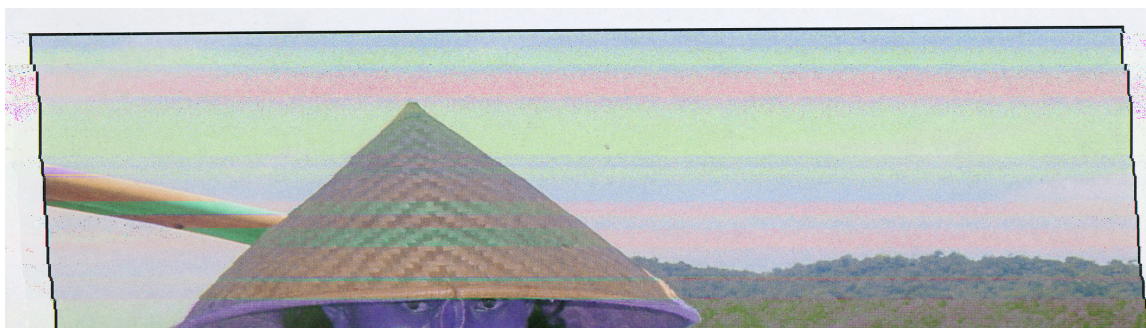

Henry Balfour

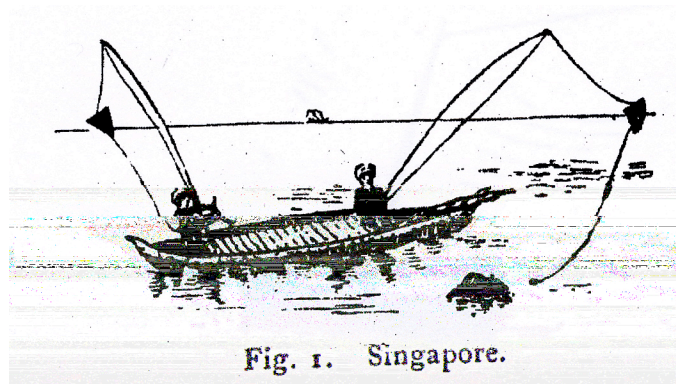


Essays and Studies Presented to William Ridgway

KITE FISHING

One of the most remarkable of fishing methods is that which involves the use of a kite which is flown over the water and to which is attached the fishing-line. To the end of the latter is fastened a lure or a baited hook or noose, which is made to play over the surface of the sea by the movements of the kite in the wind.

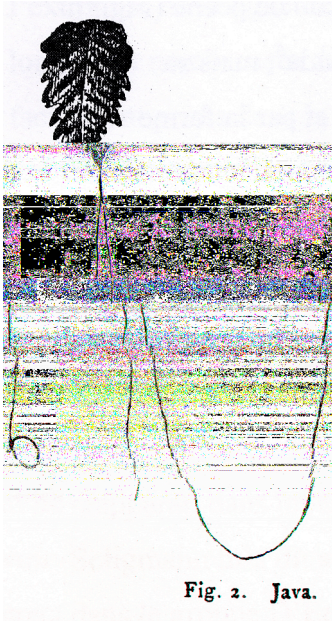
Starting with the most westerly limit of the distribution of this peculiar method of fishing, there are references to its occurrence in Singapore. W. W. Skeat says, "A small kind of roughly-made kite is, as is well known, used at Singapore for fishing purposes..." He, unfortunately, gives no description of the method or the appliance, and although I have made many enquiries, I have as yet been unable to obtain a description of the practice among the Malays of Singapore, nor have I seen any specimens of the apparatus from that district. There is, however, in the collection of models of ships and boats at South Kensington, a small model which throws much light upon the practice in this region. This model, which was exhibited in the International Fisheries' Exhibition in London, and was sent by the Straits Settlements Commission, represents a couple of 'Malays fishing for gar-fish, Singapore' (Fig. 1).



Each holds a fishing-rod with line passing through an eye at the top. To the line is attached a small palm-leaf kite which flies out over the water causing the distal end of the line, which terminates in a small running-noose and is baited with a shrimp, to jerk along over the surface of the water. The model is carefully made and shows

¹ *Malay Magic*, 1900, p. 485.

clearly the details. The fact that this method of fishing with a kite is little if at all followed in Singapore at the present day, seems to point either to its having been superseded by some other method of catching garfish (*belone*), or to its having been practised only by sporadic immigrants into the district, hailing, perhaps, from Java.



From Java itself the fishing-kite is described by Dr P. N. van Kampen who refers to its employment by fishermen of the village of Tanara on the north coast of Bantam, West Java, who extend their fishery into the Bay of Batavia. He also mentions the use of the kite for fishing in the Thousand Isles, north of Batavia, and in the Island of Bawean, lying away to the north of Eastern Java. Dr van Kampen suggests that this method may have been introduced by Buginese (S. Celebes) as the practice obtains in the Moluccas. I have at present no direct reference to the use of the fishing-kite among the Buginese, but it may well be that they are acquainted with the method, and it is certain that these keen traders have in many ways affected the culture of Java. Dr van Kampen, to whom I am much indebted for a copy of his interesting book, describes the *pantjing lajangan* (*pantjing* = line-fishing; *lajangan* = kite) of Tanara (Fig. 2) and says that the kite is made from the leaf of an epiphytic fern (*Polypodium quercifolium*), not strengthened along the borders with inserted ribs, as in the Moluccas. (The same leaf is used as a kite by children in Celebes.)

Two fishermen sit in each boat (*prau*) which is anchored, and each man is provided with a rod and kite. The rod is of bamboo and is stuck upright in a hole in a plank. The line passes through two rings on the rod and the kite is flown high over the surface of the sea. The tail of the kite is replaced by a line which ends in a small noose, made from a single fibre of *Arenga saccharifera*, to which is fastened a small fish as bait. By clever manoeuvring the fisherman keeps the noose playing upon the

² 'De Hulpmiddelen der Zeevisscherij op Java en Madoera in gebruik,' *Batavia*, 1909, pp. 93, 94 and pl. XVI.

surface and when the *tjendro* (*belone* or gar-fish) takes the bait the noose is tautened and the fish is caught by the jaws. The *pamatpat landhjang* of Bawean Island is identical with the *pantjing lajangan* of Tanara.

An excellent description of the Moluccan varieties of the fishing-kite is given by Max Weber who saw this method of fishing for gar-fish practised in the Banda Islands, in Gisser (to the east of Ceram), in Ternate (west of Gilolo), and in Karakelang (Talauer Islands). In the Banda Islands a rod is used having a ring at the upper end through which the line passes. The kite is made of a long, narrow leaf and from it hangs the lower part of the line which terminates either in a running-noose of copper wire upon which is threaded a small fish as bait, or in a fish-hook (Fig. 3).

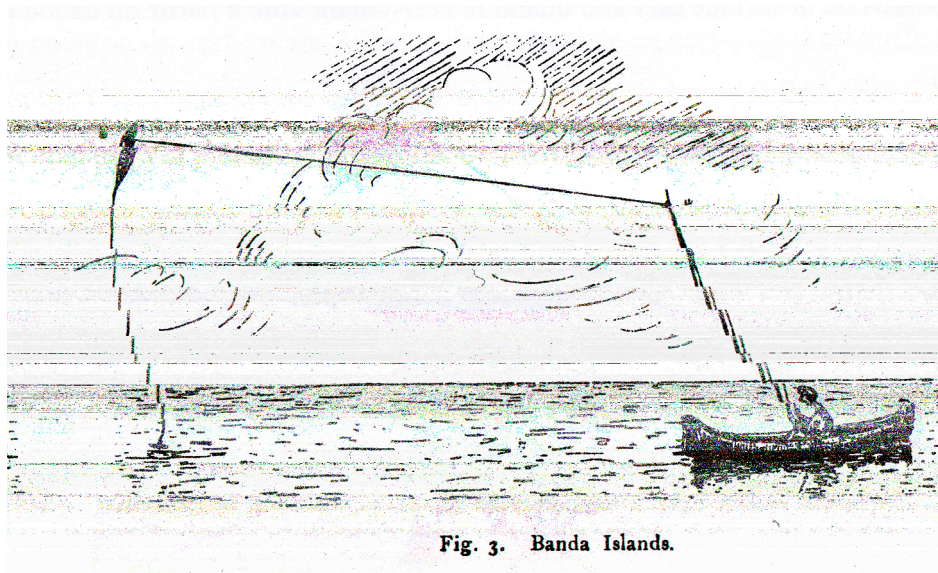


Fig. 3. Banda Islands.

Jacobsen also figures the fishing-kite in use in the Banda Sea , but his figure differs from that of Weber in the absence of the rod and in a difference in the form of the kite (Fig. 4).

³ H.M. 'Siboga' expedition, 1899 — 1900. Introduction and description of the expedition, Leiden, 1902, pp. 60, 61.

⁴ Reproduced in Frobenius *Völkerkunde*, Hannover, 1902, p. 285, fig. 240.

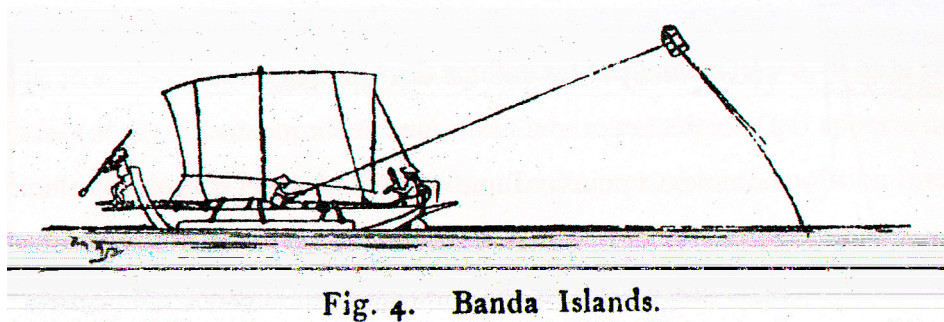
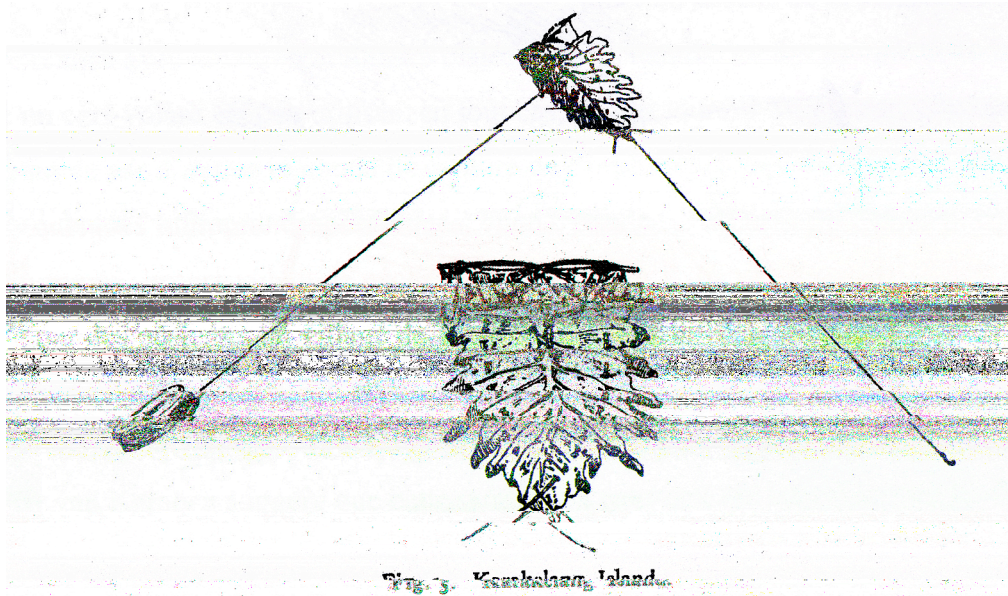


Fig. 4. Banda Islands.

In Karakelang, according to Weber (*op. cit.*), the rod is absent, the line being wound on a wooden spool held in the hand. The kite is made of a large dried leaf very like that used in West Java, but strengthened by the insertion of a pair of slender rods threaded through the leaf near the margins and crossing one another at the top and bottom of the kite. The line passes through a loop fixed to the central mid-rib and is attached to the lower junction of the strengthening ribs. The extremity of the fishing-line, about 20 metres from the kite, carries a hook which plays upon the sea-surface when the kite is flown from a canoe (Fig. 5).



In Gisser, an interesting modification in the apparatus is seen, which helps to link the fishing-kite of the Malayan Archipelago with that of Melanesia. Instead of a bait, a special kind of lure is employed, consisting of a tangle of spider's web attached to the extremity of the trailing line. This lure is admirably adapted to its purpose. The long teeth and the numerous and characteristic rugosities on both the jaws of the *belone* become readily entangled in the viscid mass of spider's web, which holds

tenaciously. These gar-fish habitually feed upon small pelagic fish, and skim along the surface, so that they are readily attracted by a lure which is caused to 'play' on the water like a live thing.

Passing eastward, a long gap is noticeable in the continuity of distribution of the fishing-kite, since this appliance does not seem to be employed in the island of New Guinea, unless it be on the south-east coast in the Massim district; but in the islands off the south-east end of New Guinea (the D'Entrecasteaux Islands, the Trobriands and the Marshall Bennet group) the fishing-kite reappears in an environment mainly of Melanesian culture (Massim). Dr C. G. Seligmann tells me that he was informed that the fishing-kite is employed on Normanby Island in the D'Entrecasteaux group. It is certainly used freely in Dobu, an island lying between Normanby Island and Ferguson Island, at the east end of Dawson Strait. Sir William MacGregor has described the apparatus and its use in Dobu. According to his description, the kite is "constructed of four leaves, each about a foot long and three to four inches broad. To this are attached two strings, one probably not less than a fourth or even a third of a mile in length, but it may, for fishing from the beach, be much shorter. The other end of this is in the hand of the fisherman, and by it he regulates the position of the kite. The other string attached to the kite is long enough to reach the water, and may be from one to three hundred yards in length. To the lower end is attached, instead of a hook, a small tassel about half an inch thick and some three or four inches long, made of spider's web. The fisherman seats himself in a small canoe, proceeds to sea, and flies his kite, so as to keep the tassel of spider's web bobbing on the water. The fish that catches this entangles its teeth in the loose, soft, elastic bunch of spider's web, from which it cannot disentangle itself until it is quietly lifted into the canoe by a small triangular net mounted on a forked stick. The spider's web is procured from a certain kind of spider found at Dobu. The animal, or a number of them, is tossed on a long cleft reed or bamboo until a close double tissue of web about three to four inches broad and four to six feet long is obtained. These are laid past to furnish material for the fishing tassel as may be required" (Fig. 6). The leaves of which the

⁵ *Annual Report on British New Guinea*, 1897-99, p. 46, pls. I and II.

kite is made have been identified as those of *Morinda cissifolia* and are sewn together and stiffened with a framework of strips of palm mid-ribs fitted longitudinally and transversely. The native name of the gar-fish is *dimwara*.

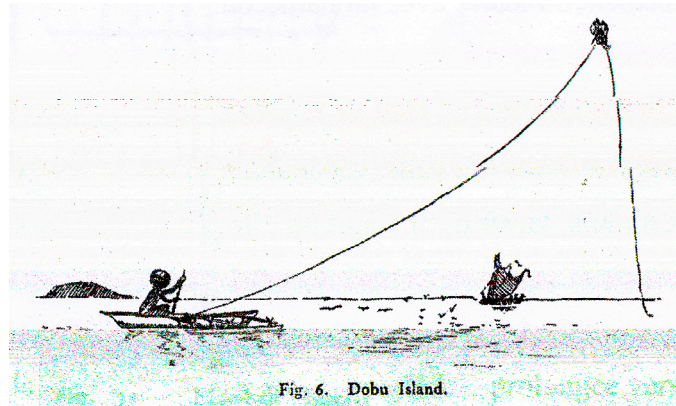


Fig. 6. Dobu Island.

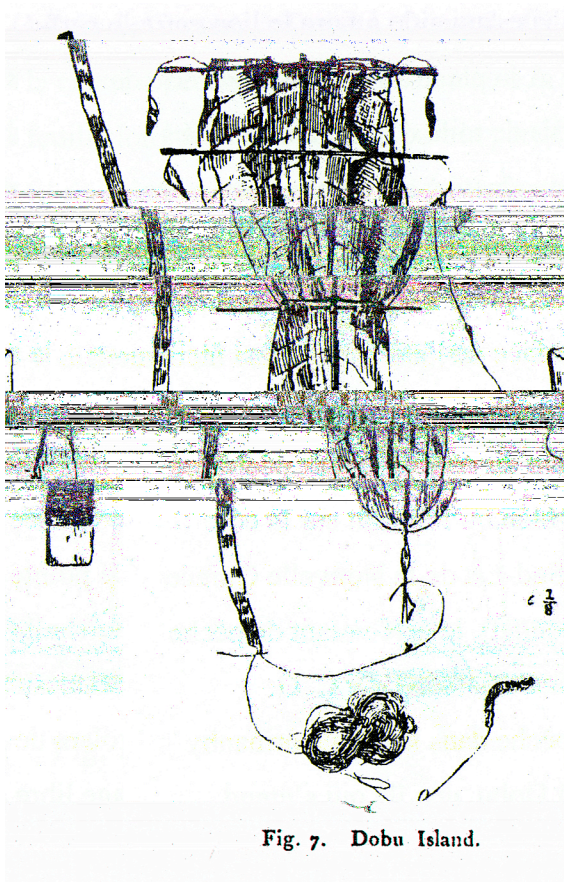


Fig. 7. Dobu Island.

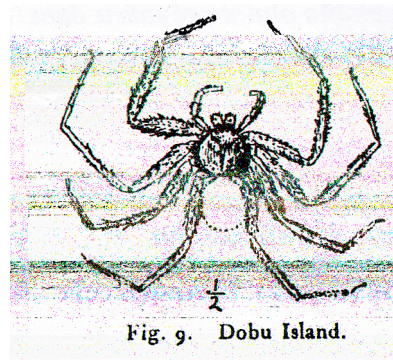
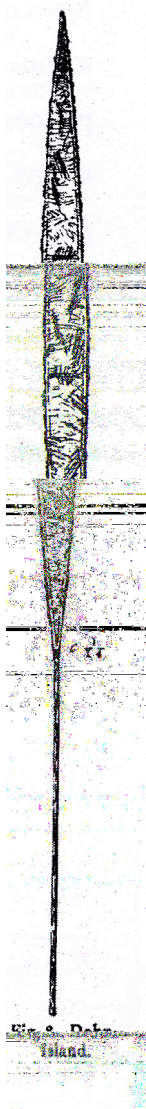
In 1909 the Hon. J. H. P. Murray kindly procured for me one of the Dobu fishing-kites (Fig. 7), and ascertained that the local name for it is *dauni*. I have lately also received several examples of this apparatus from Mr D. Jenness, who recently spent nearly a year in the D'Entrecasteaux Islands. He also sent me two of the frames upon which the spider's web is collected (Fig. 8) . Mr J. H. P. Murray states that a hook is occasionally concealed in the spider's web tangle. This is the only reference I have to the practice of reinforcing the tangle-lure with a hook. One of the cob-web lures is shown in Fig. 10. The Rev.

George Brown , quoting the Rev. W. E. Bromilow, gives an account of kite-fishing, though without stating the locality referred to. We may, however, infer from the

⁶ *Papua*, 1912, p. 117.

⁷ *Melanesians and Polynesians*, 1910, p. 323.

native names given in the description, that it is the island of Dobu. The native names are as follows : gar-fish, *dimwara*; cobweb tangle, *mwanaikua*; kite, *daune*; string, *nosanosa*; winder, *'oapenu*; tail of string, *iuiu*; ornamental flag, *doe*.

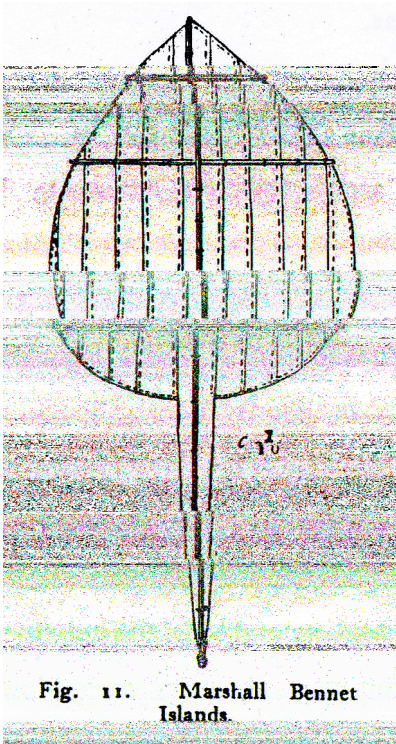


A specimen of the spider whose web is most commonly, though not exclusively, employed for making lures has been sent me by Mr Jenness, and is shown in Fig. 9. It is quite common in the houses and the bush.

Miss Beatrice Grimshaw has described the use of the fishing-kite on Kitava Island in the Trobriand group, though, unfortunately, she gives no figure of the apparatus. The kite is described as made of dried banana leaves stretched on twigs. Attached to the fishing-line “was an object somewhat resembling a tennis racquet, strung across with a mass of yellow, strong, silky net, which is obtained by twirling the frame round and round in one of the great bush-spider’s webs. This frame is left to trail loose in the water, while the kite is flown above the sea... a long, thick tassel of twisted spider’s webs is sometimes trailed in the water instead of the frame, with the same result.”

According to this description the collecting frame itself, covered with the web, is used frequently as the lure. This does not seem to apply to other localities, and one would like further verification of this practice. It is difficult to see how so large and relatively heavy an object could successfully be caused to play lightly over the surface and prove an attractive lure, as a substitute for the light tassel of spider’s web which usually prevails.

Miss Grimshaw does not make it clear whether she actually saw the frame so used.



The practice of kite-fishing for gar-fish was seen by the Cooke-Daniels expedition in the Marshall Bennet Islands, lying east-south-east of the Trobriand group, between the latter and Woodlark Island, and in 1907 I received from Dr C. G. Seligmann for the Pitt Rivers Museum one of the kites from this group of islands (Fig. 11). The body of the kite is oval and composed of broad strips of palm-leaf sewn together with vegetable fibre. The central strip is prolonged below to form a tapering tail. A strengthening rod of palm mid-rib runs longitudinally from end to end and there are three transverse rods. The margin of the kite is

⁸ *The New New Guinea*, 1910, p. 313.

stitched to prevent fraying out in the wind. In use, the kite is flown from a canoe as usual and the lure is of spider's web.



Fig. 12. New Georgia, Solomons.

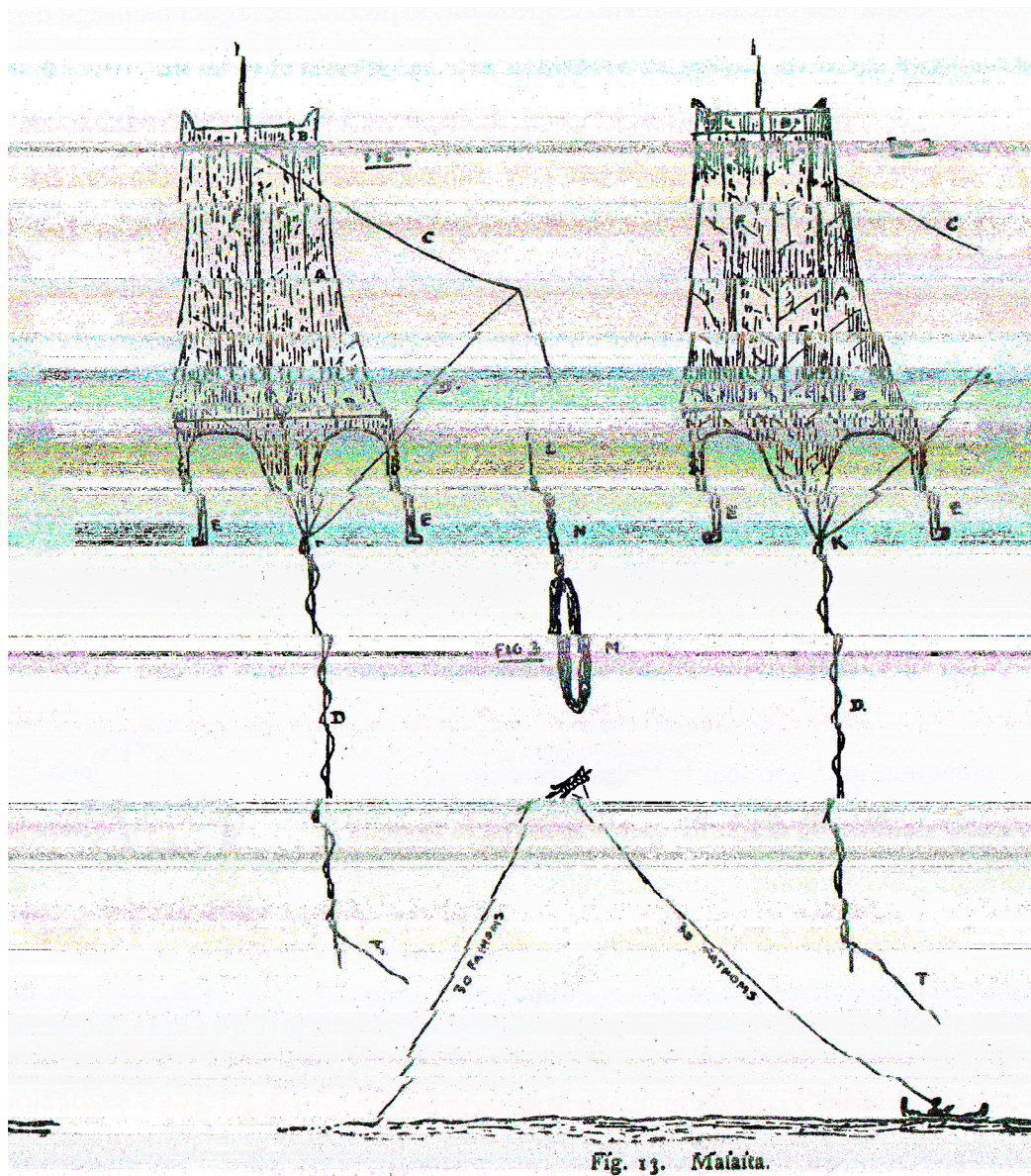
Passing eastward we meet with the fishing-kite again in the Solomon Islands, although it does not appear to be distributed over the whole group. I do not know of its occurrence in the large northern islands of Bougainville, Choiseul or

Ysabel, and it seems to prevail rather in the south-easterly portion of the group. In the island of New Georgia, however, although I have no direct reference to the actual practice or to the apparatus, I have found evidence of the fishing-kite being known in the district. Among some drawings made in 1895 for Lieut. B. T. Somerville, R.N., of H.M.S. Penguin, by a native of the Mungeri district of New Georgia, are two which represent fishing scenes (Fig. 12). Although it was not so stated by the native artist, I think it is quite clear that the scenes do actually represent fishing with a kite. In one of them (Fig. 12) the kite is clearly, if sketchily, indicated and is shown attached to the line held in the hand of a paddler seated in the stern of the canoe. From the kite descends a second line which terminates in a large, more or less fusiform object (the spider's web tangle, no doubt) which is being seized by an 'impressionist' fish. A frigate bird is seen flying overhead. In the other sketch an almost identical scene is portrayed, but the kite itself is not indicated. We can none the less infer that it is intended, since the angle assumed by the linepoints to there being something which supports it at this point, the analogy of the first sketch supplying the missing detail. Unfortunately neither the form nor the material of the kite as used in New Georgia is indicated, and I have never seen an actual example.

In the eastern part of the Solomon group, including the large islands of Malaita and San Cristoval, this method of fishing is commonly practised. H. B. Guppy described

the process there in 1887 a kite and spider's web tangle being employed in the usual manner. He adds the following very plausible suggestion : "The kite swaying in the air offers some resemblance to an aquatic bird hovering over the water where a shoal of small fish occurs. It thus attracts the larger fish who are said to follow the movements of these birds, and are thus guided in the pursuit of the smaller fry. It is with this object that the natives of the Society group tie bunches of feathers to the extremities of the long-curved poles which, projecting from the fore-part of the canoe, support the lines". This reference to the Society Islands is quoted from Ellis' *Polynesian Researches*, 1831, p. 148. It is quite likely that the gar-fish are attracted to the lure by what they take to be a bird flying overhead and apparently in pursuit of small fry, as they habitually feed upon small fish swimming very near the surface, whose presence would be indicated by hovering birds. Whether, however, this is the primary or secondary use of the kite is not clear.

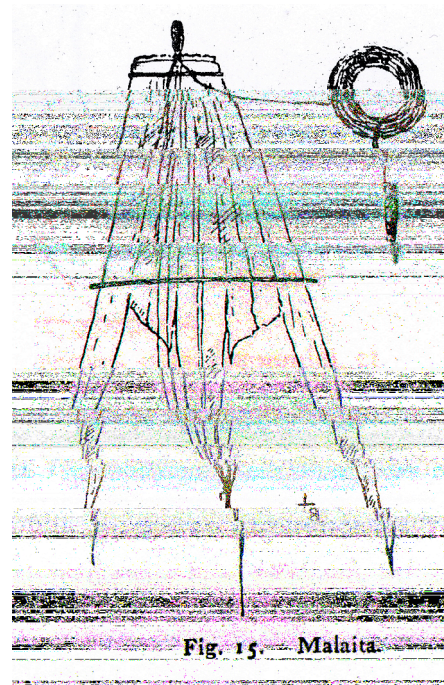
⁹ *The Solomon Islands and their Natives*, 1887, p. 151



An excellent description of kite-fishing for gar-fish (*waledo*) in Malaita is given by T. W. Edge-Partington (Fig. 13). The kite (*rau*) is made from the leaf of the sago palm, or ivory nut tree. The centre of the kite is made of a wide strip of leaf including its mid-rib which forms a longitudinal, central support, and is prolonged to form a 'tail' below. To each margin is fixed another strip of leaf, and cross-sticks above and below help to stiffen the kite transversely. To the upper of these transverse bars is attached a short cord to which the centre of the fishing-line is fixed. The latter is 60 — 100 fathoms long and below the point of attachment is wound round the 'tail' of

¹⁰ *Man*, 1912, p. [9], with figures.

the kite from which it descends to the water. To the distal end is attached a spider's web tangle (*laqua*), which is in the form of a loop. The web is collected in the bush by winding it on to a long, thin, stiff leaf. It is then pushed off the leaf and worked into a long, thin rope, which is wound round and round the fingers until it forms a loop about two inches long. This is attached to the fishing-line by means of a short cord (*fa-io*). The loop swells out when it gets wet and increases in size. The fisherman holding the end of the line in his teeth paddles away up wind, keeping the kite flying and the lure playing over the surface. In 1888 I received from Dr R. H. Codrington for the Pitt Rivers Museum, one of the spider's web lures from Malaita (Fig. 14), evidently made in the manner described by Mr T. W. Edge- Partington¹¹



In the British Museum there is a palm-leaf fishing-kite from the Solomon Islands (Fig. 15) which resembles in general form the Malaita type, being furnished with lateral 'wings,' though differing somewhat in detail from the form described by Mr T. W. Edge-Partington.

¹¹ J.E.Partington, *Album of the Pacific Islands*, I, pl.197, fig.1.

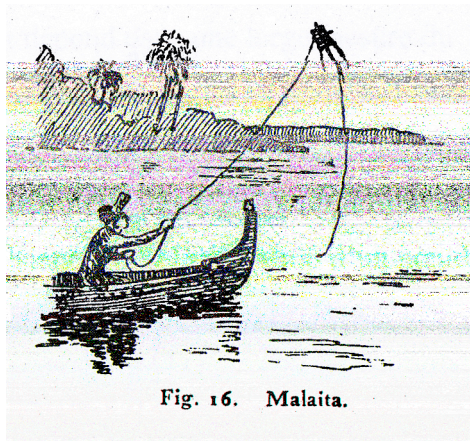
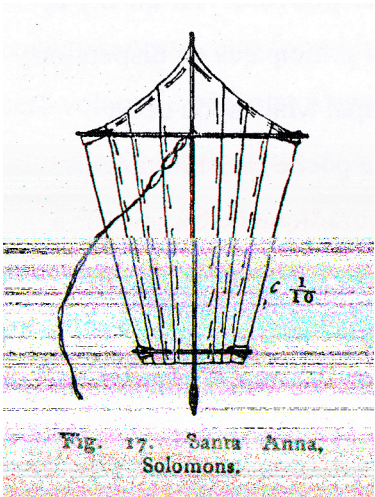


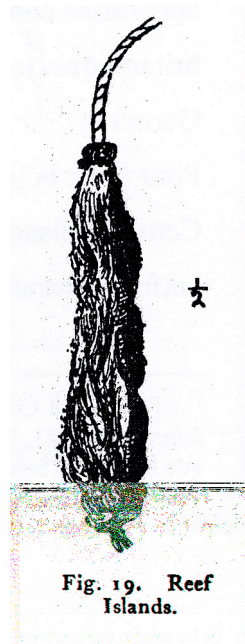
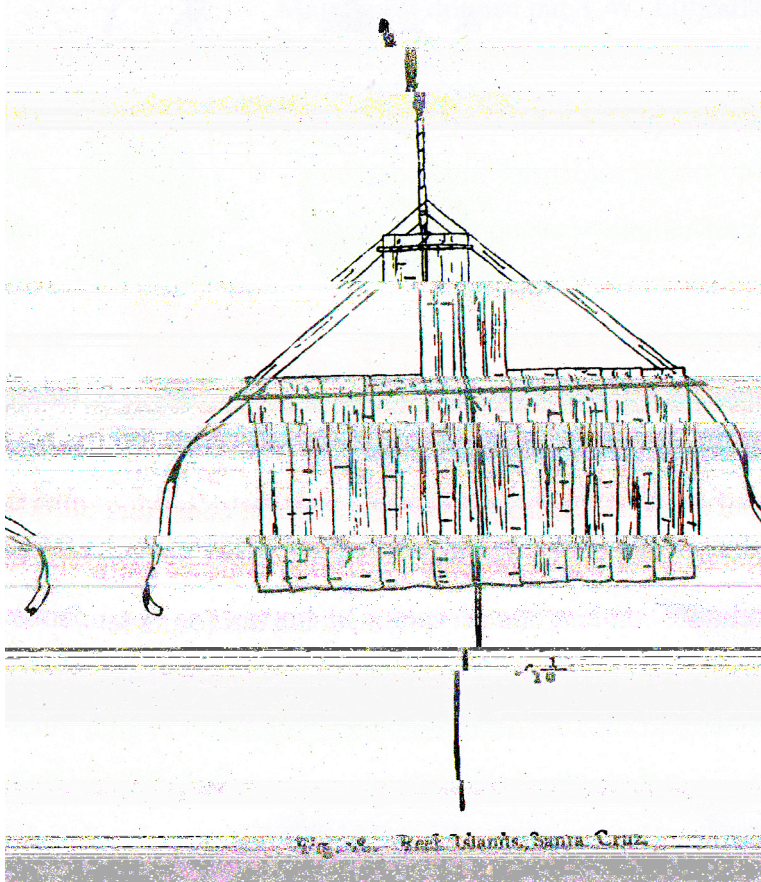
Fig. 16. Malaita.

A similar type is represented in a clever picture by Mr Norman H. Hardy, which was published in the *Illustrated London News* (Fig. 16). Mr Hardy does not state in the description the particular island referred to in his sketch, but he has since informed me that it is Malaita. He describes the kite as being of palm-leaf stitched together, and the lure as being of spider's web. This method of fishing, he says, is usually practised in a lagoon inside the coral reef and when the wind is not too strong. The resemblance of the kite to a hovering bird is well brought out in the picture, though the flight-line and fishing-line appear rather short.



I have no reference to the employment of the fishing-kite in the island of San Cristoval, but in the Pitt Rivers Museum there is a small fishing-kite from the little island of Santa Anna (*Owa Raha*) lying immediately off the south-east end of San Cristoval. It was collected by Dr R. H. Codrington (Fig. 17). It is constructed as usual from strips of palm-leaf sewn together, the central strip including its mid-rib which forms the central support or stiffening rod. There are two transverse rods and at the points where the ends of these meet the margins of the kite, little clips of palm-leaf are added to prevent the margins from tearing.

I have come across a few other references to kite-fishing in the Solomon Islands, but the exact localities are not given . It seems that the method is employed somewhat widely in this group, though it would appear to be confined to that portion of the Solomon Islands which is included in the British sphere of influence, as I have no reference to its occurrence to the north of the Anglo-German dividing-line.



Lastly, the limit of the easterly range of this ingenious fishing-contrivance is found in the Santa Cruz group. This locality is referred to by Dr Codrington (*l.c.*), and he gave to the Pitt Rivers Museum at Oxford a specimen of the fishing-kite from the Reef Islands of Santa Cruz (Fig. 18); complete with line and lure made of a tassel of cobweb (Fig. 19). Like the Solomon Islands examples, the kite is made of strips of

¹² Rev. R. H. Codrington, D.D., *The Melanesians*, 1891, p. 318 (Solomon Islands). Capt. W. T. Wawn, *The South Sea Islanders*, 1893, gives an illustration, apparently from memory, but no description, and it is not certain whether his figure relates to the Solomons or to the islands off S.E. New Guinea. Rev. A. Penny, *Ten Years in Melanesia*, p. 77 (Solomon Islands). Norman H. Hardy and E. W. Elkington, *The Savage South Seas*, 1907, p. 16 (Solomon Islands). Rev. G. Brown, D.D., *Melanesians and Polynesians*, 1910, p. 323 (Solomon Islands).

palm-leaf sewn together and strengthened with thin longitudinal and transverse rods. The kite is rectangular in shape and is furnished with bands of palm-leaf which run diagonally from the mid-rib to the ends of the main transverse rib and are continued beyond the latter as streamers. The mid-rib is prolonged below the kite into a long tail.

From the geographical distribution of the fishing-kite as above given, it will be seen that there are two main areas of dispersal, (1) the Malayan Archipelago, where this method of fishing is practised sporadically from Singapore in the west to Gisser Island and Karakelang in the east, (2) the Melanesian area where it occurs sporadically in the islands of the Massim district of British New Guinea, and in the Solomon and Santa Cruz groups. It would seem that the whole area of distribution is included within the parallels of about 11°S. and 5° N. latitude, and about 103° 50' E. and 166° E. longitude (see maps at end).

The question arises whether this specialized method has arisen independently in the two main regions where it is found, or whether the whole dispersal originated from a single original centre where the process was invented.

In spite of the somewhat long gap of about 20° in the continuity of distribution, extending between eastern Ceram and the Massim Islands of New Guinea, I think that it will be agreed that kite-fishing has undoubtedly originated in one centre only, at some point within the Malayo-Melanesian area, and that the whole series is referable to one common origin. The linking evidence derived from the apparatus itself and its use is striking enough and may be summed up briefly as follows : (1) the fishing-kite is employed throughout its distribution exclusively, apparently, for the capture of the gar-fish (*belone*); (2) the method of its use is, except for minor modifications such as the occasional employment of a rod, the same throughout; (3) it is constructed of leaves or of leaf-strips everywhere, though the shape differs locally and depends to a great extent upon the kind of leaf employed; (4) the form of the lure and capturing-contrivance is important in this connection, (a) the cobweb tangle, which is chiefly characteristic of the Melanesian area where it is the invariable accompaniment of the kite, is also used in Gisser (Ceram) and supplies an

important link bridging the gap between the eastern Malayan Islands and Melanesia, (b) the use of a baited running-noose extends from east to west in the Malayan Archipelago (Banda Sea, Java, Singapore) and serves to unite the sporadic occurrences in this region; (5) the use of a rod from which the kite is flown occurs in precisely the same districts as the running-noose.

The occurrence of the cobweb lure in Gisser is of particular interest, as, to the best of my knowledge, this very specialized form of lure is found only in co

which culturally are obviously closely related to one another and which geographically are nearly adjacent. On the other hand, the employment in Singapore of a fishing-rod with terminal ring or 'eye' through which the flight-line passes, and also the use of a baited noose instead of a hook or other catching-appliance, find their counterpart in the Javan seas, where kite-fishing is regularly practised.

Dr van Kampen has further suggested that the fishing-kite may have been introduced into West Java and Bawean Island by Buginese from South Celebes, whose influence upon Javan culture has been considerable as a result of their bold seamanship and roving disposition. If the Buginese are not themselves credited with the employment of the fishing-kite, they have at least had ready access to islands in the Moluccas where this method of fishing obtains. It may further be pointed out that the form and material of the Javan fishing-kite (Fig. 2) are practically identical with those of the fishing-kite in Karakelang, in the Northern Moluccas, as also with those of the kite flown for pleasure in Celebes, while the use of the rod and noose (which, as has been seen, have also reached Singapore) links the Javan usage with the methods employed in the Banda Sea and, perhaps, Ternate.

Hence the eastern area of the Archipelago exhibits, in one island or another, all the characteristics of the advanced western kite-fishing methods, and has some claim to be regarded as the original centre of dispersal in a westerly direction through Java to the Malay Peninsula.

Similarly, the less specialized methods surviving in Melanesia (where the rod is not used for this purpose) can be linked with those of the Eastern Asiatic Islands, whence they were probably derived. In Karakelang and sometimes in the Banda Sea, the kite is flown by hand after the Melanesian fashion and without the intervention of the rod, and the use of the cobweb lure in Gisser Island in precisely the same manner as in Melanesia is very significant, as this correspondence can hardly be fortuitous. When we recall the very numerous appliances which are common to the Malayan Archipelago and Melanesia, evidencing an early and perhaps prolonged current of culture-drift from the former to the latter region, we need feel no surprise at the fishing-kite furnishing a further striking instance of western influence upon

Melanesian culture. It is most probable that this appliance reached its most easterly home, in the Santa Cruz group, through the same agency as brought thither the Malayan or Indonesian loom and the stone-weighted fishing-trimmer (the latter widely dispersed in Melanesia), and which disseminated the peculiar form of sistrum of coconut shells employed in the capture of sharks both by the Malays and by many Melanesian peoples and even some Polynesians. One may also refer to the distribution of a small but special form of fish-trap made from the naturally barbed leaf-stems of rattan which is found not only in New Guinea, New Britain and the Solomon Islands, but also occurs in an identical form in Sumatra. The practice and details of chewing the betel-nut may further be cited in confirmation, but I will not now multiply the number of Malayo-Melanesian culture affinities. From the few examples which I have mentioned out of the many which might be quoted, it is sufficiently clear that evidence of an extensive culture-contact between the Asiatic Archipelago and Melanesia is very strong, and there can be little doubt that the fishing-kite was introduced into Melanesia from the west as a result of contact with proto-Malayan or with Indonesian culture.

The form of the fishing-kite itself is locally very variable within the area of Melanesian culture, and it is not easy without more information in detail to suggest a phylogeny for the local varieties. The most constant features in connection with this apparatus in the whole Melanesian region are the flying of the kite by hand from a canoe, the cobweb lure and the quarry (gar-fish). Without further evidence it is difficult, perhaps, to form definite conclusions as to whether the practice of fishing with a kite was introduced originally into some one locality within the Melanesian culture-area, and spread thence by a gradual process of dispersal from island to island and from group to group, or whether various parts of Melanesia and the Massim Islands owe the idea to direct and independent influence from the Eastern Asiatic Islands, where the cobweb lure occurs in conjunction with the hand-flown kite. It is quite possible that this appliance was independently brought into the Eastern Papuo-Melanesian (Massim) area, on the one hand, and Melanesia proper on the other. At the same time, when we consider that both the racial and the cultural characteristics of the Massim Islands are very largely traceable to a

Melanesian origin, there is very little reason for supposing that the fishing-kite reached the Eastern New Guinea Archipelago otherwise than as one of the accompaniments of the westward culture-drift from the Southern Solomon Islands.

Again, although it is not unlikely that the fishing- kite may have spread eastward from the Solomon Island group into the Reef Islands and Santa Cruz group, a theory which appears plausible in view of the original introduction of this appliance from the Asiatic Islands in the far west, there still remains the very possible contrary alternative.

The Southern Solomon Islands have from time to time been influenced by accidental immigrants from Santa Cruz, wafted thither, no doubt, by the south-east trade wind and borne upon the south equatorial current, and Dr Codrington has stated (*op. cit.*) that "It is a not uncommon thing that canoes should be blown from Santa Cruz and the Reef Islands to Malanta and Ulawa," and that men arriving in this manner "were received as guests, sometimes establishing themselves after a while by marriage..." The Santa Cruz group affords in one of its appliances, the weaving-loom, evidence of more or less direct and almost exclusive influence from the Asiatic Islands, and the practice of the art of weaving is a very striking feature in Santa Cruz culture owing to its isolation in the Melanesian area. The fishing-kite may very likely have been brought from the Asiatic Islands more or less directly to Santa Cruz by those who introduced thither the loom from the same region, and it is by no means impossible therefore that the subsequent dispersal of the fishing-kite through Melanesia may have originated from Santa Cruz. The direction of the prevailing trade wind and of the vigorous south equatorial current favours this view. Many of the canoes which have drifted from the latter group to the Southern Solomon Islands are likely to have carried on board the kite-fishing equipment which would thus readily have become established in Malanta (Malaita) and the neighbouring islands as a derivative from Santa Cruz. That the loom should not have accompanied the fishing- kite is not to be wondered at, since it is unlikely that this domestic appliance would be carried on

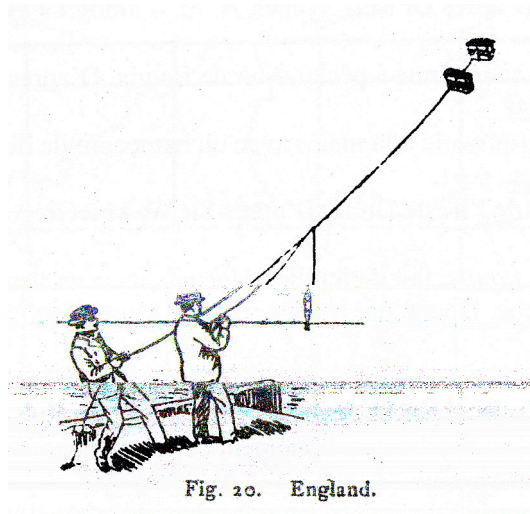
¹³ The loom is also apparently known in parts of the Bismarck Archipelago, and seems also to have been in use in former days in the Banks Islands, but it does not appear to be known in the Solomon Islands.

board of canoes accidentally driven from their own shores, and is only likely to have accompanied an intentional migration.

Further information will be required before any definite conclusions can be arrived at in regard to the probable lines of dispersal, but I may briefly summarize my foregoing remarks as follows. The evidence to which I have had access so far seems to suggest that the original home of the fishing-kite was somewhere in the eastern area of the Malayan Archipelago, probably in the Banda Sea or the Moluccas; that the hand-flown kite together with the peculiar type of lure made from spider's web was transmitted from this region in an easterly direction to Melanesia proper, along a line of culture-drift; that from the Melanesian Islands it was carried across in a westerly direction from the Southern Solomon Islands into the Massim Islands of South-East New Guinea; that from its original home in the Eastern Asiatic Islands it spread also in a westerly direction after having become slightly more specialized through the addition to the equipment of a rod from which the kite was flown and of a baited running-noose, and in this form the fishing-kite was transmitted via the Javan seas to the Malay Peninsula. According to this view, the whole area of distribution must be a connected one. That the practice of fishing with a kite is a fairly ancient one cannot, I think, be doubted, and it is very probable that its origin must be referred back to pre- or proto-Malayan invention.

I must conclude with a reference to one other part of the world, not already mentioned, where the fishing-kite has been employed. I have purposely omitted this occurrence from my list as in this instance an independent invention of this practical employment of the kite is apparently involved. The locality referred to is the coast of England. In reading the *Daily Mail* of September 21, 1901, my eye was arrested by the following head-lines: "Sea fishing by Kites. The remarkable Invention of an Enthusiastic Angler". "A remarkable novelty in use during the holiday season." It appeared that some ingenious fisherman had hit upon the idea of utilizing box-kites flown from a long wire, for carrying a number of baited fishing-lines out to sea with the help of an off-shore breeze, so that sea-fishing from the shore became practicable (Fig. 20). Much credit is doubtless due to the twentieth-century civilized enthusiast, but in giving him his due need of praise, we must not overlook a fact of

which he was presumably not aware, which is that a device, which in highly-cultured England was only invented some dozen years ago, has been in use in the Eastern Seas probably during many centuries among peoples whom we describe as 'barbaric' or 'savage'. Had the Daily Mail angler been aware of this fact he could hardly have refrained from giving full credit for priority of invention to these distant peoples, who have so long employed this ingenious device, and many of whom must be regarded as still existing under the primitive conditions of Stone-Age culture.



Henry Balfour.

LIST OF ILLUSTRATIONS

Fig. 1. — Malays of Singapore kite-fishing with rod and running-noose. From a model exhibited in the collection of ship and boat models at South Kensington, London.

Fig. 2. — Fishing-kite of *Polypodium* leaf used with rod and noose, north coast of Bantam and Batavia Bay, Western Java; also employed in Bawean Island. After Dr P. N. van Kampen, *De Hulpmiddelen der Zeevisscherij op Java en Madoera in gebruik*, 1909, pl. xvi.

Fig. 3. — Kite-fishing with rod and noose or hook, Banda Islands, Eastern Malay Archipelago. After Dr Max Weber, *H.M. 'Siboga' expedition, 1899 — 1900*, Leiden, 1902, p. 60.

Fig. 4. — Kite-fishing without rod, Banda Sea. After Jacobsen, from Dr L. Frobenius *Völkerkunde*, 1902, Fig. 240.

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Fig. 6. — Kite-fishing off Dobu Island. After Sir W. MacGregor, *Ann. Rep. on British New Guinea*, 1897 — 99, pls. i and ii.

Fig. 7. — Fishing-kite, *daune*, of *Morinda* leaves with lure of spider's web, Dobu Island, British New Guinea. Given by the Hon. J. H. P. Murray to the Pitt Rivers Museum, Oxford, 1909.

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Fig. 14. — Spider's web lure, Malaita. Collected by the Rev. R. H. Codrington, D.D., and presented by him to the Pitt Rivers Museum.

Fig. 15. — Fishing-kite of palm-leaf, with cobweb lure, Malaita (?). British Museum. After J. Edge-Partington, *Album of the Pacific Islands*, I, pl. 197, Fig. i.

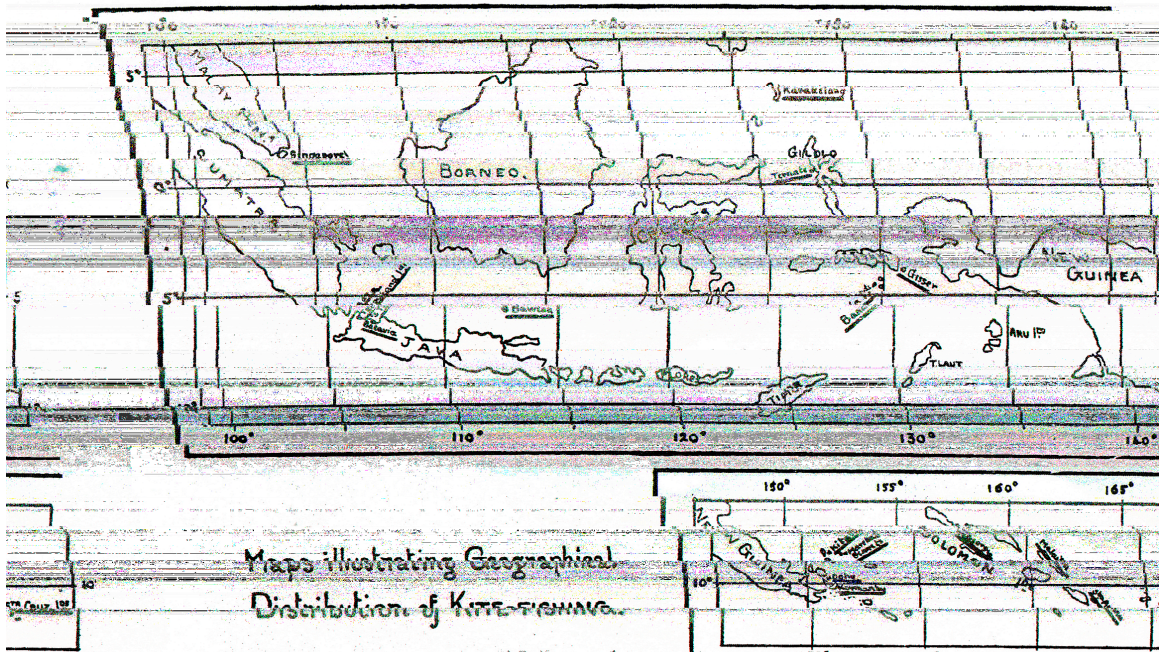
Fig. 16. — Kite-fishing, Malaita. After a picture (a portion only) by Norman H. Hardy, published in the *Illustrated London News*, 1912.

Fig. 17. — Fishing-kite of palm-leaf, Santa Anna Island (*Owa Raha*) San Cristoval, Solomon Islands. Given by the Rev. R. H. Codrington, D.D., to the Pitt Rivers Museum, 1903.

Fig. 18. — Fishing-kite of palm-leaf. Reef Islands, Santa Cruz Group, Melanesia. Collected by the Rev. R. H. Codrington, D.D., and given by him to the Pitt Rivers Museum.

Fig. 19. — Spider's web lure used with fishing-kite from the Reef Islands. Same data as Fig. 18.

Fig. 20. — Kite-fishing on the coast of England. After a sketch published in the *Daily Mail*, 21 September, 1901.



editor's note: The book from which this article is taken, is not in every library. It has been scanned in and is available at www.archive.org, but the optical character recognition has introduced, as always, some errors of its own and the text has not been proofread; and the diagrams have been omitted. Fortunately a modern French translation is available* which George Webster lent me, so I was able to resolve any doubtful readings in the scanned text by reference to the French version, which also provided me with the original diagrams and the very attractive front cover picture by Marco. I strongly recommend the use of a good modern atlas instead of the rather poor maps provided above. Many of the geographic names in the text are unknown to Google Earth.

John Dobson

March 2009

* *La pêche par cerf-volant*, translated by Karine Boitrelle-Petit, Hanoumane édition, Marines, France (2004)

