

JUREMA AND AYAHUASCA: DREAMS TO LIVE BY

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The uses of hallucinogenic substances by indigenous tribes of South America have been studied and analyzed by several authors, from botanists to psychoanalysts and anthropologists. This essay attempts to analyze and compare the present day meanings surrounding the use of two hallucinogenic beverages, Jurema and Ayahuasca. The former is found among the Kariri-Shoko of Aлагоas state, Brazil, and the latter has had its use spread throughout the upper Amazon region, in Brazil, Peru, Ecuador and Colombia.

The author utilizes data collected from her fieldwork among the Kariri-Shoko and the Skoko from 1983 to 1985 to present an argument that relates the preparation, intake and the consequences thereof of such usage of the Jurema extract, derived from the roots of *Mimosa hostilis* Benth., with ethnic identification, political resistance and cultural revitalization (Mota, 1987). Further, the same argument will apply to data derived from the work of other anthropologists and ethnobotanists, Siskind (1978), Lamb (1985), Kensinger (1978) and Harner (1978), describing the use and preparation of a beverage mainly known as Ayahuasca, derived from a forest vine (*Banisteriopsis caapi*) which is mixed with the leaves of Chacruna (*Psychotria viridis*). However, although their ethnographic and analytical work could lead to the same conclusions, they found other arguments that implemented different theories about the appropriation of hallucinogenic substances by tribal populations.

Two main questions orient the comparisons being made between the uses of Jurema and Ayahuasca: the cultural component and the biochemical structure of the preparation. In cultural terms, the argument is that both drugs are used nowadays as a form of ethnic identification, as I have proposed above.

But there is also the problem of the drug itself and the biochemical structure: both beverages contain the agent dimethyltryptamine (DMT), an alkaloid with proven hallucinogenic effects, but which cannot be ingested orally or its effect will be eliminated in the digestive tract. What then causes visions: the cultural component or the chemical constitution? There have been many theories regarding this same question, mainly the ones proposed by Schultes

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² "The leaves, roots, seeds, and other parts of plants may be otherwise processed for use as medicine and, as such, are known as crude drugs" (Bergerson, 1973: 29).

in his various works, Harner (1983, personal communication) and Elisabetsky (1986). I do not attempt to give another answer to this question, but to show the importance of the indigenous response vis-a-vis the advance of the capitalist frontiers upon their lives. Whereas it is fundamental to analyze the pharmacological aspect of the issue, it is equally or more important to address the question of how the drug-induced trances, dreams and visions, relate to the actual everyday life of these tribal groups and to their healing practices.

THEORIES REGARDING INDIGENOUS USES OF DRUGS

When Lewis Lewin (1924) first analyzed the ways in which psychoactive drugs were discovered, he declared that such events happened due to the passionate desire to escape the monotony of everyday life. Accordingly, human beings looked for such *strange substances* even when the products being found were far from possessing the properties that could satisfy their primordial wish for a flight from the known daily reality.

Andrew Weil, however, wrote that the escape theory and others of the same caliber were not sufficient to explain the universality of the use of drugs by humans. He declares that *It is my belief that the desire to alter consciousness periodically is an innate normal drive analogous to hunger or the sexual drive... Drugs are merely one means of satisfying this drive* (1972: 19). He makes the point that such universal phenomenon is not simply socially or culturally based since it represents a *biological characteristic of the species*.

Not entirely contradicting these theories, I argue that the ingestion of psychoactive drugs by indigenous peoples in South America are, first of all, related to categories of ordering and conceptualizing reality quite differently from our own. Such argument is in agreement to Furst's affirmation that the *traditional cultural systems of perception and ordering* of reality differ drastically from those originated from the *scientific Western model* (1980: 39). Furst was also of the opinion that *magical plants* have an effect upon people that serve to validate and ratify their culture and not to facilitate temporal means that will enable them to escape from it (1980: 42). That is to say: the meanings surrounding the phenomenon of drug use are quite different from society to society.

Secondly, the search and use of mind-altering drugs of vegetal origin are part of a search for political and cultural identity in which tribal groups being colonized by dominant national societies are involved. One of the meanings for the groups that are focused in this essay is that of group survival.

Everyday reality, as Westerners conceive it to be, represents a permanent conflict with aspects of natural systems involving land and resources. Being away from their life and cultural reality, indigenous people are put in a position of economic and political disadvantage due to their stage of technological development and lack of representation in the spheres of state power. The state of ordinary consciousness can be one of powerlessness, suffering and gradual death of the group.

The *inside view* or *emic* perception of reality is quite different. Castaneda had already pointed it out, when he made the difference between *ordinary* and *non-ordinary* reality (1968) and Harner further emphasized the contrasting aspects of what is reality through his works on the Jivaro (1972) and his declaration that *reality...is defined among the Jivaro as being capable of being seen only when one is under the influence of a hallucinogen* (1978: 6).

In non-ordinary reality, in the *dreamtime* - which is *always and never* (Duerr, 1987: 121) - induced by the ingestion of drugs and other means, the group redefines itself, finds its primordial source of strength, identity and, therefore, power. The ingestion of drugs is indeed to escape - as we had seen - but the escape has another purpose: to find solutions to everyday's problems. It is an act of defiance, born out of hope and not desperation. It means having a name, a home and a future. It also means to be in balance with the universe and therefore being healthy.

Through an analysis of the available ethnographic data, I will try to prove these points.

THE KARIRI-SHOKO AND JUREMA

For the Kariri-Shoko plants are the embodiment of the gods, the primordial beings who brought them life and culture. All plants are spiritual beings who are in this world in connection with humans. To eat, drink or inhale them is to bring the *flesh of the gods* inside one's body. They are thus filled with *prestige* or power. By ingesting such powerful beings, the users are filled with power. This conceptualization of nature - and the part humans have in it - is basic not only for an understanding of systems of classification of the natural world but of the relations that the Kariri-Shoko maintain with what they call *the outside world*, i.e., Brazilian national society. Plants are conceptualized as *sacred* entities that enable the Kariri-Shoko - and only them - to enter in contact with a non-ordinary reality that supposedly is not available to non-Kariri-Shoko. The latter are trapped into an one-dimensional reality, without the *enchantment* that emanates from plants, while the former can dwell in a realm of unimaginable wonders.

Plants are signs of a relationship with *enchanted* beings - mainly the Jurema - that cannot be developed outside the indigenous environment, as they unleash powers that are put to work through a complex of gestures, words, songs and dances. Such a complex revolves around *Sonse*, the creator, and Jurema, the physical counterpart in creation time. It establishes the frontiers of knowledge and consciousness attainable through the ingestion of the *Jurema*.

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The Kariri-Shoko believe that only indigenous peoples - Blacks and Gypsies are included in this social category - can communicate with the invisible powers of nature. In this way, they perceive themselves as capable of maintaining a mutual code of understanding with the plant kingdom, as they are all united by ties of an ancestral kinship system. Plants help them to be

in equilibrium, in a position of being able to heal their ills, be of physical or spiritual origin.

To be a Kariri-Shoko is to be within such relationship which defines and circumscribes this *persona* from other kinds of social beings, who then become the *others*. This identity construction was thus explained by the Kariri priest: "Anyone can enter the forest and take its medicines. But when an *Indio* (Indian) takes a plant, when I take a plant, then it is different because I bless the plant, speaking the secret words. Nobody else knows the words, only us, the *Indios*. Because where there is a secret, there is strength. Where there is a secret, everything becomes more positive [becomes stronger]. If I know something, and you know the same thing, then we don't tell to anyone else, it stays between us and Sonse, the Superior Being. But if you tell to another person who then tells to yet another...then soon that which was secret and sacred has no value and becomes a disorder."

The Kariri *secret* is then correlated with strength, with order and with being positive: *secret* = *strength* = *Kariri-Shoko* = +. This mutual relationship between plants and Kariri-Shoko implies that a specific vegetal has to *accept* the person, thus allowing him/her to become a *dreamer* or a *walker*: people who can enter dreamtime and dream space (Duerr, 1987), learning all that is to be learned about the invisible non-ordinary reality. To be a *dreamer* - a *sonhador* - is a category belonging to the Kariri-Shoko society with its proper system of classifications as it fits people who have been initiated into tribal knowledge and traditions. In the Western social system such a person would be classified as someone who is having drug-induced visions or hallucinations.

The Jurema drink comes from the roots of the Jurema tree. There are two Jurema trees: one is *mansa* (domesticated) and the other is *braba* (wild). The former is the *hostilis* species of *Mimosa* and the latter is *verrucosa*. Either one represents Sonse, the first ancestor, the one who makes it possible to the Kariri-Shoko to travel through dreamtime, thus unifying all the generations into one. The travel is accomplished in two ways: during the communal intake of the Jurema *wine* and in the dreams, when one is asleep. The *only* one who does not need to take the Jurema in order to *see*, *hear* or *dream* is the Kariri priest, the *paje*. In the beginning of their most important ritual - the Ouricuri-Matekraí - members of the tribe share the Jurema wine which was specially prepared for the occasion. Everyone is supposed to become *juremado*: under the blessing and the control of Sonse (Jurema) who then *speaks* to the *children*.

The beverage does not contain alcohol, as the roots are cooked in pure water during three days. It is made of the *mansa* type, the one that does not *endoida* (to make one crazy), so that the *juremados* are not out of their senses. This is important to note because it goes against the idea that people take drugs in order to escape reality. The Kariri-Shoko are searching for their own reality in a state of awareness in which they are able to perceive all levels of reality: the ordinary as well as the non-ordinary kind.

Jurema is taken in order to prepare the community for a ritual that lasts two weeks, as it opens the participants' perceptive channels to the invisible world of ancestors and protectors. During the ritual, through dances and songs, the Kariri ancestors are invited to return and meet their descendants, bringing them teachings and helping them to retake their position as *those who know Jurema's secret*. They are the ones who have spiritual strength to go on living and, in that way, the tribe is reborn, regaining its equilibrium, as it is collectively cured. Thus the *paje* and his helpers are strengthened in order to act as agents of the physical and spiritual cure of the group.

As the Jurema is partaken, the physical space known as Ouricuri - where the ritual takes place - is reclaimed as their own. Time and space are out of the control of the surrounding non-Kariri-Shoko society. Once *juremados*, the Kariri-Shoko are in control of their own lives, claiming their position at the center of the Universe, reinforcing their traditions, which are reinvented as well.

However, *Mimosa verrucosa* Benth. is not the same species that the Kariri used to take in the past, which, according to the literature (Pinto, 1935; Sangirardi Jr., 1983) and the information from the *paje* Suira, was the species *hostilis*. This fact is striking because it poses a problem: the *Mimosa hostilis* Benth. does contain N,N dimethyltryptamine, a substance of hallucinogenic properties. The one now in use is not supposed to have the same effect. Cruz informs that the bark of the *verrucosa* is *bitter and astringent*, being used in nervous conditions as a narcotic, and therefore acting upon the nervous systems (1982: 408). We can infer that since both belong to the same genus, the active principle(s) responsible for the visionary effects have a chemical-structural analogy. But the very fact that the *verrucosa* is called *domesticated*, while the *hostilis* is *wild* could indicate the knowledge of the former's more subdued action.

According to past information collected by Nimuendaju (Pinto, 1935) the drink made with the *Mimosa hostilis* stimulated visions and dreams related to enchanted stones, fire birds and other natural wonders. Sangirardi also wrote that the Jurema was used together with the smoking of the tobacco pipes and the playing of the *maracás* in order to do divinations, counseling and curing: "A ingestão da Jurema permitia que o pajé entrasse em contato com o mundo invisível, evocando os espíritos ancestrais e os heróis culturais da tribo" (1983: 204).

The Kariri-Shoko say that the beverage that they use now also provokes dreams and visions. The dreams do not always happen during sleep, as one can be awake and fly into the *dreamland*. The *juremados* think that Jurema is responsible for the changes in perception, feelings and thoughts, as they can have premonitions (feelings), see what they could not otherwise (perceptions) and enter into verbal communication with the *enchanted ones* (thoughts). It is

³ "The ingestion of Jurema allowed the *paje* to enter in contact with the invisible world, evoking the ancestral spirits and the cultural heroes of the tribe".

their belief that the Jurema gives *strength to the spirit* of those who drink the wine. Through that strength alone is that they are able to dream even when awake and to hear Jurema's messages. Thus the *pajé* explained that: "We have to work a lot in order to prepare for the visions. The Jurema is the main medicine for the tribe's illnesses. We don't take it in order to lose our senses. Jurema does not make one crazy nor drunk. But if you don't know how to prepare it, nor how to prepare yourself in order to take it, then you get drunk. When you drink Jurema you have to concentrate: it is a preparation for all penitence and for healing...but only the Indians can become juremadós."

Taking Jurema is a way to legitimate and maintain the Kariri-Shoko social order and world view. During this sessions, the tribe is able to ponder about their everyday problems and to look for solutions, guided by the counseling received under the influence of Jurema wine and, therefore, directly from Sonse. Such decision-making process is basic for tribal survival in practical as well as ideological terms. The Ouricuri ritual and *magic wine* do not induce survival. Rather, it is the need to survive that motivates the group to keep its ritual and traditions alive, for taking Jurema has the effect of restoring and maintaining tribal life.

AYAHUASCA: THE VINE OF DREAMS

The preparation and use of the potion known as Ayahuasca has similar purposes and effects as that of taking Jurema. In the literature about the various groups that utilize the former what comes through is the magical and healing aspects of the ritualized uses of Ayahuasca. This is a drink prepared by several indigenous groups of the upper Amazon region, spreading from the Northeast of Colombia to the lower lands of Bolivia, from east and west of the Andes up to east of the upper Orinoco river (Harner, 1978: 1).

It receives various names, such as: *natema*, *yage*, *caapi*, *gahpi*, *mihí*, *dapa*, and so forth. In the language of the pre-Hispanic Incas and of millions of Andean indigenous peoples it is called *Ayahuasca*, which means *wine of the dead* in Quechua (Harner, 1978). It is prepared with the extract of a forest vine of the genus *Banisteriopsis* (*B. caapi*, *B. inebrians* and *B. muricata*, see Spruce, 1908), usually added to other vegetal species, the most common one being *Psychotria* sp.

Concerning its chemical composition, the Ayahuasca does not present the same riddle as the Jurema drink does because of two main factors: Among the species of the genus *Banisteriopsis* mentioned above, there are the following alkaloids⁴: harmine, harmaline and d-tetrahydroharmine, and the union of these is called *harmala alkaloids*. The pharmacological hallucinogenic effect is due to the action of the harmine and harmaline. Harmine is also an anti-depressant agent and its mechanism of action consists in the inhibition of

⁴ Alkaloids are a type of pharmacologically active compounds found in plants, composed of carbon, hydrogen, nitrogen and oxygen.

the mono-amino oxidase with the consequence of increasing the concentration of biogenic amines in the nervous terminals (Goodman & Gilman, 1980). Regarding its chemical structure, these alkaloids are "structurally related indole derivatives and, as such, are related to the well-known hallucinogens mescaline, psilocybin, and LSD" (Harner, 1978: 5). The leaves of *Psychotria viridis* possess in their constitution N,N-dimethyltryptamine, which is structurally very similar to 5-hydroxytryptamine (serotonine), and has a very well known and proved hallucinogenic action⁵.

These substances' mechanism of action is highly complex, as those of biogenic amines like epinephrine, nor-epinephrine, 5-hydroxytryptamine or neuro-hormones. In the very sphere of their mechanism of action, the performance is agonistic in relation to the biogenic amines, what makes such mechanism to become even more complex since it involves those of one and/or more of these biogenic amines. It has already been demonstrated that all of these kindred drugs of the biogenic amines show the effects of neurones that contain catecholamines and of other chemically defined neurones (Goodman & Gilman, 1980).

A true pharmacological synergism results from the association between Banisteriopsis and Psychotria, as one increases the action of the other. Elisabetsky points out that the Indians emphasized that the beverage was stronger than the isolated plant. The mixture of the substances mentioned above results in the sum of their effects, giving proof to the users' affirmation (1986: 136). This point is very important to consider because, since DMT becomes inactive in the digestive tract, such association was at first considered inefficient⁶.

Further studies, however, revealed that the harmaline suppresses the action of the enzyme that acts upon DMT, therefore protecting it. It is also interesting to note that the indigenous populations who use only plants in which the active principle is based on DMT either inhale it when smoking or as snuff. Jurema is the great exception, because, even though it contains DMT, it is ingested orally. That is precisely Jurema's riddle, still to be resolved.

TAKING AYAHUASCA

According to several ethnographic accounts, tribal specialists search for the vine and prepare the beverage which is then shared communally or only by the shaman, in the case of a healing session. Among the Sharanahua of Peru, for example, the older and more experienced shaman is in charge of preparing and distributing the beverage to those who will participate in the

⁵ Information from Afonso Kirk Pinto, School of Pharmacy, Federal University of Rio de Janeiro.

⁶ For a long time, the addition of species with tryptamine derivates to this beverage was not given due consideration, since it was believed that these compounds were inactive when taken orally (Elisabetsky, 1986: 132).

event (Siskind, 1978). Cordoba-Rios related to Lamb (1974) his personal experiences when he was initiated into the uses of the *vision extract*, telling how his teacher, the Huni Kui shaman, was careful in the preparation of the beverage, as well as in the orientation of those he initiated, so they could understand the visions that came upon them, giving them the appropriate cultural elaboration.

Siskind argues that, for the Sharanahua, taking Ayahuasca happens within the symbolic system of the tribe which is "validated by myth and belief and structured by the curing songs handed down from shaman to shaman" (1978: 28). Her work corroborates my main argument as she concludes that "The reality of Sharanahua life, consensually validated like the shaman's ayahuasca visions, is that life is possible only within the circle of *kia*" (1978: 38). In that case, tribal life contradicts the type of experience that goes on outside the tribe, even though the Sharanahua, like the Kariri-Shoko, fully participate in the surrounding national society. Taking Ayahuasca means sharing a code of meanings not available to the non-Sharanahua, so that it is also symbolic of tribal autonomy and self-valorization.

According to Kensing (1978), among the Cashinahua only the initiated adult males are invited to participate in this collective experience. When the drug starts to *make them shake*, the singing starts as each man independently sings his conversations with the Ayahuasca spirit. The same author stresses how important the communal taking of the Ayahuasca is to the group as "The Cashinahua drink ayahuasca in order to learn about things, persons, and events removed from them by time and/or space which could affect either the society as a whole or its individual members" (1978: 12/13). Thus the drug is also used as form of group cohesion as it delimits cultural frontiers. The hallucinogenic effects are culturally interpreted, providing each participant with a contact with the world THEY consider as *real*.

The reasons these peoples resort to the visions resulting from their special and sacred beverages have been put by the above mentioned authors as: To attain knowledge about non-ordinary events or reality that supposedly could not be attained through other means; To contact and affect the behavior of particular spiritual entities; To obtain a kind of power that *the others*, i.e. those who do not have access to the knowledge resultant from the drug, could never obtain; To heal, in the physical as well as the spiritual levels, obtaining information about the causes of an illness for which there has been no cure yet: a special healing session can be organized, so that the shaman takes the opportunity, through the use of Ayahuasca, of discovering what is the *real* cause of the illness and, consequently, the more efficient way of treating it.

In the healing process, a shaman who takes Ayahuasca searches for the etiology of illnesses through the interpretation of elements present in the patients' dreams. This relationship, mediated by dreams, between patient and health agent is specific to the culture and the use of Ayahuasca. Such dreams interpretations are not transferable to other cultural contexts: this point is not made clear in the ethnographic studies already mentioned. Even when there is an ingestion of the same psychoactive substance, the signifiers have a

different significance, as signs are interpreted differently thus attesting for the specificity of the hallucinatory experience.

Among the Jivaro, the shaman composes a song for each illness and each cure, thus putting forth the esoteric forms of language which are shared only by those who belong to the group and who have been initiated into the use of Ayahuasca (Harner, 1978).

Using this data and reinterpreting their meanings, we can see that the use of this special beverage is dictated by group interests, by the need to attain a level of collective security, in which the anxieties resultant from everyday life, with its illnesses, frustrations and perplexities - mainly after contact with the waves of capitalist expansion - can be expressed, discussed, alleviated and overcome.

CONCLUSIONS: SOME COMPARISONS BETWEEN JUREMA AND AYAHUASCA

From the biochemical perspective, both Jurema and Ayahuasca have points in common: Jurema's active principle is N,N-dimethyltryptamine, whereas Ayahuasca contains Banisteriopsis' active principles which correspond to alkaloids with an indolic structure and that of *Psychotria* which is also N,N-dimethyltryptamine (DMT). The indolic structure, present in the *Banisteriopsis* alkaloids, is also present in the DMT.

Pharmacologically, the similarity of the effects are automatically inferred because of the chemical-structural points of similarity presented above. As to the pharmaco-technical and pharmacodynamic points of view, the Ayahuasca beverage contains the association of two plants, so that the reunion of their active principles make its effects even more potent. Moreover, the DMT that is present in the *Psychotria* is not inactivated in the gastric tract because of the action of the harmine present in the *Banisteriopsis*.

In the Jurema, however, it is not yet clear, as far as we know, how its DMT is not inactivated, since it is taken orally. Is there a substance in the very composition of the vegetal that blocks the inactivation? Is it possible that another extract is added to the potion with that objective, and that such addition has been maintained a secret?

As to the analysis of the socio-cultural context, we conclude that when tribal communities continue their attachments to the use of psychoactive drugs, they are attaching themselves to their own lives, because it is in these drugs that they are reunited with their beginning as well as their end, in the eternal circle of life of birth-death-rebirth, which they reconstruct in rituals.

The drugs allow them to search for and meet with the essence of their cultural heritage, opening their way to a specific understanding of nature and life. With them and through them, they are able to affirm their tribal autonomy, reconstructing themselves as people who possess an unique knowledge in the unending search for wisdom in the relationships of humans with the universe.

ABSTRACT: Utilizing data from fieldwork among the Kariri-Shoko and secondary data from other ethnographers, the author presents an argument that relates the uses of two hallucinogens of vegetal origin - Jurema and Ayahuasca - to the processes of ethnic identification, political resistance and healing. Two main questions orient the comparisons made between the uses of Jurema and Ayahuasca: the cultural component and the biochemical structure. This essay finds support in the works of botanists (Lamb), anthropologists (Harner, Siskind and Kensinger) and pharmacologists (Elisabetsky), even though most of them did not reach the same conclusions as the author.

KEY WORDS: Healing Processes, Ethnic Identification, Hallucinogenic Plants.

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