

HALLUCINOGENIC PLANT USE AND RELATED INDIGENOUS BELIEF SYSTEMS IN THE ECUADORIAN AMAZON

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(Received December 11, 1978)

Summary

This review article focuses on the on-going use of plant hallucinogens, especially various *Banisteriopsis* species, among contemporary aboriginal populations of Ecuador. It surveys the evidence for prehistoric *ayahuasca* use by interpretations of Ecuadorian archaeological remains, and surveys in detail the use and belief systems connected to major plant hallucinogenic use among the Jibaro Indians and other tribal groups. A secondary theme includes coastal and Inter-Andean aboriginal drug use. The article stresses the interrelatedness of aboriginal belief systems, folk medicine and world view linked to plant hallucinogenic ingestion.

While the literature on *ayahuasca* use in Peru, Colombia and Brazil is generally known to the English-speaking world, a good deal of information about native Indian use of drug plants in Ecuador remains available only in Spanish to interested scholars (see, however, Harner 1962, 1968, 1973). This paper serves as a review article, summarizing some important and interesting data on one major plant hallucinogen, *ayahuasca* (various *Banisteriopsis* species), in the Ecuadorian Amazon basin.

Evidence for prehistoric *ayahuasca* use in Ecuadorian archaeological remains

Such an analysis can begin some 3000 years ago when archaeological data from Valdivia (Meggers *et al.*, 1965; Bischof and Viteri, 1972) indicate the use of several artifacts related to ceremonial utilization of hallucinogenic plants. Among the thousands of figurines and sherds of pottery excavated in Valdivia over the last few years, many attest to the use of plant hallucinogens. At least five types of artifacts have been found which substantiate such use:

- (1) Small vessels known by the Quechua name, *iscupuru*, *llipta* or *poporo*, in which to keep the ashes of shells or plants, lime or some other alkaline

substance. Such alkalis were used along with the leaves of plant hallucinogens, like those we find today associated with coca use in Bolivia, Colombia, Peru and Ecuador. Several of these vessels have been uncovered containing lime. Ashes are mainly derived from shells, rather than bone or vegetable material.

(2) Some of these *poporos*, along with other anthropomorphic and zoomorphic pieces, reveal the concept of an imagined, fantastic being, much the same as a Chinese dragon, representing mythological rather than real persons, or possibly a divinity.

(3) Two and three-headed figures which may represent images so perceived during a drug influence. Additionally, there are tablets or trays and other objects for the use of snuffs with handles representing human figures which have more than one head, sometimes with phallic symbolism.

(4) Figures representing the ceremonial seat of the religious practitioner, similar to the seats used by *ayahuasca* drinkers today in the Ecuadorian and Peruvian Amazon basin.

(5) *Ceimi* or *zemis* figures, much like Caribbean idols, used to inhale hallucinogenic snuff. Potential candidates for such paraphernalia include a plant called *cadiente* or *borrachera*, which grows abundantly in this area (*Ipomoea carnea*), the flowers and seeds of which contain among other alkaloids ergine or D-lysergic acid-amide. Other plants include *Anadenanthera*, a potent hallucinogenic bush resin, as well as *Virola* snuff (Schultes, 1970).

A later cultural period, the Machalilla culture (1500 BC - 1100 BC) has yielded numerous *piporos*, as well as slender ceramic tubes used to inhale hallucinogenic powders. Today, Colombian plains aborigines use such a double tube made from Y-shaped bone to apply to both nostrils simultaneously. Other archaeological horizons in which inhalation devices of reed or bone have been found include the Bahia (500 BC - 300 AD), the Guangala (400 BC - 500 AD) and the Jama Coaque (400 BC - 500 AD), as well as the Tolita culture (400 BC - 500 AD). Pipes appear in the ceramic inventory, some with anthropomorphic and zoomorphic figures. Such pipes have been found to contain evidence of vegetable powders, and not tobacco, unlike North American Indian pipes. In the Manta culture (800 AD - 1500 AD), many *cemis* are found. *Metates*, probably used to grind hallucinogenic powders such as those suggested in the Caribbean region, are found among the Cashaloma culture (500 BC - 500 AD). It has been estimated that coca appeared in Peru around 1000 BC. In Ecuador, among the Carchi cultural remains (500 BC - 500 AD), coca use is indicated from ceramic figures, often with a priest-like figure represented with a bulge in his cheek due to his wad of coca (Naranjo, 1974). Another drug plant used before the Inca period was *vilka*, also known as *villea*, *huilca*, *huishca* and *wilca*, which in Quechua means idol, god or divinity (Von Reis Altschul, 1967). A verb form, *huilca-china*, means to divine the future expressing the idea that, through the use of the plant, one can contact divinities or that man, himself, can achieve such knowledge (Estrada, 1975 and 1976; Harcourt, 1943; Jijon, 1945; Lathrap, 1973).

Ecuadorian aboriginal use of psychoactive plants

The plant *ayahuasca* actually represents several species of *Banisteriopsis* (Schultes, 1970). Known as *yagé*, *caapi*, *pinole* and *nepi*, among others, there are a number of native Indian terms which have appeared in the literature for this group. In the Ecuadorian rain forest, much of the earliest studies on the use of this plant come from the work of Karsten who lived there between the years 1916 and 1919. He conducted meticulous studies on how the drink, *natema*, was prepared, as well as its effects on mythical and religious beliefs. Persistence of such beliefs has been documented by Oberem (1958) who has written of *ayahuasca* use among the Quijos of the Ecuadorian eastern region. They use *ayahuasca* for diagnosis and treatment of illness, even when Western medicine and pharmaceutical preparations are available to them. Further documentation of the persistence of these beliefs, albeit in transformed form, has been published by Dobkin de Rios (1972), in her study of *ayahuasca* use among urbanized, acculturating populations in the Peruvian Amazon.

Among the Untsuri Shuaras, or the Jibaro (a Spanish designate), the word sh-wara or sh-vara became transformed to shivaro and finally to Jibaro. They constitute various ethnic groups spread over the southern part of the Ecuadorian eastern region in the Amazon Basin. Occupying the Pastaza river and its various tributary systems, they inhabit the most southern edge of Ecuadorian territory. They have a long history of movement and dispersal within the Amazon basin. Since the Colonial period, they have been exposed to Catholic missionary activity and their renowned warrior activities have diminished. Three well-known tribal groups include the Colorados, Aucas and Jibaros, popularized by sensational journalistic reports. The Colorados are known for the tell-tale red color with which they paint themselves. The Aucas are famous for their rebellious history against the Inca and Westerners. The Jibaros are renowned for the process of shrinking their enemies' heads as trophies. The data which follow on the Jibaro are based on the work of anthropologists, travelers and botanists who lived among them, as well as my own researches in this area. The sources include Karsten (1920, 1947, 1954), Rivet (n.d., 1905, 1906, 1907 - 8, 1913a, b, c, 1932), Ferguson (1954), Stirling (1938), Harner (1962, 1968, 1973) and Pellizzaro (1968). Some of the reports show the impressive cultural treasure of the Jibaro, their ancient traditions and their outstandingly rich mythology. Many years of Catholic influence, however, has distorted their belief systems and at present it is difficult to distinguish between original Shuar mythology and the influence of Biblical thinking. Ferguson (1954) lived with the Jibaro for many years and was able to learn the details of their reduction of heads, a process which is still occasionally performed. Imitations using calves' skins are regularly made to sell to tourists. My research has been among the Jibaros located between the Pastaza and Santiago Rivers. Their cultures have been documented anthropologically (Naranjo, 1972) and *ayahuasca* plays a central role in their medicine, magic and other rituals (Naranjo, 1969).

Jibaro belief systems

The natural and supernatural world: genesis

The Jibaros believe that the world is a huge island bounded by bottomless chasms and covered by the heavens which are composed of wide, flat plains. The gods live in these beautiful and fertile plains. They conceive the existence of the "high" heaven and the "low" heaven. The *Atsutes* live in the "high" heaven. There are mysterious female gods who live with the *Ja* people (star people). In their time, there were men-gods who went to this heaven without having first died. In the lower heaven are the *Arutames* who are the ancestral spirits of the tribe. They are just and kind, and have become a class of protector soul. Also in this heaven are the familiar dieties, physically very close to the earthly people who can communicate with them when they permit their presence to be known. Thanks to the doors under the waterfalls of the rivers, one can communicate with *Arutames*. For this reason, waterfalls and rapids have a sacred character and their waters bring purification.

In the higher heaven is the first *Arutam*, a kind of father-god who is named *Ayumpum*. This benevolent god watches over man's tranquility and prevents his making war by casting lightning whenever he is so inclined. To see that man lives the right way, the sun (*Etsa*) and the moon (*Nantu*) observe their daily life from above and below. In the beginning, man talked with the gods. Because of their sins, some men were changed into animals. Man lost the privilege of seeing and speaking with the gods. Only the shaman or witchdoctor (*Shuara-ivishniu* or, more simply, the *ivishniu*) can actually speak with the gods, and only because he possesses *arutam*. Common people possess only *huacani*. Thanks to the sacred drink, *natema*, they are able to see and speak with the gods. *Tsungui* (also written *tsunqui*, *tsunki*) is the god of the waters. He is able to destroy the world through storms and floods. He produces rain by opening holes in the sky through which the water falls to earth. To communicate life and progress to humans, a beautiful woman god was adopted — *Nungui* (*Nunkui* or *Nuancui*) is the fairy goddess of humanity, who gave fertility to women and animals, and created the plants, among which are *natema* and *tsangu* (tobacco). Because of *Nungui*, the earth became paradise. One of the principal cults of the Jibaro is that of *Nungui* and her husband *Shaquema* (*Shakema*). The goddess *Nungui* is the protector of women and she has taught them agriculture, domestic chores, pottery making, the care of children and the domestication of animals. Women implore the protection and help of *Nungui*, both during the planting and harvest periods. Among the more important festivals and celebrations is *noa tsangu*, the women's tobacco festival. The married women drink *ayahuasca* (*natema* is a Shuar word). Under the influence of the drink, *Nungui* appears and shows them how to cultivate, care for the fields and animals, as well as various other feminine chores.

In the earliest mythological accounts, *Nungui* is a goddess. By extension, she really assumes power as a feminine spirit or the best of the feminine, and

especially as the spirit of cultivation of the fields. Distribution of labor and cult worship follows gender lines. Since the earth is feminine, it is cared for by women as is the cult to *Nungui*. Jibaro also believe that fire is feminine, so women tend it. Cotton is masculine and the spinning and weaving of fiber is a man's task.

A secondary cult to the sun and the moon also exists. According to *Shuar* mythology, there was an age when horrible giants called *ihuias* (*iuia*, *iwia*, *iguia*) came, destroyed and devoured everything that *Nungui* had created. One of these giants spared the life of a beautiful young girl named *Huanupa* (*Wanupa*) on the condition that she catch many fish every day. Since *Huanupa* was the woman that the god of the waters and rivers, *Tsungui*, loved, she could provide the necessary fish. One day the giant *Ihuia* discovered the relationship between *Huanupa* and *Tsungui*, and killed her out of jealousy. He opened her belly with her own stone axe. From the wound emerged little eggs from which *Nantu* and *Etsa* were born. *Etsa* and *Nantu* were brothers and they took the same wife. In the end, they became jealous of the love of the same woman, so the strong one, *Etsa*, became the sun and the weak one, *Nantu*, became the moon. This is why the moon gives light that illuminates but does not give heat. The sun is such a strong god that no one can go near him. He is austere and demanding; he punishes and curses the men who disobey his orders.

The volcano Sangay is one of the most active volcanos of South America. Its presence is so familiar to the Jibaros that it is one of their most sacred mountains. According to their mythology, Sangay is populated by spirits. To initiate such grave undertakings as a hunt or war, the shaman consults Sangay as to the outcome of the project. If the volcano answers with intermittent columns of smoke -- which is very frequent -- there will be success. But, if there is rumbling or bellowing, it will be a disaster. The Jibaros offer a special cult to avoid the anger and fury of their sacred mountain, in order to win its favor. They offer the sacrifice of animals which seems to have a base in mythology.

The kinds of spirits and ayahwasca: huacani

Karsten and Harner were able to distinguish in Jibaro thought three systems or categories. They are independent of each other and form logical entities by themselves: (1) the spirit system, including the belief in *Nungui* and her influences on feminine behavior; (2) the systems of magic and sorcery; and (3) the kinship system. The Jibaros have a deeply animistic conception of the world. Earth is swarming with good and evil spirits. Three kinds of spirits exist: the *huacanes*, the *arutames*, and *iguanchis*. The *huacani* (*guacani*, *wacani*) or *nicas huacani* is the common, true or real spirit or soul that exists in every Jibaro man, woman and child. It also exists in the majority of animals (especially in large mammals) and some plants. The *huacani* lives and breathes inside the host organism. He exists from the moment of birth and is especially manifest as the circulating blood. The loss of blood to a Jibaro and to many other aborigines means to lose vitality, not only in the

physical sense but more importantly in the spiritual sense. *Huacani* can also show himself as a shadow, the image of a reflection in water or the image produced in a photograph. The Jibaros are very reserved about allowing themselves to be photographed since part of their *huacani* remains in the photograph and they are at the mercy of the owner of the photograph. The *huacani* also has the meaning of a soul or spirit inherent in life and is similar among all human beings.

When a Jibaro dies, it is usually considered to be a supernatural phenomenon. The physical body allows the *huacani* to leave. It changes into an invisible spirit and wanders about for a long time. It returns to its birthplace and begins a new invisible life very similar to the one it led physically before. He will hunt, but can only be fed on the spirit of the animal he kills. For this reason, he will remain permanently hungry. This belief of the Jibaros about the *huacani* returning to its birthplace is very common in Amerindian culture. Sometimes the *huacani* becomes visible in the form of an animal, in particular a large quadruped — often a deer — who is very much respected and not hunted. The deer is an animal tabooed to women. To eat its meat carries the risk of the *huacani* entering one's body, which can produce death. The *huacani* can also inhabit some plants and even inanimate objects.

After a period more or less equal to the time the Jibaro lived, the *huacani* changes into a permanently visible large grey butterfly, called *huampang*. The *huampang* lives in the forest and suffers the consequences of rains and storms. His wings deteriorate and finally they grow old and die. Then he becomes a light mist and joins the clouds. Mist and clouds are nothing more than a fantastic world of souls that gently wraps the surface of the earth. It seems to be some parallel to the biochemical concept of the decomposition of living things. The residual material stays on earth and the gases produced by the bacterial decomposition join the atmosphere.

The arutam and the immortality of man

Arutam huacani (the Jibaros often invert the final letters to pronounce the above *arutma*) properly means ancestral spirit. It comes from the word *aruta*, meaning "old" or "used". By extension *arutam* also means apparition or vision of the ancestral spirit. Drinking *natema* is essential to see and enter into contact with the *arutam*. So then, *arutam* constitutes another kind of spirit. It confers force, dominance and, above all, immortality.

According to *Shuar* mythology, *Etsa* was on good terms with men and exterminated the *ihuia* giants; but because of man's sins, he cursed humanity and decreed death. They came back as cannibals, some in the form of animals with tails. The appearance of a giant named *Japapiunchac* who threatened to destroy the *Shuaras* is noteworthy in their mythology. One day, a slightly husky and not very brave *Shuara* named *Cujancham* declared that an *arutam* had appeared and bestowed upon him great powers with which to kill the giant. All the warriors of the tribe could do was laugh. But *Cujancham* did indeed kill the giant *Japapiunchac*. This is how they discovered that *arutam* could bestow power and immortality.

No one is born with *arutam*. He must gain it by force and discipline and by complying with the corresponding ritual. Each person can have up to two *arutams*. He who has but one, although generally immortal, can die from certain diseases, like infectious ones. The person who has two *arutams* is free from death by any means. If death occurs, the *Shuara* attribute it to the fact that the *arutams* fled the body which was left defenseless. *Arutam* is indispensable for man. It is not essential for a woman, however, who is not obliged to fight, make war or hunt. For her, the spirit of *Nungui* is enough. The Jibaro acquires his first *arutam* between the ages of fifteen and seventeen years. It is acquired in one of the most important Jibaro ceremonies. It is performed by a waterfall considered highly sacred, usually two or three days' walk from the village site. Behind the falls are believed to be the doors through which the *arutams* of the ancestors have returned to the world, or the heaven of the fortunate ones. Through these doors the *arutams* come to inhabit new persons.

There are different ways to search for the *arutam*. Every now and then, the father may take his son to the sacred waterfall, or they may participate in a tribal pilgrimage which occurs at certain intervals. The pilgrimage is led by a village elder who is of either sex, highly respected by members of the tribe. It is believed that the elder is protected by the gods since he or she has not been touched for many years by the evil of the *iguanchis*. The pilgrimage may take days, depending on the distance of the waterfall from the village. All participants must obey the elder, fast and chew or smoke tobacco at night to prepare the body for the entrance of the *arutam*. Chants and incantations are performed so that the *arutam* will look with pity and favor on his descendants. The climax of the ceremony is when the group arrive at the waterfall, bathe according to special ritual, and drink tobacco juice. At night, they drink *natema* and the juice of *maicoa* or *maicua* (*Datura* species). During the hallucinations, they meet the *arutam*. This encounter varies according to the individual. Some see terrible deformed individuals, while others see bravery and courage personified by kind and protective beings who bring a message of force, life, power and triumph. Upon recovering their psychic facilities, the initiates must secretly tell the elder what they saw in their vision or ecstasy. He then gives an interpretation for each experience.

There are several stereotypic *arutam* visions which occur: they include large rings or luminescent balls of fire, a pair of giant jaguars or anacondas entangled in struggle. When the *arutam* appears, the Jibaro must touch him if possible with his hand or stick. This requires special courage if the *arutam* appears as a ferocious creature. Sometimes the *arutam* explodes or disappears before the Jibaro has the chance to touch him and hold him. In that case, the Jibaro must try again. This also must be told in secret to the elder who led the pilgrimage. On the journey back to the village, the initiate who experienced this vision must sleep alone along the side of the river. The *arutam* will reappear and say: "I am your ancestor; and as I lived long you will also live long; as I have killed many times you also will kill many times." Having said this, the *arutam* enters the individual. The Jibaro who has acquired

arutam begins to feel great physical and intellectual power, called *cacarma*. It is immediately noticeable that he has acquired *arutam* because of his change in spirit. His speech is bolder and he demonstrates his physical and mental prowess. Soon he proposes to organize an expedition for hunting and even to kill some personal or tribal enemy, always of another tribe. Owing to the process of acculturation, the tradition is disappearing. Today, the taking of the head of a supposed enemy to reduce to a *tzantza* is more tradition than reality. Many *Shuar* groups are so familiar with the White man, or the Mestizo, that their customs have changed.

The Jibaro does not get his second *arutam* only by stealing it from an enemy. There are simpler methods; like walking through the jungle on a stormy night, when he can meet and receive a new *arutam*. Killing for the Jibaro means greater power and vigor for the individual, exchanging the death of his fellow man for his own immortality. Reducing decapitated heads block the exit of the spirit of vengeance which can become a devil and haunt them later on.

Muisac — the avenging soul

The third class of spirit or soul is the avenging soul *muisac* (or *muisak*, *muiska*). It is closely related to *arutam*. As already mentioned, the death of an adult, except from some infectious diseases, is considered a supernatural phenomenon caused by an enemy. At the very moment of death in the person who possesses *arutam*, a *muisac* is generated into being and escapes through his mouth. Later the *muisac* changes into a demon which will avenge the death. If the killer also possesses *arutam* he cannot be attacked, so the *muisac* turns against the killer's wife or children. When the *muisac* flees the dead body, he is transformed into one of the three classic forms of demon, or *iguanchi*: these include an extremely poisonous snake, *macanlli*, an anaconda (*panlli*), or a great tree. *Macanlli* can kill the victim with his poison; the anaconda will capsize a canoe in the middle of the river so the victim drowns, and the great tree crushes the victim as he walks through the jungle. In actuality, the three most common causes of death among the Jibaro are: death by drowning, strangling by anaconda, or being crushed by a tree. In any case then, these deaths are from supernatural causes brought about by a *muisac*.

The *iguanchi* can also appear in other animal or human forms, and he can attack an enemy, especially as he sleeps. For this reason, the Jibaro sleeps with his spear because he feels susceptible to capture. The *iguanchi* may appear as a jaguar or as a human, with colorful and attractive adornments. It has not been unusual for a white man to be considered an *iguanchi*. The risks brought by the *muisac* do not refer exclusively to the risks run by a murderer. Death is usually the result of the invisible aggression of an enemy who waited for the loss of the victim's *arutam*, whether it was lost or stolen. It can also result from the enemy witchdoctor shooting invisible arrows. In any case, the death must be avenged, otherwise the avenging soul will attack the members of the family of the dead one, in the form of an *iguanchi*. Once the death has been avenged, the *muisac* becomes a good protector spirit.

The men's widespread custom of painting the face is not merely for cosmetic purposes. The Jibaro paints himself to fool the *iguanchi*, so that he may not be recognized. He may paint himself in such a hideous manner to look like a monster and instill fear in the *iguanchi* and make him flee. At any rate, the Jibaro men are the ones who decorate and adorn themselves with beautiful necklaces, crowns and garlands of bird feathers.

Headhunting and tzantzification

According to Jibaro mythology, *Etsa* took pity on man and sent *Ayumpum* to restore peace to the people. *Ayumpum*, as in the story of Pandora's box, brought sealed boxes to his three chiefs *Jencham*, *Cujancham* and *Huanchur*. He ordered them to throw the boxes off a cliff without opening them. The boxes were so attractive and had such exquisite aromas, that none could resist the urge. Each one opened his own box. *Jencham* opened his first and his face changed to female genitals. All the children born in his clan died mysteriously. When *Huanchur* opened his, he immediately grew old and grey, as did the people of his clan. Finally *Cujancham* opened his. His avenging soul became visible to his enemies in the form of rays of light, so that victory was impossible for him to achieve. The people of *Jencham*, led by their chief *Cupi*, attacked the group of *Cujancham* at night. They were the current enemies. They cut off the heads of the young men and drank their blood. The group of *Cujancham* was decimated by the raid. They repented and begged *Ayumpum* to give back their *arutam*. After having regained it, they felt strong and invincible, and attacked and exterminated the *Jencham* people. In order to trap the vengeful spirits of the *jenchames*, they cut off their heads and shrank them. The *jenchames* became bats and their chief, named *Cupi*, became a bird of the same name.

There is another mythological version which is also noteworthy in discovering the beginnings of head shrinking. Many centuries ago, there was a great eruption of the volcano Sangay. From the billowing mouth of the volcano, among the flames and lava came *Panlli* or *Pangui*, the father of demons. He appeared in the form of a giant anaconda who came down from the peak to a certain lake. In the *Shuara* language, the anaconda (*Boa americana* or water boa *Ewrectes murinus*) is called *panlli*, which also means demon. In quechua he is called *amarun*. Each day the monster came out of the lake and devoured the men of the tribe so that only their widows survived. The great chief *Unda* called together all the *aparis* or heads of family and the young warriors to march to the sacred waterfall. There, they erected three altars, each one upon a pillar of wood. Then the witchdoctor (*ivishniu*) prepared *natema*. Three trees were felled and on each trunk they placed a special cup to drink the *natema*. Everyone fasted for three days. On the third day they drank the sacred potion to receive the vision of *Arutam huacani*. That night three spirits in human form appeared. The witchdoctor presented the tribe's fears and complaints to them, and implored their help and protection. Later they bathed in the sacred waters of the waterfall.

The next night they again drank *natema*. The spirits reappeared and told them the plan that *Arutam huacani* had drawn up for the battle against

the *Panlli*. Following the instructions, they sent several warriors to the foot of Sangay in the name of *Arutam* to ask him to prevent the appearance of other evil spirits until they were ready to fight the *Panlli*. They offered sacrifices, including the life of a *paqui* (wild boar). It was tied to four posts, according to the first rite. With its own blood, they painted the front of its legs as homage to good spirits. That night they roasted the animal and ate it. The day after, they marched to the lake. The ceremony they practice today may possibly have this mythological base. Arriving at the lake, they drained it and found the giant snake who was still placidly ingesting the last Jibaro he had eaten. They organized a battle and finally killed the monster. Immediately they beheaded it and shrank its head to prevent the escape of *Panlli*, the evil spirit.

Regardless of the mythological base of tzantzification, the practice seems to be based on the struggle between good and evil, and the eternal triumph of good. That is, the tribe believes in its value and permits its survival. In part, at least, it prevents the enemy's avenging soul from escaping the body and causing them great damage. When headhunting was common, and one or more Jibaro acquired *arutam*, they mounted an expedition of several days' duration to attack and kill the supposed or real enemy. On the eve of the attack, they performed a special ceremony in which each warrior announced his vision of *arutam*. After divulging the secret, the *arutam* left the body of each Jibaro in the form of wind, storm, thunder or lightning.

The *arutam* does not leave the body instantly, but progressively through several days. The Jibaro maintains enough power to attack his enemy, and searches for him with great persistence. If, by chance, the first enemy is not found, he continues to search for new ones. If indeed he kills his enemy, immediately upon his return he acquires a new *arutam* which is considered to be possessed with energy and vigor. Even though the possession of a new *arutam* requires the sacrifice of just one enemy, participation in more than one manhunt confers further strength and power. Hence the man who has killed more than one enemy is considered a superior man in his own tribe. He is invincible and one should never attempt to attack him. If the enemy also possesses *arutam* and so is immortal, his *arutam* must be stolen first. There are several ways to do this, including ingesting the drink *natema*; during a moment while the enemy sleeps, a Jibaro warrior can steal his *arutam*.

When the death expedition is successful and an enemy is decapitated, his head is shrunk as soon as possible to prevent the escape and further vengeance of *muisac*. The preparation of the *tzantza* is one of the better kept tribal secrets. A decoction of various plants is used. The bones are removed through the neck opening and later dried with hot stones and the campfire smoke. Finally, it is painted with charcoal or preferably with the black dye of *sua* (*Genipa americana*) so that the *muisac* cannot see through the skin and escape. Upon their return from the successful manhunt, they immediately organize the first *tzantza* feast. This is repeated two or three times after several days. The celebration is similar to ones they perform today

for other reasons. Both men and women participate in the feast-ceremony at which they dance and drink chicha beer made of yucca (*Manihot esculenta*). They value maintaining harmony among clan members so that the *muisac* has no chance to exert its vengeance during a time of discord. At the beginning of the ceremony the enemy's killer holds the *tzantza*, to give him more power and strength. Two women may accompany him, usually his closest relatives -- wife and daughter, or wife and mother. They, too, may acquire certain power and strength. Later the *tzantza* is mounted on a long pole made from the palm tree and they jeer at it. The strongest men of the clan threaten it with spears and insults. Finally they beat the *tundui*, sing together and dance around the *tzantza* with men on one side and women on the other. The women's chants are especially important in making the *muisac* flee from the *tzantza*. During the fiesta-ceremony, the *tzantza* and the *muisac* within have been so humiliated and degraded, that out of shame the *muisac* has had to flee to the victim's place of birth. At the end of the ceremony, the *tzantza* offers no danger. It has no avenging soul, it has lost its value and must be thrown away, given away or sold.

Sickness and death

As mentioned earlier, it is inconceivable to the Jibaro that healthy, young people can die of natural causes. They consider such an event to be supernatural, the consequence of the evil power of *ivishnius* or *uguishnius* (witches, sorcerers, or healers) or of the *iguanchis*. It is very hard for Catholic or Protestant missionaries to convince the Jibaros and other natives of the Eastern Region that death is natural and that one does not have to wait to be murdered. Something similar occurs with illness. Jibaro think of it in two ways. What is really sickness as we know the meaning in the West, which they call *sungura*, is sickness due to spells and witchcraft. Also referred to as *tunchi*, this term means arrow or dart, and it characterizes a mysterious entity, whether material or immaterial that the witchdoctor is able to shoot against his enemies. Consequently that is how any sickness caused by magic or witchcraft is categorized. *Tunchi* plays a very important and fundamental role in Jivaro pathology and therapeutics. Sickness manifest by a sudden, intense pain, edema, inflammation, and supuration is considered the result of arrows or *tunchi* shot by the witch or demons. Certain illnesses which involve fever or follow a regular course, or parasitic maladies, such as dysentery, are considered *sungaras*. Malaria, with its particular way of appearing and disappearing at intervals, is also considered *tunchi*. Some diseases appeared only after the first contacts with the white man; the presence of the white man has generally been considered a threat and a danger. The white man has been seen to be sent by the *iguanchi* or appear as the *iguanchi* himself, as well as a carrier of disease and evil. Karsten wrote that he was often asked "Sungara itaches?" which means "do you bring disease?"

Jibaro medicine and ayahuasca

It is easy to understand that for Jibaros and other traditional peoples disease is categorized as magical in origin; therefore, treatment of such dis-

eases must also be magical (Guerra, 1971). They use spells, witchcraft, suggestion, and what could be called psychotherapy. In his difficult and dangerous position the religious practitioner must discover the cause of illness or who sent the *tunchis*, where they are located in the body and, more importantly, how to remove them so that the body is free of the pathologic cause. The exorcism that these practitioners perform is based on their belief in this technique. When the sick individual does not possess enough of his own strength to fight the *tunchi*, the illness progresses and the *shvar ivishniu* must be summoned.

Cures

Minor cures can be accomplished during the day with little ceremony. More complicated cures for more serious afflictions are brought about in roughly the following way: beginning in the early hours of the day, the patient's family boils pieces of stem of *ayahuasca* or *natema* (*Banisteriopsis Caapi*) along with *yaji**, until a reddish-brown liquid results. In another vessel, they prepare a potion of *tsangu* (tobacco). At the same time, the witchdoctor also prepares these drinks. It is important for him to fast. During the morning he is permitted to drink some *nijamanchi* (a beer made from yucca). So as not to interfere with the cure, he must avoid all prohibited foods, especially meat, or even its odor. For some cures, he must paint his face with the sap taken from the fruits of *sua* (*Genipa americana*) which produces a black color. It also helps to increase his supernatural strength so the *iguanchis* will not be able to recognize him. At dusk, he comes to the hut of the patient armed with his bag of *namura* and *shinguishingu* branches.

The curing ceremony begins with the ingestion of the tobacco water as a nasal snuff through his mouth. Then he invokes the spirit of tobacco, a divine plant believed to confer supernatural power on the witchdoctor. He calls upon the spirit of the tobacco (*tsango maso mari*) to possess him, and to help him perform the cure. The patient is placed on a cloth in the center of the house, or on a kind of bed or table made of *guadua*. In one sip the witchdoctor drinks the entire contents of *natema*. The first sip usually produces vomiting, which is a part of the procedure since vomiting results in "purification" of the witchdoctor's body. *Natema* is the name of the plant and of the drink as well. *Ayahuasca* can be prepared not only by boiling pieces of the vine *Banisteriopsis* and its leaves but also by adding one or more psychotropic plants (Pinkley, 1969; Plowman, 1977). Some of them contain hallucinogenic tryptamine derivatives that are not present in *ayahuasca* which contains mostly the psychoactive β -carboline: harmine (Rivier and Lindgren, 1972). Very rarely, *maicoa* (*Datura* sp.) is added by the Jibaros. Usually the witchdoctor avoids drinking *maicoa* because of its toxic properties. The next step consists of chants, invocations and spells to call upon

*Three plants have been reported in the preparation of the *natema* drink among the Jibaro. Besides *natema* (*Banisteriopsis Caapi*) they included *chiri caspi* (*Brunfelsia grandiflora*) and an unidentified liana called *yagi* (or *hiaji*) (Plowman, 1977).

good spirits to help him remove *tunchis* from the afflicted organism. Traditionally he begins by chanting "I, I, (he states his name) in person call the spirits and cast spells upon the demons...". Later, in total darkness he begins the exorcism. He must forcibly suck the skin of the afflicted part of the patient's body, in order to remove one or more *tunchis* according to how many of these arrows have been shot into the patient's body. He continues his chants and incantations in a ceremony that usually lasts all night.

At intervals, he must drink more tobacco water and gulps of *natema*. He seems to drink equal amounts of these two preparations until he enters the curing trance (*nam bigma*). Drug effects are very intense, so that the subject is overwhelmed by the fantastic images of the hallucinations which prevent him from answering questions. He adopts a very passive position.

The shaman no doubt experiences effects of ecstasy. For this reason, he drinks the *natema* in smaller doses, so he may maintain some degree of rationality while still reaching the hallucinatory phase. It is possible that tobacco water helps to maintain the state of trance in which he performs his miraculous cures. This association between tobacco and *ayahuasca* or tobacco and other psychotropics like the *Daturas* or the *Anadenanthera* is very common among American aborigines, even though there has been no contact between these peoples in all probability. The association of these substances has occurred independently among the tribes of the Caribbean, the Ecuadorian and Peruvian coast and the Amazon rain forest. Janiger and Dobkin de Rios (1976) have suggested that the hallucinogenic alkaloids harman and norharman formed in the smoke condensates of the genus *Nicotiana* may explain some of this mysterious association.

The curing ceremony continues with a series of maneuvers, one of which is to pass leaves of *shinguishingu* over the afflicted parts of the patient. The witchdoctor's helper may shake them about the bed so they produce the swishing sound for which they are named. Or, he may massage the afflicted part of the body with stone talismans called *namuras*, which are the most distinguished of the shiny stones called *caya-huíncha*. "Blowing" is another common technique. The witch may blow the tobacco water or the tobacco smoke. All these operations facilitate the extraction of the *tunchi*. Finally, at the climax of the ceremony, the *ivishniu* claims to have found and removed the *tunchi* or *tunchis*. Often these are splinters of chonta wood and can even be animal forms such as worms or insects.

Generally it is not enough that the witchdoctor declares that he has extracted the *tunchi*. He is obligated to show the *tunchi* to the patient and other members of his family. It is generally an object (like the one just mentioned) or it can be a frog, a scorpion, or other object that the witchdoctor hid during the treatment. By presenting this object at an opportune moment, he effects a psychological impact on the patient and the family, adding to the effectiveness of the psychotherapy. In his hallucinations, the witchdoctor not only discovers the nature of the *tunchi*, but finds out who shot the arrow which caused the illness. He does this after he questions the patient and his family in a logical manner. At the request of the family, the

witchdoctor may return the *tunchi* magically to the perpetrator of the original illness.

Fees and risks in practicing magic professionally

Practicing magic isn't free from professional risks, since there is no equivalent of malpractice insurance, as is available in the civilized world. If the patient dies and the family does not have faith in the practitioner, he may be suspected of causing the death that he was hired to prevent. A family council may decide that the patient's death must be avenged. More than one witchdoctor has lost his life owing to his professional shortcomings.

In some cases, the curer will advise the family right away that the patient is gravely ill, that it may not be possible to remove the *tunchis* and that the patient may die. In this way, he releases himself from responsibility and additionally shows his wisdom. In other cases, such as when chronic illness is involved (rheumatoid arthritis, for example), he orders the patient taken to the sacred waterfall. Here he implores the help of the good spirits of the *Arutames*. Later he makes the patient bathe in the "miracle-performing" water. The patient almost always feels relieved. The psychotherapy performed by the shaman, the invocation of spirits at such a sacred place and the bath, all help to effect a temporary and perhaps a definite cure. Sometimes, the family is so satisfied by a spectacular cure (e.g., after a snakebite) that they dance and sing for joy. When the patient has been cured, the witchdoctor is entitled to collect tribute. In those tribes that still do not use money, the payment must be made in animals owned by the patient's family, food, a cloth, or a weaving, etc. Among the more acculturated tribes' witchdoctors, the payment may be made partly in kind, and partly in cash. Sometimes, the fee is collected before the cure.

The training of a new witchdoctor and ayahuasca

Ayahuasca also plays an important role in the training and indoctrination of a new practitioner or "doctor". Among the Jibaros and other tribes, some members of the community are considered potential witchdoctors because of their physical strength, their intellectual powers, their moral character, their possession of one or more *arutames*, or for their age and experience. Supernatural powers are attributed to them. Under the influence of *ayahuasca*, they can divine where to hunt or how best to attack enemies. The simple art of witchcraft does not require the systematic initiation and preparation required for sorcery.

The education of a new sorcerer, among the Jibaros, is a very long and delicate process, not without its risks and difficulties. Commonly the witchdoctor educates his own son or nephew. A young initiate not related to a sorcerer will consult an elderly practitioner about his ability and training. He may also consult his father in the matter. The master decides if he is fit or if he has no aptitude. If he is pronounced fit to start his education, they begin with a ceremony held in the forest. The elder gives instructions on how to drink tobacco water and *natema*. The culmination of the initia-

tion ceremony consists of the transference of *tunchi*, in a consecrated manner. The master and the initiate enter spiritual communication mouth to mouth, when the master passes a chonta splinter to the mouth of the initiate, carrying his saliva and tobacco. This transfers part of his magic power and a kind of *tunchi* "seed". Once the "seed" has been planted and grows to maturity within the initiate, he can begin to exercise his supernatural powers.

From this point on, until his "graduation", the apprentice passes a critical phase. He must observe a strict diet and eliminate most meats. Especially during the first five days of his novitiate, he is permitted to eat only plantains and drink only water and *natema*, which allows him to begin his contact with the gods and demons. During the following period, which lasts from six to twelve months, or even as long as two years, he must avoid food and meat that make the *tunchi* flee or change into a poison which will kill him. He must eat foods that are beneficial to his profession — for example, the meat of a certain monkey called *tsiri*. In this way, certain substances are incorporated into their diet which give them resistance or even develop their tolerance against wasp's poison. During the entire period of their training, they must observe strict celibacy and are not permitted to remain in a hut where there are single women present. Their food can only be prepared by youths who have not yet had sexual relations.

During the long period of education, the student receives instruction from the elder witchdoctor in the rich Jibaro mythology. He must learn the most powerful spirits and demons controlling good and evil and the chants and invocations necessary to recite to cure the sick. Under the influence of *natema*, the apprentice learns to see and recognize gods and demons and acquire some of their power. He must learn to cast evil spells against enemies and to free members of his own tribe from them. Although there may be other witchdoctors in the tribe who can divine and cast spells, the witchdoctor is often one of the most important members of the clan. The apprentice must also learn the arts of war, fishing and hunting. This meticulous education will make the future sorcerer not only a doctor, but also a wise man of the tribe, a source of knowledge, traditions, and mythology.

His future role as a wise man and a protector enables him to cast evil spells on his enemy as well as cure the members of his own tribe. To cast spells, he must learn to blow or shoot the *tunchi* in the same way as the hunter uses the blowgun to shoot the poison dart. He must learn to recognize animals like the armadillo, whose mere presence can injure him. He must hold his breath and spit in order to prevent contamination. The initiate continues to pay strict attention to diet and to lead an almost ascetic life during his training, so that the *tunchi* may mature. If it is not allowed to mature, he cannot receive magic power and the *tunchi* will poison him.

When a disciple has shown his aptitude for divining, shooting *tunchis*, bewitching and curing, then he is ready to graduate. The ceremony is performed frequently at the sacred waterfall, with only the master present, or sometimes a few other members of the community. The initiate must bathe in the pure water and drink *natema* and tobacco water to acquire his new

and permanent contact with the spirits. Now he is armed with *guambachi* and his own *namuras* whose powers he gained in hallucinations. Now he may practice his powerful but risky profession.

Treatment in other tribes

General ideas and myths on the pathology and cure of illness are similar among Amerindian tribes as well as those Indians who have been subject to the process of acculturation for 400 years (see Mena, 1969). Among various Ecuadorian Amazon tribes, the curing ceremony or exorcism is similar to the Jibaro ceremony previously described (Paredes, 1963). It may differ in certain aspects as to which plants are used. Almost always, the witchdoctor uses plants that produce a hallucinatory trance. In the majority of cases *ayahuasca* is used, while in others *chamico* (*Datura tatula*) or *huantug* (*Datura sanguinea*) is the preferred substance.

Among quichua speaking Indians, the witchdoctor is called *yachag*, and that word means the one who cures evil. He also divines. In the province of Imbabura, *yachag taita jatun urcum rimador* is the term used to refer to a doctor who possesses knowledge of the ancestors. He is much esteemed and exerts a great moral influence over the people. He is able to cure, counsel domestic problems and to divine the person who stole from his client. His divinatory powers are renowned both among Indians and Mestizo populations.

Within Western legal codes, the activities of the sorcerer are outlawed. The term witchdoctor has a derogatory meaning. Yet, the *yachag* enjoys great respect and esteem among Indians, Mestizos and urban populations in general. Occasionally, a desperate non-Indian will seek the help of a sorcerer as a last resort. Several have gained prestige spreading far beyond their own village or even beyond the provincial boundaries. Curing rituals are similar whether hallucinogens are used or not, whether the witchdoctor uses the plants alone, or offers it to the patient and his family. Techniques used in cures are often "rubbing", cleaning and exorcism, which sometimes vary. For example, the Colorado witchdoctor often puts his foot upon the afflicted part of the patient.

Quechua witchdoctors almost always have an assistant or apprentice. He may be the son of the *maestro*. He acts as a person who, in the quechua term used, "throws out the garbage". By extension, the term means that he disposes of the evil or the spell. Certain tools or materials used in the exorcism to draw out the evil, such as herbs, animals or objects must be disposed of, and are thrown in a creek or discarded in a place where they cannot harm others. This chore, dangerous as it is, is the duty of the assistant. Almost all witchdoctors blow smoke at the patient. A drink like cane rum or *aguardiente* and tobacco are indispensable, not for pleasure but for cleaning the mouth and for prophylactic purposes.

Among the majority of tribal groups, some disease etiology is due to visible or "natural" causes. In Imbabura Province, a particular illness type is known, called "evil horse", which must be treated by the *yachag*. A second, of Catholic influence, is called "evil of God" or sickness of God, which can either be treated by the *yachag* or a medical doctor. For the second group of illnesses the *yachag* will use his herbal knowledge. This group includes infectious diseases, gastroenteritis and other painful afflictions. Sometimes he may use purchased pharmaceuticals like antibiotics and chemotherapeutic agents.

Ayahuasca use among the Cofan Indians

The peaceful Cofan tribe, located in the northern part of the Ecuadorian Oriente province between the Colombian Guamues River and the San Miguel River, participates in several *yagé* ceremonies. This group is particularly localized along the Durero River, near the Aguarico River to the south. They call themselves *a'ingay* and their language *a'i*. In the Cofan language, *Banisteriopsis* is called *yagé* or *yajé*. Pinkley (1969) and Robinson (1969) have described their drug ceremonies.

The yagé ceremony

Since 1912, when the Capuchin Order penetrated the Cofan territory, the tribe received missionary influences from many sects and denominations. Nonetheless, they still preserve many of their traditions and customs which are partially mixed with new religious ideas assimilated from Christianity. The *yagé* ceremonies are probably still performed much as they were centuries ago. Most likely, they have lost some of the orthodoxy of earlier rites. They are no longer performed exclusively in the *yagé* house but are also held in the witchdoctor's house on occasion. He is called *pende* as well as priest (*curaca*). The so-called house of *yagé* (*yagé chao* or *yagé tsao*) is a relatively large structure situated some distance away from the village, or even across the river, according to certain taboos. On the day before the ceremony, the *pende* usually goes into the jungle to gather the necessary quantity of vine. Sometimes these practitioners cultivate the plants themselves, but they prefer the wild *yagé*. The vine is cut into many pieces which measure 20 - 30 cm. The amount gathered depends on the number of participants in the ceremony. The next day the drink is prepared, with one or more adults in charge of the task. Generally, the preparation is made at the house of *yagé*. The *ayahuasca* is placed in an adequate vessel and allowed to boil for eight to ten hours. The liquid diminishes bit by bit, until a reddish extract with an intensely bitter taste emerges. The Cofans take great care in preparing *yagé*, which is much like fixing a fine cocktail. They are very proud of their knowledge of potentiating the plant's energy and power so that the ceremonial hallucinations will be successful.

The day of the ceremony is considered to be extraordinarily important — a kind of sacred day. Many rules are followed; until recently, women were not permitted to fetch the water from the river — at present, they are

allowed to do so in the morning. If the *yagé* has not been prepared at the actual site of the ceremony, then there are certain rules for its transport. The trail must not be crossed by a woman. The drink must be brought to the house in a round-about trail, to prevent crossing the blemished one. The house where the ceremony will take place must not be entered by the front door, but by a side door or window. Each individual must prepare himself mentally and physically for his participation in the ceremony. He must adorn himself with large colorful feathers which are placed behind the nose and ears, pierced during infancy. Faces and bodies are painted and all dress in their finest. Many ceremonies are staged so that individuals reach a common decision or inspiration after having contacted "divine spirits" or the people in heaven (*oporitos*). Women may take part in the ceremony but they are not obliged to drink the *yagé*, as are all of the men. For women, hallucinogens are taboo not only in this tribal group but in most of the others in the Ecuadorian Amazon who use hallucinogens. It is possible that the ancestry of this taboo is related to some of the effects of most of the hallucinogenic alkaloids on the female reproductive system, although in acculturated urban settings of *ayahuasca* use, this taboo has fallen into disuse. Perhaps these compounds may produce abortion or premature birth in pregnant women, and decrease of menstrual discharge if used during menstruation. Pharmacologic studies have demonstrated that hallucinogenic alkaloids produce several effects on those organs rich in smooth muscle, including oxytocic effects, i.e., contraction of the uterus. The effects on the smooth muscle explain why frequently the participants in psycho-disleptic ceremonies purge their gastrointestinal tract by nausea and diarrhea.

The Cofan ceremony takes place at night and the participants arrive around seven. Contrary to the Tucano tribe's ceremony (Reichel-Dolmatoff, 1971), silence is exacted. Individuals gather, each one assumes a place on a hammock and they converse quietly. The ritual is not always the same among the various Cofan groups. They pass the drink around, starting at 8:00 or 9:00 PM, until midnight. All the while, they converse softly about various happenings or the purpose of the ceremony, which they often hope will facilitate reaching a collective decision about some urgent matter. The precious jug of *yagé* has its special place in the house and various vessels of burning incense are placed round about it. The incense is believed to repel the jaguar, who represents the evil spirit or the devil.

The spirit of yagé

At the appropriate hour, the *curaca* occupies his ceremonial seat and begins a long incantation beginning with the word "*yagé, yagé*". His monotonous chant is accompanied by the intermittent shaking of a branch of leaves with his right hand. Then he begins to bless each cup of *yagé*. Besides the invocations, he must blow tobacco smoke over each cup before it is drunk. After drinking the *yagé*, each participant rinses his mouth with water which he may swallow. Alcoholic beverages are not used, but cigarettes or cigars, made from home-grown tobacco rolled in banana leaf, are permitted.

Some vomit after the first cup of *yagé*, while diarrhea is frequent after the second cup.

A new phase of the ceremony begins as the *curaca* begins to enter his trance. He feels the spirit of *yagé* and sees the *oporitos*. Those who have also seen the *oporitos* follow his chants. They experience the presence of supernatural powers and feel like the *curaca*, transported to a supernatural world. If the ceremony precedes a hunting expedition, the *pende* calls the beasts of prey to find the best places in the jungle for the hunt. The *curacas* form a line, and make steps forward and backwards as they continue their chants. The rest of the participants watch passively. By the chants and invocations of the *curaca*, they enter the hallucinatory phase and "see" the things they should observe.

In other groups, the ceremony is more silent and tranquil. They drink in turn, converse in soft voices and sink little by little into a fantastic world of multicolored hallucinations. During the ceremony, they almost always drink three times, at intervals of twenty to forty minutes. Owing to the high concentration of the drink, this quantity is enough to maintain hallucinations all night. If the potion is not very strong, only a few manage to obtain hallucinations. They appear in the morning in a state of stupor. When the ceremony has ended on the morning of the following day, they gather up their hammocks and other possessions and calmly walk back to their huts. Some feel hung over (called *chuchaqui* in Quechua and *guayabo* in Spanish), and proceed to drink *yoco* (*Paullinia* sp.) which is rich in caffeine.

Yagé ceremonies are very frequent among the Cofan. They have about one ceremony a week and, although everyone is not required to attend, the witchdoctor must. Usually, the drink is prepared only with the vine *Banisteriopsis Caapi*, but other plants are added to accompany it. One of these is called *oco yagé*. The potions prepared with *oco yagé* are of better quality, producing more intense visions and richly colored hallucinations. It is thought that this mixture does not fatigue the drinker like pure *yagé*. Schultes (1970) has identified the use of *oco yagé* or *chagro-panga* among other tribes as *Banisteriopsis Rusbyana*. Der Marderosian *et al.* (1968) have confirmed that the *oco yagé* of the Cofan is also *B. Rusbyana*. The leaves of this plant contain *N,N*-dimethyltryptamine. Among the Cofan, and probably also among the Sibundoya who live farther to the northwest, the drinking of *yagé* occurs at an early age. At five or six years of age, children begin to take small amounts of *yagé* under the instruction of adults. By adolescence, they take a full role in the *yagé* ceremony.

Other uses of yagé

Besides its function in magic and religious ceremonies, the drink is used among the majority of Amazonian tribes for medical purposes. The Cofan have a similar belief system concerning illness and death as do the Jibaros. Many diseases are produced by those mysterious arrows that the Cofan call *sejecos*. The healer must discover the location of the *sejecos* inside the patient's body, draw them to the concentration at one point in the body

and remove them by exorcism. The *curaca* performs this under the influence of *yagé*.

Other Ecuadorian tribal uses of ayahuasca

The Coastal region

On the northern coast, we find two small, surviving tribes, the Cayapas and the Colorados. The Cayapas (from *caya* or *calla* = ice, extended to mean white, and *chin* = skin) are light skinned as opposed to the Colorados who dye their skin red. In their own language, they call themselves *chaccila*, or *chacchis*, shortened to *chachis* (the name comes from *tsac* or *chac* = white, and *chin* = skin, with the suffix "la" denoting plural). Again, this name confirms the reference to white skin. The Cayapas are found in northwestern Ecuador, along the Cayapa River and the tributaries of the Esmeraldas River, in the region of Muisac. *Ayahuasca* is called *pinde* by the Cayapas, a phytonym derived from *pi* = water, meaning magic or divine water. They prepare the hallucinatory extract from *pinde*. At present, only the witchdoctor or sorcerer named *ambuda* can drink it to enter a trance to diagnose and treat patients. The word *pinde* has been changed by many groups, especially Blacks in Ecuador who call it *pilde*.

In spite of the long period of acculturation, the Cayapas still maintain their own tribal organization and preserve many of the myths and beliefs concerning magic. They have accepted Christianity whose rituals they have intermixed with their own ancient magic.

The Colorados owe their name to the red appearance of their hair and skin. They paint themselves with a paste made of the red seed of *achiote* (*Bixa orellana*). The men apply the oily paste to their hair which makes it look like a red helmet. Both men and women paint transversal red stripes on their faces, torsos, and limbs. They also call themselves *chagchis* due to the influence of their neighbors, the Cayapas. Previously they called themselves *campas* or *cagpas* (from *cam* = yellow, or *cag* = red, and *pas* = skin), which characterizes their ornamentation with the red *achiote* paint.

Ayahuasca is called *nepi* by the Colorados. *Pi* also means water in their language and the word *nepi* may mean the same as it does in the Barbacoa-Chibcha language family. There has been a constant process of separation for the past 500 years, so that now they are different languages, although some vocabulary remains the same. *Nepi* is not commonly used at present among the Colorados for religious ceremonies or collective rituals. Occasionally the adults will privately drink it. But the witchdoctor (called *bulu*) uses it in curing, which is by no means limited to members of the tribe exclusively. People come from as far away as Quito and other places for treatment. Usually an *ayahuasca* curing session is held on Saturday night. In addition to the healer, sometimes the patient and even his companions may be given *ayahuasca* to allow them to enter trance. All of the participants, including the patient, can see how the "brujo" exorcises the disease-causing body, whether it is an organism, a dart, an arrow, vermin, or poison. Aboriginal tradition holds Colorado witchdoctors in the highest category.

In the Highlands

The largest Indian population is found in the Inter-Andean regions, especially in small villages and communities located at more than 3000 meters above sea level. Many years of contact with the Whites have produced a wide spectrum of blood mixtures or Mestizo culture (Steward and Metraux, 1948). This process, however, has been a slow one, permitting to some degree a preservation of ancient mythology, beliefs and customs, despite the acceptance of Catholicism. Most are bilingual, speaking the various dialects of quechua and a very elementary Spanish. Some Indians, like the Otavaleños, have developed a textile industry and, for business purposes, some have even learned English.

Among the Indians of the Highlands, only the witchdoctors use *ayahuasca* or other hallucinogens. Their religious ceremonies mix Catholic ritual and their ancient rituals, but do not require the use of hallucinogens. However, they have festivities in which they drink *chicha* (corn beer) and cane liquor until they pass out from inebriation. Women are obliged to care for the men, so they do not drink too much.

The Highland Indians also recognize two types of illness: natural causes (infection) and that caused by evil or spell-casting. They seem more often to consult medical doctors who are provided by missionaries or the government. But, when the White man's doctor or his medicine fails, they continue to seek out the witchdoctor, who has an ever-continuing important social role. He uses *ayahuasca* and some psychotropic *Solanaceous* plants, such as *chamico* and *huantug* (see Mena, 1969).

In the Eastern region

In the Province of Oriente, we find the Jibaros to the southeast and the Cofans to the northeast, both of whom we have already discussed. The second most numerous group after the Jibaro consists of Quichua speakers, who use three or more dialects according to the region. The names of three tribes or clans generally refer to their geographic location. The widest denominations of these Quichua speakers are the Yumbos, Aldamas or Quichuas. The people who live along the Napo and Bobonanza Rivers are known as *Canelos* and those along the Quijos River are *Quijos*, etc. In a recent investigation, Costales *et al.* (1969) found twenty-seven yumbo sites along the Napo River and its tributaries, especially the Coca River. This encompasses a population of 3000 which is 90% of the aboriginal population of the area. Other clans are the *Cushmas*, the *Teetetes*, and the *Aucas*. *Cushma* is a Quichua word and refers to the long ponchos or tunics the people wear. The principal *Cushma* groups are the *Secoyas* along the Cuyabeno, Eno and Shushufinde Rivers, the *Sionas* along the San Miguel River, and the Cofan between the Guamues and Aguarico Rivers.

Linguistically, the *Sionas*, the *Secoya* and the *Angoteros* form a group of three dialects of Western *Tucano*, which are mutually intelligible. *Teetete* also is of *Tucano* origin, but is different from the others. The Cofan, the *Aucas* and the Jibaro speak completely different languages. The *Ashuara*

or *achuara* are a small very isolated group, speaking a Jibaroan or Shuara dialect.

The mythology, religious ideals, tribal ceremonies, *etc.* of the Yumbos or Aldamas are very similar to those of the Jibaro. The Yumbos believe in various spirit forces. Certain mountains are sacred, like Mt. Zumaco, which has a totemic character. The ancestral spirits and the souls of loved ones live there. There are certain waterfalls and lagoons, like the Ananga that have a sacred character, since totemic animals like boas and jaguars also reside there.

As with the Jibaro, they also believe in the transmigration of souls -- in the transformation of some spirits or souls into demons (*supay*). One of the more common demons is *Sacha Runa*, meaning false man. He is a kind of goblin, along the lines of the Western prototype. He is a little man with lots of long black hair. He dresses in pants, shirt and hat and lives in big trees called *llahuanga* or *samona*. The Yumbos are afraid to walk alone in the jungle since they might meet *Sacha Runa*. He can trick them into following them into the forest where he turns them into a dwarf just like himself.

The boa or anaconda is a creature that appears in the mythology of all the aboriginal groups of the Amazon basin. The Yumbos have a myth similar to the Greeks about the Sirens. At the bottom of the rivers there are very beautiful women who appear to men who are going along the river alone, especially the Napo. But these Sirens are really boas or anacondas who bewitch them and fill their heads with love. Those men who have had this vision can only be cured by the *yachags*. Usually the treatment means they must drink *ayahuasca* to free them from the overpowering love of the Sirens.

Another myth about the boa or anaconda is related to the rainbow (*quichi*). According to various versions, it is the tongue of the boa or two boas wrapped around each other, a male and a female. The male causes evil and the female causes good. *Ayahuasca* is used only occasionally among the Canelos and Yumbos in communal ceremonies to find out where the best hunting is found. The ceremony is similar to the Cofan ceremony where the witchdoctor drinks *ayahuasca* to call upon the spirits and the boars (*huangana*). The boar is the most desired animal they hunt, the plant and the potion as well are called *panga huasca*. The Yumbos or Aldamas recognize two kinds of illnesses: witchcraft caused by the *chonta palo* (equivalent to the *tunchis* of the Jibaro), and natural causes. Even though the *yachag* has lost much of his importance through acculturation, he continues to be socially useful and of the highest moral importance within the group. There are two types of witchdoctors. The *yachag* uses *ayahuasca* regularly. He distinguishes three varieties: *cielo-huasca*, *sandurco-huasca*, and *tonchin-huasca*. One is to see heaven and the good protector spirits; another is to see the totemic mountains and their spirits; and still another to remove the *chonta palos* which cause disease. Exorcism is a common practice for the diseases caused by evil. The *yachag* feels possessed by the spirit of *ayahuasca* and proceeds to suck the afflicted part of the patient, where the *chonta palos* are. He may suck as many as ten times, at various intervals, with his

chants and invocations filling the curing ceremony. Karsten (1947), Simson (1947) and Costales *et al.* (1969) are the most important sources for this area.

The language of the Secoyas is called *pai*. Their name for *ayahuasca* is also *yagé*. Their ceremony is very similar to that of the Cofans. Women can attend the ceremony and all are supposed to drink the *yagé*. No one is permitted as a mere spectator. Even though so permitted, women seldom attend.

The *yagé* is usually boiled with the cuttings and leaves of another plant (yet to be identified) which contains a pharmacologically active constituent similar to harmine (Naranjo, unpublished results). In treating illness, they also use a Solanaceae, possibly *Brunfelsia*, which they call *tegi*. The medical duties of the shaman or the witchdoctor are similar to those described in other groups.

The Aucas are small nomadic clans found between the Tihuano and Tiputini Rivers. They are bound on the north by the Quichuas and on the south by the Jibaros. *Auca* is a Quichua word meaning fighter, warrior or a savage man. The Aucas have gained fame for their untamable spirit and their aggressiveness. At various times they have assassinated Christian missionaries who have tried to establish contact in order to convert them. They call themselves Huaranis and speak the Huaddani language, in which *ayahuasca* is called *mii*.

The ferocity and aggressiveness of the Aucas can be explained possibly by an old and well-preserved tradition. The story is that the Aucas were taken over by a group of man-eaters (Saint, 1964). At each festival, they ate several Aucas. This continued for so many years that the tribe was on the verge of disappearing. One night they were able to escape and they remained free of their captors. Since that time they regard any stranger as a member of the same tribe of man-eaters, whose only reason for making friends is to deceive the Aucas into submission and to eat them. The Aucas also use *ayahuasca* communally for religious ceremonies. The witchdoctor uses it in his professional practice. It is also used as a poison mixed with the chicha of yucca, to produce the death of their enemies by killing them during the narcotic trance.

Conclusions

Ayahuasca has played a decisive role in many aspects of Ecuadorian Amazon cultures. The plant has been involved in the origin and preservation of certain myths and religious ideas, as well as contributing in large part to the beliefs and practices of medicine. In summary, today in Ecuador we see that *ayahuasca* is used by the aborigines of the coastal lowlands and particularly in the Amazon Basin, though to a much lesser extent than before. Regardless of the various levels of acculturation involved among the diverse groups, the plant is still commonly used. In the inter-Andean area, the use of

ayahuasca has been more limited, even in the traditional practices of medicine. In the Highlands, we find other hallucinogens in use, especially the *Datura* plants of the Solanaceae family.

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