

Takiwasi: The Use of Amazonian Shamanism to Rehabilitate Drug Addicts

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ABSTRACT

Takiwasi is a center for the treatment of drug addictions and research on traditional medicines. The therapeutic protocol of Takiwasi is based in traditional medicine's functions at three levels: organic, psychological and spiritual. The central plant in Takiwasi is the water extract from *Banisteriopsis caapi*, *Psychotria viridis*, and *Brugmansia sp.* Generally known in the jungle as *ayahuasca* it constitutes the central axis of *curanderismo* (shamanism), in the whole of the Amazon Western basin, due to its purgative and psychotropic effects. Anthropological, psychological, and phytochemical studies demonstrate that it can be effectively used in the treatment of chemical dependencies and psychopathology if it is properly administered. Treatment of patients also indicates that curative sessions are affected not only by the active ingredients (β -carbolines and tryptamines), but also by the therapist, the psychosomatic condition of the patient, environmental factors, and the interaction between the participants. The article includes details of the organization of *Takiwasi* and the therapeutic process.

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Introduction

The antidotes of the Amazonian forest against its own destruction

The Peruvian Upper Amazon is the front of penetration into the immensity of jungle, and a space where several cultures meet. For centuries, the men of the deep jungle exchanged products, customs, techniques, and knowledge with those of the Andes or the Coast. In this Andean Piemont, today, in a larger scale, the indigenous ancestral cultures meet or confront the thousand faces of the modern Occidental culture. We have been living for nine years in this place in contact with *Lamista* and *Chazuta* ethnic groups situated along the Mayo and Huallaga Rivers. These groups are famous for their traditional magical healing rituals and practices, which always inspired admiration and respect throughout the Amazonia. As an Andean inheritance, they talk *Quechua* but with features from the nearby *Jivaro* groups of the equatorial forest. Recently they started to produce coca leaves and its first derive, the cocaine paste, an extremely addictive highly toxic product.

The coca produced here is of great quality because climatological characteristics enable an average of 30% more alkaloids than the plants grown in other places. Consequently, Amazonian healers have been regularly visiting this region of the jungle (*ceja de selva*) in order to pick up medicinal plants of a superior quality. During this century, this area was exploited for the best *curare liana*, tasty coffees and the best tobacco of French national cigarettes Gauloises.

Those plants that we consider toxic have always been treated by the local cultures with the privileged status of sacred plants. Tobacco, sometimes called “the flesh of the Gods”, represents the perfect medicinal plant and must be included in any therapeutic session. Moreover, in different ethnic groups the same word designates both medicine and tobacco. The ritual use of tobacco juice induces altered states of consciousness, allowing one to communicate with the gods.

The use of coca fully structures the medicinal-religious practices, both in the Andes, and in the High-Amazonia: it is chewed to fortify the organism in the face of work, cold or hunger; it is used as a support for divination techniques; it is the best offering for the Gods; and it cures the famous altitude pain, *soroche*. It constitutes the equivalence of the wine in our Christian tempered regions. Can we imagine the Mediterranean countries’ culture divest from the vineyard? As the wine during the mass, the coca allows the incarnation of the divine and authorizes the communion with the sacred universe. Since *Dionysos*, our tradition has recognized the sacred power of alcohol whose etymology means “spirit”, a meaning kept in the designation of alcoholic drinks as “spirits”.

The jungle is a living universe where all the plants have a spirit, a soul, a “mother” (*madre*) which sustain them. The local people learn to treat with these natural energies, to channel their force in order to protect themselves from possible damage, and to use it in fishing, hunting, agriculture or health. Ancestrally, local populations established a respect and reciprocal link with the jungle universe. Humans, as living beings, are able to communicate with these living vegetal beings.

The traditional medical knowledge includes a complex historical tradition, allowing establishment of an effective and direct communication with the plants, or rather with the spirit of the

plants (CHAUMEIL 1983; LUNA 1986: 151). Ingestion of those vegetals induce non-ordinary mental states; their precise control, enables the subjects to expand potential or latent psychic faculties in the ordinary conscious state. Those mental functions include: intuition, presence in the world, superseding the NEWTONian or EUCLIDian time-space, widening of the usual perceptual spectrum, and giving access to knowledge of oneself and life in a direct teaching mode or by revelation of mysteries. Thus, it's not unusual for a sick person to dream of an unknown plant appearing in anthropomorphic form. The plant teaches in the dream how it should be treated in order to heal, where to find the medicine, how to ingest it, etc.

In all of Amazonia there exists this concept of “the teaching plant”, which specifically refers to the psychoactive effects of the plants. Coca and tobacco are typical examples. The plant teaches only those who show love and respect. The ritual creates this respectful approach. If it's missing, the inversion, or the perversion of the connection with the sacred induces a nearly-possessive condition of dependence, a well known phenomenon: alcoholism or cocaine addiction.

The intensive cultivation of coca leaves destined to the drug traffic represents a “sacrilegious” attitude. The forest destruction based only on the criteria of drug production induces a deep conflict in the Amazonian indigenous soul, even if one pretends to be *mestizo* or sufficiently Westernized. Consequently, we observed during a general medical consultation how many countrymen working in the coca growing areas expressed physical symptoms similar those of the drug addicts. Up to a point, an experienced clinical eye quickly detects who works in the coca plantations and the maceration pits of coca leaves. Some countrymen related to us how during their dreams, forest spirits threatened to abandon them if they cultivated coca. These repeated dreams managed to dissuade some of them who feared losing their protectors and their harmonious relationship with the forest. Indeed, this meant bad crops, diseases, unsuccessful fishing and hunting, familial problems, and bad luck in all the fields.

In a general way, this prognosis is correct: with coca cultivation, the rural farmers did not get richer. On the contrary, no useful investment was realized from drug money and as they left traditional cultivation, the prices of local food products rose dramatically. The drug traffic awakened appetites of all kinds: mafias and delinquent groups appeared, killings between rivals gangs occurred, terrorists groups made parasitic alliances, etc. Compensation for the anguish leads the people to an increased alcohol consumption and quickly sliding into association with the abundant and cheap cocaine paste. Then, addiction began to appear in the members of the families of the coca producers and sellers. The son participates in the coca gathering during holidays to financially help his mother who was abandoned by his drug addict father. To improve the daily life, another mother sells cocaine paste doses in her small home shop along with the bananas and the rice, while her son steals from her own cash register to be able go on smoking drugs. The noose is fastened: Amazonia now has its own drug addicts.

We consider that the ancestral, traditional knowledge refers not only to an attempt to recuperate an appropriate technology through empirical knowledge, but also to master the exchange in terms of the Vital Energy that sustains the world, including human beings. The purpose is then to reject one of the essential taboos of our Occidental culture. However, it is the value order which is actually perverted, as well as faith, the way we trust in life; this must be transcended, determining and channeling the ways of intervention in nature. Religious or spiritual people understand that the divine is not delimited by the technical or the rationalist science and that an authentic spiritual approach is not opposed to a good use of technology,

science and money.

This teaching dynamic still exists today through the master-healers who can provide the contemporary drug addicts efficient therapeutic solutions based upon the ritualized use of medicinal plants. Psychotropic plants are likely to function as hard drugs when they are misused, but can cure drug addicts when they are used with respect and knowledge of what the native people call their “spirit” or their “mother”. The forest medicines can perfectly cure “its own” drug addicts, substantiating the old saying: “where the illness is, the medicine is so is. Poison-plants or medicine-plants? They are both at the same time! The plants, the forest, and nature conceal a huge vital potential which will reveal itself as fatal or life-giving according to the attitude and the spirit of the man who approaches it.

Sacred coca of the Andean world or diabolical coca of the Colombian cartels? Sacred Oriental poppy or heroin of lost junkies? Sacred wine, divine blood, or misery alcohol? Tobacco-gods’ flesh or pulmonary poison? Living substances revealing meaning and mystery, or insane powders? It is not only a question of the North-South borders but also those which separate external universe from internal universe, invisible world from visible world, and the men from the gods.

The forest contains treasures revealed only to those who listen with respect. The old wise men are as ready to transmit their knowledge - coherent, efficient, and subtle - as they are conscious of the violent changes of our time. In Takiwasi, healers and doctors or psychologists work together.

Summarizing, drug addiction (cocaine paste, alcohol, solvents) constitutes an extremely serious problem in Peru: it touches all social classes and is growing quickly. Peru is the world’s largest producer of coca leaves and their derivatives, especially in the Upper Amazon, where we work. Cocaine paste is extremely addictive, very inexpensive, and easily available. In the Upper Amazon there is considerable ecological damage due to coca plantations (200.000 hectares in 5 years in the San Martin-Tarapoto area). As a substitute, cultivating of medicinal plants could be a viable economic alternative.

Peru has one of the richest and most varied medicinal floras in the world, yet it is largely unexplored. There is no botanical compendium of the Upper Amazon. The country enjoys an ancient medical technology which is quite extensive, active and particularly effective. Traditional therapists have shown the ability to successfully treat in a short time cases of drug addiction and mental pathology. Traditional medicines have wide cultural acceptance (50% of the population use only this resource, 25% use modern medicine in combination, 25% use modern medicine exclusively). Although there is a large demand for suitable facilities, there are very few treatment centers. Conventional treatments are long, expensive, and provide only mediocre results.

Toxic contra-initiation versus shamanic initiation

The *Takiwasi* center for drug addict rehabilitation and research on traditional medicines is testing the indigenous medicinal resources of the Peruvian High Amazonia. The center combines the ancestral practices of folk healers and shamans with modern psychology, from C.G. JUNG to transpersonal psychology, including the perspectives of current social techniques. The patients living in the center are basically abusers of cocaine paste produced in the region.

That spirit guided us to realize a small pilot project in the Peruvian High-Amazonia. We organized a center to receive local cocaine paste addicts. The therapeutic methods we use try to reconcile contemporary psychological techniques and the ancestral knowledge of the Amazonian medicine-men, healers, shamans, and wise-men. They taught us about more than the medicinal plants themselves through instruction in their ritualized use. *Takiwasi* Center, “the singing house” in *Quechua*, combined conventional medicine and Amazonian medicine, different subjects and nationalities in attempting to formulate a drug addict treatment alternative which uses local material and human resources. It is also the opportunity to stimulate scientific research on this subject, to preserve disappearing vegetal species, to hand down the ancestral wisdom, to reinvigorate the local culture, and to teach therapists and open their minds.

The key therapeutic element of the center is focused on the induction of an alteration in the state of consciousness. This alteration is manifested in the continued quest of humans throughout cultures and time, a basic behavior of consciousness expansion in a natural evolution of life (FERICGLÁ 1994: 251). While induction of this new perception occurs in a disorganized and destructive way in the Western societies, the old cultures have a well known, systematic and controlled use of techniques and methods, frequently associated with the use of psychotropic substances that facilitate the exploration of these levels of reality. The use of these substances to alter states of consciousness by traditional therapies does not involve the drug dependency or addiction which we see in modern societies. Furthermore, the proper use of these substances and techniques allow traditional medicine to treat modern addictions. Their efficacy is based not only in a very precise management of the medicinal plants, but also in a complex knowledge with three levels of action: organic or physical, psychological and spiritual. These three levels of healing show a perfect synchronicity during the alteration of the states of consciousness induced by the traditional use of psychotropic substances. This is a common ethnological observation (METZNER 1989: 74).

Unconsciously, the addict wants a self-initiation that eventually, carries him towards his own destruction, therefore constituting a kind of counter-initiation. The shamanism challenges and proposes to him a true initiation that enables him to integrate the inner universe and proceed to an intrinsic reorganization. Shamanism offers him the opportunity to reach a deep meaning in his life by seeking a 'vision'. In this context, the therapists are invited to explore their own inner universe before guiding their patients. The acknowledgement of a sacred dimension is a condition for a proper therapeutic action and an efficient cure of the addiction.

The organic level: The physical detoxification is through use of medicinal plants and purgatives. There is a wide variety of means to eliminate the toxins stored in the organism: diuretics, emetics, sauna with plants, baths with plants, dietetics, and fasts. The toxic elements of the drugs and medicines may have been stored for many years in the body. When they are eliminated, they can be clearly identified by the smell. This initial step of somatic cleansing is short but intense. Generally one or two weeks are enough to stop the physical dependency of the drug. In this way the withdrawal syndrome is shortened and bearable.

The psychological level: The energy liberated by the cleansing of the body allows the patient to begin to explore the emotional and affective patterns linked to the drug consumption. The preparations made from vegetal psychotropic substances play a fundamental role in inducing in the patient an altered state of consciousness with which to explore the inner universe. The



temporary banishment of the rational functions permits direct access to the deeper levels of the unconscious. It is noted a richer oniric (dreaming) production: dreams are more intense, more vivid and frequent. Forgotten traumas, repressed memories, and past life events rise to surface. All this psychological material is verbalized during the interviews with the therapists, using techniques such as dream analysis, group dynamics, etc. The modern psychological techniques complement the potentials liberated by the empirical practices of traditional medicines assuring a maximum of efficacy and care.

The effects of the psychotropic substances make the patient their own healer. The therapist does not have to persuade the patient about their problems. The patients themselves discover their particular situation through the visionary state, the dreams or the amplified perceptions. In other words, the patients become the masters of their own healing process, and therefore, principally responsible for the success or failure of the treatment. The therapist's role is to be the guide, the companion, protecting and creating the necessary conditions for a safe environment to develop the evolutionary work.

The paradox, *a priori*, of using psychotropic substances to treat drug addicts, confronts the patient with a totally new perspective. By not denying the potential value of the search for modification of their states of consciousness a positive shock is produced in the patient and permits acceptance of a different focus: there is no more irresponsible and dangerous play flying, but the control of the experiences of exploring the unconscious, of this *other-world*, to make them productive, constructive, and a source of enrichment.

The fact that the patient has the company of the therapist in the healing session, traveling with him to the other side of the rational border, is very comforting. Acknowledgement of the exploration of the inner universe as an inalienable human right constitutes the foundation of this treatment. We have to remember that any substance prepared and taken in such ancestral and ritual way does not produce any dependence at all. On the contrary, it possesses a strong curative healing effect, triggering a cathartic crisis.

Those sessions allow the patient to release false psychic models, negative ideas, bad self-images, pejorative feelings (rage, hate, sadness, etc.), to correct personal perspectives, and to open up new horizons. Summarizing, it proceeds to a complete task of reintegration and assimilation of the peak experiences had during the addiction. The psychic cleansing is concomitant to the cleansing of the organism. For that reason the local people refers to these teas and substances as *purgas* (purges), referring to both the organic and the psychological effects.

The spiritual level: The exploration 'beyond the border' assures the discovery of fundamental values beyond the individual. The experience the patient of transpersonal phenomena restores to him a basic dimension within creation: that of a being. The newly emergent inner order feeds a transcendental dimension, creating a meaning to life. As long as this level of re-structuration is not reached, the patient cannot be considered as cured, but in the process of healing. This higher order is deeply liberating because it allows the deflation of the ego, the conversion of the perversion, and the establishment of a new affiliation towards the fundamental Father and the fundamental Mother. This superior level is able to digest, to metabolize and to integrate the lived experiences at the organic and psychological levels. The restitution of every single thing to their corresponding place generates a huge feeling of *reconciliation* with oneself, with others, with nature, with the universe and with God, the source of deep Peace (MABIT 1988b).

1. Research on Ayahuasca

Antecedents

We have carried out research on traditional medicines in Tarapoto and the surrounding Province of San Martín (Peru) since 1986. The central objective has been to evaluate alternative therapies proposed by the ancestral, indigenous medicines, primarily in the treatment of addiction to cocaine paste. From the very beginning, this required dealing with empirical medicine with great respect, considering ourselves as essentially ignorant on the subject, mere students of healers and shamans.

After initial local contacts were made, it rapidly became evident that the *ayahuasca* potion constituted the key to empirical knowledge, and therefore an obligatory route in attempting to understand something about what turned out to be a very complex and elaborate traditional body of knowledge. We accordingly decided to re-initiate our medical studies in that other university: the jungle.

We focused our attention on *ayahuasca*: its preparation, uses, and therapeutic results. Learning about its uses also implied surrendering direct control, and accepting self-experimentation and guidance from the more experienced local healers.

Ayahuasca is a purgative decoction from a mixture of psychotropic plants (*Banisteriopsis caapi*, *Psychotria viridis*, and *Brugmansia sp.*). Its use by autochthonous jungle-dwelling groups has therapeutic and ritual purposes. It is ingested in collective, nocturnal sessions directed by a *maestro*. The *ayahuasca* brew takes its name from the *ayahuasca* plant (*Banisteriopsis caapi*), which assumes a key function in the brew and the therapeutic ritual. Among the different ingredients of the botanical mixture (which varies according to each healer and geographic area), the malpighiaceae vine *ayahuasca* always plays the central role, according to the *maestros*. It is this plant who creates teaching visions, who allows “seeing”, who concentrates the greatest visionary effects. Chemists and pharmacologists, however, have insisted that the dimethyltryptamine (DMT)-containing *Psychotria viridis* (*chacruna*) is the main visionary in the mixture (that which provides the visions), while the *Banisteriopsis* acts only as a MAO inhibitor. McKENNA, TOWERS & ABBOTT (1984) state that their experiments “provide strong evidence for the hypothesis that the hallucinogenic properties of *ayahuasca* are due to the visceral inactivation of MAO and the subsequent oral activation of DMT in the potion” (McKENNA, TOWERS & ABBOTT 1984: 194ff).

In 1990, however, McKENNA himself recognizes the hallucinogenic function of *Banisteriopsis* alone: “numerous tribes of the same region prepare a hallucinogenic drink based on the bark of *Banisteriopsis caapi* or other members of the malpighiaceae. This drink, which contains higher levels of β -carboline alkaloids, MAO inhibitors, is by itself hallucinogenic, and is sometimes, taken alone” (McKENNA ET AL. 1990). The initial contradiction with empirical knowledge is thus resolved: modern researchers always derive advantages by considering reliable, a priori, any information provided by legitimate *ayahuasca* *maestros*. That kind of information can often orient research and permit many shortcuts to be made.

Up to date, we have participated in over 450 nocturnal *ayahuasca* sessions, always following the related initiatory procedures indicated by the *maestros*, such as diets, isolation in the jungle, fasts, sexual withdrawal, learning songs, etc. We have finally reached the state of directing

therapeutic sessions ourselves, administering *ayahuasca* to others. In total, this adds up to first hand observations of over 4000 doses under the effects of *ayahuasca*, drinking 160 liters of the potion.

From modern science to traditional knowledge. There is an extreme diversity in the methods of preparation of the *ayahuasca* brew among the different indigenous Amazonian groups. For our purpose of studying applications in the treatment of drug addicts, we had to identify a preparation suitable for those purposes. We used data supplied by ethnographic literature on shamanism, direct observation, and finally, personal experimentation. No special method of preparation to treat addicts exists within indigenous therapeutic traditions. Pharmacodynamic technology led us to gradually introduce improvements in methods of preparation to obtain greater extraction of alkaloids. We were then able to determine amounts to use, the most desirable containers, best ways to preserve vines during the time between harvest and preparation, optimum cooking time and intensity, highest quality vines, and most desirable ways to preserve the finished potion.

We have found that it is best to let the harvested pieces of vine dry out for several days prior to cooking, then to soak them in water for one full day, to cook them in a two-step process, to refrain from de-barking the vine, to construct an oven to concentrate the heat, to use gentle simmering during the cooking process, to avoid exposing the finished potion to light, etc. Our latest batches have allowed the development of crystals in the laboratory, due to the high concentration of alkaloids; this did not occur in our previous batches nor in batches made by others.

Methodology and justification

Given the peculiarities of the problem, we had to redefine the basic axioms and fit them to an atypical scientific situation. With the advice of the healer *maestros* specialized in this subject, we decided to explore *ayahuasca in situ*, under the empirical conditions in which *ayahuasca* is administered, committing ourselves to systematic self-experimentation.

Our decision to proceed in this manner was based on the following premises:

1. ***Defective indirect studies:*** In the abundant literature on *ayahuasca* (we have more than 580 items, including newspaper articles and other references), less than 10% of the authors had engaged in self-experimentation and therefore had to use second-hand information. Among authors that did self-experimentation, less than ten refer to more than five curative sessions, and none that we know of affirms to have followed the classic steps of apprenticeship (diets, isolation, withdrawal, etc.) The *maestros*, meanwhile, continue to insist in the rigorous and indispensable nature of strict rules, as well as on a relatively long apprenticeship, before one can learn or understand anything. The validity of this insistence has been reaffirmed constantly over time and space.

The preparation generically called *ayahuasca* contains β -carboline and tryptamine alkaloids which are well identified. Alkaloids present in the plants, however, are not present in the potion, as pointed out by some researchers (RIVER & LINDGREN 1972: 101ff). Studies made on the pure alkaloids, therefore, cannot reflect the realities of a session, since the potion is not identical in content. Experiments with pure alkaloids require doses of 300-500 mgms. of alkaloids (harmine, harmaline, or tetrahydroharmine) to secure threshold effects (PENNES & HOCH 1957: 887ff; NARANJO 1967), while

the use of the potion prepared by local healers requires doses of only 10-30 mgms. of the same alkaloids; this suggests possible synergistic effects in the combinations in the potion (McKENNA, JOHNS & RYALL 1990).

Under traditional conditions of ingestion, the therapist accompanies and guides the patients from the “inside”, becoming attuned with them by taking the brew himself. In the few clinical attempts made by a small number of modern therapists, they have not ingested the potion themselves, and guide their patients “from the outside”, furthermore using pure alkaloids (NARANJO 1973: 124ff). This clearly indicates that the ethno-anthropological studies, as well as the medico-pharmacological ones, lack a fundamental requirement, direct observation under natural conditions.

2. **Validity of the empirical approach.** It seemed to us that to study *ayahuasca* phenomenology *in situ* is valid for the following reasons:

- Healers often demonstrate an obvious knowledge of unexplained therapeutic methods hitherto unheard of in modern science, which can, nevertheless, be demonstrated by concrete, observable events, and subject to scientific understanding. This is illustrated in the field observations which show addicts cured by healers or shamans using their therapeutic arts, and in the knowledge of synergistic plant combinations. The mixture of plants constituting the *ayahuasca* brew precisely responds to the need to combine tryptamine-type alkaloids, orally inactive, with the mono-amine oxidase inhibitors, such as β -carboline inhibitors, which make them orally active. These conditions do not occur in nature, so knowledge about them must derive from a finely honed and efficient technology. Neither random incidents (NARANJO 1983), nor observation of animal behavior (SIEGEL 1989), can account for this remarkable invention. An amazed D. McKENNA (McKENNA, JOHNS & RYALL 1990) wonders “...how these practitioners have drawn the connection between the properties of the *Banisteriopsis* plant and its ability to potentiate and render orally active still other plants containing DMT or other tryptamines ...” Similarly, OTT (1994: 48) describes it as “one of the greatest pharmacognostical discoveries of all antiquity”. The “*ayahuasca* science” has an unusual diffusion across space and time, with tribes extremely separated from one another manifesting an intimate knowledge of *ayahuasca* use. The oldest known use is associated with objects of the Pastaza culture (Amazonian Ecuador) of the period from 500 Re. to 50 A.D.

The pragmatism that characterizes primitive societies suggests the practices could not be maintained over such a long time and across an immense area, despite persistent opposition by Western, Christian, society, without a very solid foundation based on empirically demonstrated curative effects.

- We have also found and previously pointed out (MABIT 1988a: 15) similarities between traditional knowledge and modern science, common logical foundations which permit traditional wisdom to be qualified as “science”. Both are based in concrete, observable events (for example, the case of a sick patient who has been treated and cured); both proceed rigorously; both demand results, i.e. the knowledge must “work”; both lean on a coherent body of facts; both use a precise, structured methodology; both define the conditions that allow experimental

verification of observations; and both determine a methodology for the transmission of the knowledge.

3. ***The observer's attitude.*** Common sense, as well as practicality, indicates that the best way to study any subject is to receive knowledge from those specialized in it, in this case, the shamans or healers. This demands that the observer abandon prejudices, go beyond the inhibitions normally afflicting a "serious scientist", and follow all necessary paths in order to be responsive to the peculiarities of the subject. In this case, one needs, above all, plenty of time, and the acceptance of the need to place derogatory or critical pretensions in suspense, at least temporarily, opting rather for humility and respect. In adopting this attitude, the learner then finds that this empirical wisdom then reveals itself as accessible to the student. But, in this area, one confronts too many taboos from the academic community which have little or nothing to do with scientific progress and mainly reveal an unconscious fear of directly facing the unknown.

FIDAALI (1991: 39), in his studies of *Bangre* in Africa, found these same resistances, and says "the structure of the human self is not reducible to the normal, which differentiates it from scientific origins: the observer in science is a conception of the normal".

In fact, one deals with not stopping at what is "normal", or what can be made normal, but daring to risk one's ego in a process of observation which demands personal surrender. Once we agree to consider two different sciences as equal, both having (1) compatible foundations, though with differing procedures and manners of explanation, and (2) common objectives (knowledge of nature and of human beings, development of solutions for collective welfare), then it seems we can establish a fruitful interchange between them.

4. ***Limitations of phytochemical research***

At the risk of over-simplification, one can for didactic purposes group *ayahuasca* studies in two categories, leaving aside any journalistic narratives. The Western dichotomy between the sciences and the humanities is reflected in the dualistic approach taken towards *ayahuasca*. On the one hand we have phytochemical, pharmacological, botanical studies which attempt to be objective and focus attention on the substance, the potion, the raw material. On the other hand, those anthropologists, ethnologists, and sociologists who zero-in on the cultural context, seek primary explanations in social dynamics. In both cases, reality becomes fragmented, reduced to the particular field of expertise of the researcher.

In any case, the moment the healer and the patient come under the influence of *ayahuasca*, this artificial discontinuity is dissolved, and the analytic separation of the observer is no longer valid. *Ayahuasca* creates the healer and vice versa. In other words, *ayahuasca* and healer mutually reveal themselves, and are inseparable. To proceed as separate entities would impoverish the subject, if not totally dissolve it. Similarly, chemical analysis shows the presence of alkaloids in the brew, which may account for the existence of visions, but remain powerless to explain their content. An ultra-materialistic explanation may pretend that all mental phenomena are determined by chemical mechanisms, to which HALDANE (1937: 157) replies: "If materialism is true,

then it seems to me that it is impossible to determine that it is, in fact, true. If my opinions are the result of chemical processes occurring in my brain, then they are determined by the laws of chemistry, and not by the laws of logic”.

We base our statement that the active principles alone can never pretend to explain the effects of an ayahuasca session, not only on epistemological arguments, but also on the frequent and repeated observation of the following phenomena:

- With the same brew, dose, and session, we can observe totally different effects among the participants, ranging from no effects at all, to that of a very intense intoxication.
- With the same brew and dose, a subject may experience amazing variation in responses to *ayahuasca* ingestion in different sessions.
- Taking a second dose may have either no effect at all, compared to the first one, or the opposite effect.
- One can observe a hallucinogenic intoxication in subjects present in the session who have not ingested the brew and who have not been predisposed toward effects, such as people accompanying a patient, or those who live in the house where the session is taking place, etc.
- On the other hand, the shaman can, by means of certain techniques, cause strong intoxication effects to disappear in a matter of seconds or minutes, without physical elimination of the brew.
- The same shaman, after ingesting *ayahuasca* for years, may experience no visionary effects upon drinking the brew. He also may require smaller doses than his patients to experience effects, and in certain cases attain similar effects without drinking the brew.

These facts clearly define the limits of any phytochemical investigation. The raw material (the potion), becomes a key element in curative sessions but there are many other intervening factors which must be studied without which a comprehensive understanding of ayahuasca shamanism would not be possible. Linear, scientific, causal logic, by itself, appears inadequate in this case. To summarize, the composition of the brew is insufficient to explain the enormous variation in effects upon different subjects in different sessions. There is no strictly proportional response in the subject corresponding to the dose ingested or to the alkaloid concentration of the brew.

2. Working with Ayahuasca

The session of ayahuasca

The treatment of patients indicates that curative sessions are affected not only by the active ingredients (β -carbolines and tryptamines), but also by the therapist, by the psychosomatic

condition of the patient, by environmental factors, and the interaction between the participants.

Patients are asked not to eat anything beyond lunch on the day of the session in order to facilitate intoxication and reduce any nausea. Nevertheless, we have seen a number of cases where patients have taken *ayahuasca* following heavy diner or serious drinking. Visions may develop, regardless. By the same token, the patient is instructed to fast at least until lunch on the day following the session. We have already pointed out the importance of refraining from sex prior to the session and even more so, immediately after the session (we have been told of cases of death when this has not been observed). Also, women with their menstrual period must abstain from taking *ayahuasca*. The rationale for such proscription is based on the negative experiences that frequently happen. Subliminal perceptions of the people may transform the session into a nightmare.

The sessions begin around 9:00 p.m. After a short and simple protection ritual applied to the place and to his own body to prevent the intervention of enemies, such as sorcerers and bad spirits, the *maestro* finishes the preparation of the brew. He “charges” a cigarette *mapacho* (strong black tobacco) while singing an *ikaro*, a ritual song (GIOVE 1993); he lights the cigarette and blows its smoke over the flask containing the *ayahuasca*. He proceeds to mix the brown liquid while shaking the flask.

He then calls each patient and serves him with a dose he measures out according to the constitution of each, the nature and seriousness of their sickness, the motive which leads them to take the preparation, or finally, the strength of the brew itself. The first effects begin to be felt after a period which varies according to different subjects and sessions, but takes usually 20 minutes. They last about 2-4 hours.

Influence of the therapist

We must now point to the last and perhaps the central conditioning factor: the *maestro*, the healer or shaman that presides over the session. Only the *maestro* intervenes to direct the session. He does so mainly through the *ikaro*, which constitutes the core of the therapeutic session. Sometimes, the song is accompanied by the rhythmic rattling of dry leaves or branches (*shacapa*). He acts as the orchestra conductor. His role consists of modulating, regulating, and controlling this complex dance of factors, harmonizing the energies in play. Without a doubt, the quality of his own energy determines the result of the session. The basic energetic modulation is transmitted through the sacred songs. His body is the therapeutic instrument *par excellence*, beyond constituting the element of his own initiation (MABIT 1988b).

The *maestro* is able to determine the general level of intoxication even if he is surrounded by darkness and silence. According to his information, he knows whether to continue the session, increase the collective intoxication by means of his *ikaro*, decrease it, or stop the session with the help of a series of techniques, particularly the *soplada* and the *chupada*. The *soplada* consists of blowing tobacco smoke over the body of the patient especially on the top of the head (the *corona*). The *soplada* can be done while chewing on a piece of cinnamon stick and while smoking strong tobacco (*mapacho*). The *soplada* can be made with the aid of liquids sprayed by the mouth of the *maestro* over the “crown” (top of the head), the face, or the body of the patient. The *maestro* uses camphor dissolved in brandy (sometimes with white onion or garlic added), *Agua de Florida*, diverse perfumes, or thymoline.

Frequently, during the first half-hour, the *maestro* blows the smoke from his pipe (*cashimba*) over each of the participants in order to launch the vision and to channel it (*enderezar la mareación*). The *cashimba*, a very personal artefact, is “charged” by immersing it in the *ayahuasca* pot during the final cooking phase (*la refinada*): it therefore becomes progressively impregnated with the brew constituents.

The *chupada* consists of a sucking through the mouth of the *maestro* on or over some part of the patient’s body. Beforehand, the *maestro* fills his mouth with a liquid (water “charged” by means of an *ikaro*) and then spits it out, having aspirated the intoxication. In other cases, he smokes in order to regurgitate a stomach phlegm which he has acquired during the course of this work and which remains within his body permanently. This *yachay* allows him to aspirate the intoxication or the disease which is subsequently spit out.

Ayahuasca warms the body. Tobacco smoke has the tendency to increase the intoxication and the vision, whether it is smoked by the *maestro* or directly by the subject. Liquids which are sprayed or used in the *chupada* cool the body and consequently diminish or take away the intoxication. Inhaled perfumes tend to increase the intoxication but some can also act in the opposite sense (e.g., cut lemon, camphor). The laying-on of hands, the ritual song, *ikaro*, and the rhythmic rattling of the *shacapa* (gourd rattle) can have different results depending on the will of the *maestro*.

Whenever the collective level of the *mareación* is low or one individual person doesn’t “break through”, the *maestro* may intervene to increase the intoxication. A second dose of *ayahuasca* may be proposed, or, if the intoxication is too strong and the visions become unbearable, the *maestro* may intervene to diminish or remove the intoxication completely (*chupar la mareación*) in a very brief period of time (as little as a few minutes).

We have had the opportunity to experience ourselves the influence of the *maestro*’s practices upon the intoxication, their intensity, their nature, their evolution, their content, and their duration, so we can vouch for their efficacy. More so, in certain cases, we have used these techniques effectively on the visions of other participants, once we were given permission to do so.

Psychosomatic states

The quality and the quantity of the brew are evident conditioning factors, as is the psychosomatic state of the patient at the time of the session. The emotional affective state of the patient will potentiate or neutralize the effects of *ayahuasca*, either consciously or unconsciously. A voluntary and trusting surrender, the nearness of an emotional or traumatic complex, or a commitment within a therapy group, are all factors which help induce effects and responses to *ayahuasca* ingestion. Conversely, a bad diet, use of other drugs or pharmaceuticals, or a chronic pathology, may cause resistance. All of these factors, mentioned by way of illustration, may interfere in a manner contrary to that generally expected. OTT (1994:66), the creator of the *pharmahuasca*, denies that this combination of artificial phenethylamines with *ayahuasca* may be dangerous. Recently, CALLAWAY (1994:58) warns that the combination of *ayahuasca* with antidepressants, such as *Prozac* and other specific serotonin reuptake inhibitors “may result in death or life threatening situations”. Incidentally, we should point out that *pharmahuasca* is contrary to the healing effects of the vegetal *ayahuasca* since it avoids the purgative effects of the potion. The Amazonian tradition

considers this only apparently undesirable effect to be the main healing property of the *ayahuasca*. In principle, one can generally say that psychosomatic conditions are optimal for a “good session”, when the patient has confidence in the therapist and follows his advice, which almost always includes some basic rules about living (avoid eating pork or chilis, drinking alcohol, or engaging in sexual intercourse prior to a session).

Environmental factors

In addition to factors related to the brew and to the patient, there are other external factors which powerfully affect the results of an *ayahuasca* session. These belong in one of two phases: perception by the senses, and later, integration at the core level. In the first phase, perceptions by the five senses become manifest. Depending on their intensity, frequency, and origin, their stimulus may or may not surpass the perceptual threshold of the individual. We will then have conscious supra-liminal perceptions or unconscious intra or sub-liminal perceptions.

The conditions under which *ayahuasca* is taken therefore require a control of lighting, sounds, odors, posture, etc. Each of these elements can deeply modify *ayahuasca* effects, even to the degree of provoking a hallucinogenic intoxication or neutralizing it, providing visions of paradise or of terror, and leading to vomiting or to pacification of body and mind. One must also mention the immense field of conditioning factors on *ayahuasca* effects represented by subliminal perceptions. Depending on the degree of familiarity with *ayahuasca* lore, one develops a sort of extra-sensory perception, which in most cases may be visualized as a sharpening of ordinary senses. The perceptive spectrum is amplified and this allows for capture of stimuli which were previously subliminal. Other stimuli remain subliminal even with the perceptual amplification excited by *ayahuasca*. Nevertheless, even without becoming conscious, they affect the visionary experience and the *maestro* will be quite aware of them. We consider as beyond the possibility of perception by the five ordinary senses these internal perceptions as well: the sense of bodily balance or equilibrium in the internal ear; the sense of internal temperature (which may be different or dissociated from the external one); and the sensation which allows us to perceive our body and its spatial location.

In a second phase, integration at the core level of supraliminal or subliminal perceptions leads us, for example, to define lateralization (right-left, above-below), positioning within time and space, identification of what is ours and what is somebody else's (the identity of understanding what is real and differentiating what is unreal, the sense of our presence of ourself to ourself and to the world, and discrimination of forms, movements, volumes, consistencies). Neurophysiology suggests that *ayahuasca* would provoke an excitation of certain cerebral centers such as the temporal lobes (integrative zones) or the limbic system. In this case, we would predict an increase in emotion as well as a sensorial intensification, since such are the functions supposedly pertaining to those parts of the brain.

From another angle, one can look at *ayahuasca* as a dis-inhibitor. As SACKS (1985: 1900) points out, inhibition “acts at the most elementary perceptual level, as if it were necessary to inhibit the primordial and that which is full of hedonic quality, that which is protopathic, if the goal is to allow the surfacing of the epicritic (HEAD 1920), complex, categorizing, and bereft of affect”. *Ayahuasca* would disinhibit, toning down the epicritic, and allowing the protopathic to flower. For example, the olfactory hyperesthesia which is often manifested during an *ayahuasca* session, probably corresponds to a stimulation of the ancient olfactory lobe

(rhinocephalus), functionally associated with the limbic system and acting as an emotional tone regulator. Odors which are normally subliminal, can subsequently affect the emotional state of a participant in a session.

An integrating level assumes the existence of a “human being”, an emotional being. SACKS (1985:191) insists therefore, on an “essentially personal dimension inherent in all mnesis, gnosis, or praxis”, and in the “essentially melodic and scenic nature of inner life”. The principal consciousness of the self derives from this “awakening” at a superior integrative level, with the consequent possibility of discovering and correcting errors of codification. In this sense, the *ayahuasca* experience can be a semantic one: it consists of creating and discovering meanings (BULLA DE VILLARET 1973: 123). This presentation of the self to itself and to the world determines what we call a state of consciousness. Environmental factors can thus powerfully shape the states of consciousness of a subject under the effects of *ayahuasca*.

Interference between Participants

Observation of and self-experimentation with *ayahuasca* also allows us to understand the reciprocal influence between different participants in a session. Subtle exchanges become manifest, which we can only describe as “energies”. A certain “energetic quality” emanates from each participant and this is diffused within the space of the session, sometimes encountering a welcome opening in another participant. Within the darkness and silence of a session, a pattern of perceptions is created, and the habitual lack of continuity of relationships between individuals is decreased. Without extinguishing the unique sense of the ego, the participant influences and is influenced by his companions. These emanations can be received and integrated pleasantly or unpleasantly, in a benevolent or a malignant manner. In the latter case, it is not unusual for a participant to induce vomiting in another due to transmission of an unacceptable influence.

Such an event, extraordinary by any current rational approach, is nevertheless frequently observed: facts are stubborn! This phenomena has been observed by other researchers, who call it *hitchhiking* (SHULGIN & SHULGIN 1991: 962).

The power of suggestion is not enough to explain these instances. On the one hand the effects of *ayahuasca* ingestion are almost always very surprising, unpredictable, and contrary to the pre-conceived notions of the participants, and on the other hand, animals (dogs, cats, birds, spiders, snakes, insects, frogs) demonstrate great sensitivity to these “energies”, which cause them to come closer or to flee in an unusual manner. We have observed that upon contact with a patient with “negative” energy, a dog’s body may begin to tremble, or it may become suddenly aggressive or vomit.

Summarizing, we are at the very limits of conventional conceptual formulations. We need to forge new conceptual instrumentation, new vocabularies which permit description of phenomena beyond ordinary experience. Meanwhile, we resort to the term “energy” to deal with the experience. The energetic concept is foremost among all conditioning factors in *ayahuasca* ingestion. A “bad” energy tires the patient, and may be perceived by different patients through different senses (for some through lights, smells for others, and yet through sounds or body tremors for still others). The purgative effect consists of ejecting “bad” energies by vomiting, and by other more subtle emanations. At a personal level, the ego experiences concomitantly

and inseparably lead to the discharge of those energies at the mental level (“bad ideas”), emotional level (“bad feelings”), and physical level (vomit, diarrhea, hypersalivation, copious sweating). In accordance with empirical tradition, the compatibility of the most advanced concepts of modern science, with experiments demonstrated at an individual level, illustrate why it is critical to perform further studies in this direction.

3. The Visions of Ayahuasca

Characteristics of the vision

Healers generally use the term *mareación* to define the specific mental state which follows ingestion of *ayahuasca*. This word groups two concepts: intoxication (dizziness) and vision. The term *mareación* evokes the sensation of seasickness (*mareo*) which is felt upon the approach of the intoxication. The images are frequently perceived in successive waves which grow stronger, reach a maximum, and then decrease in a way resembling ocean tides.

Purgative effects are quite evident with a novice who vomits, suffers from diarrhea, profuse sweating or hypersalivation. These irregular and inconsistent symptoms diminish with time and repeat doses, as well as with detoxifying fasts. The excretory function is brought into play, and this itself constitutes one of the first therapeutic use of *ayahuasca*. When the healer or the patient acquires command of *ayahuasca*, a powerful visionary capability may develop without necessarily involving intoxication. The person can then follow his own mental imagery and according to the need return from it and act in order to manage the session, get up to see a patient, or take any other useful action.

The most common hallucinatory experiences of *ayahuasca* have been reported by HARNER (1973: 172). ANDRITZKY (1989: 86) makes a comparison of modes of experience in transpersonal psychotherapy (GROF 1975, 1984, 1985, 1988) and in collective *ayahuasca* healing rituals, establishing a relationship among the experiences. Although hallucinations refer to the sense of the sight, they can also involve other senses: auditory hallucinations, especially voices, and music; sense hallucinations, the perception of being touched for example, or alterations of body features; olfactory hallucinations, sensing intense odors, agreeable or nauseating; synesthetic hallucinations with a sound being seen as a color or an odor perceived as a shape; and “general” hallucinations, where the individual perceives good or evil “presences”, environments or atmospheres, often with indefinable characteristics, which are sensed as “strange”.

Dangerous hallucinations can come from: the subject himself who cannot bear to face his own visions and becomes trapped within his own contradictions; uncontrolled interferences from other participants; interferences directly from the environment (arrangement of the place, unforeseen manifestations, lights, sounds, odors, menstrual women, presence of certain objects); external interventions due to either acts of sorcery (enemies), spirits of the dead, demons or other supernatural entities; and the preparation itself (in quality or quantity). It is appropriate to point out that the danger from “negative” visions is relative. In other words, the *maestro* does not systematically intervene to suppress them: they may constitute an integral part of the healing.

We have already pointed out the importance of refraining from sex prior to the session and even more so, immediately after the session (we have been told of cases of death when this has

not been observed). Also, women with their monthly period must abstain of taking ayahuasca. During the menstruation there is a cleansing of the women's body, not only organic, but also energetic. This cleansing process includes the production of highly toxic emanations that are perceived at a subliminal level, and that can jeopardize the energetic state of the participants in the session. The Amazonian tradition takes a pragmatic, preventive attitude, but without intending any moral judgment or covert sexual segregation.

After the eventual turbulences of the session, the ending is often delayed by a long and peaceful collective silence, during which each participant contemplates their own interior universe, without any great desire to communicate what appears either too unique, or of an infra or supravverbal nature.

Constants of the visions

In view of the extreme variability of the effects of *ayahuasca*, we have tried to define what remains constant with all of the people we have been able to observe in the course of many sessions starting with our own experience. As one can easily imagine, the absence of an absolute system allows only the listing of paradoxical or ambivalent constants. These include:

1. ***Unpredictability***: No matter the degree of preparation or evolution of the taker of *ayahuasca*, the experience remains always unpredictable. It is impossible to anticipate the nature and the quality of the sessions to come. In other words, each session is an adventure. During the session, its evolution is just as unpredictable: the intoxication may be slow and then accelerate, or else disappear in an instant; or suddenly reappear when no longer expected. Almost all of the imaginable cases are realizable. Regardless of the potency of the doses, or the concentration of the potions, certain people are refractory to *ayahuasca* and never become intoxicated for unexplained reasons. "The purge doesn't like you" comments the healer, it being frequently understood that one first needs to like it before it will reciprocate. The experience varies between different persons in the same session, and also for the same person in different sessions. We have never found anyone during the course of our work who can forecast the quality, rhythm, duration, or nature of the *mareación* of the next session, even among the most developed healers.
2. ***Singularity and Plurality***: *Ayahuasca* is essentially a collective experience. It is taken within a group (although some healers take it alone to acquire power or to resolve a personal problem). Each individual can experience the collective character of the intoxication and the extremely focused interactions which occur among the participants. The experience of penetration from others can be sensed materially within the body. That which occurs under *ayahuasca* is always sensed as an experience of solemn intimacy, totally unique and up to a point inexpressible and ineffable. The individual is therefore, at the end of a session, frequently immersed in a collective spirit and a sentiment of sharing, indeed communion, with others. At the same time, he has the sensation of having lived through a very personal experience which has touched the deepest points of his own self. While passing through a relative experience of "depersonalization", the ego of the person is in some way re-enforced and opened up. This "transpersonal" event gives him added security in his relations with himself and others.

3. **Sense of Reality:** This feeling is particularly noticeable with cosmic visions where the individual experiences a total sense of reality. Truthfully, these visions about ourselves or our personal universes do not really constitute a new discovery. They are always perceived as the revelation of something “already known”. They manifest as a raising to consciousness of subconscious or latent truths. And the person concludes: “I knew it all along”. This attribute of the visions grants the patient invaluable psychic benchmarks for the structuring of his existence. The disappearance of doubts about the fundamental questions of his existence contributes to giving him a sense of peace. The sense of reality is such that physical expressions may accompany the visions: tears, laughter, cries, gestures of protection. Discoveries about the self are often perceived as “revelations” or “messages” of undetermined origin with a force of conviction imposed in no uncertain terms which persists after returning to a normal state, imprinting changes upon the psyche and behavior: “*Videncia es evidencia*” (seeing is evidence).
4. **Alteration of the sense of time:** This is a constant within the *ayahuasca* experience, almost always involving the sensation of shortening of real time duration, particularly in a good session. When the session begins to end, perhaps after 3 or 4 hours, the patient has the sensation that only a fraction of the chronological time has elapsed. Evidently one can also point out that inversely, psychic events have considerably accelerated. Patients have left the session feeling that they have re-lived a good part of their lives, even the smallest detail. Others have been able to resolve complex problems which would have, in normal time, taken many weeks of thought, since seconds or minutes may seem endless. In some less common cases, the person may experience the sensation of time having stopped or split (chronological and “mythical” time).
5. **Absence of linear progression:** We have not been able to identify a linear evolutionary process. No chronological order of sessions is accompanied by a parallel progression in the quality or quantity of visions. In other words, a person who takes *ayahuasca* for the twentieth time can be no more certain to “see” any better than his neighbour who attends a session for the first time. Neither can he be certain to see more than he did in his own first session. There is a progress, therefore, but without any linearly causal logic attached to it. Progress is structured moreover, like the slow unfolding of a puzzle, where the pieces are at first identified dispersely, then come together little by little until the final design emerges. Or else it is like a slide projection where an initial blur gives way to a clear image through trial and error focusing.
6. **No loss of Consciousness:** The usual *ayahuasca* experience does not involve a dissolution of consciousness but rather a modification of it. The subject knows all along in the session who he is, where he is, what he has ingested, he responds when his name is called, etc. He remembers his visions.
7. **Coherence:** The *ayahuasca* vision can be surprising, formidable, indeed incomprehensible *a priori* but it is never seen as incoherent or chaotic. It does not manifest itself as shapeless, although successive visions may not show any link to laws of classic causality.
8. **Collective Character:** It is remarkable, though it does not always happen, to see different participants share the same visions during the session. We have had occasion, again and again, to evidence the sharing of the same visions by different members of a group: negative presences, hearing of sounds or noises, similar judgments made about the

“worth” of a certain person present. The visions can constitute an occasion for exchange and sharing, for communal experiences, and for manifesting a collective convergence (even between persons unknown to each other prior to the session).

Validity criteria

The term hallucination, largely used in regard to traditional therapeutic or ritual practices, has a pejorative connotation which prejudices the essential question to consider: “Are the perceptions obtained through modification of states of consciousness after ingestion of plants or substances with psychotropic effects real or fictional?” The question “real or fictional” can be put in ordinary terms: “Does *ayahuasca* work?” The dictionary is eloquent: “Hallucination”: error or mistake of our imagination produced by false appearances. Is an *ayahuasca* hallucination, therefore, mistaken? In such a debate, it seems to us more appropriate to talk about “vision” and “seeing” to designate the mental perceptions experience during an *ayahuasca* session, referring not only to the principal mental imagery, but also to those perceptions coming through the other senses.

Following the above definition, one would not describe a vision leading to efficient action or effective solution, or empowering the person to master his interior universe, as a hallucination. This again brings up the degree of intensity of the vision or how it fits into the state of ordinary reality. This is really preliminary to the study of these phenomena. Can the vision capture our interest and enrich us if it is only a harmless fantasy or a gratuitous fabrication?

Efficacy: The vision is capable of modifying the daily reality of the person, his character, mood, and behavior. This can happen even if he has not clearly identified the meaning of his visions. In the practice of healing, full understanding and intellectual integration are not dispensable for the evolution of the psyche. In a manner which is undeniable, patients can feel and live perhaps the most important changes of their lives. The most evident manifestation of this is the frequent ability of the patient to make decisions which have been latent for a long time and thus change his life (professional career, ending of a relationship, change in style of life). The vision is equally efficient for the *maestro*, who uses it to treat his patient: diagnostic discovery, forecast, type of treatment required, etc. It should be emphasized that the vision is not considered to be “psychical”, but rather concerning the “body”, a generic term used by healers to designate the object of their cares.

Divinatory Ability: For divination to be effective it requires a certain level of practice in order to avoid confusing one's own mental constructions with information coming from the visionary state. We have thus been able to discover events from the past of certain patients, whose personal history has been totally unknown to us, and to verify them afterwards with the person in question. This information can equally be more general in nature, concerning the character of the patient, his problems in life, his diet. The Amazonian healers were often requested to exercise their divinatory capabilities and resolve mysteries, disappearances, and thefts. This was traditionally one of their principal activities.

Forecasting the future is evidently more difficult to deal with, since no immediate verification is possible. Proper perspective, however, allows us to say that a prophetic function may be present. The “seen” is not experienced as an understanding of an intellectual order, but rather as an immediate comprehension, global and instantaneous, mobilizing all function and all

senses. The vision can produce insight.

Some conclusions

Studies on *ayahuasca* are generally not realized beyond a botanical, phyto-chemical, or socio-anthropological environment. There are extremely few scientists who have dared approach this phenomenon *in situ* and proceed with self-experimentation within the very special context of traditional practices of the use of *ayahuasca*. To us it seems very useful to consider the *ayahuasca* experience as a transpersonal reality approach and to contrast this reality with that which is described in voluntary or accidental transpersonal experiences such as clinical deaths followed by resuscitation or else the states of ecstasy during superhuman efforts on the part of athletes (WEIL 1986: 11ff).

Ayahuasca calls forth a veritable process of information, in the etymological sense of the word. The information cannot be received from the outside since it originates from within the individual. Consequently, research which discards self-experimentation automatically cuts out the principal source of instruction, and reduces the value of hypotheses thus formulated. According to many researchers, self-experimentation lacks the “objectivity” demanded by science. However, subjectivity is a necessary condition for a successful approach to *ayahuasca*. Doing away with the distance between the observer and the object (since in this case the same person is subject and object simultaneously) constitutes the core of traditional therapeutic technique. To repeat, the subject does not possess reality, he is possessed by it; he does not act, but is acted upon. Moreover, this difficulty also applies to microphysics, where the observer in fact affects the experience.

Writers who subscribe to self-experimentation are more interesting to consult regarding *ayahuasca* (SILVA SANTISTEBAN 1977; ARAVALO VALERA 1988; AYALA FLORES 1978; SCHLEIFFER 1973; HAMPEJS 1994; LUNA 1986; FERICGLA 1994; CALVO 1995). This recommendation is also valid for other traditional cultural contexts where ethnic groups use psychoactive substances or techniques to induce altered states of consciousness (DANIELOU 1992; SAMORINI 1993; HUFFMAN 1994, POLIA 1993). In order for it to be valid, however, this self-experimentation requires the practice of diets, fasts, and withdrawals, so that it will produce progress. We know of cases of researchers taking *ayahuasca* more than 150 times without dieting, the importance of which they underestimate: their knowledge remains at a very elementary level.

The study of altered states of consciousness seems to us extremely promising for the future. Meanwhile it presupposes at the start a redefinition of the course of science in this field, that is to say, an epistemological revision. FIDAALI (1987), who has worked and been initiated among African healers, has arrived at the same conclusions following self-experimentation which did not include ingestion of hallucinogens. His work opens new horizons in this field. The body contains and represents individual memory, a biographical record or engram, and furthermore, it contains universal or collective memory. The body represents “the somatic essence of consciousness” (FIDAALI 1991: 23). *Ayahuasca* forces the manifestation of the unconscious to consciousness. That is why the traditional function of *ayahuasca* is simultaneously therapeutic to the individual and mystical to the collective.

The *ayahuasca* session becomes a controlled manipulation of the energies of each of the participants, the surroundings, and the *maestro*, performed by the latter. It is a disinhibitor of

energy blockages perceived as thoughts at a mental level, as feelings at an emotional level, and as symptoms in the physical body. In the reverse sense, it acts as an amplifier and stimulant of latent vital energies. The intended result is to harmonize those energies, leading to an improved psychosomatic/somatopsychic dynamic.

Research in depth psychology started by C.G. JUNG, particularly regarding analysis of dreams and the delirium of psychotics, appear to us as especially beneficial. At the time of our studies, the principal concepts of Jungian thought (collective unconscious, anima-animus, double and shadow, archetypal structures, numinosity, etc.) have been valuable references. We have intensely “experienced” synchronicity and have witnessed enough para-psychological phenomena (we call them such for the lack of a more precise term) to allow us in our fashion to bring up the question appearing in the works of REEVES (ET AL. 1985): “Does a non-causal order exist?”

If one does not reject patent and observable facts, we are inevitably led by these considerations on *ayahuasca* to a necessary epistemological revision of modern science, especially medicine. Conceptual frameworks, experimental models, and classic paradigms are all shown here to be inadequate to explain such an experience. Aristotelian thought, the foundation of modern science, provides an inadequate system of coordinates. It appears to us that one cannot undertake a serious and audacious (and ambitious) study of phenomena in the modification of states of consciousness without previously accepting an eventual change of paradigm. The pertinence of these themes enlarges the concepts currently in vogue in order to open up new avenues of thought. *Ayahuasca* constitutes an intellectual challenge for our time. We cannot overemphasize the need to approach the study of *ayahuasca* through experiential practices enriched by generations of Amazonian therapists and *ayahuasqueros*. Too brutal and arbitrary impositions of rational-causal scientific principles take the risk at best of scientific invalidation, and at worst can place the subjects in a dangerous situation.

Finally it is important to underline that there is no way to become addicted to *ayahuasca* through the traditional way of ingestion. We have never found a single person that can recall an addiction, and we ourselves have interrupted our sessions for several months without experiencing any withdrawal symptoms. This gift can be considered as a given. It has been constantly verified without exception with all patients and healers.

4. The Takiwasi Project

Since 1986, in the midst of a region of high production and consumption of drugs, a team coalesced around the association of a doctor and a folk healer, with the purpose of developing a therapeutic alternative which was efficient, not costly, and adapted culturally. With local available resources, this connected modern medicine with the empirical knowledge of the Amazonian healers.

Genesis of the project

We have designed drug addiction treatments with the help of traditional medicine literature and the observation of local healers. This treatment combines the use of Amazonian medicinal plants and modern medicine and psychology. We have applied this treatment to alcoholics and

the cocaine paste consumers who are very numerous in this coca producing area. Thus we have been able to improve indigenous healer's therapy, and evaluate it with patients in a difficult context, with poor facilities and short staff. Facing the interest generated by this original insight, a systematic plan needs to be implemented to consolidate the therapeutic procedure. The pilot operation, the *Takiwasi* center, also serves as a model, within the regional network of anti-drug addiction efforts. The project has been in operation three years and has a team with therapeutic and research capabilities, as well as an infrastructure. The *Takiwasi* center is legally a Peruvian association. It fits well into the institutional fabric of Peru and its policy regarding health and the fight against drug addiction.

The extent of drug addiction, as well as the ecological destruction process, has focused the world's attention on the Amazon basin. Located at the core of these problems, the *Takiwasi* center for drug addiction rehabilitation and research on traditional medicines is in effect a pilot project. It pulls together modern medicine and traditional medicine, basic and applied psychoclinical research, and staff with diverse backgrounds and nationalities, who's concerns include therapy, ecology, science and humanism. Relying on the therapeutic armament of both modern and traditional medicines, *Takiwasi* has undertaken a fundamental, and applied research on the contribution that traditional medicines can make toward addiction rehabilitation in order to define the therapeutic alternatives and to adopt preventive measures. This has allowed us to introduce the use of medicinal Amazonian plants into the protocols of detoxification and rehabilitation from chemical dependencies and to test techniques on a small scale. Finally, we have established a structure which is able to receive and treat Peruvian addicts, and where research results can be applied and evaluated.

We refer, then, to a pilot center, unique within its type, situated at the intersection of two cultures (Western and Andean-Amazonian) and of two medicines. It has scientific and humanitarian objectives that are: not-for-profit, non-political, not religiously affiliated, and not oriented toward coercion or coaction in treatment. *Takiwasi* will also stimulate the interest in economic and health solutions that are tailored to local resources, respectful of the natural environment and of the cultural traditions.

Current objectives

To find a therapeutic alternative to drug addiction is the general objective of *Takiwasi*. The specific objectives of this project are the following:

- To propose an alternative therapy to the problem of drug abuse which would be faster, less costly, more efficient and adaptive to countries in the northern hemisphere.
- To explore the botanical resource of the Upper Amazon in order to save botanical species in process of extinction, particularly medicinal plants; to evaluate the possibility of substituting coca plantations with medicinal plants; to protect Amazonian ecology.
- To preserve a traditional body of knowledge and consequently contribute to enrich our knowledge with the empirical know-how of Amazonian shamans and healers.
- To offer a treatment center to drug addicts in the area where cocaine paste is produced as well as urban zones in Peru, for residents and out-patients.

- To clear the way for fundamental and applied research by providing a better understanding of only partially understood cerebral and psychic functions, such as memory and intuition. To participate in the formation and training of local specialized therapists in the treatment of addiction, relying on local resources, (material and human), particularly on the usage of medicinal plants.

5. The Treatment Process for Drug Addiction in Takiwasi

Takiwasi functions both as a residential center for the required seclusion for consumers of cocaine paste and as an ambulatory day-center for the follow-up of out-patients. The patients must take an active part in this treatment through a sharing of domestic chores, animal husbandry, plant cultivation, building and various crafts. This ergotherapy allows the Center to be self supporting, to some extent. The fees are proportional to each patient's financial resources. The center is open, meaning that there are no coercive methods to retain the patients. The initial commitment must be willful and intelligently accepted and should show up in the daily attitude and behavior. The patient does not need to run away from the center, but simply to state their will to the therapists. After the evaluation of the motivation and particular situation of the patient an exit is given upon request, in which case readmission is not allowed.

The treatment is based on the use of purgative and psychotropic plants: *Ayahuasca*, *Yawar panga* (*Aristolochia dydima* S. Moore), *Chacruna* (*Psychotria viridis*), *Chiric sanango* (*Brunfelsia Grandiflora* D. Don - colored pinetree seeds). They are used in two steps: The first step is the physical detoxification (reduction of withdrawal syndrome). It is faster and less difficult taking 5 to 10 days. The second step takes more time. It is the psychological detoxification. Psychotropic preparations, used in a traditional and ritual way, enable one to bring back to consciousness elements that were buried in the unconscious, stimulate dream activities, facilitate memory and open individual attention to the external world. The psychological treatment enables the permanent elicitation of the psychological material, subsequently elaborated and steadily metabolized through therapeutic interviews, psychodramas, body expression, music therapy, breathing. We point out three phases of treatment: organic, with a duration around two months; psychological, with a variable duration of several months; and spiritual, continuing up to the exit.

The first step is physical detoxification, which covers from the time of admission of the patient in the center until two months. There is a previous evaluation of his biography and motivation. To be accepted it is mandatory for the patient to acknowledge his addiction, and to have the desire to be healed. After a couple of interviews where the patient gets the basic information about the method of treatment and gets acquainted with the center, we then initiate the phase of organic cleansing by administering a light purgative made with coconut water, magnesia and a popular commercial product made of sodium bicarbonate and tartaric acid. After that, we follow with a speciality of *Takiwasi*, the *Yawar Panga* plant (*Aristolochia dydima* S. Moore) to induce vomiting. This period of waiting (eight days) outside of the center is important for testing the motivation of the patient to leave drugs, and simultaneously avoiding an early run away from treatment. All patients pass a thorough physical check up for any possible health problem: clinical history, hemoglobin, alkaline phosphatase, urea, HIV.

The patient signs a commitment to respect the rules and regulations of the center. The family

should help *Takiwasi* morally and financially, in relationship to their resources. The first ten days the patient lives in the isolation ward, which is not necessarily locked. During this time the patient is not allowed either to go out of the ward nor to speak with other patients. It is the period of the withdrawal syndrome and the purpose of this ward is to help the patient to resist the strong desires for the drug manifested in nightmares, insomnia, dreams of consuming cocaine paste, anxiety, vegetative symptoms. Also manifested are new symptoms, hidden by the drug, or a worsening of old ones: allergies, dental aching, asthma, stomach ache, lung problems, and skin infection. During this period the patient takes an oil cure to cleanse the gall bladder, and if his state is good enough, he takes another plant, *Camalonga* (*Strichnus* sp.) during eight or ten days. During the period of *Camalonga* diet, sweets are prohibited. The first encounter with the tools and techniques of traditional medicine is completed with practices of blowing tobacco smoke (*sopladas*), plants bath, and massages to manage the level of anxiety. The blowing of tobacco smoke is a Pan-Amazonian healing practice consisting in charging a liquid or object with the shaman's energy and using chants or *ikaros* in order to harmonize the patient's energy. It is used when the patient feels tension, anxiety, or when there are changes in body's temperature or when there are sleep alterations or any other energetic turmoil.

First month

Once the isolation period is finished, the patient integrates with the other companions, fully participating in the center's activities such as music therapy, meditation, *ayahuasca* sessions once a week, ergotherapy. During the first month communication with the family is not allowed, and the patient cannot leave the center. To manage the anxiety there is a frequent use of blowing tobacco, and the preparation of teas and infusions of relaxing and depurative plants such as *Valeriana* and *Malva*. During the first two months, daily sauna is encouraged. Sometimes the patient needs some specific treatment for parasites, or anemia, although a balanced dietary intake is enough in most cases to treat anemia. After completing the first month there is another medical check up.

Second month

During the second month there is a notable physical enhancement. The body starts to become healthier, with more weight, hemoglobin at normal levels, hepatic function almost recovered, etc. Parallel with this biological normalization is a decreased frequency and intensity of the dreams about cocaine paste. However, the cocaine paste smell still is perceived in their dreams, producing stress and tension. At the moment, the patient remains “hooked” to the cocaine paste. The treatment becomes more personalized, since every patient may have specific needs that have to be dealt with. For that reason, it is very important for the patient to feel the presence and the company of the therapists. However, there may be excessive demands on attention, or even a clear or covert intent to manipulate. A delicate balance between caring and the required firmness is necessary. Any excuse or pretext may act to trigger the desire for the drug, and therefore to impel the patient to the street again. Finishing the second month, the patient feels much better, to the point of asserting that he is already healed, and asks for the exit. It is important to make the patient conscious about the cause of his addiction and the role of *Takiwasi* in the solution of the problem. The issue is a vital one and very important. It isn't only fighting against the drug, but a true reorientation of his life and the seeking of transcendence. We celebrate a little party of congratulation to mark the importance of successfully finishing the first two month-phase and overcoming the withdrawal syndrome, and

the physical deterioration, and to reinforce one's will for permanence in and adaptation to the group.

Third month

From the third month on they can receive family visits. It is interesting to observe how frequently they ask to see their mothers. Usually it is the first person they want to see, even among married people with children. This could be interpreted as a strong maternal liaison and a sign of dependency. They should learn to let go of the dependent child and learn to be responsible fathers.

In this month they make the first diet. To diet in the Amazonia means not only following dietary restrictions, such as the abstinence from sugar, salt, meat, chile, but also a retreat in complete isolation into the jungle while taking a particular plant suited to the patient. The therapist, usually the folk healer, gives him the plant and feeds him once or twice a day. The chosen plant depends upon the personality structure of the patient and the goals of the therapists: some plants are indicated for connecting with emotions and childhood memories, others to strengthen a proper attitude, still others to break some resistances. Choosing the right plant is a careful task since a wrong decision can jeopardize the therapeutic process or even to stop it. For that reason a close follow up is necessary, paying special attention to any energetic disturbances that may arise.

After returning from the diet, the patient will continue some dietary restrictions in relationship to the dieted plant. No other plants will be taken during the next fifteen to thirty days following the diet. The rationale for this is the empirical experience that getting out the diet is very sensitive, not only with a sharpening of the senses and mental clarity, but also with some anxiety due the new sensations, previously unknown to the patient, that make him sort of weak and tired.

A common result after the first diet is the reaffirmation of the will of healing. Usually they start talking frankly with the therapists. For the first time there is sincere disclosure: their true intentions when they came to the center, their past wishes of running away, their likes and dislikes about the people and treatment. They come back better adjusted to the group, with a feeling of belonging. Undoubtedly, a diet in the jungle is a challenge for everybody, not only the patients. It is somehow similar to an initiation. They already have their place, or they think so. However, complaints still go on, and there are also small verbal fights and some tension builds up generally with others that have an attitude similar to that of the patient. Generally, there is no physical pain and the dreams are variable, but representative of the relationship with the drug. They may dream of cocaine paste, but with a feeling of something far away, with very little emotion attached to it, and with absence of physical signs, like smell, salivation, anxiety. It is common to dream of someone offering them cocaine paste, but they are able to reject it because they know they are healing.

Fourth month

Making contact with the family opens up a new perspective, requiring thought and planning change in familial relationships for returning home with new rules. Almost all patients pass

through a phase where they insist in the convenience, or necessity, for their families to take *Yawar panga* and *ayahuasca*. They feel that, to some extent, their families are also sick and therefore they should be healed. Many times they get upset because they encourage such family participation but without getting the wanted response. Dreams also change the main subject. Now the focus is around the family and the reencounter. Even those with absent family go through this phase, although slighter. During this period, a deeper analysis of the situation is observed, replacing the drug as the main theme in their life and with a broader perspective. Family relationships and past behaviors are the current subjects. They need less assistance of the therapists for daily life issues and are more independent, with greater problem-solving skills, usually negotiating with their companions.

Fifth and six month

There is a deepening on the previous work made in the past month during the fifth and sixth month. If everything goes right it is noticeable in the patient's expressions and the visible correction of the body's posture. At the same time, *ayahuasca* and music therapy sessions (Grof's holotropic breathing) may reveal a rich material to rely upon. During this time a second diet contributes to speeding up the therapeutic evolution, and to deepening self knowledge. It may include the same plant, but the contents of the second diet are different from the first one. After the second diet, the patients take a pre-exit medical and psychological check up. In practically all cases we observe a complete health restoration. It is remarkable that considering the initial health state and the treatment time, no patient has ever required hospitalization so far. Minor health problems are treated with plants and are usually of short duration. We did not notice any adverse side effects; on the contrary, using the healing plants accelerated the recovery.

At the end of the sixth month of treatment the patient is involved in the clearing up of the affective and emotional relationships with the family. Old memories (in some cases perinatal), identity and sexual evolution, and dependency in the relationship with others, and with life itself are common subjects. Considering that the low self esteem is the common background of the patients, the therapeutic team pays considerable attention to dealing with this situation, helping them to find out, reaffirm, and use their inner values and strengths. That will be the best shield when coming out.

From the seventh month up to the exit

There is a unpredictable moment during the treatment when the patient experiences a qualitative change. This change is accompanied by a shift in the content of dreams and *ayahuasca* sessions, a good refined attitude, even serenity, and the consensus of the therapeutic team. The drug problem is over; there is no affective link with the cocaine paste. The journey on the way out was from the anxiety to the fear, from there to the hate, and now, finally to the indifference. They don't talk much about drugs anymore. Instead, they express worry about their old drug companions and think how to rehabilitate them.

From now on, we notice a variation in the patient's interests, motivations, and behavior. They discover transcendence and their concerns are more abstract. At the same time, the *ayahuasca* and music therapy visions and the dream content are more spiritual, more elevated. It is now that they realize the importance of the transcendence, and they take it as a deep value that gives

them strength or company, not always related to a specific religious cult. It is the acceptance of a perception of the sacred as a superior force. It is interesting to note that at the beginning of the treatment all patients, without exception, had at least an *ayahuasca* session where they could feel very deep inside God's existence, independently of their prior beliefs. However, this experience doesn't necessarily mean its integration in their daily life. Then begins the exit process and the social reintegration, but there is no fixed time to reach this stage. The variation ranges from five to twelve months, no matter the social or cultural environment, time spent consuming cocaine base, or initial physical state. The proximity of the exit starts to build up some anxiety: facing the responsibilities of a new family dynamic, looking for a job, and the always powerful street temptations. We try to coordinate with the family, when possible, the return home. The support and confidence shown by the family is very important for closing the process. The patient needs to be admitted as a new healthy human being, feeling that the others positively value his new status without carrying unnecessary resentment about past mistakes.

The exit

When the therapeutic team reaches an agreement about the patient's status, and he feels good, the exit is given. First, there is a conditional exit and a follow up of variable time. The patient should remain in touch with the center for some interviews, *ayahuasca* sessions, etc. By observing the evolution, several alternatives may be possible: final discharge, ambulatory status, other plants or diets, or even a return to the center. The exit, either conditional or final, is celebrated with a small party to signal the end of the treatment. Therapists, patients, family, and ex-patients congratulate the success of the treatment while having a good time and remembering the evolution of the patient.

6. Deutsche Zusammenfassung

Takiwasi: Die Anwendung des amazonischen Schamanismus zur Rehabilitation Drogenabhängiger

Die Autoren beschreiben ihre Ausbildung bei einheimischen Volksheilern (*ayahuasqueros*) der Lama- und Chazuta-Indios, die mit psychotropen Substanzen arbeiten (Ostperu) sowie den Aufbau einer Klinik in der Stadt Tarapoto. Diese dient der Behandlung von Drogenabhängigen, die ein Vorprodukt des reinen Kokain (*pasta basica de cocaína*) verwenden. Seit 1986 lernten die Autoren in der „Schungeluniversität“, machten Selbsterfahrungen mit einer Vielzahl von psychotropen Substanzen, erlernten die Zubereitungen und werteten die ethnographische und pharmakologische Literatur über *ayahuasca* aus. Sie kamen dabei zu dem Schluß, daß sich die analytische Dichotomie der natur- und humanwissenschaftlichen Ansätze in der Literatur zu *ayahuasca* erst in der Selbsterfahrung auflöst: die pharmakologischen Substanzen erzeugen gleichsam erst den Heiler und Forscher, der die subjektiven und bio-psychischen Effekte beschreiben kann. Die chemischen Formeln und Prozesse erklären in keinem Fall den Inhalt der Visionen und des Erlebens mit und unter den Klienten; bei gleicher Dosierung verlaufen die Sitzungen völlig unterschiedlich und die Teilnehmer reagieren verschieden. Nicht zuletzt vermag der Schamane die psychedelischen Effekte in wenigen Minuten aufzuheben, obgleich sich die Substanz noch im Körper der Teilnehmer einer Heilsitzung befindet.

In der Klinik *Takiwasi* (quechua: singendes Haus) werden Phytotherapeutika der traditionellen Medizin und schamanische Methoden mit solchen der klinischen Psychologie verbunden. Davon ausgehend, daß dem Suchtverhalten der unbewußte Wunsch nach Initiation zugrundeliegt, steht im Mittelpunkt der Therapie der rituelle Gebrauch von *ayahuasca*, der die Sinn- und Visionssuche anleitet. Die Vorbereitung der Klienten geschieht durch eine etwa einwöchige physische Entwöhnung mit Unterstützung von Medizinpflanzen, Diuretica, Emetica, Dampfbädern und Fasten. Die danach zur Verfügung stehende Energie ermöglicht den Klienten die Teilnahme an den die rationale Bewußtseinskontrolle weitgehend aufhebenden *ayahuasca*-Sitzungen und die anschließende Integration der Erfahrungen mittels Techniken der Traumanalyse, der Gruppendynamik etc. Der Klient gilt als sein eigener Heiler, da er durch neue Wahrnehmungsweisen und Erkenntnisse im visionären Zustand selbst seine Situation erkennt, durch kathartische Krisen geht und negative Selbstbilder ablegen kann, während der Therapeut diesen Prozess lediglich unterstützt. Der Begriff Reinigung (*purga*) bezeichnet den körperlichen wie den psychischen Reinigungsprozess. Darüber hinaus ermöglicht der visionäre Zustand erst das Erleben der transpersonalen Sphäre jenseits der individuellen Lebensumstände und -geschichte, wodurch fundamentale Wertorientierungen und spirituelle Einsichten, letztlich "Lebensinn" für den Klienten entsteht. Vor Erreichen dieser Ebene wird ein Klient nicht als geheilt betrachtet.

Dem Gruppenleiter kommt die Funktion eines "Orchesterdirigenten" zu, der vor allem durch seinen Gesang (*icaro*) das Niveau des psychedelischen Erlebens (*mareacion*) steuert oder eine Sitzung mit bestimmten Techniken unterbricht, z.B. indem er Tabakrauch mit anderen Duftstoffen über den Kopf eines Klienten bläst (*soplada*) oder am oder über dem Körper mit dem Mund saugt (*chupada*). Die Autoren betonen als Einflußfaktoren auf das Erleben: (a) die Vorbereitung der Teilnehmer (Diät, sexuelle Enthaltsamkeit), (b) die Verwendung von *Banisteriopsis* mit seinen purgativen Nebenwirkungen, welche z.B. bei der Injektion der reinen Alkaloide oder dem Gebrauch der zu *ayahuasca* analogen Stoffgruppen (*phannahuasca*, vgl. OTT 1994) nicht auftreten, (c) die Kontrolle von Umweltfaktoren (Beleuchtung, Körperhaltungen, Duftstoffe), welche im Einzelfall "Höllen"- oder "Paradies"-Visionen auszulösen vermögen und (d) die Interaktion zwischen den Teilnehmern, von denen während der Sitzung eine "energetische Qualität" abstrahlt. Sie wird von den Teilnehmern einer Sitzung als angenehm/unangenehm bzw. wohlwollend/bösartig erlebt, was z.B. Übelkeit und Erbrechen auslösen kann. Dieses von SHULGIN & SHULGIN (1991) als *hitchhiking* bezeichnete Phänomen wurde von den Autoren auch bei Tieren beobachtet, die sich den jeweiligen Teilnehmern nähern und vor anderen fliehen.

Die visionären Inhalte sind gekennzeichnet von (a) extremer Variabilität, (b) Unvorhersagbarkeit, (c) Einzigartigkeit und Kollektivität der Erfahrung in der Gruppe, (d) Erkennen vorbewußter Wahrheiten (*revelations*), (e) Veränderung des Zeitgefühls (*mythische Zeit*), (f) Bewußtseinsklarheit, (g) Kohärenz des Erlebens, (h) divinatorischen Erkenntnissen z.B. über biographische Details der Klienten, die später verifiziert werden konnten und (i) Auswirkungen auf das Alltagsleben, z.B. Veränderungen in Partnerschaft, Beruf, Lebensstil.

Der Behandlungsprozess im *Takiwasi-Projekt*: Nach der Auswertung der Biographie und der Motivationslage, körperlichen und Laboruntersuchungen folgt die Entgiftungsphase (1./2. Monat). Hier werden purgative und psychotrope Pflanzen eingesetzt wie z.B. *Yawar panga* (*Aristolochia clematis* L.), *Chacrana* (*Psychotria viridis*), *Chiric sanango* (*Brunfelsia grandiflora* D. Don). Während der ersten zehn Tage lebt der Klient auf einer Isolationsstation ohne Erlaubnis zum Ausgang, er erhält Massagen, Heilbäder, Tabakraucherungen. Danach nimmt er am übrigen Angebot teil wie z.B. Meditation, tägliche Sauna, Musik- und

Arbeitstherapie und der wöchentlichen *ayahuasca-Sitzung*. Ein Fest für den Klienten und eine Gratulation beenden diese Phase. Ab dem 3. Monat kann der Klient Besuche empfangen, wobei oft eine enge Mutterbindung sichtbar wird. Es folgt nun unter Aufsicht eines einheimischen *ayahuasquero* eine einwöchige Isolation in einer Dschungelhütte mit Ernährungsbeschränkungen und der Einnahme eines Heilpflanzensuds, der z.B. emotionale Widerstände abbaut. Die Sinneswahrnehmung und die Sensibilität für neue Situationen ist nun deutlich erhöht. Im 4. Monat kommt es häufig zu tieferen Einsichten in die Lebenssituation und der Erkenntnis, daß auch die Familienmitglieder gestört sind, sowie zum Wunsch, diese möchten sich den Reinigungen mit *Yawar panga* und den *ayahuasca-Sitzungen* selbst unterziehen. Im 5.16. Monat zeigen sich bei günstigem Verlauf deutliche Veränderungen in der Mimik und Körperhaltung der Klienten. Durch eine zweite Isolationsphase wird der therapeutische Prozess beschleunigt, die Klärung der affektiven Bindungen zur Familie sowie alter Erinnerungen zur Identitäts- und zur sexuellen Entwicklung stehen im Vordergrund. Therapeutische Effekte zeigen sich häufig im Wandel der Traum Inhalte in Richtung auf transpersonale Inhalte, die frühere Bindung an die Suchtstoffe ist beendet. Mit dem Näherrücken der Entlassung (zwischen 6. und 12. Monat) gewinnen Fragen der Arbeitssuche und die Klärung der Reintegration in die Familie an Bedeutung. Nach einer vorläufigen Entlassung während der der Klient noch in Kontakt zum Zentrum steht, folgt eine probeweise Entlassung und ggf. die endgültige Verabschiedung mit einem Fest, an dem Therapeuten, Familienmitglieder und frühere Klienten teilnehmen.

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