

ORIGINAL ARTICLES.

New Guinea.

With Plate K.

Haddon.

Kava-drinking in New Guinea. *By A. C. Haddon.*

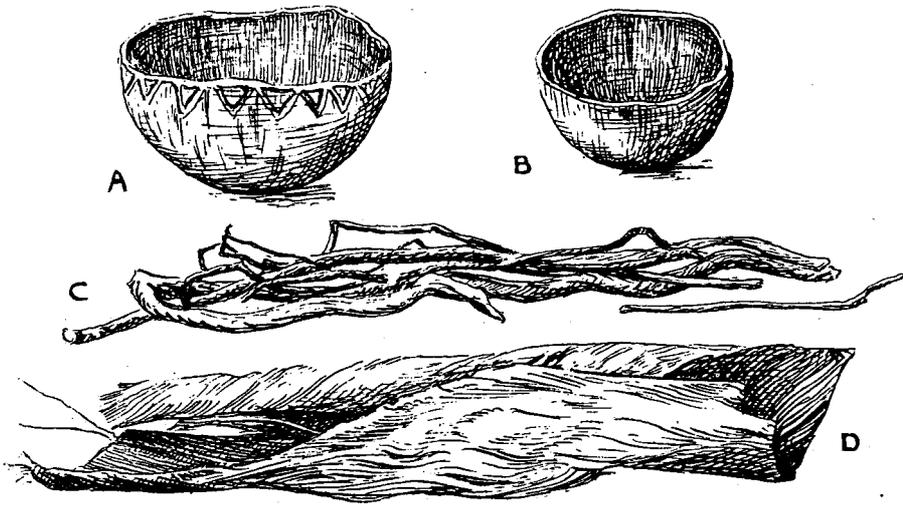
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The custom of drinking kava is recognised as a criterion of a certain definite migration, or series of migrations, into Oceania; its occurrence in New Guinea has long been known, and I have thought it desirable to bring together all the information on the subject in order to facilitate the discussion of the problems arising from its distribution.

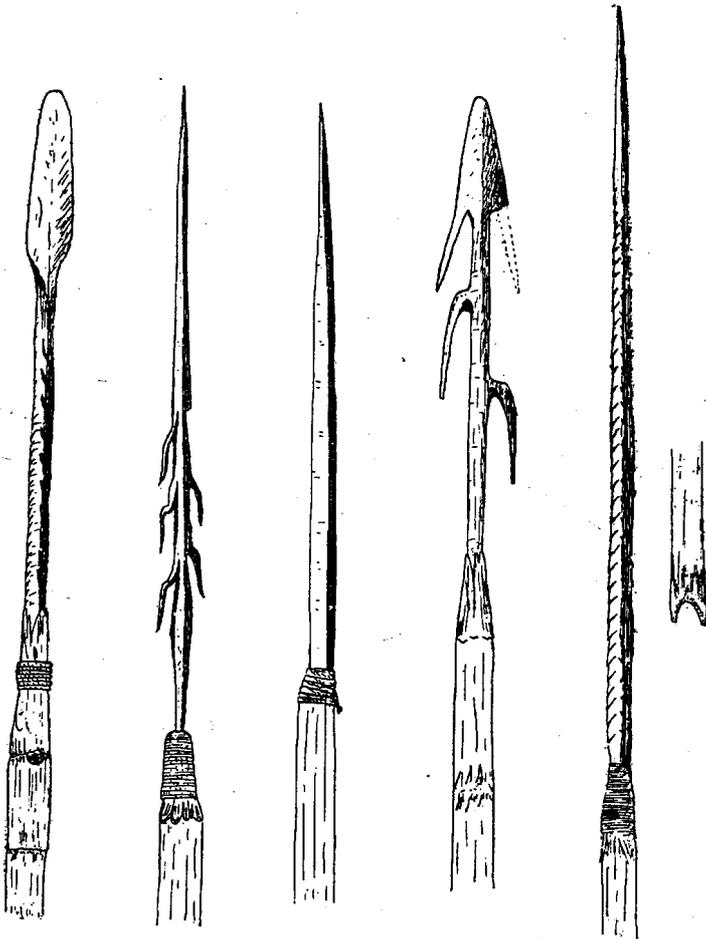
The first record of the use of kava in New Guinea was made by N. von Miklucho-Maclay in the *Bulletin of the Imperial Russian Geographical Society*, X [ii], 1874. As this journal is in very few of our libraries, and is printed in Russian, I give a translation of that portion which deals with New Guinea; for this I am much indebted to my friend Mr. E. H. Minns, author of the monumental work *Scythians and Greeks* (1913). The pepper plant and the drink are called by the Papuans of Astrolabe Bay *kéu*, or *káu*, a name very like the Polynesian *kava*. M.M. constantly saw it used at feasts, and noted the results. The plant is a small shrub which is carefully cultivated round their huts or in plantations. The leaves, stem, and root are chewed not only by grown-up men who take part in the feast, but also by boys to whom the drink is still forbidden, and who, together with the women, do not have access to the feasting assembly. An adult man distributes small portions of the leaves, stem, and root, and sees that it is properly chewed, and that the precious stuff is not wasted by expectoration; if the root is hard it is first beaten between stones. The dark green very bitter mass is often taken out of the mouth, put in the palm of the hand, and carefully rolled up into a ball, sometimes about the size of a hen's egg; then again put into the mouth or handed to someone else to chew.

When the mass is sufficiently soft, each of the chewers takes it out of his mouth, rolls it again into a ball, and gives it to the man who had distributed the portions. The latter has by this time provided himself with two large scraped coco-nut shells. One shell with a hole in its middle serves as a funnel, and is put over the mouth of the second; the bottom of the funnel is covered with soft thin grass, which serves as a filter. The chief preparer of *kéu* takes several balls together, and with his hands squeezes out the abundant green fluid in which the balls are soaked. Afterwards he wets the masses with water and squeezes them again, and repeats the process until the water is hardly coloured at all. They sometimes stir the fluid in the filter so as to make the sediment rise and help the filtering. If the fluid is thick they add yet more water.

While the *kéu* is being filtered the preparer is surrounded by the men who are to take part in the feast, and each of them takes out of the bag, which every Papuan always carries, a small bowl made of the shell of a young coco-nut. This bowl is generally well scraped, and the outside often carved, but the inside is covered with a dark green deposit, the remains of long service, as custom does not allow the washing or cleaning out of a bowl in which *kéu* is drunk. In front of the large bowl containing the *kéu* a small space is cleared, and with the blunt end of a spear depressions are made in the earth, in which the bowls of those who are waiting are placed, so that they should not be upset. These bowls are of various sizes, according to the owner's love of the drink. The man who has prepared the *kéu* pours it out into the bowls; the fluid is of a dark green colour and of the ordinary thickness of melted fat which has become a little cold. When all the bowls have been filled, the men who are standing round stretch out their hands and take them, either all at the same time or in turn according to a certain sequence, first the guests, then the old men, and so on. With their bowls in their hands, the feasters



i.—KAVA ROOT AND BOWLS FROM KIWAI, BRITISH NEW GUINEA.



ii.—ARROWS USED BY THE AGAR DINKA.

separate to the margin of the clearing in which the feast is taking place, and turning away, drink the bowl of *kéu* and micturate at the same time.

This custom, which is perpetually observed in some villages, appears in others in the form that the men micturate before they drink the *kéu*, or a little after. As *kéu* is unpleasantly bitter, they take away its taste by eating the scraped kernel of a coco-nut wetted in the fluid of the nut which has been prepared previously for this purpose. The amount of *kéu* which they usually drink equals about three or four tablespoonfuls, which is sufficient to produce intoxication in some of them. Those who have drunk more than an ordinary portion fall into a melancholy, sleepy frame of mind; they go away staggering from the people they are talking to, sit down, and stare fixedly at some object, continually spitting, as the bitter taste remains for a very long time in the mouth; finally they fall into an uneasy but heavy slumber. In this state it is very difficult to wake them up or to get anything out of them. The drinking of *kéu* is the first part in an entertainment, nothing is eaten before it, and the drunkards who have taken a large quantity confine themselves to the drink and do not eat anything. *Kéu* is drunk only by grown men (*tamò*); boys before circumcision and women are forbidden it. No feast takes place without *kéu*.

In the villages where a great deal is grown, adult men drink it also at ordinary times, and even women are secretly very fond of it, and drink it, hiding the fact from their husbands and sons. Not only are fresh leaves, stem, and root used, but also the root, after having been dried and kept for many months, is chewed, and yields a yet more bitter and stronger drink.

In spite of the not particularly attractive process of the preparation, Miklucho-Maclay, wishing to know the effect, once drank an ordinary portion of *kéu*. The drink proved to be without special scent and of a bitter, astringent taste. After a little time he felt his head swim and his legs refused to support him, but this effect passed off after half-an-hour's sleep. He woke up with a fairly fresh head but with a horrid bitter taste in his mouth which remained for three hours after drinking.

Kéu is the only intoxicant of this coast and is very highly valued. Miklucho-Maclay gives a brief account of kava-drinking in *Natuurkundig Tijdschrift voor Nederlandsch Indie*, XXXV, 1875, p. 66, but does not add anything to what he had previously written, as given above.

Biro gives very little information about kava-drinking in Astrolabe Bay; he says it is only partaken of by older men, and solely after feasts or on other great occasions. He describes and figures six coco-nut kava bowls, which are called *keugamban* at Bongu and *kial-gamban* at Bogadji (or Bogadjim); most are mainly decorated with zig-zag lines, but one very old and greatly-prized specimen has an engraved border representing conventional hen's eggs (*tue-tauel*), and footprints of a pig (*bel nyinyem*): "This design is quite natural in view of the important rôle of the hen, and still more of the pig, in the feasts of the Tamol" [as the natives call themselves] "Besch. Catalog. der Ethnogr. Sammlung Ludwig Biro's aus Deutsch-Neu-Guinea (Astrolabe Bai)," *Ethnogr. Samm. des Ung. Nat. Mus.*, III, Budapest, 1901, p. 102.

O. Finsch very briefly refers to Miklucho-Maclay's observations in *Samoafahrten*, 1888, p. 61, and in *Annal. K.K. Naturhist. Mus. Wien*, VI, 1891, p. 66 [204], where he says he could not obtain any data on kava-drinking: "Since the kava plant grows wild all over German New Guinea, presumably kava-drinking is widely spread." This, however, by no means follows. In his great work *Südseearbeiten*, Abh. d. Hamburg Kolonialinstituts, XIV, 1914, p. 313ff, he gives a useful summary of the use of kava in Oceania, but does not add anything fresh to what he had previously said on the subject so far as New Guinea is concerned, but in a footnote on p. 314 he says that two varieties of *Piper methysticum* are used, and that four

species are mentioned by K. Schumann and M. Hollrung, "Die Flora von Kaiser-Wilhelms-Land," 1889, *Nachrichten über K. W. L. und den Bismarck Archipel*.

F. S. A. de Clercq and J. D. E. Schmeltz, *Ethnogr. Beschrij. van de West-en Noordkust van Nederlandsch Nieuw-Guinea*, 1893, p. 201, give a very brief account, but with some inaccuracies, of the use of kava in New Guinea. They mention the following references which I have not been able to consult. Hollrung [M.], *N. K. Wlhd.*, 1887, p. 178, and Zöller [H.], *Deutsch Neu Guinea* [1891], p. 253. In their Table I, p. 244, for the distribution of kava, they give Astrolabe Bay and Constantine harbour on the authority of Finsch, and Finsch harbour and Cape Cretin apparently on the authority of de Clercq.

R. Neuhauss, *Deutsch Neu Guinea*, I, 1911, p. 276, adds nothing to the subject. G. A. J. van de Sande refers only to Biro, and adds, "Kawa . . . is, as far as I am aware, never used in Netherlands New Guinea," *Nova Guinea*, III, 1907, p. 14. He had, however, overlooked the following.

J. D. E. Schmeltz states, on the authority of H. Velthuyzen, *Jaarboek van de Kkl. Nederl. Zeemacht*, 1893-94, p. 449, that among the Tugeri of the south coast, near the British boundary, a root is chewed by the women, and the juice, which they spit out into a coco-nut shell, is drunk by the men. He adds that as we have records in other places in New Guinea of the use of kava, it is permissible to presume that it occurs here also, *Inter. Arch. f. Ethnogr.*, VIII, 1895, p. 157. Assuming this to be a genuine case of kava-drinking, it should be noted that this is the only instance in which women chew the root, as we cannot accept Bevan's statement that virgins chew it in Kiwai (p. 1242), and it is the only locality for Netherlands New Guinea. R. Pöch says that "the Kaja-Kaja [Tugeri] know three drinks: pure water, coco-nut water, and *wati*, an intoxicating, alcoholic drink made by chewing a kind of kava root. *Wati* is drunk twice daily—morning and evening—always in small quantities, out of the half of a dwarf coco-nut shell of the size of a ladle. Excess is probably rare." (*Sitz. K. Akad. Wiss.* Wien, CXV, 1906, p. 898.)

The first record of the use of kava in British New Guinea is due to L. M. D'Albertis, who says that when he was at Mawata, Maino "brought me some roots of a plant which the natives chew for its narcotic and intoxicating properties. Maino explained that to experience its intoxicating effects perfectly, tobacco should be smoked after chewing a certain quantity of the root"; it induces sleep and pleasant dreams (*New Guinea*, II, 1880, p. 197).

S. McFarlane says it is used near the Fly River, being chewed by boys (*Among the Cannibals of New Guinea*, 1888, p. 126).

E. Beardmore states that *komata* is drunk at Mawata during the feast which is held when lads arrive at puberty; it is obtained from a plant grown locally. No ceremony is held when girls arrive at puberty, but a feast is given at which *komata* is not drunk (*Journ. Anthr. Inst.*, XIX, 1890, p. 460).

In some ethnographical notes on the Western Tribes, more particularly the coastal peoples, B. A. Hely says that *gamada* is *sabi* (tabu) to boys below the age of puberty, and that the dugong harpoon and rope are anointed with *gamada* before the fishing begins. This makes them strong (*Annual Report British New Guinea*, 1894-95, p. 44).

The Rev. E. Baxter Riley says, "The drinking of *gamada* is greatly on the increase in the division. It is no unusual sight to see natives rolling about like drunken men in the coastal villages. This is often seen at Daru on a Saturday night. The drinking of this [*gamada*] is sapping the energies of the natives, undermining their constitutions, and will, if not checked, have a serious effect upon the population, and prevent its increase." (*Annual Report*, 1909-10, p. 157.) The Government has now made it penal to drink or even possess *gamada*.

When at Mawata in October 1911, G. Landtman wrote a letter to me in which he says: "*Gámoda* is drunk here everywhere. The natives chew it with water, empty the contents of the mouth in the leaf-sheath of a coco-nut palm, which they twist, and the liquid is filtered into a coco-nut bowl. This is generally done for the elder men by a boy, who often is not yet allowed to drink it himself. The root may sometimes be hammered with a piece of wood, or cut up with a knife or shell to facilitate chewing, but it is always chewed. *Gámoda* plays a prominent part in several ceremonies. Part of the ceremony of making peace with another tribe consists in the men drinking *gámoda* together; during the drinking-feast one man of each side will sprinkle a little *gámoda* over the assembled people and say, 'No more fight now, no good you me (we) fight.' This rite is called *karéa* and is performed in an analogous way on a number of different occasions and for different purposes. When the natives sit and drink *gámoda* together at the time when they plant their gardens, they dip a twig of the *gámoda* plant in the bowl filled with the fluid and sprinkle it in the direction of the gardens, thereby invoking the *Étengena* or *Sáme*, two closely-related mythical beings who are supposed to help them in their gardening. The *Étengena* reside in trees, and the *Sáme* in swamps. A corresponding practice precedes dugong and turtle-hunting expeditions to the reefs. To the people here *gámoda* seems to be almost essential to ensure success in garden work. That is why quite a little conflict has arisen when the Government and the Mission try to do away with it. I have never heard the natives express themselves with such indignation against the white people as when they think they are going to be deprived of *gámoda*: 'We fright Jesus Christ one thing; we fright *kaikai* too. White man ask me fellow look out missionary, give *kaikai*, no fault belong me. What name want to stop that thing? that time *kaikai* belong me fellow finish.' Which may be re-stated as follows: 'We fear Jesus Christ, but we are also frightened about our food. White men ask us to feed the missionary; then why do they want to stop this practice? If we do our food will perish, and that will not be our fault.'" He adds that, "it seems doubtful whether betel-chewing was ever an indigenous custom within the Kiwai-speaking district, though it was undoubtedly practised here to some extent."

The Mawata people may have learnt the use of *kava* from the Masingara, who were partially dispossessed of their land by the Mawata immigrants about 1800-10 (J. B. Cameron, *Annual Report*, 1892-93, p. 68; B. A. Hely, *ibid.*, p. 70). The Masingaramu, as B. A. Hely calls them, claim to be the sole and aboriginal occupants of the land (*Annual Report*, 1893-94, p. 55). Macgregor says that the local *Piper methysticum* is a small variety about 2 feet high, all of a green colour, the stem much knotted, and the root consisting of a large number of small fibrils. It is the custom of the Masingara to drink *kava* when they have any important business or undertaking to discuss. On this occasion, when a number of men from the coast were present, a man chewed the root fibrils and the stem; any man of an obliging disposition did this, but as a matter of politeness it was generally done by a Masingara man. The chewed mass, with a little water, is squeezed through the cloth-like leaf sheath of the coco-nut palm into a small dish consisting of one half of a coco-nut shell. One man drank this off without any ceremony or remark; then a mass was chewed for someone else, and the same process was gone over indefinitely. "The two Fijians of the party pronounced the plant to be 'very strong,' but they were much amused by the extremely primitive and unceremonious way in which it was drunk. . . . Here only the chewer and the drinker take any interest in the proceeding, everything is dirty, and the whole affair rather repulsive than otherwise. . . . Some of the tribes of the Fly River know of the custom, and sometimes obtain small quantities of the plant from the inland tribes; but none of them cultivate

" it themselves or make any ceremonial use of it. It is almost surprising that the " tribes in the central and eastern districts do not use the *Piper methysticum* as " a beverage, because several species of the plant grow there in the forests." (W. Macgregor, *Annual Report*, 1890-91, pp. 46, 47; cf. *Journ. Anthr. Inst.*, XXI, 1891, p. 204.)

According to B. A. Hely, all the people of a Masingara village combine to erect a house, the owners providing them with food and *gamada* while the work is proceeding (*Annual Report British New Guinea*, 1893-94, p. 55). A breach of *mitse* (tabu) has to be healed by the offender supplying food and *sie* (*gamada*) for one whole day. At the large hunting dances the men dance in a circle round two well-executed effigies of crocodiles (*sible*); one is about 8 feet long, and represents Nugu, whom Hely describes as the deity of the Masingaramu, the other is about 4 feet long, and represents Ulbe, his young one. The effigies are refreshed with libations of *sie* and are greased with pig's fat (*loc. cit.*, 1894-95, p. 45).

The Somlos, who live about 10 or 11 miles to the north-west from Masingara, drink the *Piper methysticum*, but do not chew lime and betel-nut (Macgregor, *Annual Report*, 1895-96, p. 41).

T. Reeves Palmer has just informed me that the Dirimu, who live on the Kuninbaduga, or eastern affluent of the Binaturi, have an annual ceremony called *Bromo giri*, or Pig dance, at which wooden human effigies, *udo*, are paraded; the men carry on their backs male *udo* and the women female *udo*. He adds, "*gomoda* " is drunk at this ceremony, and to some extent on other occasions as well, but only " by fully grown men and women past the age of child-bearing. It is chewed by " men only. The chewed root and saliva are spat into a piece of *choblabe*, the " leaf sheath of the coco-nut palm, and then squeezed into half a coco-nut shell; " the process is repeated several times." He understands that the fear of attack by neighbouring tribes is the reason why *gomoda* is not indulged in more freely. The young men of the village are sent out to keep watch and protect the village, as the *gomoda* incapacitates the drinkers for a time; thus the practice was well under control.

H. P. Beach informed me in September 1914 that the bushmen (by which he meant the people inland from the coast of Daudai) are "bowled over" if they take more than two mouthfulls of *irka* (*gamada*); they never cut the head of a pig without drinking *irka*.

T. F. Bevan gives a lurid account of head-hunting and cannibalism in Kiwai when he visited it in December 1887; he says: "At these cannibal feasts a kind " of kava is drunk. This is prepared from an indigenous root chewed by virgins " of about thirteen years of age. While it does not exactly intoxicate, its effect " is not unlike that of opium" (*Toil, Travel, and Discovery in British New Guinea*, 1890, p. 258). Macgregor investigated the matter on the spot in November 1889; the natives described Bevan's account as "bitter language" and "not true." There is no evidence of cannibalism. "There is not a kava plant in or belonging " to the village [Iasa]. It is used on the mainland but it is a curiosity at Kiwai, " and as such I have heard of one plant at Sumai. The people of this island do " know how to use it, but they say it is never chewed by women" (*Annual Report*, 1889-90, p. 38).

J. Chalmers says that the natives of Kiwai use *gamada*. "When a feast is to " take place the young men chew the root and collect their saliva into wooden " bowls, and water is added. On the day of the feast only those who have passed " through all the stages of initiation may drink it. Large quantities of it are drunk. " The root of the Fly River kava is much smaller than that of the South Seas " (*Journ. Anthr. Inst.*, xxxiii, 1903, p. 121). As Chalmers resided as a missionary

for some time on Kiwai we may accept his statements rather than those of casual visitors. H. P. Beach informed me that *gamada* is drunk in the estuary of the Fly, but not by those in the estuary of the Bamu. The Wabuda people have learnt its use within the last four or five years. He also stated that there were large gardens of *gamada* on the upper reaches of the Fly River.

Kabiri (Lyons), or Girara (Beaver), is the low-lying district between the Fly River and the Aramia affluent of the Bamu; roughly speaking, it extends from about 142° 30' to 143° 15' E. long. In a letter dated October 1910, and privately published in 1911, the Rev. B. T. Butcher describes the first journey ever made through this country by a European; in it he was accompanied by G. Landtman. He spent a night in the house at Barima, and when he tried to go to sleep he was disturbed by a strange, weird kind of singing. He found all the men seated in a circle in the central hall round their chief, who was beating time with a lighted *wiki* (a little stick which burns slowly). Each man had his betel-nut and gourd by his side and a lighted *wiki* in his hand, with which he beat time in unison with the chief while joining in the chant. Boys were all the time chewing *gamada* for the men's use.

Most of the information from Astrolabe Bay has been obtained at the Papuan-speaking villages of Bogadjim and Bongu, all the other coast villages are Melanesian-speaking. Miklucho-Maclay does not, however, say precisely where he saw kava employed. Finsch says it was in Constantine harbour, which is in the neighbourhood of Bongu, on the southern shore of the bay. The corpse is exposed on a framework before burial in Bogadjim. The dead help their relatives, and are invoked on all sorts of occasions; great wooden images, apparently of especially honoured dead, are made in Bongu, and are widely exported. Every few years a feast is held in their honour, which women may not share [kava, doubtless, is drunk at this]; if the image fails to help suppliants, it may be set aside. The existence of totemism is doubtful. The *asa* or *ai* cult centres in a poor sort of house in the jungle which contains wooden masks, the ritual musical instruments, *asa* flutes, etc. Nothing is known about the initiation ceremonies which take place about every ten or fifteen years, but Biro states that they are just the same as the *balum* at Finschharbour; circumcision then takes place and bull-roarers are used. Biro states that the *asa* house (which women may not approach) was formerly the only place for practising ancestor cult, initiation ceremonies of youths, and the sacred dances, but latterly, though not from European influence, *asa* houses are more or less neglected, being replaced by the men's house (B. Hagen, *Unter den Papuas in Deutsch Neu Guinea*, 1899; W. Semayer, "Beschr. Cat. L. Biro," *Eth. Sam. Ung. Nat. Mus.*, III, 1901). Miklucho-Maclay says that on the Maclay coast (from Astrolabe Bay to C. König Wilhelm) the corpse is placed in a sitting position with knees so bent as to touch the chin and with the arms clasping the legs; it is wrapped in leaf sheaths of the sago palm, bound with lianas, left for some time in own but, and later buried there. A year later the head at any rate is dug up, the lower jaw cleaned and treasured, but the skull is thrown away in the bush and may be cheerfully exchanged for trade goods. (*Z. f. Eth.* V, 1873, p. 188, and *cf. Nature*, XXVII, 1882, p. 137.) We are not told definitely that these people drink kava.

The Melanesian-speaking Jabim about Finsch harbour and Cape Cretin have a great periodic circumcision feast termed *balum*; the lads to be initiated are conducted to a specially-built hut which represents the *balum* monster, the entrance being its open mouth; the whole ceremony is accompanied by the booming of bull-roarers, *balum li*, and the noise of sacred flutes. The *balum* cult combines the initiation of the youth into the society of adult men with the recognition of his

kinship with the dead, his death to the old order and new birth into a higher social status being symbolised by his being swallowed by a monster who is the ancestor of the village kin. The dead are buried, but respected persons may be mummified, and the skull and some bones may be kept for some time. Every dead Jabim man of repute has a bull-roarer buried with him. Ghosts are not solely harmful, but may help the living. There are traces of totemism (A. C. Haddon, "New Guinea," *Encyclopædia of Religion and Ethics*, IX, 1916).

The Tugeri are cannibals and inveterate head-hunters. All the men sleep in a few men's houses at each end of a village, and there is a bachelors' clubhouse outside the village. There is a complicated patrilineal exogamous totemic system, in which plants are combined with animals into main and subsidiary groups. The inhabitants of several villages assemble at initiation, bull-roarers are employed, and there are many dances, in which masks are worn and animals represented. The bull-roarer is anthropomorphized as Sosom, a mythical monster in the bush, who at the annual festival at the beginning of the south-east season devours the novices but brings them back to life; the bull-roarer is not known anywhere else in Netherlands New Guinea. The youths receive a new name but are not circumcised (R. Pöch, *Sitz. K. Akad. Wiss. Wien*, CXV., 1906, p. 899; *Z. f. Eth.*, 1907, p. 392; *Geographical Journal*, XXX, 1907, p. 616); the system of age grades is described by H. Nollen, *Anthropos*, IV, 1909, p. 553. From cultural evidence, I think it is highly probable that the Tugeri migrated from the interior down the Strickland River, across the Fly, and down the Merauke and other rivers to the south coast.

In British New Guinea kava is drunk by Papuan-speaking peoples belonging to three distinct cultures:

(1) We know very little about the Kabiri, but, as I shall show in my forthcoming paper in the *Journal*, they have a decorative art that is unlike any hitherto described. The villages usually consist of a single house of immense size (A. P. Lyous, *Annual Report*, 1913-14, p. 100). The people emphatically deny being cannibals, but admit head-hunting, and have five patrilineal totems (W. N. Beaver; quoted by J. H. P. Murray, *Annual Report*, 1911-12, p. 11). At their principal ceremony, *moi-iata*, three large named wooden effigies of crocodiles are exhibited and masks worn, marriages are celebrated, and youths initiated. The boy to be initiated is previously hidden, and at the ceremony is placed in the large jaws of one of the crocodiles. Considerable attention is paid to human heads, and there probably is a manes cult. Human effigies are made, and they employ elaborate paraphernalia in their ceremonies. I should not be surprised if these people, like the Namau and Elema tribes of the Papuan Gulf, have traditions of coming from the interior of New Guinea. We know nothing of their language.

(2) The Mawata people emigrated to the mouth of the Binaturi from Kiwai about a hundred years ago. There seems to be some reason to doubt whether the Kiwai people and other islanders of the Fly estuary were originally kava drinkers, and the Mawata folk may very well have learnt the custom from the Masingara. No evidence has been published to show when the Kiwai people arrived in the Fly estuary; indeed, they claim to be aborigines. They were head-hunters, but apparently not cannibals. They have elaborate initiation ceremonies, at which bull-roarers, masks, and human effigies are employed; they are also intimately associated with ensuring the fertility of garden produce. The dead are buried. They speak a "Papuan" language. (Beardmore and others, *Journ. Anthr. Inst.*, XIX, 1890, pp. 459-73; B. A. Hely and J. B. Cameron, *Annual Report British New Guinea*, 1892-93, pp. 57, 67ff; Hely, 1895-96, p. 69, 1897-98, p. 134; A. C. Haddon, *Head-hunters, Black, White, and Brown*, 1901, Chapter VII; *Report Cambridge Expedition to Torres Straits*, V, 1904, p. 187; J. Chalmers, *Journ. Anthr. Inst.*, XXXIII, 1903,

pp. 117; C. G. Seligman in J. G. Frazer's *Totemism and Exogamy*, II, 1910, pp. 29, 35; G. Landtman, *Festschrift till. Edvard Westermarck*, Helsingfors, 1912, p. 59; *Folk-Lore*, XXIV, 1913, p. 284.)

(3) Little is known about the Masingara, or Masingle, as they call themselves. They are a typical bush tribe. Seligman says the people are not totemic, but there are two exogamous divisions; descent is patrilineal (MS.). The cult of the crocodile has already been alluded to; the memory of Nugu is also perpetuated in the figure of a man which is kept in the chief's house (B. A. Hely, *Annual Report*, 1894-95, p. 45). The property laws have been recorded by Hely; women, whether married or not, can own land by inheritance or cultivation (*Annual Report*, 1893-94, p. 54; cf. also D'Albertis' *New Guinea*, II, pp. 172-75, 181, 187, 188); G. Landtman has studied these people, but his results have not yet been published. The neighbouring Somlos are doubtless allied to the Masingara; they bury their dead. The Dirimu speak the same language as that of the Masingara and numerous other villages in the district, all of whom are doubtless of the same stock. They are patrilineal, daughters inherit land only when there are no sons. The large kangaroo, *cheba*, is regarded as the common mother of all the bush peoples of the district, therefore it is tabued to them as food (T. Reeves Palmer, MS.). There is no evidence that these bush tribes were ever head-hunters or that they have a rich ceremonial social life; they speak "Papuan" languages.

The custom of drinking kava might readily spread from the Kabiri to the bush peoples behind the right bank of the delta of the Fly without markedly affecting the great islands in the estuary, but we are entirely in the dark as to the date of this possible drift. There is no evidence to lead one to suppose that this system was imported into the Fly estuary area, or to the south coast of Netherlands New Guinea, by a migration or cultural drift by sea. My own opinion is that it has come overland; possibly its point of departure was Astrolabe Bay. It is, however, futile to speculate further until we have information concerning the peoples in the interior of New Guinea.

A. C. HADDON.

DESCRIPTION OF FIGURES IN PLATE K—i.

KAVA ROOT AND BOWLS FROM KIWAI ISLAND, ESTUARY OF THE FLY RIVER, BRITISH NEW GUINEA, FROM SPECIMENS PRESENTED BY DR. G. LANDTMAN TO THE ETHNOLOGICAL MUSEUM, CAMBRIDGE.

A.—Bowl of coco-nut shell, *nuku*, diam. 8.5 cm., height 5 cm., with a zigzag engraved round the outer margin of the rim.

B.—Plain *nuku*, diam. 7 cm., height 44 mm.

C.—*Gimada* root, the thick portion of the dried root is 7 mm. in diam.

D.—Leaf sheath of a palm through which the beverage is filtered.

Africa: Nile Valley.

Seligman.

Dinka Arrows. By Professor Seligman, M.D.

The majority of the Dinka tribes do not use the bow and arrow; indeed, **88** the only exception that I know of is the Agar Dinka, though it is likely enough that some of their neighbours may share their peculiarity. The breaking down of tribal isolation which has advanced so rapidly of late years seems to make it worth while to figure a number of Agar Dinka arrows given me a few years ago by the Rev. A. Shaw, C.M.S., who himself collected them from the Dinka (see Plate K—ii). The shafts are usually from about 50 cm. to 70 cm. in length, the iron heads approaching 15 cm. I cannot say whether the Agar actually made the arrows figured or procured them from another tribe; in form the heads resemble those in use among the Bongo, the Mittu, and their congeners, from whom the use of the bow may have been learnt.

C. G. SELIGMAN.