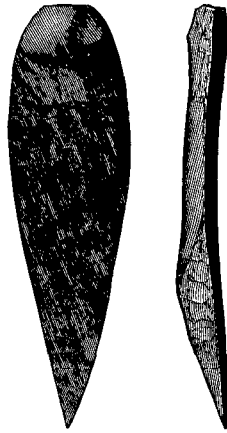


Fig. 1. Flake of Obsidian, detached from the shaft. ($\frac{1}{3}$.)

Is there anything in the way of attaching the sticks to the flakes which deserves examination? It will be seen (fig. 2) that they are very firmly and securely attached. How is this done? It will also be observed that there is a good deal of rather tasteful decoration about the connection of the stone to the shaft, but this would not give much trouble, nor occupy much time.

The shaft is a piece of tough wood, often a natural stem, but sometimes a light but rigid reed forms the staff. The edges of the flakes are sharp, and one end is pointed. If the other end is not

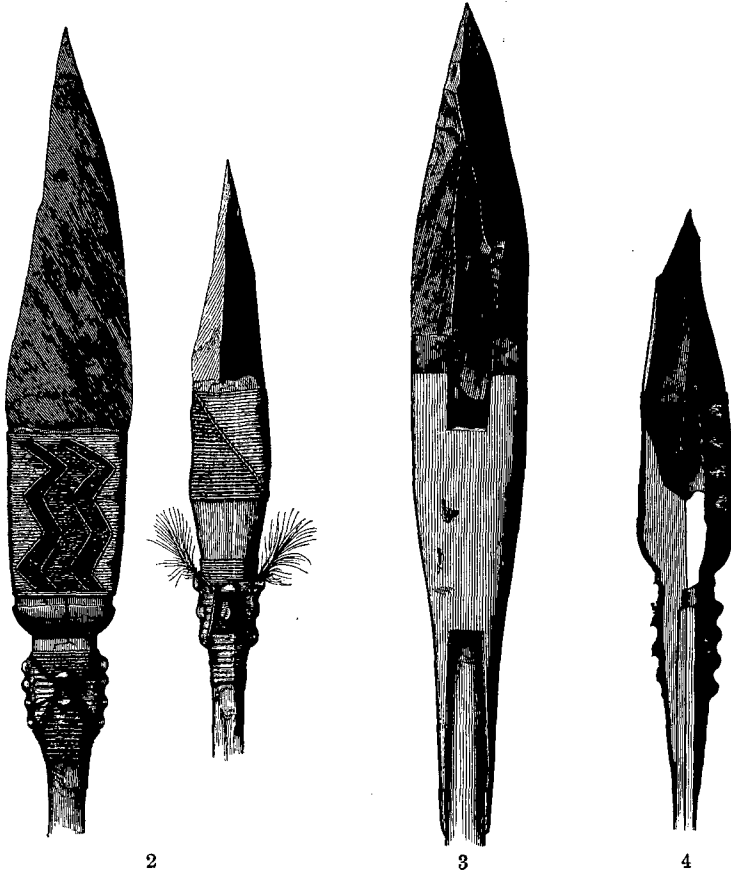


Fig. 2. Obsidian Spears. Fig. 3. The Flake mounted on the shaft.
Fig. 4. Section of mounting of Flake on the shaft. ($\frac{1}{3}$.)

naturally blunt and rounded, a piece is broken off. Between the flake and the shaft (as seen in fig. 3) there is a bit of wood, much wider at

one end than at the other. In the wider end a deep socket is cut for the reception of the flake. In order to facilitate the scooping out of this socket, a slot is cut across the bit of wood. In this way a socket of considerable depth is easily obtained, better for its purpose, indeed, than if its walls had been continuous. In the narrow end of the bit of wood a deep slot is cut for the reception of the shaft. Between the socket for the flake and the slot for the shaft a solid bit of wood is left, to give strength. Sometimes this solid bit of wood is perforated for the purpose of ornament.

A very hard and solid gum is used to bed the flake and the shaft in their respective positions (as shown in the section, fig. 4). This gum is the same as that which is used for caulking the seams in their canoes, which are deepened by the addition of a plank to the sides. It is obtained by pounding the brown ovoid fruit of the *Parinarium laurinum*, which is about the size of a goose's egg.

The flake and shaft are then further bound in position by well executed 'whipping' with a finely made strong twine, which at certain points, so as to form a pattern, is made to pass through the pretty seed of the *Coix lachryma*.

Sometimes the 'whipping' is made to yield a pattern, as is so ingeniously done by our saddlers. In nearly all cases the connection of the flake and shaft is coloured in patterns of white, red, and black. Additional ornamentation is sometimes got by making the twine at certain points secure little bunches of small feathers, or tufts of the hair of the *cuscus*.

I have described the usual way of attaching the flake to the shaft. There are other ways, but these are merely modifications of that which I have described, and, being apparently quite exceptional, do not need to be considered.

I have been giving the details of a bit of anatomical work. I made the dissection which I now exhibit many years ago, before I knew that Mr Moseley had already made a similar dissection. I now ask, What is its interest to the archæologist? And there does not appear to me to be much difficulty in giving the answer. Am I not right in saying that the men who use these undressed flakes show considerable ingenuity,

ability, and taste in making them ready for use? If these islanders took to polishing, grinding, or dressing this weapon, would that necessarily mean that they had risen either in capacity or knowledge? It is a very poor weapon, and would be of little use against an enemy armed with the bow and arrow or with the lance and shield, but it would not be improved by polishing or grinding. Does not the weapon, when studied as a whole, show as much capacity and intelligence as goes to the grinding of a stone axe? It seems to me that it shows this beyond doubt. These islanders do practise grinding. They have tools, both of stone and shell, which are shaped and sharpened in this way. But they leave the obsidian flakes just as they fall from the core. Is it not possible that they do this because they would get no advantage by doing otherwise? And may we not easily draw inferences which are much too large as to the lowness of the mental powers of a people found so extensively making and using a palæolithoid weapon? I think that I have said enough to show that we may easily do this, and yet, up to this point, I have done nothing but study the weapon itself. When I go further, as I am about to do, and tell more about the usages of these islanders, I feel satisfied that I shall obtain a general agreement in this view.

Food.—The islanders are neither agriculturists nor shepherds. No large clearings for cultivation are to be seen. Their principal vegetable foods are cocoa-nuts and sago. The last they prepare into a farina and preserve in hard blocks. They plant and carefully protect cocoa-nut trees. They also grow plantains, but not extensively, and taro (*Caladium esculentum*) and a bread-fruit tree also, to a limited extent.

They have no domesticated poultry; indeed, the only domestic animal they have is the pig, and they eat its flesh roasted, served with prepared sago, on large wooden bowls. They also roast and eat the flesh of the *cuscus*—the Phalanger of the islands.

They appear to get fish in great abundance, and to live largely on it as a food. They use long seine-like nets for fishing. One was seen at the visit of the Challenger, which was about a fathom in depth and of a very considerable length. Hand-nets on elbow-shaped frames of wood are also used, and so are stake-nets, the lines of stakes being conspicuous objects off the shore near the villages. Their fish-hooks are

made of *Trochus* shell, all in one piece, and without a barb. It is thought that they do not use a bait, the bright nacre being an artificial bait, resembling small fry in the water. The nets are well and evenly made, and the twine is of excellent quality.

Wooden Bowls.—The islanders have their food served in large wooden bowls, which are correctly described as “most remarkable for their graceful forms and delicately carved handles.” They are widely open, and are worked with wonderful precision to the circular form, being almost as true as if they had been turned. The handles rise considerably above the brim, and are usually cut on a delicate spiral. They are almost always ornamented with perforated carving, and sometimes include in their design a pair of crocodiles or a pair of human figures. The figures of the lower animals, when thus used, are always more gracefully executed than the human figure. This, however, is true of even the best Celtic ornamentation. Sometimes the bowls are made to have rather prettily the form of an animal—say a bird or a crocodile. Plants do not enter into their ornamentation at all. The bowls seem to be nearly always provided with four short legs.

Houses.—The ordinary houses of the islanders are of an elongate beehive shape, and are built of a continuous wall and roof of grass and cocoa-nut leaves, or similar material. But many of the houses are built up neatly of wood, cut into billets. They are thatched, and have a regular framework of rafters. They are 20 to 25 feet long, about 10 feet broad, and from 10 to 15 feet high. They have a low opening at one or both ends. These better houses are those which concern us here. In judging of their mental ability, we want to know the best things they do. The inferior things need not be the outcome of a want of capacity, but may be the fruit of indolence, as happens among ourselves.

Besides these family houses there are larger ones—club-houses used for meeting and feasting purposes by associations of the natives, who join together in constructing them. One of these seen at the Challenger's visit had a male and a female human figure roughly carved in wood as door-posts.

Some of the villages are fortified,—that is, they are protected against attack by palisades about 10 feet high.

Canoe.—The canoe of the islanders is from 30 to 40 feet long, and is formed of the hollowed trunk of a tree, with a single plank built on, and with a gunwale-piece as a finish. How the plank is fixed in position we are not told, but I have already referred to the gum used in caulking. The mast is stepped in the bottom of the canoe, and ingeniously and effectively supported. The sail is square. The bow and stern of the canoe are low. A horizontal outrigger extends from the middle of the canoe on one side, and is connected with a long canoe-shaped float. Opposite the outrigger, on the other side of the canoe, is an inclined shelf or deck, supported on two or three stout projecting beams. A platform is formed with planks on the horizontal outrigger. The larger canoes carry from ten to fifteen men.

Spin.—As I have stated, the islanders do not appear to weave any kind of cloth, but they spin most excellent twine. I have examined the finer kind used in fastening the flakes and shafts together, and the coarser or stronger kind used for making nets, and they both seem to me to be exceedingly well made.

Pottery.—They possess unglazed and unornamented pottery, but not in large quantity. It is generally globular in form, with a narrow mouth, and is used in cooking. It is very like the well known Barvas pottery. One earthenware pot was seen at the Challenger's visit, which was wide-mouthed, stood on four feet, and had handles, and it was thought probable that the natives had made it, as it closely resembles in form the wooden bowls which they make extensively.

Personal Ornaments.—As I have already said, personal ornaments are worn much more largely by the men than by the women. The men wear armlets, often seven or eight on each arm, of *Trochus niloticus* shell. They are neatly engraved with lines forming patterns, composed of lozenges, triangles, and transverse bars, the raised lines being blackened so as to form a dark back-ground, against which the lozenges show out in strong relief. The *ovulum* or bulla shells worn by the men are usually tastefully decorated in a similar manner. Waistbelts and armlets of fine plaited work, with patterns in yellow and black, are common. Circular plates ground out of *Tridacna gigas* are also worn, either as breastplates or on the front of the head. These discs are

faced with plates of thin tortoise-shell, perforated with very elaborate patterns in good taste.

Nearly all the ornamentation of which I have been speaking is made up of straight lines. But in the decoration of the gourds which contain the lime used by the betel-chewer, curved lines are used freely and with excellent effect.

Betel.—Almost all the islanders chew betel, using the pepper leaf, areca nut, and lime together, as usual. The lime is carried in gourds, which are rudely but pleasantly decorated. Some of the spoon-sticks for conveying the lime to the mouth are carved at the handle-end, and in the case of one of them the carving showed considerable artistic merit.

I do not require to go further with my account of the arts and usages of these Admiralty Islanders. They *may* use undressed stones as weapons of offence, they *may* go practically naked, they *may* have many barbarous usages, they *may* have no organised government, they *may* even be cannibals—all these things *may* be true; but it is also true that they provide themselves with good vegetable and animal food; that they serve it, when cooked, in wooden bowls, which are graceful in form and delicately carved; that they possess excellent appliances for the catching of fish; that they can build good houses; that they have club-houses for convivial and other meetings; that they have large and cleverly designed canoes, with sails; that they spin excellent twine and cordage, though they do not seem to weave cloth; that they manufacture pottery; that they wear personal decorations, which are prettily designed and ornamented; and that, though they do not dress in any way their weapons of obsidian, they do, by grinding, give shape and edge to certain tools of stone and shell.

We have two pictures here, differing from each other greatly,—the one telling of nothing but incapacity and degradation; and the other, while not disclosing a high knowledge or capacity, nevertheless revealing considerable powers of invention, and more than a small appreciation of what is beautiful, or at least of what is pleasant in form and colour. I ask you to remember that if these islanders disappeared by any process,

by dying out or by rising in culture, the relics of their occupation of the islands would include almost nothing of what goes to make up the second picture. All *that* would rapidly be lost, by rotting or otherwise. I conclude by asking, with some confidence as to the answer, whether I have not succeeded in drawing a lesson which is useful in Archæology from the study of the account of the visit of the Challenger to the Admiralty Islands.

It is the fulness and accuracy of that account which has rendered such a study possible—which, indeed, suggested it. I do not know any account in any language of a visit to an almost unknown, or to a very little known, people in a state of savagery, which can be compared to the account of the Challenger's visit to the Admiralty Islands. It is, in my opinion, the best thing of the kind that has ever been written, and I read such literature extensively. The visit only extended from the 3rd to the 10th of March (1875), but the observers were many and active, and they were all highly trained and earnest men of science. The account is founded on their combined observations. It would, no doubt, have been a still better account if the visit had lasted fourteen instead of seven days. There are some things which it would be useful to know,—of what, for instance, was the sail made? It would have been very profitable, too, if the visitors had seen and described such things as the method of striking the flakes of obsidian from the core, the way in which the twine and cordage are manufactured, the way of roasting the pork, the way of fastening to the canoe the plank which deepens it, how the earthen pots are fashioned and fired, and how the stone and shell axes are ground.

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3. Sir WILLIAM TURNER.—"Report on the Human Skeletons. The Crania." *Zool. Chall. Expd.*, part xxix., 1884.

4. ROLLESTON, Prof.—“The Domestic Pig of Prehistoric Times in Britain, containing a reference to the Admiralty Island Pig.” See *Collected Scientific Papers*, edited by Sir William Turner. Oxford, 1884.

5. Dr J. J. WILD.—“At Anchor.” London, 1878.

6. J. T. JACOBS.—“Scenes, Incidents, and Adventures in the Pacific Ocean, &c.” New York, 1844.

7. “An Account of a Voyage round the World in the Years 1766, '67, '68, '69.” By Philip Carteret, Esq., Commander of H.M. Sloop “Swallow.” *Hawkesworth's Voyages*. Lond. 1773, vol. i.

8. LABILLARDIERA.—“Relation du Voyage à la Recherche de ‘La Perouse.’” 1791. Paris, an. viii. T. i. p. 255. Translated by John Stockdale. Lond. 1800, vol. i. p. 296.

9. “Voyage de D'Entrecasteaux à la Recherche de ‘La Perouse.’” Redigé par M. de Rossél. T. i. p. 131.