

ON SOME REMARKABLE NARCOTICS OF THE AMAZON VALLEY AND ORINOCO

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In the accounts given by travelers of the festivities of the South American Indians, and of the incantations of their medicine-men, frequent mention is made of powerful drugs used to produce intoxication, or even temporary delirium. Some of these narcotics are absorbed in the form of smoke, others as snuff, and others as drink; but with the exception of tobacco, and of the fermented drinks prepared from the grain of maize, the fruit of plantains, and the roots of *Manihot utilissima*, *M. Aypi*, and a few other plants, scarcely any of them are well made out. Having had the good fortune to see the two most famous narcotics in use, and to obtain specimens of the plants that afford them sufficiently perfect to be determined botanically, I propose to record my observations on them, made on the spot.

The first of these narcotics is afforded by a climbing plant called Caapi. It belongs to the family of Malpighiaceae, and I drew up the following brief description of it from living specimens in November 1853.

I. BANISTERIA CAAPI, Spruce

(*Pl. Exsicc. No. 2712, Anno 1853*)

DESCRIPTION — Woody twiner; stem thumb, swollen at joints. Leaves opposite, 6.4 x 3.3, oval acuminate, apiculate-acute, thinnish, smooth above, appressed-subpilose beneath; on a petiole 0.9 inch long. Panicle axillary, leafy. Umbels 4-flowered. Pedicels appressed-tomentose, bracteolate only at base. Calyx deeply 5-partite; segments ligulate, eglandulose, or with only rudimentary glands, appressed-tomentose. Petals 5, on longish thick claws; lamina pentagonal, fimbriate, the limbriae clavate. Stamens 10, subunequal; anthers roundish. Styles 3, subulate; stigmas capitate. Capsules muricato-cristate, prolonged on one side into a greenish-white semiobovate wing (1.7 x 0.6 inch).

HABITAT — On the river Uaupés, the Içanna, and other upper tributaries of the Rio Negro, where it is commonly planted in the roças or mandioca-plots; also at the cataracts of the Orinoco, and on its tributaries, from the Meta upwards; and on the Napo and Pastasa and their affluents, about the eastern foot of the Equatorial Andes. Native names: Caapi, in Brazil and Venezuela; Cadana, by the Tucano Indians on the Uaupés; Aya-huasca (i.e. Dead man's vine) in Ecuador.

The lower part of the stem is the part used. A quantity of this is beaten in a mortar, with water, and sometimes with the addition of a small portion of the slender roots of the Caapi-pinima. When sufficiently triturated, it is passed through a sieve, which separates the woody fibre, and to the residue enough water is added to render it drinkable. Thus prepared, its colour is brownish-green, and its taste bitter and disagreeable.

The Use and Effects of Caapi

In November 1852, I was present, by special invitation, at a Dabocurí or Feast of Gifts, held in a mallóca or village-house called Urubú-coará (Turkey-buzzard's nest), above the first falls of the Uaupés; the village of Panuré, where I was then residing, being at the base of the same falls, and about four miles away from Urubú-coará, following the course of the river, which during that space is a continuous succession of rapids and cataracts among rocky islands. We reached the mallóca at nightfall, just as the horúros or sacred trumpets began to boom lugubriously within the margin of the forest skirting the wide space kept open and clear of weeds

around the mallóca. At that sound every female outside makes a rush into the house, before the botútos emerge on the open; for to merely see one of them would be to her a sentence of death. We found about 300 people assembled, and the dances at once commenced. I need not detail the whole proceedings, for similar feasts have already been described by Mr. Wallace (*Travels on the Amazon and Rio Negro*, pp. 280 and 348). Indeed, there is such a family likeness in all the Indian festivities of Tropical America that, allowing for slight local variations, the description of one might serve for all. There is no more graphic account of a native feast than that by old Wafer, of one he saw on the Isthmus of Darien (*New Voyage and Description of the Isthmus of America*, p. 363).

In the course of the night, the young men partook of caapi five or six times, in the intervals between the dances; but only a few of them at a time, and very few drank of it twice. The cupbearer—who must be a man, for no woman can touch or taste caapi—starts at a short run from the opposite end of the house, with a small calabash containing about a teacupful of caapi in each hand, muttering “Mo- mo-mo-mo-mo” as he runs, and gradually sinking down until at last his chin nearly touches his knees, when he reaches out one of his cups to the man who stands ready to receive it, and when that is drunk off, then the other cup.

In two minutes or less after drinking it, its effects begin to be apparent. The Indian turns deadly pale, trembles in every limb, and horror is in his aspect. Suddenly contrary symptoms succeed: he bursts into a perspiration, and seems possessed with reckless fury, seizes whatever arms are at hand, his murucú, bow and arrows, or cutlass, and rushes to the doorway, where he inflicts violent blows on the ground or the doorposts, calling out all the while, “Thus would I do to mine enemy (naming him by his name) were this he!” In about ten minutes the excitement has passed off, and the Indian grows calm, but appears exhausted. Were he at home in his hut, he would sleep off the remaining fumes, but now he must shake off his drowsiness by renewing the dance.

I had gone with the full intention of experimenting the caapi on myself, but I had scarcely dispatched one cup of the nauseous beverage, which is but half a dose, when the ruler of the feast—desirous, apparently, that I should taste all his delicacies at once—came up with a woman bearing a large calabash of caxirí (mandiocca-beer), of which I must needs take a copious draught, and as I knew the mode of its preparation, it was gulped down with secret loathing. Scarcely had I accomplished this feat when a large cigar, 2 feet long and as thick as the wrist, was put lighted into my hand, and etiquette demanded that I should take a few whiffs of it—I, who had never in my life smoked a cigar or a pipe of tobacco. Above all this, I must drink a large cup of palm-wine, and it will readily be understood that the effect of such a complex dose was a strong inclination to vomit, which was only overcome by lying down in a hammock and drinking a cup of coffee which the friend who accompanied me had taken the precaution to prepare beforehand.

White men who have partaken of caapi in the proper way concur in the account of their sensations under its influence. They feel alternations of cold and heat, fear and boldness. The sight is disturbed, and visions pass rapidly before the eyes, wherein everything gorgeous and magnificent they have heard or read of seems combined; and presently the scene changes to things uncouth and horrible. These are the general symptoms, and intelligent traders on the Upper Rio Negro, Uaupés, and Orinoco have all told me the same tale, merely with slight personal variations. A Brazilian friend that when he once took a full dose of caapi he saw all the marvels he had read of in the Arabian Nights pass rapidly before his eyes as in a panorama; but the final sensations and sights were horrible, as they always are.

At the feast of the Urubú-coará I learnt that caapi was cultivated in some quantity at a roça a hour's journey down the river, and I went one day to get specimens of the plant, and (if possible) to purchase a sufficient quantity of the stems to be sent to England for analysis; in both which objects I was successful. There were about a dozen well-grown plants of caapi, twining up to the tree-tops along the margin of the roça, and several smaller ones. It was fortunately in flower and young fruit, and I saw, not without surprise, it belonged to the order Malpighiaceae and genus *Banisteria*, of which I made it out to be an undescribed species, and therefore called it *Banisteria Caapi*. My surprise arose from the fact that there was no narcotic Malpighiad on record, nor indeed any species of that order with strong medicinal properties of any kind. *Byrsonima*—a Malpighiaceae genus that abounds in the Amazon valley—includes many species, all handsome little trees with racemes of yellow or rose-coloured flowers, followed by small edible but rather insipid drupes. their bark abounds in tannin, and is the usual material for tanning leather at Pará, as also, by the Indians, for dyeing coarse cotton garment red-brown colour. Another genus—*Bunchosia*—grows chiefly on the slopes of the Andes, at from 7000 to 9000 feet

elevation, and the species are trees of humble growth, bearing large yellowish edible drupes known as *Ciruelas de fraile* (Friar's plums). In cultivation the fruits are mostly seedless, and in that state are sometimes brought for sale to Ambato and other towns. The seed is described in books as poisonous, and if it be really so, then it is the only instance, so far as I know, of the existence of any hurtful principle in the entire family of Malpighiads, always excepting that of the *Caapi*. Yet strong poisons may lurk undiscovered in many others of the order, which is very large, and (the twining species especially) of great sameness of aspect; and the closely-allied Soapworts (*Sapindaceae*) contain strong narcotic poisons, especially in the genus *Paullinia*.

I obtained a good many pieces of stem, dried them carefully, and packed them in a large box, which contained botanical specimens, and dispatched them down the river for England in March, 1853. The man who took that box and four others on in a large new boat he had built on the Uaupés, was seized for debt when about half-way down the Rio Negro, and his boat and all its contents confiscated. My boxes were thrown aside in a hut, with only the damp earth for floor, and remained there many months, when my friend Senhor Henrique Antonij, of Manáos, whom I had advised by letter of the sending-off of the boxes, heard of the mishap, and succeeded in redeeming them and getting them sent on to the port of Pará. When Mr. Bentham came to open them in England, he found the contents somewhat injured by damp and mould, and the sheets of specimens near the bottom of the boxes quite ruined. The bundle of *Caapi* would presumably have quite lost its virtue from the same cause, and I do not know that it was ever analyzed chemically; but some portion of it should be in the Kew Museum at this day.

Caapi is used by all the nations on the river Uaupés, some of whom speak languages differing in toto from each other, and have besides (in other respects) widely different customs. But on the Rio Negro, if it has ever been used, it has fallen into disuse; nor did I find it anywhere among nations of the true Carib stock, such as the Barrés, Banihuas, Mandauacas, etc., with the solitary exception of the Tarianas, who have intruded a little way within the river Uaupés, and have probably learnt to use *caapi* from their Tucáno neighbours.

When I was at the cataracts of the Orinoco, in June 1854, I again came upon *Caapi*, under the same name, at an encampment of the wild Guahibos, on the savannas of Maypures. These Indians not only drink the infusion, like those of the Uaupés, but also chew the dried stem, as some people do tobacco. From them I learnt that all the native dwellers on the rivers Meta, Vichada, Guaviare, Sipapo, and the intervening smaller rivers, possess *caapi*, and use it in precisely the same way.

In May 1857, after a sojourn of two years in the North-Eastern Peruvian Andes, I reached, by way of the river Pastasa, the great forest of Canelos, at the foot of the volcanoes Cotopaxi, Llanganati, and Tunguragua; and in the villages of Canelos and Puca-yacu—inhabited chiefly by tribes of Zaparos—I again saw *Caapi* planted. It was the identical species of the Uaupés, but under a different name, in the language of the Incas, 2 i.e. Dead man's vine. The people were nearly all away at the gold-washings, but from the Governor of Pucayacu I got an account of its properties coinciding wonderfully with what I had previously learnt in Brazil. Dr. Manuel Villavicencio, a native of Quito, who had been some years governor of the Christian settlements on the Napo, published the following year, in his *Geografía de la República del Ecuador* (New York, 1858), an interesting account of the customs of the natives of that river, and amongst others of their drinking the *aya-huasca*; but of the plant itself he could tell no more than that it was a liana or vine. The following is a summary of what I learnt at Puca-yacu and from Villavicencio of the uses and effects of the *aya-huasca* or *caapi*, as observed on the Napo and Bombonasa.

Aya-huasca is used by the Zaparos, Angutéros, Mazánes, and other tribes precisely as I saw *caapi* used on the Uaupés, viz. as a narcotic stimulant at their feasts. It is also drunk by the medicine-man, when called on to adjudicate in a dispute or quarrel—to give the proper answer to an embassy—to discover the plans of an enemy—to tell if strangers are coming—to ascertain if wives are unfaithful—in the case of a sick man to tell who has bewitched him, etc.

All who have partaken of it feel first vertigo; then as if they rose up into the air and were floating about. The Indians say they see beautiful lakes, woods laden with fruit, birds of brilliant plumage, etc. Soon the scene changes; they see savage beasts preparing to seize them, they can no longer hold themselves up, but fall to the ground. At this crisis the Indian wakes up and if he were not held down in his hammock by force, he would spring to his feet, seize his arms, and attack the first person who stood in his way. Then he becomes drowsy, and

finally sleeps. If he be a medicine-man who has taken it, when he has slept off the fumes he recalls all the trance, and thereupon deduces the prophecy, divination, or what not required of him. Boys are not allowed to taste *ayahuasca* before they reach puberty, nor women at any age: precisely as on the Uaupés.

Villavicencio says (op. cit. p. 373): "When I have partaken of *aya-huasca*, my head has immediately begun to swim, then I have seemed to enter on an aerial voyage, wherein I thought most charming landscapes, great cities, lofty towers, beautiful parks, and other delightful things. Then all at once I found myself deserted in a forest and attacked by beasts of prey, against which I tried to defend myself. Lastly, I began to come round, but with a feeling of excessive drowsiness, headache, and sometimes general malaise."

This is all I have seen and learnt of *aya-huasca*. I regret being unable to tell what is the peculiar narcotic principle that produces such extraordinary effects. Opium and hemp are its most obvious analogues, but *caapi* would operate on the nervous system far more rapidly and violently than either. Some traveler who may follow my steps, with greater resources at his command, will, it is to be hoped, be able to bring away materials adequate for the complete analysis of this curious plant.

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