

## KAVA DRINKING AS PRACTISED BY THE PAPUANS AND POLYNESIANS

By WALTER HOUGH

Among the customs peculiar to the inhabitants of the South Pacific islands, perhaps the most noted is that of the preparation and drinking of a narcotic beverage called *ava*, *kava*, or *yakona*. Much of its notoriety arises from the repulsive way in which it is sometimes made. Aside from this, it is characteristic of a certain oceanic area, and seems to be as strikingly limited to this area as is the stick-and-groove method of making fire. The custom, however, is not confined to one ethnic stock, many notices in literature showing that both Papuans and Polynesians practise it. In many of the islands the liquor is concocted by chewing the root of the *Macropiper methysticum*, or long pepper, ejecting the comminuted mass into a bowl, adding water, straining out the pulp, and drinking the fluid. In other localities it is made by simply grating the root and adding water.

The plant from which kava is made is a shrub of the natural order *Piperaceæ*. It is about six feet high, with stems ranging from an inch to an inch and a half in thickness; the leaves are cordate and from four to eight inches long. This family is the source of the pepper of commerce and contains several species that are of medicinal and commercial importance.

In making kava, the root and base of the stem are used. The roots usually weigh from two to four pounds, though sometimes as much as 22 pounds. Several varieties are distinguished by the natives; for instance, in Tahiti there is a yellow variety called *marca*; another, which becomes pink on exposure to the air, is called *avini-ute*.

Chewed when freshly gathered, the root first tastes sweet and aromatic, then bitter, acrid, and pungent. It provokes abundant secretion of saliva and in a few seconds occasions a sensation of burning on the tongue. The root contains about fifty percent of starch, a little pale-yellow essential oil, two percent of an acrid resin, and one percent of the neutral crystalline principle methysticin, called kavahin. To the latter principle we must attribute the toxic qualities

of the kava preparation. The resin and the kavahin are insoluble in water, but are soluble in saliva and the gastric juices.

There are many accounts of kava drinking in the literature of Polynesia.—Cook, Ellis, Mariner, and Turner being among those who describe the practice in different islands. The author takes pleasure in acknowledging the use of notes on the Samoan custom, made in 1889 by Lieut. T. Dix Bolles, U. S. N.

In Samoa, the ava root is grated or chewed, then soaked, the woody pulp strained off, and the fluid drunk. The root is used either green or dry. The flavor of the liquid is at first like that of soapsuds, but immediately afterward a pleasant aromatic taste is imparted, faintly bitter, as in quinine. In Samoa, ava drinking is the accompaniment of all meetings of the men.

Formerly the root was chewed, but as that destroyed the teeth after a time, it is now generally grated. At councils the making is quite ceremonious and proceeds as follows: The host sends a young man for some fresh, dry ava, which is thrown into the semicircle of men and is examined, commented on, and finally tossed back to be cleaned of its bark. The host's daughter, the maid of the village, is called in and seats herself before the men; a hugh ava bowl is brought forward, together with several cocoanut shells full of water. The bowl and cup are washed; the fau, or whisk, to be used is wet and switched until dry; the maid's hands and wrists are bathed; and if the root is to be chewed, the mouths of the chewers are thoroughly rinsed. The quid is increased in size till the mouth will hold no more and is then deposited in the bowl, and so on until there is enough to make a drink for each of those present.

If, however, the root is to be grated, a tin grater is laid across the bowl, and the maid, sounding a musical rhythm, rubs until enough is procured. The remaining fragment of the root is thrown aside and a second maid or young woman pours into the bowl the proper allowance of water. The contents are then stirred by the maid and in a few moments the fau is bunched, dropped into the bowl, and by dexterous manipulation the pulp is caught, and the fau is wrung out and shaken by the assistants. This is repeated until the ava is free from pulp, when all clap their hands, saying, "The ava is ready; the bowl is prepared."

The drinking-bowl, usually a large half-cocoanut shell, is then presented, by an attendant, to the maid, who fills it. The master of ceremonies, familiar with those present, calls the name of the senior chief, who answers by a word, or by clapping his hands, that the attendant may know to whom to present the bowl. This is done

by a low, long sweep of the arm, bending the body at the same time. The recipient drinks in silence, holding the cup in one or both hands, and, finishing at a single draught all that he intends to take, he pours the remainder on the stones and spins the cup before him. The drink is passed along by seniority till all have participated, when the large bowl is emptied upon the stones and the makers withdraw. Numerous quarrels originate from mistakes made in first presenting the cup to a person of inferior rank.

Nothing is said or done until all have been supplied, but a chief will often leave after his turn, and the council generally breaks up at the end of the drinking. If much ava is taken at one time the legs become helpless. It is believed to be a gentle tonic, preventing malarial fevers, and it is used freely.

The apparatus for kava preparation and drinking consist of few pieces, but they are among the finest manufactures of the islands.

The bowl is usually a circular, shallow, wooden vessel standing upon short legs. It is always of solid wood, for the Pacific islanders, like the Africans and other races of a certain degree of advancement, know nothing of joinery. They vary in size from 9 to 36 inches in diameter and are remarkable specimens of wood carving. In Samoa, the bowl is made of ifi lele, *Azalia bijuga* GRAY, or Samoan chestnut; in Fiji, harder wood is used, and sometimes small bowls are made of iron-wood or of dense cocoanut palm. A pierced lug at the edge of the bowl is supplied with a cord of plaited coir for suspension. The bowl is never washed after use, but is allowed to dry, in order that the deposit left by the liquor may in time form a crust upon the surface, which renders the bowl highly valuable. On the interior of the bowl in the U. S. National Museum, presented to President Cleveland by Malietoa, one of the Samoan chiefs, there is a delicate sea-green polished patina that is very beautiful.

The cup from which kava is drunk is almost invariably made from cocoanut shell. The lower half of the shell is employed, being scraped and rubbed with stones under water into a thin, highly polished cup, forming a graceful and valuable drinking vessel. These are never wiped dry, that they may thus take on the enamel so valued in the bowl. The Samoan cocoanut, being of exceptional size, is much sought after in the islands for making cups. Usually they are pierced in the thicker portion at the point and supplied with a cord for hanging.

The strainer (*fau* in Samoan), is simply a long fringe of bark from the *fau* tree, *Hibiscus tiliaceus*. In Tonga, the strainer is made at the time of the kava ceremony, by crushing the green stalks of the

*Cyperia cinctus*, and drawing them repeatedly between two pieces of wood, securing the fiber filaments. The use of the *fau* is an art. It is dropped into the kava and by the most dexterous manipulations is made to enmesh the pulp, which is wrung dry and thrown aside.

The kava plant is cultivated in the Marquesas, where the infusion is used morning and evening like tea and coffee. In Tonga it is still in use, and also in Fiji, the home of the kava habit and where the liquor is called *yakona*.

Kava is at first stimulating, but the effect of an excess resembles that of opium, producing a drowsy drunkenness, lasting for two hours. The inebriate is usually peaceable, but sometimes is irritated by noises, which is attributed by natives to the use of kava grown in moist ground. The results of excess are skin disease, emaciation, and general decrepitude. The peculiar whiteness of the skin caused by kava drinking is said to be sought after in some islands as a sign that its possessor is wealthy enough to devote his time to its acquirement.

Kava was formerly drunk before warlike enterprises and religious festivals. It was a sign of peace, reconciliation, or of a rich present. The social element more frequently preponderated in the kava custom. In Samoa, *ava* circles or clubs were formed, and an objection of the natives to the introduction of Christianity on that island was that it would "break up our pleasant *ava* circles."

There is some misapprehension in regard to whether the liquid undergoes fermentation before it is consumed, but it is positively known that there can be no fermentation, for the liquor is drunk immediately after the addition of water to the macerated root. This beverage uniquely differs from all other drinks invented by man. Kava that is prepared by chewing is said to be more palatable, which is perhaps due to the conversion of the starch into a fermentable substance by the *ptyalin* of the saliva.

An account of kava would not be complete without a comparison with other beverages that have some points in common in their preparation. In Brazil, a drink called *chica* is made from cassava by the Indians. "The roots were sliced, boiled till they became soft, and set aside to cool. The young women then chewed them, after which they were returned into the vessel, which was filled with water, and once more boiled, being stirred the whole time. When this process had been continued sufficiently long, the unstrained contents were poured into earthen jars and allowed to ferment."<sup>1</sup>

<sup>1</sup> Kidder and Fletcher, *Brazil and the Brazilians*, Phila., 1857, p. 190.







TONGA NATIVES MAKING KAVA

In other parts of South America, maize was treated in the same manner in the brewing of beer. Kava differs widely, however, from this by not being fermented. The object of chewing in the case of the cassava beer seems to be in order to secure a suitable ferment, which is always present in the secretions of the mouth. Again, the conversion of starchy material by saliva is important to begin the process of fermentation. On the other hand, custom may have a strong influence, since they had an old superstition that "if it was made by men it would be good for nothing."<sup>1</sup>

Yeast had its origin in some such custom. The Hopi and Zuñi Indians prepare yeast by chewing corn meal. Among the former, at least, the chewing is entrusted to girls and healthy women, who seem to consume considerable time in the process. Among the Hopi the yeast appears to be for immediate use; the Zuñi add salt and lime to the liquid, checking fermentation, and keep it for some time without souring. In many parts of Mexico, also, yeast is prepared by chewing.<sup>2</sup>

The kava root was probably chewed as the most available way to disintegrate its fibers. The tin grater found an immediate adoption in Samoa. As an offset to the theory that the dialytic action of saliva on the starch may render the liquid more palatable, is the claim of the Samoans that the quid is dry when delivered from the mouth; but experiment shows that this is not the case, the root provoking the secretion of saliva. However, the continued presence of the material in the mouth might check the action of the salivary glands for a time. Another reason may be that since kava drinking was a semi-religious ceremony, or at first highly official in most islands, the custom may have been perpetuated as one giving greater efficacy to the potion.

Betel, which is extensively chewed by the Malays, Hindoos, Siamese, and other peoples, is perhaps the most complicated in its preparation of any narcotic. Four different ingredients enter into the quid, viz., leaves of the *Chavica betele*, chips of areca nut, gambier, and lime, resembling in the assembly and combination of these elements the compounds of more civilized society. That part of the betel compound which is of interest are the leaves of the piper, which are described as being bitter aromatic.<sup>3</sup>

<sup>1</sup> Kidder and Fletcher, op. cit., p. 191.

<sup>2</sup> The Oroches of the Amur prepare a drink by chewing up fish and ejecting it into a bowl, as the Polynesians make kava. The Fish Skin Tatars, *Jour. Asiatic Society of China*, 1890.

<sup>3</sup> F. Grabowsky, Das betelkauen bei dem malaiischen völkern, besonders aus Java und Borneo, *Internat. Archiv. f. Ethnog.*, 1888, v, p. 188.

There are some facts bearing on the spread of the kava custom among the islands which may enable us to determine the locality whence it took its rise.

It is of historic record when kava was introduced into Samoa from Fiji. According to the native account this was not very long ago. In the Papuan area the custom reaches its highest development, while to some of the Polynesian settlements it has never been carried, notably to Easter island, where, from the observations of Paymaster W. J. Thomson, U. S. N., it is not known. The reason for this is that the Easter islanders migrated before the custom found its way into their ancestral home (probably Rapaiti,  $27^{\circ} 35'$  S. lat.;  $144^{\circ} 20'$  W. long.; year, 1400).<sup>1</sup>

There is strong probability that the Papuans invented kava, because among this people its use was prevalent and the plant was systematically cultivated for the purpose of making the drink. The use of kava cannot be traced to New Zealand, though the Maori make use of a piper for tea and for toothache.

In New Guinea, at Mowat, the natives at the puberty feast drink the health of the young boys in a liquor called *komata*, made from a plant grown locally. Prof. A. C. Haddon thinks this is kava.<sup>2</sup>

d'Alberty says: "Maino brought me some roots which the natives chew for its narcotic and intoxicating properties."<sup>3</sup> This seems to point to the familiarity with kava among the Papuans of New Guinea.

A number of the arts and manufactures in the Pacific islands seem to be due to the progressive, woolly-haired peoples. Canoe and house building, stone-working, the use of the bow and armor, the making of pottery and bark cloth, some of these as evincing superiority, some as unique, may be credited to the Papuans.

The desire for narcotics and stimulants would seem to have grown from human necessity in response to a natural craving that must be supplied like any other desire, as thirst and hunger. The community of the instinct is shown by the almost universal use of stimulants and narcotics. Savors, flavors, and narcotics fall into the class of foods. As from the plainest and most simply prepared food there is an education to the appreciation of flavor and the refinements of preparation, so from the simplest of all beverages, water, there is a cultivation of the senses by the juice of the fruit, the nut, and the sap of plants, and the saccharomyces that float in the air soon put a vinous beverage into the hands of man. The origin of

<sup>1</sup> Peschel, *The Races of Men*, p. 349.

<sup>2</sup> *Jour. Anthropol. Inst.*, XIX, 1890, 4, p. 460.

<sup>3</sup> d'Alberty, II, 1880.



vinous beverages is a mere matter of the exposure of a fermentable juice to the air, which contains ferment spores usually in profusion. The use of such beverages is of great antiquity and their value for giving a novel sensation and a mental stimulus must have been early appreciated.

A line of argument might be followed to prove that the human mind has been spurred to greater intellectual activity since the advent of alcoholic beverages, but according to Peschel, conclusions of this sort are specious and have led Buckle astray into a whole series of attractive errors.

Some of the ruder tribes have no vinous drinks. The Patagonians are said to have no fermented drink, but they appreciate rum. They have a cooling drink made of the juice of barberries mixed with water, but it is drunk in its natural state. On the other hand, the Australians of New South Wales made mead, that was slightly intoxicating, from the honey of the wild bee.<sup>1</sup>

The Australians of Victoria "used compound liquors perhaps after a slight fermentation to some extent intoxicating—from various flowers, from honey, from gums, and from a kind of manna. The liquor was prepared in the large wooden bowls *tarnuk* [compare Samoan *tanoa*] which were to be seen at every encampment. In the flowers of a dwarf species of *Banksia* (*B. ornata*) there is a good deal of honey; and this was got out of the flowers by immersing them in water. The water thus sweetened was greedily swallowed by the natives. This drink was named *beal* by the natives of the west of Victoria and was much esteemed."<sup>2</sup>

The fact that nearly all aboriginal tribes are addicted to stimulants and narcotics in no less degree than are civilized races, is worthy of careful consideration. The relation of drinks and drugs to ceremonies and ordeals has already been studied by the late Captain J. G. Bourke, U. S. A., with valuable results to science.

The entire question of drinking is a very broad and interesting study, extending in its range from the first use of water to the last mighty aqueduct that brings a river to millions of lips, and including likewise the thousand and one beverages as well as the appliances for distributing and serving them. The subject has also its intellectual surroundings in folklore and custom.

The corruption of aborigines through intoxicants introduced by traders is not as original as may seem at first sight, for nearly every tribe already had similar agents differing only in degree of strength.

<sup>1</sup> T. A. Braim, *Hist. of New South Wales*, 1846, vol. II, p. 248.

<sup>2</sup> J. B. Smyth, *The Aborigines of Victoria*, vol. I, p. 201.

traders supplying only an existing need with more effective means of gratification. It is scarcely necessary, in support of the first assertion, to mention the different practices of rude peoples with respect to intoxication, nor to point out how the vegetal world has been ransacked to furnish the stimuli. Kava drinking is a good example of this.