

Notes on the Use of Plant Hallucinogens in Amazonian Brazil

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Amazonian Indian use of hallucinogens has been known for a long time (Spruce 12), but the plants used have only recently become the subject of close attention. Schultes et al. (6, 7, 9, 10, 11) have summarized the present knowledge of the plants used, and since these publications other workers have added further information.

My experience in Brazil (most recently in 1968-9) has been primarily as a taxonomist making systematic collections of herbarium specimens. While engaged in field work in various areas of the Amazon region, I encountered utilization of two known hallucinogens in two new localities and was able to make notes about their use and collect botanical specimens of the source plants.

Some of this account will duplicate what has already been written (e.g., Schultes et al. 5, 6, 7, 9, 10). It may also be somewhat limited, because I was engaged in taxonomic field work rather than ethnobotanical research. I hope, nevertheless, that these notes will stimulate other field workers to add to ethnobotanical knowledge by observing primitive uses of plants, recording details, and collecting material adequate to identify the plants accurately.

Sanama Indian snuff at Auaris, Roraima Territory

The details of the use of hallucinatory snuff in the northwest Amazon has been summarized by Schultes et al. (9, 11).

The observations are based on the use of a hallucinatory snuff by the Sanama Indians (part of the Waikás as defined in Schultes, 9) at Auaris in the extreme northwest corner of Roraima Territory in Brazil. This snuff is prepared from a single species, *Virola theiodora* (Spruce ex Benth.) Warb., which I have identified from two collec-

tions pointed out by Indians from the two different tribes at Auaris (the Sanamas and the Mayongongs). The material is as follows: *Prance et al.* 9638, sterile; *Prance et al.* 9684, flowering.

It is interesting that the Waiká Indians at Tototobí, described by Schultes et al. (9), likewise employ the *Virola* alone. Many other groups using narcotic snuffs add material from a wide variety of unrelated plants. Schultes (11) has pointed out that the resin of *Virola* is rich in hallucinatory tryptamines and that it contains approximately 8% 5-methoxy N, N-dimethyltryptamine, N, N-dimethyltryptamine. The tryptamines are presumably also the active ingredients in the snuff at Auaris.

The Indians select a tree of *Virola* in the forest, strip the bark off in large sections, and then build a fire at the same spot. They heat the bark sections over the fire so that the resin oozes out. The resin is scraped off with arrowheads and left on the same arrowheads, which are then placed in a container made from a bamboo stem. These are later scraped in the maloca, and the powder which is scraped off forms the snuff. They occasionally fill a small gourd with resin, but their main method of storage appears to be on the arrowheads.

The arrowheads have a dual purpose. They are employed for poisoned arrows in hunting and as a storage for the snuff. These two uses are recorded by Schultes (9) for Indians at Tototobí, although the arrows are not the prime method of storage at Tototobí.

As far as could be ascertained, the snuff is utilized in two ways by the tribe: to enable the witch doctor to go into a trance before treating a patient; and at ceremonies following the death of a member of the tribe. They do not appear to take the snuff, except on these two occasions, and no casual uses of the snuff were observed. I did not see the witch doctor take the snuff and hence cannot describe that use.

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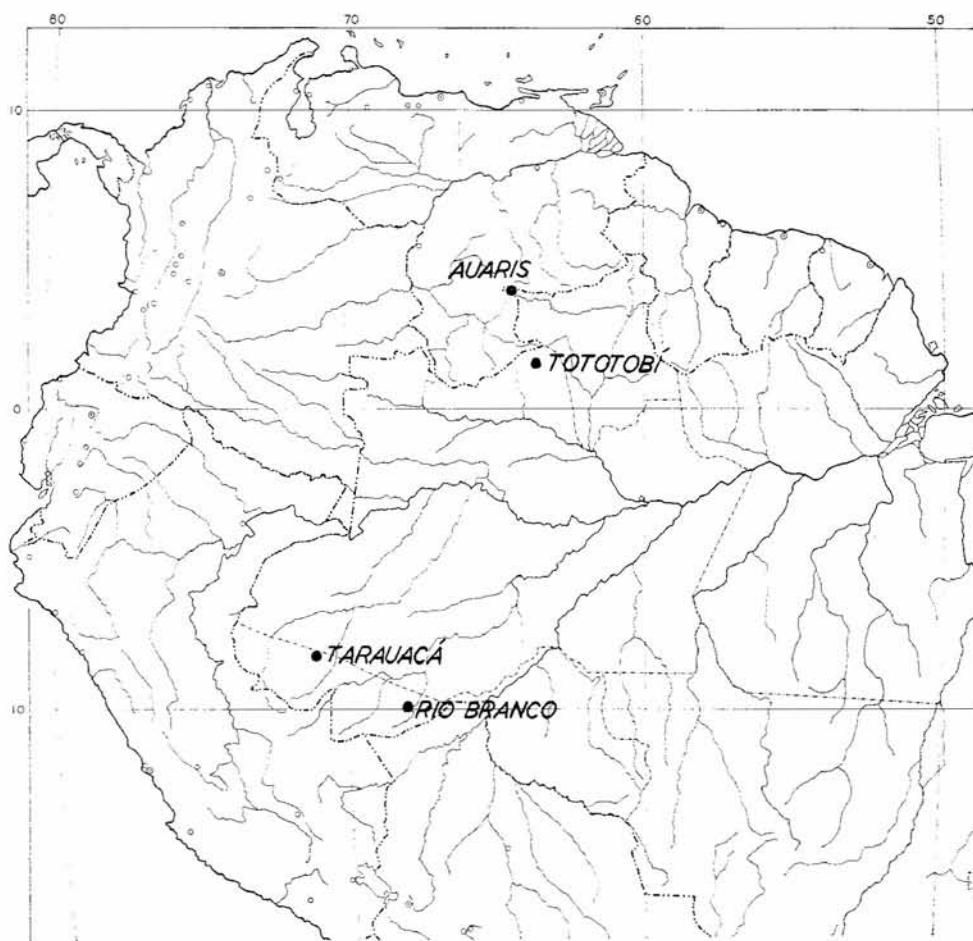


FIG. 1. Map showing localities described in text.

I was, however, able to make notes at a ceremony for the dead after a member of the tribe had died from what appeared to be a common cold to which the Indians have little or no resistance. They have at least one of the ceremonies described below for each person who dies, including infants; in some cases, they have more than one.

The ceremonies following a death are long and complicated and last about eight days. This description concentrates on the employment of the *Virola* snuff. The ceremony begins when most of the men from the tribe go hunting for big game (tapir, pigs, spider monkeys, and capybaras). A hunt lasts about 12 days. While the hunt

is taking place, one man goes out to invite a group from another village. The visiting group arrives before the hunters return and spend most of their time drinking a highly fermented beverage made from *Manihot*. The hunters return to join the drinking, and the intensity of the following ceremonies depends on the success of the hunt.

The women make large quantities of beijú, a large "pancake" made from tapioca flour. The meat is smoked, boiled, then tied up in large portions to be consumed during the ceremonies.

The Indians dance every night for five to ten days (it was eight days when we were there). On one night, the men and

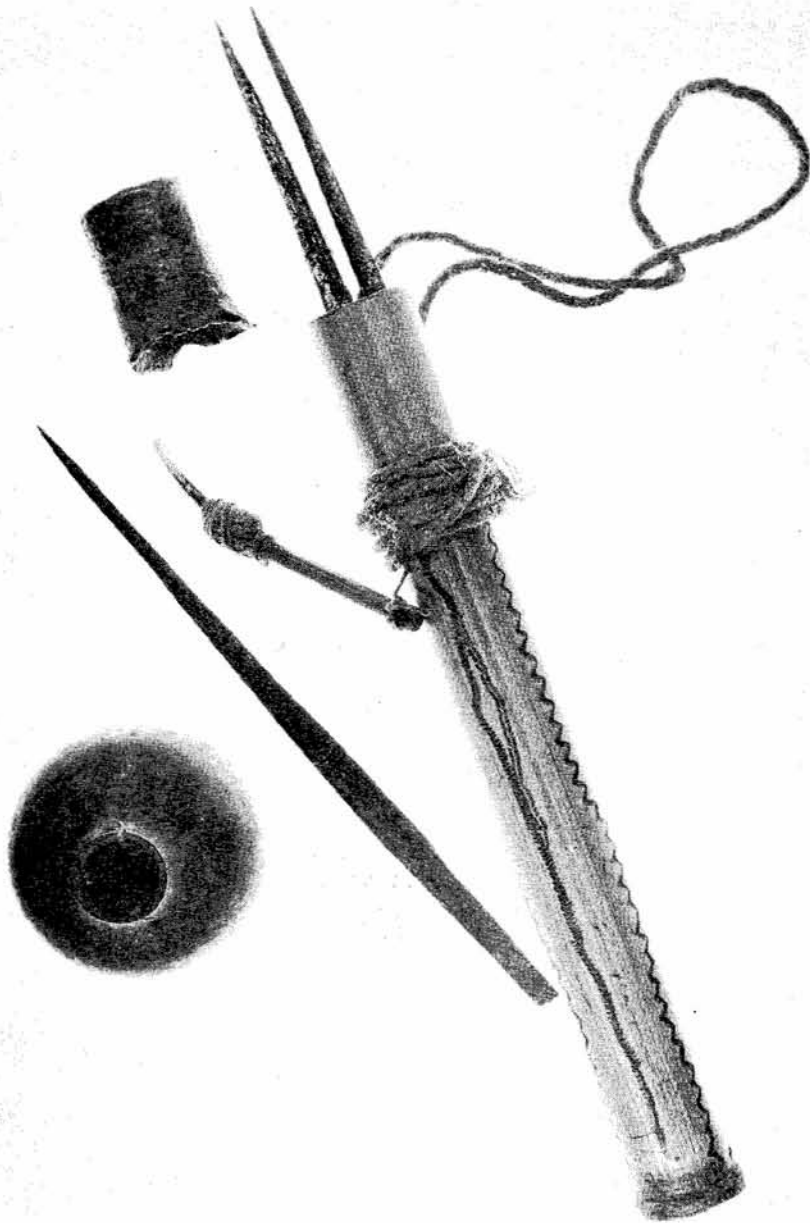


FIG. 2. The storage of *Virola* resin: showing a gourd full of resin, a bamboo arrow point container and its deer-skin lid, arrow points coated with *Virola* resin, and a scraping knife made from the tooth of an agouti.

often the boys dance; on another the women dance, dressed in palm leaf skirts.

The snuff is used one night during the ceremonies. First of all two or three older men gather in the middle of the maloca and start scraping powder off the arrowheads coated with *Virola* resin. One man then sniffs the powder first; then everybody



FIG. 3. Indians at Auaris taking part in one of the ceremonial dances with their weapons following the death of a member of the tribe. These dances are preparatory to the snuff-taking ceremonies described.

starts sniffing. The snuff is administered in two ways: by taking a pinch and sniffing it, or by having someone blow it into the nostrils with a small blowpipe.

The whole group then gathers in the center of the maloca and starts dancing, holding weapons (bows, arrows, or axes) over their heads and shouting. An informant told me that they also commune with the spirits, while under the influence of the narcotic. This is followed by an incredible chest-hitting ceremony. If any one has a grievance or is upset, he takes it out on somebody else in the group by chest-hitting. This takes place usually in pairs, but it may also be done in small groups. One man offers his chest as a target to another man who hits as hard as he can with his fist, a rock, or a piece of pointed metal. After one hit, the process is reversed and the other man does the hitting.

This continues, the blows alternating, until one of the pair has had enough and capitulates. The hitting is hard, and blood often runs, but the man who is hit usually does not appear to flinch, apparently anaesthetized by the narcotic. Next, they all squat down, put their arms around each others neck, and shout into each others ears. All in the house choose a partner and enter the shouting ceremony, which becomes quite deafening. When they reach a peak of sweat and excitement, the bone ashes of the deceased are poured on the fire in the maloca. The shouting gradually dies down as the effect of the drug diminishes.

Uascá in Tarauacá, Acre State

Long before I first visited the town of Tarauacá in the state of Acre, Brazil, I had heard about the hallucinatory bev-

erage which is drunk there. Tarauacá has quite a reputation in Amazonia for its use of the drink. When I visited Tarauacá in September, 1968, I made enquiries about the source of the hallucinogen and was able to obtain collections of the plants involved from two separate sources and to obtain a quart of the beverage.

Unlike the snuff described above, the Tarauacá drink is not used nowadays primarily by the Indians but by the local Brazilian population. The beverage was obviously of Indian (perhaps Cachinahua) origin. It is still taken by the Indians who inhabit the upper region of the Rio Tarauacá. One of my collections was from the Indians, while the other was from the Brazilians in Tarauacá. The Indian population on the Rio Tarauacá is small, and the village which I visited was acculturated. These observations were made on the local Brazilian population of Tarauacá.

Many of the inhabitants of the village, when questioned, admitted to having experimented with the beverage at least once, and some families use it regularly. In Tarauacá, the population all refer to the beverage as cipó (the Portuguese word for "liana"). None of the people in Tarauacá used the more widely known name uascá (or ayahuasca in Peru). Perhaps this is because of the secretiveness shown by all who use the drink.

The use of the beverage has spread from Tarauacá through Acre to the state capital of Rio Branco where it is always referred to as uascá. In Rio Branco, there are several highly secret groups that meet to drink the narcotic in much the same way as described below for Tarauacá.

It is interesting that the Brazilian users of hallucinogens, as contrasted to the Indians, have adapted the indigenous tribal use of a narcotic for their own purposes, but have attached their own folklore to its use and made their own ceremony rather than using the Indian one. Cipó has become a part of the Acre culture. The ceremony described below is quite different from the Indian ritual.

There are two ingredients of cipó or uascá in Tarauacá: one a shrub, the other a vine. The shrub is a *Psychotria*, *P.*

viridis R. & P.², the vine a member of the malpighiaceae genus *Banisteriopsis*.³ It is obviously this liana which gives the beverage the name cipó in Tarauacá. The use of the latter as a hallucinogen has long been known. It was first reported in 1852 by Spruce (12), and discussed in detail by Schultes (5). The use of *Psychotria* as an ingredient of native hallucinogens was reported for the first time as recently as 1967 by Schultes (8). It is particularly interesting that the combination of these two plant genera in narcotic beverages has been discovered in the last two years in three geographically widely separated localities: amongst the Kofán Indians of Amazonian Ecuador by Pinkley (4); the Cachinahua Indians of Amazonian Peru (3); and now by the Indians and Brazilians in the vicinity of Tarauacá, Brazil.

The *Psychotria* is a common species in the forests near Tarauacá and was easy to find. It is interesting that the local people distinguished the correct species from other rather similar rubiaceae shrubs by the presence of domatia at the base of the primary leaf veins. The *Banisteriopsis* is much harder to find, because its supply has been severely depleted by use. One has to go a long way into the forest to find the vine growing naturally. It is cultivated by a few people in Tarauacá for a more easily obtainable supply. The vine is easy to propagate; and, when a small section of the root is planted, it sprouts and grows quickly.

Banisteriopsis contains the hallucinatory compounds harmine and harmaline (1, 2, 11), and *Psychotria psychotriaefolia*, the admixture for *Banisteriopsis* drink in Ecuador, has been found to contain N, N-dimethyltryptamines (3). It is, therefore, to be expected that *Psychotria viridis* may likewise contain this tryptamine.

The natives at Tarauacá were very insistent that both plants are needed for the beverage to have the desired effect. Some people told me that they had used the

² *Psychotria viridis* R. & P.—Prance et al. 7534, fruiting. *Psychotria* sp. probably *viridis*—Prance et al. 7302, sterile.

³ *Banisteriopsis* sp. cf. *inebrians* Morton—Prance et al. 7498, sterile.

drink without the *Psychotria* leaves and in consequence had had a vastly inferior hallucination experience.

The *Banisteriopsis* vine is cut into sections and put into a saucepan of water which is allowed to heat up almost to a boil. The leaves of *Psychotria* are added and allowed to simmer for another half hour. The liquid is left to cool and is bottled and corked. The liquid obtained is rust-brown with much plant residue remaining in it. It has an acrid taste. According to the users, the beverage remains effective and is stored for up to four weeks.

On my second day in Tarauacá, I was able to visit a large family who use the beverage frequently, apparently without harm or addiction. There were several children in the house who also admitted to drinking the beverage. The family reported that they merely take cipó in connection with spirit worship, a cult that is extremely common and growing in the region. The use of uascá in Rio Branco is also largely connected with the spirit-worshipping sects.

Apart from the use in spirit-worship, individuals in Tarauacá and other towns in the region frequently gather to drink the beverage. The group begins by taking a large quantity of the drink except for one man, the *mestre* (or master) who is in charge and who does not drink on that occasion. They then shut their eyes and wait for the hallucinogen to take effect, while background music is played. During this time, a few of them vomit up the drink.

The hallucinations then begin. The job of the *mestre* is to bring anyone out of his hallucination experience when it appears to be a bad one. He does this either by touching him, which usually works, or by putting a strong smell under his nostrils. The smell was produced by ammonia, or apparently in some cases by a leaf of an unidentified plant, which I was unable to obtain during my visit. When the *mestre* has brought a person out of his hallucination, the intoxicated individual needs only to close his eyes again to resume his hallucinations. They continue under the supervision of the *mestre*, until the effect of the

hallucinogen wears off. During the entire process, loud music usually is playing in the room.

Those who have taken the beverage referred to having seen particularly bright colors and large sized objects and animals, particularly snakes and jaguars. Some people reported seeing cities which they had never visited and described ocean liners and large stores, etc., in considerable detail. I met an air force captain who had once taken movies to show at Tarauacá to the Indians up river. He said that the Indians were distinctly disappointed by the movies (one a cowboy film, and the other a documentary about Brazil). They told him that they had seen all that and even more while under the influence of cipó, and they said that in the future they would use cipó instead.

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