DR. JACQUES MABIT²

Introduction

I would like to express myself here as a doctor, practitioner of allopathy and naturopathy on the one hand, and practitioner of traditional Amazonian medicines since 1986 on the other. This dual training and function respond to the predictions of the indigenous people of the Andes who announced the necessary emergence of the chakaruna, the "bridge men", in our time, responsible for establishing the junction between the two worlds, two universes of thought and understanding of the world.

Traditional medicines, a substrate in the field of health of ancient and complex cosmogonies, are endowed with practices, practitioners and products. That is to say, they are true sciences producing knowledge, capable of dynamism in the investigation of new therapies and possessing systems of knowledge transmission. This body of knowledge, generally unwritten, which surrounds the practices and builds them up, cannot be reduced to simple empirical recipes. The modified states of the psyche which often accompany the initiation of traditional practitioners make master healers true experts in the field of consciousness, where the Western approach is still in its infancy.

The challenge in the scientific approach to traditional medicines is to try to avoid reducing them to the use of plants and these to simple objects of study for pharmacology (molecules and active ingredients) as well as to avoid the socio-anthropological reductionism that would like to contain them in the game of interpretations and representations (symbolic, metaphorical...) whose objective foundation matters little.

The position of the pharmacologist and the anthropologist does not place them in front of the suffering patient, in the practical and concrete dynamics of care, with a requirement for an effective therapeutic response. This economy of the therapeutic outcome derives from an external and distanced view specific to their discipline, which distances them from the clinical field. It is the doctor, the therapist and the traditional practitioner who are called upon to ensure this junction and to speak from the experience of the sufferers that they share and to whom they must respond effectively.

Pharmacognosy and even ethnopharmacology adopt a bioscientific perspective to evaluate traditional medical practices, failing to take into account broader complexities such as the plant as an acting living being or the considerations of traditional practitioners in relation to the invisible world which are expressed in their ritual practices, considered by scientists as spiritual or religious in nature, therefore not strictly medical, and at best concerning the psychological field.

However, while in the indigenous conception the spiritual dimension transcends and covers the psychological dimension, in modern Western thought, on the contrary, the psychological dimension

¹ Opening Conference of the 1st International Conference on Traditional Medicine. One Health – Traditional Medicine (OHTM), Traditional knowledge and practices in the face of current challenges in health, research and development and sustainability sciences, October 18-19-20, 2023, Cheikh Anta-Diop University, Dakar, Senegal. Published in French in "Knowledge, challenges, research and development of traditional medicines today", edited by Jean-Yves Moisseron & Ouidad Tebbaa, Editions MA-ESKA 2025, pp. 21-40.

² Medical doctor, founder of Takiwasi Center, Peru <u>www.takiwasi.com</u>

attempts to account for what is qualified as spiritual, by designating it as a subjective by-product of the mind or the result of neuropharmacological mechanisms.

The key point of this difference in conception is centered on the objective existence or not of the invisible world, inside and outside of humans, in particular with regard to the nature of non-humans (spirits, entities): metaphorical (representation) for some and real (present) for others. The ontological existence of spirits constitutes the essential obstacle of this major dilemma.

It is therefore from our clinical practice and the observed results that we propose to examine examples of "breaking points" between the practices and the Westernized vision of care and those of traditional Amazonian medicines, ultimately quite general to traditional medicines around the world. We will address the issue of plant extracts versus the totum of plants, the concept of the single body versus that of multiple bodies, spirits or beings of nature, and finally the reality or ontological existence of spirits.

1. The Takiwasi Center experience

Takiwasi, Center for Drug Addiction Treatment and Research on Traditional Medicines, was founded in 1992, after 6 years of field research and self-experimentation with healers of the Peruvian Upper Amazon. Located on the outskirts of the city of Tarapoto, it welcomes local, national and international drug addict patients for a therapeutic process, in residence for a period of 9 months. The Takiwasi Center is officially recognized in Peru as a Health Center by the Ministry of Health.

The therapeutic model was developed from data and experiences with local traditional practitioners, mainly from the Kichua Chazutino indigenous group, on the Huallaga River, a tributary of the Amazon. It has been enriched over time with contributions from traditional indigenous and mestizo medicines from other parts of the Peruvian Amazon (Lamas, Iquitos, Puerto Maldonado, Pucallpa, Yutupis, Atalaya), from other regions of Peru (Coast and Andes), from Amazonian ethnic groups from neighboring countries (Siona and Inga from Colombia, Tsáchilas and Shuar from Ecuador, Piaroa from Venezuela, Aymara from Bolivia), from Latin American countries (Brazil, Chile, Argentina, French Guiana, Suriname, Mexico, Guatemala) and also from explorations of practices and places of healing and sacred ritual in various parts of the world (France, Syria, Israel, Tunisia, Burkina Faso, Benin, Gabon, Sao Tome and Principe, Mongolia, Siberia, Indonesia, India, Bangladesh, Philippines, Thailand, Rapa Nui, Tahiti, New Caledonia, Lifou, Australia).

The therapeutic protocol attempts to articulate traditional knowledge with certain contributions from Western psychotherapy, allopathic medicine and alternative medicines. The therapeutic team therefore includes doctors, psychologists, psychotherapists and traditional practitioners. Some Western professionals, after extensive training, simultaneously exercise a role as caregivers in traditional medicine practices. This is particularly the case for the Director of the Center, a psychologist by training, and the Executive President, a doctor by profession.

In addition to the main activity of drug addiction treatment, the Center also permanently welcomes, on an outpatient basis for short stays, people of all origins who have mental health problems or demonstrate a need for support to face existential difficulties.



The practices of Amazonian medicines are based in particular on the induction of modified states of consciousness (MSC) through the ritualized use of psychoactive plants or beverages, the best known of which is ayahuasca. This represents a key element of the innovation of Takiwasi's therapeutic proposal. The expertise of Amazonian healers in this area allows the exploration of the unconscious underpinnings of drug addiction, without causing any type of dependence or constituting a form of substitution for drug consumption (Politi, Friso & Mabit, 2018, 2019; Mabit, 2018)

As a result, the semantic dimension (what makes sense) or spiritual dimension constitutes a central axis of Takiwasi's treatment based on the transpersonal (or even mystical) experiences lived during the ritualized taking of plants in its various modalities (purges, diet-retreats in the jungle, ayahuasca sessions). The ritualized induction of alternative states of consciousness aims to address the search for meaning in life and thus reduce the levels of anxiety and depression.

In the Takiwasi addiction treatment protocol, spirituality, faith, and experiences of other dimensions of reality act in synergy with indigenous spirituality and cosmogony linked to the use of traditional medicine (Dubbini et al., 2020a, 2020b). After finishing thetreatment, patients show a more affirmed purpose and meaning in life. Spiritual experience is not automatically linked to religious affiliation. The implication is that the Takiwasi protocol can be beneficial even for patients who reject Christianity and its tenets (predominant in the local culture), or religion in general (O'Shaughnessy, 2017).

Takiwasi therefore constitutes a pilot experiment in establishing a bridge between Western scientific knowledge and traditional knowledge, intended to resolve issues of addiction, and more broadly existential and mental health disorders.

For the consolidation, evaluation and analysis of this model, the Center has set up a research department that welcomes students and researchers, carries out investigation protocols, and produces research work and scientific papers. The themes embrace both the exact sciences and the social sciences³.

To improve the evaluation of our therapeutic proposal and contribute to the understanding of addictions in a broader perspective, Takiwasi has standardized its institutional processes by creating a computerized system for the collection, management and storage of therapeutic and clinical information called Plus (Saucedo et al., 2018). This instrument creates favorable conditions for independent researchers who turn to Takiwasi to carry out scientific studies of the highest quality on the use of Amazonian plants in a therapeutic context.

A laboratory for the development of natural products from Amazonian plants supports various research, provides the products necessary for care, and offers indigenous populations (Kichua, Awajún and Wampis) the possibility of developing their own products, establishing their own patents, and protecting Amazonian biodiversity. The sustainable development and fair trade projects are in line with the logic of the Rio Protocol of the United Nations Conference (1992)⁴ in order to



³ Between 1997 and 2022, 110 studies were published by researchers external to the Center.

⁴ RIO DECLARATION ON ENVIRONMENT AND DEVELOPMENT, PRINCIPLE 22: Indigenous peoples and communities and other local authorities have a vital role to play in environmental management and development because of their environmental knowledge and traditional practices. States should recognize their

compensate indigenous populations for their contribution to the health of the populations. In this same spirit, Takiwasi develops projects to support indigenous youth for their training, from an orphanage for Awajún children in the community of Yutupis in Rio Santiago district, to higher education for those who have the capacity but do not have the necessary economic means.

The dissemination of this model and this strategy are reflected by a written and audiovisual communication service, the organization of meetings and conferences, publications⁵, and the establishment of training spaces.

2. Model validation

In the field of addictions, traditional medicine has proven to have much more effective resources than Western medicine. The Esketemc Indians of the Alkali Lake Reservation (Canada) had a 90% alcoholic population in the 1980s. The recovery of their rituals, spirituality and values has allowed this rate to be drastically reduced to 10% in just 10 years (Bopp & Bopp, 2011). Peruvian psychiatrist Mario Chiappe (1974) studied the traditional treatment of alcoholics on the northern coast of Peru. He observed that five years after being treated, more than 60% of these men were no longer alcoholics (Chiappe, 1968). The Pan American Health Organization-PAHO published this research (Chiappe, 1976). In Thailand, in the Buddhist monastery of Tham Krabok, for over 50 years, healing monks have been treating heroin addicts (over 2,000 per year) with impressive results (Mabit, 1993). In Brazil, psychiatrist Svetlana Vasconcelos coordinates the treatment of drug addicts with the master healers (*pae de santo*) of Candomblé, an Afro-Brazilian ritual that incorporates trances of "possession" by gods.

Since its beginning of operation, the Takiwasi Center has been continuously evaluating its activities, its patient population, and the results of therapeutic interventions (Giove 1996, 2002; Mabit, 2007; Mabit & González, 2013) in order to constantly improve its model. The study published by Dr. Rosa Giove in 2002 shows that in a group of 100 former patients contacted two years after leaving the Center, the healing rate is 54%, reaching 67% if we only consider patients who have completed treatment (average duration of 9-12 months) and received discharge approval from the therapeutic team.

However, to avoid the bias of self-evaluation and to meet the economic and technical requirements of high-level scientific research, we have sought to involve external and independent researchers. The need for scientific research on the data recorded in our Center and the validation that results from their publication, has led us to participate in a growing number of research works in collaboration with academic institutions of world excellence such as the Center for Addiction and Mental Health



identity, culture and interests, give them all the necessary support and enable them to participate effectively in achieving sustainable development.

⁵ As of June 2022, Takiwasi's researchers have published a total of 65 journal articles (as lead or co-authors), contributed to 39 full-chapter publications, delivered 22 lectures at international meetings, disseminated 40 articles online, and published 10 books.

(CAMH) of Canada and the University of Fribourg in Switzerland, to name a few. Currently, more than 70 research theses for degrees or masters have been published⁶.

Here we want to summarize some of the most remarkable results, recorded in academic publications, which highlight the effectiveness of the protocol and validate the proposed mixed therapeutic model.

2.1. Takiwasi Patient Profile and Severity of Addiction

It has been suggested on occasions that Takiwasi's good results could be attributed to the fact that it welcomes a population of less serious drug addicts, with less time and quantity of consumption, without psychiatric comorbidities, without previous internments. Research conducted to define the severity of addiction of Takiwasi patients shows quite the opposite.

Upon arrival, the average patient is highly stressed, with significant levels of desire to consume, in a state of poor physical, mental and emotional health, involved in social and family problems and has difficulty in finding meaning and purpose in life. Comparing the Addiction Severity Index A.S.I. scores of Takiwasi patients with a sample of drug addict patients from the United States, we observed that, on average, Takiwasi patients present a comparatively more serious problem in the psychiatric and drug use domains (O'Shaughnessy et al., 2021).

The Takiwasi treatment model attracts a heterogeneous group of patients that is not limited to locals. Takiwasi receives patients from Peru (42%), other Latin American countries (34%), and North America/Europe (24%) (Berlowitz et al., 2020). Patients mainly suffer from dependence on cannabis (72%), alcohol (52%), cocaine/PBC⁷ (48%), and other substances. Several studies have shown how the use of multiple substances or polydrug addiction is a common feature of Takiwasi patients, affecting 84% of them (O'Shaughnessy, 2017; Berlowitz et al., 2020).

The variety of origin of the patients indicates an adaptability of the model to people of a great diversity of social level and cultural context, as well as very different types of consumption. This plasticity of the therapeutic protocol allows the Amazonian peasant consuming PBC to cohabit for several months with a professional of urban origin consuming cocaine, and with a young European getting out of a delirious episode induced by cannabis.

Common reasons for selecting our treatment program include: interest in Amazonian medicine, the innovative concept of treatment at Takiwasi, previous adverse experiences with conventional treatments, desire for self-transformation, and spiritual/existential motivations (Berlowitz et al., 2020). However, this "average patient" profile falls short when describing the differences between each patient and their respective life stories. Many patients have tried multiple conventional treatments before arriving at Takiwasi, which is often considered a last (sometimes desperate) resort, suggesting a certain severity of addiction in patients who come to the Center (O'Shaughnessy, 2017).

In an evaluation study of the Takiwasi program, the authors confirm that there is an underexploited opportunity to develop innovative therapeutic approaches for addictions based on the



⁶ <u>https://takiwasi.com/en/investiga04.php</u>

⁷ Pasta base de cocaína.

complementarity between modern and traditional health systems, and conclude their research by stating that the Takiwasi program is an option for people who seek unconventional treatment, are open to the practices of traditional Amazonian medicine and wish to explore the roots of their addiction (Mendive et al, 2023).

2.2. Efficacy in the treatment of drug addiction

Several studies conducted at Takiwasi in recent years by independent researchers have shown significant improvements during and after treatment completion across a wide range of factors examined (Berlowitz et al., 2019; O'Shaughnessy et al., 2021), including addiction severity, physical health, emotional health, depression, anxiety, and craving.

At the end of treatment, patients show significant decreases in addiction severity: drug use, alcohol use, psychiatric status, and social/family relationships. Emotional stress also decreases significantly, as does craving. In contrast, perception of quality of life increases significantly (Berlowitz et al., 2019). These trends are shown in *Figure 1* below.

There are also significant improvements in neuropsychological functioning. Furthermore, it is noteworthy that all these changes appear early in the course of treatment and are maintained over time (O'Shaughnessy et al., 2021).

These results provide clear indications of the effectiveness of using traditional Amazonian medicine in the protocol developed by Takiwasi for the treatment of addictions.

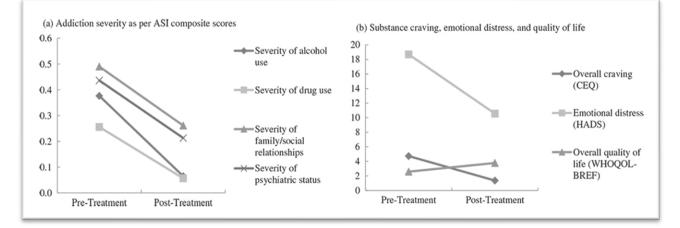


Figure 1.

2.3. Efficacy in the treatment of depression and anxiety

ATOP (Ayahuasca Treatment Outcome Project) is an international research project that has been developed from 2016 to 2022 by collecting data on Takiwasi patients with the aim of validating the effectiveness of traditional Amazonian medicine in the treatment of addictions (Rush et al., 2021). It

www.takiwasi.com Centre de Réhabilitation de Toxicomanes et de Recherche sur les Médecines Traditionnelles E-mail: <u>takiwasi@takiwasi.com</u> Tel. +51 942023915 Prolongación Alerta № 466, Tarapoto – Pérou



was developed by a multidisciplinary and international research team that included contributions from several countries in the American continent and was led by Dr. Brian Rush, from CAMH in Toronto, Canada.

The ATOP project is now in the analysis phase of the results of more than 100 patients evaluated with follow-up up to one year after therapeutic discharge. The task is to integrate quantitative data related to the severity of addiction, comorbidities, quality of life, etc., with qualitative information that collects the experiences of patients before, during and after treatment, identified by themselves as significant in their personal recovery process. The challenge is great and at the same time motivating because of the possible implications that this research can have at the level of public policies so that proposals for alternative treatments for addictions are accessible to the greatest number of people. The first conclusions confirm a study previously developed at Takiwasi and linked to ATOP which shows that the Takiwasi treatment model is very effective in treating depression and anxiety (Giovannetti et al., 2020), which often go hand in hand with addiction, thus confirming what has already been suggested in other studies. The change of the group between the beginning and the one-year follow-up is positively significant in terms of severity of alcohol and drug use, depression and anxiety, and some dimensions of quality of life. The spiritual and therapeutic significance of the ayahuasca experience was considered very important (Rush et al., 2023).

At the end of treatment, Takiwasi patients show a significant reduction in mean scores for anxiety (from 20.8 to 11.6) and depression (from 18.7 to 7.5) as reported in *Figure 2*. At treatment entry, 38% of patients had moderate to severe depression and 61% had moderate to severe anxiety. At the end of treatment, scores for both dropped drastically and 87% of patients had minimal levels of depression, while 81% had minimal levels of anxiety, which is considered common for people in normal health. Notably, patients with opioid dependence showed the greatest reductions in depression and anxiety scores.

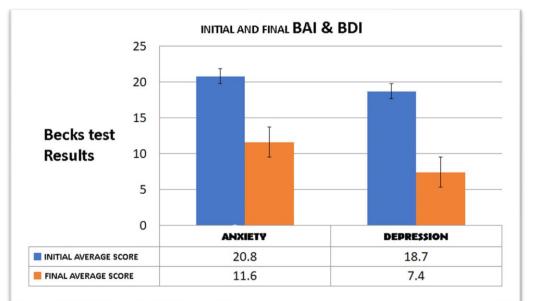


Figure 2.

www.takiwasi.com Centre de Réhabilitation de Toxicomanes et de Recherche sur les Médecines Traditionnelles E-mail: <u>takiwasi@takiwasi.com</u> Tel. +51 942023915 Prolongación Alerta № 466, Tarapoto – Pérou



takiwasi

2.4. Improving quality of life and spirituality

The importance of the spiritual dimension including "symbolic death" and its initiatory effect had been previously highlighted in qualitative studies conducted by Anne Denys on the Takiwasi model (Denys, 2013).

Several other more recent studies record a significant improvement in scores related to quality of life and spirituality in Takiwasi patients (Berlowitz et al., 2019; Giovannetti, 2020) as shown in *Figure 3*. Moreover, quality of life and spirituality scores are generally positively correlated with a reduction in depression and anxiety. In other words, patients with the highest score increases in the dimensions of spirituality and quality of life tend to show the strongest improvements in measures of depression and anxiety. Another study shows that the same positive correlation occurs between improved spiritual/religious well-being and reduced craving (O'Shaughnessy et al., 2021) as evidenced in *Figure 4*. All of these are generally important indicators of treatment success and also in relapse prevention.

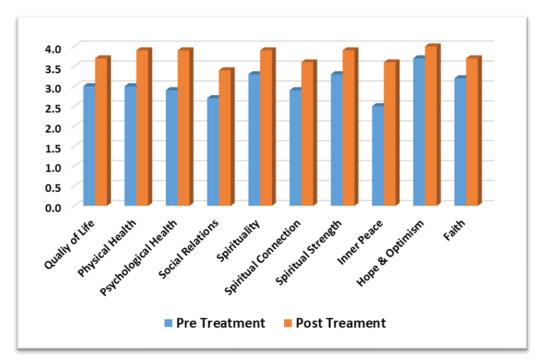


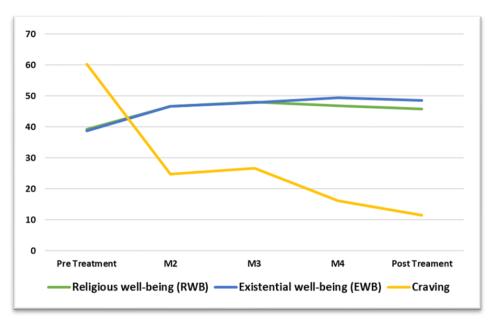
Figure 3.

www.takiwasi.com Centre de Réhabilitation de Toxicomanes et de Recherche sur les Médecines Traditionnelles E-mail: <u>takiwasi@takiwasi.com</u> Tel. +51 942023915 Prolongación Alerta № 466, Tarapoto – Pérou



Some conceptual obstacles in the dialogue between traditional medicines and Western medicine





In psychological interviews, patients value different aspects of the treatment and this varies from person to person, but in general, many patients speak very positively about traditional master plant diets that are considered by therapists themselves as the key element for structural change in the person (Berlowitz et al., 2018).

The ability to develop a certain resistance to stress over time is another observed result and corresponds well to the way patients tend to talk about the treatment (O'Shaughnessy, 2017). They often describe it as a kind of "training" where they prepare themselves again to face the world. They test their ability to build a better life for themselves: "*It's like a football match. Here it's training, but outside it will be the official match*". In fact, Takiwasi considers itself more of a "school of life" than a simple treatment center.

3. Obstacles or conditions for dialogue

The interaction between traditional medicines and Western science, established around the Takiwasi project, has revealed a series of obstacles in the conceptions of these two paradigms, places of incomprehension, misunderstandings and sometimes a real dialogue of the deaf. The clinical results reported previously allow us to affirm that, in the approach proposed by Takiwasi, some of these obstacles have been relatively well identified and that they have been able to be overcome by an open and coherent strategic approach.

It would certainly be pretentious to claim a perfect understanding and an exhaustive identification of the "knots" where the possible ruptures in the dialogue between the agents of Western medicine and those of traditional medicine crystallize. Especially since these are not homogeneous constituted



bodies free of internal divergences. However, we believe we have identified key points that contradictorily support their reciprocal approaches to reality, illness and health. Without taking into account these conceptual structures underlying care practices, these two universes, foreign to each other, can hardly come together for a fruitful exchange. Highlighting these ideological foundations is all the more necessary since they are generally unconscious, carried by the cultural and social context, transmitted non-verbally, as if by a sort of progressive osmosis and rarely formulated in a clear and concise manner. They thus serve as indisputable truths on both sides. The mutual questioning of this perception of the world requires an authentic desire to reach out to others and understand them, the overcoming of deep fears, the renunciation of claims to absolute knowledge and the power that this knowledge is likely to provide.

This approach requires a priori respect for the knowledge of others, even if it initially seems incomprehensible. The WHO has taken this difficulty of incomprehension into account, from its first attempts to define traditional medicines, still in force in the document on the "WHO Strategy for Traditional Medicine for 2014-2023": traditional medicine is defined there as "the sum total of knowledge, skills and practices based on theories, beliefs and experiences specific to different cultures, whether explicable or not, used for the maintenance of health, as well as for the prevention, diagnosis, improvement or prevention" and treatment of physical and mental illnesses⁸. What seems incomprehensible is rather a marker of the limitation specific to understanding: Chinese is incomprehensible only to those who do not speak it.

In the academic context in which we are speaking, and therefore dominated by the Western model, we will focus our attention on some main propositions coming from traditional medicines and which represent obstacles in dialogue and mutual understanding.

3.1. Medicinal plants

Traditional medicines almost universally use so-called medicinal plants. Western botany identifies and classifies them, and chemistry analyzes them, with the almost exclusive aim of detecting the so-called active ingredients and possibly extracting them and producing medicines. Studies generally consider that 70% to 80% of allopathic medicines thus come from traditional knowledge about medicinal plants.

In this process of analytical chemistry, the Western approach leaves aside certain elements of empirical preparations based on medicinal plants, establishing a blind spot in the Western approach to traditional knowledge. These divergences are notable in the classification of plants, extracts compared to the totum of the plant, and methods of preparing remedies.

- Classification

Modern botanical classification systems date back to the 18th century, especially with Carl von Linné, a Swedish physician and naturalist who is known for being at the origin of the

www.takiwasi.com Centre de Réhabilitation de Toxicomanes et de Recherche sur les Médecines Traditionnelles E-mail: <u>takiwasi@takiwasi.com</u> Tel. +51 942023915 Prolongación Alerta Nº 466, Tarapoto – Pérou



⁸ https://apps.who.int/iris/bitstream/handle/10665/95009/9789242506099 fre.pdf

Some conceptual obstacles in the dialogue between traditional medicines and Western medicine

generalization of the modern system of binomial nomenclature. Some authors preceded him, such as the Bavarian physician and botanist Leonhart Fuchs in the 16th century or JP de Tournefort in France at the end of the 17th century. However, it is the Linnaean classification that will be ratified and that lasts until today (the first word is the genus written with a capital letter while the second word is the species within this genus).

This taxonomy creates categories that are based on the relevance of the morphological description of their object of study considered in isolation. In traditional approaches, the identification of medicinal plants takes into consideration not only their morphology and sexual characteristics, but also the context of growth such as the type of terrain (clayey, rocky, sandy, etc.), the altitude and degree of humidity (for example, Lower Amazon or Upper Amazon), the isolation or contact in relation to humans (the ayahuasca vine in close contact with human presence loses its psychoactive powers) and retrospectively even the effects produced by their ingestion (thus there are ayahuasca-sky, ayahuasca-tiger, etc., according to the induced visions).

Thus, identical plants for a botanist may be different for a traditional practitioner, which is a source of misunderstandings between them. Furthermore, the same vernacular name may designate different plants (for example, the word "yagé" may designate in Amazonia, depending on the regions and ethnic groups, *Banisteropsis caapi, Psychotria viridis* or *Diplopterys cabrerana*).

- Extracts versus totum of plants

Western science considers that certain compounds of plants are the true therapeutic agents and therefore calls them "active ingredients". Chemistry is responsible for isolating and extracting them to develop medicines or possibly synthesize them. These pharmacological products often concentrate a single molecule in significant quantities. However, for traditional practitioners, plants contain a certain number of constituents that potentiate and harmonize each other, constituting the totum of the plant, and it is this totum that is therapeutic as a whole and often necessary to avoid toxic or harmful side effects and thus reduce iatrogenesis.

On the other hand, the processes for extracting active ingredients can alter the therapeutic function of plants. Thus, in the galenic preparation by cryogrinding, the concentration of active ingredients is between 3 and 10 times lower than in the plant in its fresh state, depending on its water content. In the method of nebulisates or dry extracts (herbal teas dehydrated using a process similar to that of instant coffee) certain volatile principles, possibly therapeutic, are lost during the process. This difference is also manifested in the fact that plant preparations deflect polarized light to the left (levorotatory) while the synthetic chemical drug is usually dextrorotatory.

For the traditional practitioner, the plant is first and foremost a living being and its dismemberment in the methods of analysis and extraction of active ingredients is seen as examining a dead or mummified plant. This plant corpse cannot account for the vital processes that animate the plant and its remedy, and consequently distorts the therapeutic



effects and possibly makes them toxic or deadly. Let us recall in passing that medical iatrogenesis represents the 3rd cause of mortality in the USA, an underestimated figure since it only takes into account hospital deaths (Makary & Daniel, 2016).

Compliance with the requirements of modern manufacturing of products intended for the pharmaceutical market is thus generally very far from the requirements of traditional preparations. Biotechnologies evacuate ancestral knowledge around the development of remedies by confining themselves to the molecular domain and ignoring the sub-atomic (energetic) and quantum (phenomena of consciousness) dimensions mobilized in the ritual function and certain techniques such as the exposure of the remedy to lunar radiation, for example.

There is therefore not necessarily an equivalence, for the same plant name, between the extract provided by the pharmacist and the preparation proposed by the traditional practitioner.

• Preparation methods

Traditional methods of preparation or pharmaceutical recipes are often overlooked in the scientific literature, even though they are likely to significantly modify the chemistry of the final product. The comparison of traditional and modern practices for preparing medicinal plants was carried out in the field by Takiwasi in relation to preparations from the Peruvian Upper Amazon (Tresca et al., 2020; Politi et al., 2019).

These recipes also include the harvesting conditions which may include the "energetic" state of the harvester (sexual abstinence, absence of menstruation, dietary regimen, for example), the time of day (usually early in the morning), the lunar phase (often in the "rising" moon), the orientation (bark of the tree in the part of the trunk facing east), a ritual offering before harvesting, etc.

For example, some Amazonian plant preparations must be exposed to the moon's rays one night (*serenar el remedio*) to be considered effective by traditional practitioners (Colectivo, 2008). This ethnopharmacology data, supported by empirical validation, should be considered a priori as a certain hypothesis by scientists, in order to take it into account, explore it and finally confirm or deny it. This supposes a reversal of the academic logic which tends to immediately dismiss what does not seem to fit into its schemes and then neglect their study, depriving itself of the possibility of astonishing discoveries. Yet science is not short of surprising discoveries that inspire innovative and bold scientific research, such as the recent demonstration, after an astonishing 67 years since the creation of its theoretical concept by David Pines, of the existence of the elusive "demon" particle – a neutral and massless entity nestled in solids – which was successfully identified in strontium ruthenate (Husain et al., 2023).

Plants reveal every day astonishing potentialities that defy imagination and go beyond the merely molecular and even energetic field. For example, the research of Anna Schouten



takiwasi

(2023) of the University of Chicago suggests that plants, during photosynthesis, achieve, at ordinary temperatures, feats of quantum mechanics, a fifth state of matter known as Bose-Einstein condensate, which scientists can only obtain at ultra-cold temperatures. Exploring traditional medicines, rather than a return to the past, could actually offer an unexpected leap into the future.

An innovative approach that attempts to consider the whole plant is part of a recent discipline, metabolomics, which defines a new paradigm in the field of natural product chemistry (Sumner et al., 2003). Metabolomics deals with the qualitative/quantitative identification of all metabolites present in a crude mixture. It attempts to take into account the fact that plants are living organisms and that their metabolome is constantly changing. These processes open the discussion on the similarities and differences between traditional plant preparations and modern drug preparations (Politi & Pisani, 2014).

3.2. The different bodies

A key obstacle in the interaction between Western medicine and traditional medicine is a different conception of the body.

For Western medicine, there would be only one body, the physical body, while the non-Western traditions recognize the existence of different bodies in the same human being. These various bodies are connected and associated but each have different properties and modes of functioning. The pathology can affect one or more bodies and therefore requires adapted and differentiated care.

On the other hand, the traditional practitioner engages his body(ies) in the care given to his patients and his power or therapeutic capacity will be commensurate with the degree of purification and potentiation of his different bodies (Mabit, 1988, 2020). The sometimes very simple gestures performed by a traditional practitioner are only effective according to the "energies" he masters. These same gestures imitated by a third party without personal work of learning and initiation will have no effect. Without this fundamental data, for a rationalist Westerner attached only to the observation of visible phenomena, this difference in efficiency remains inexplicable and incomprehensible.

It is common in Western medicine for in-depth diagnostic examinations to fail to account for the patient's complaint, in which case it is generally concluded that "the patient has nothing", that it is only a question of suggestion or that he should be referred to a psychologist or psychiatrist as hysterical, hypochondriac, or even delusional. Apart from the fact that there is no demonstration of the phenomenon of suggestion put forward, an easy assertion that often masks ignorance, and the amoral denial of the patient's suffering, these psychotherapeutic responses often prove to be limited and ineffective. In traditional approaches, a differential diagnosis carried out by an experienced traditional practitioner can help to specify which body(ies) is affected and then offer an appropriate therapeutic intervention on this(these) body(ies).

Mapping these different bodies is difficult and complex due to the variety of vocabulary used in various languages and the absence of an academic and systematized presentation in most indigenous



traditions. Without doubt, the cultures of the Far East are those which have described these different bodies most precisely, although confusions of vocabulary are not absent (for example, the "astral" body is understood in very different ways depending on the countries, cultures and traditions).

To this first complexity is added that of the constituent elements of the human being which are not *a priori* corporeal like the soul or the spirit, and which are also found in all traditions, although ignored by Western science. These two words cover different concepts depending on the languages and cultures. The soul is sometimes psychic (in Greek *psique*), sometimes spiritual (in Greek *noos*); the word *esprit* in French sometimes designates the soul (spiritual instance), sometimes the mind (psychic instance), where English distinguishes "mind" and "spirit". In the affections of the etheric body during so-called cultural syndromes such as "*susto*" (fright) (Giove & Mabit, 2022) traditional practitioners specializing in the restitution of the etheric body are called "soul callers" (Hargous, 1985).

We cannot claim to resolve this complexity here, but by taking up the most frequent oriental classifications, of Buddhist and Hindu influence, and on the basis of our experience, we propose classification equivalences in the following way:

Classical Eastern Classification	J. Mabit Classification	
Physical body	Physical body	
Etheric body	Etheric body	
Astral body (emotions)	Emotional body	
Mental body	Psychic body	
Causal body (karma)	Energy body	
Supra-mental or Buddhist body	Spiritual body	
Atomic body (divine nucleus)	Glorious body	

We will use the terms of our classification in the rest of this article.

In the sensible creation, the various creatures are not endowed with the same bodies and only the human being is endowed with a soul (non-corporeal spiritual instance). The 7th body or glorious body would only find its realization after death and therefore does not lend itself to therapeutic interventions, which is why we will leave it aside in the approaches to health.

The correspondence table of the different bodies according to the nature of each creature would be as follows:

Creature	Objects	Minerals	Nature beings	Plants	Animals	Human beings
Body						
Physical	X	X		Х	X	X
Etheric			X	Х	X	X
Emotional					Х	Х
Psychic						Х
Energetic	X	X	X	Х	X	X
Spiritual						X



We will discuss nature beings (gnomes, elves, mermaids, etc.) in the following paragraph.

This reading grid attempts to account for the constants or invariants identified in traditional medicines in all latitudes:

- There is a growing differentiation in nature from minerals to human beings.
- There is a growing differentiation (vibration rate, density, etc.) of different bodies, from physical to spiritual.
- All creatures are endowed with an energetic body, a basic structural community that allows exchanges between them.

This illustration in two coordinates obviously represents only a schematic simplification of a multidimensional reality.

For example, communication between the different bodies is done through the "mediation" of the energetic body, which would be located at the interface of the different bodies. The damage to any body whatsoever is written in the energetic body. Psychosomatics, for example, to be exact, should be called psycho-energetic-somatic. The traditional practitioner or healer equips himself with techniques to "read" the energetic body in order to make his diagnosis and, by intervening on this energetic body, he is likely to reach all the other bodies.

Thus, the Gouro of the Ivory Coast admit, beyond the physical body, the existence of an etheric body on which it is necessary to intervene to obtain healing:

"In order to understand the administration of remedies (...) allowing one to escape death, one must grasp the theory of the person among the Gouro. Indeed, pathology extends not only to the physical person, but also to his invisible double. This, combined with the body envelope, provides vital strength and breath. The therapy will therefore target both the body and its double, the latter being affected in the violation of divine laws and those of the ancestors." (Crosnier, 1993).

The first four bodies, more undifferentiated, physical, etheric, emotional and psychic, are sexed and mortal, therefore different for males and females. The energetic, spiritual and glorious bodies are not sexed and are immortal, they therefore persist after death.

What the Amazonian and Andean traditions call the "spirit" (or mothers, *madres*) of minerals, plants or animals would correspond to their energy body and not to a spiritual body that they do not possess. What we call the consciousness of these elements of nature would correspond to a non-corporeal spiritual instance, a spiritual entity or protective spirit, but does not represent a consciousness specific to this element of nature.

In the exchanges between Western medicine and traditional medicines on the one hand, and between indigenous medicines of different cultures on the other hand, the discourses frequently mix the different bodies between them, and the bodies with the spiritual instances (the soul and the spirits) which we will speak about later. The lack of clarification of this mapping of the bodies on the one hand, and of the spiritual instances on the other hand, gives rise to permanent misunderstandings.

The most frequent usual confusions are:



- Confusing etheric body and energetic body.
- Confusing mind, human intellect or psychic body (reflexive "consciousness") with the spiritual body (own spiritual consciousness). To put it simply, confusing mind and spirit.
- Confusing soul (non-corporeal spiritual instance) and spiritual body (spirit).

It should be noted that the Western Christian spiritual tradition also recognizes the existence of at least three bodies according to the theology of Saint Paul. For every human being, in addition to the physical body, "*if there is a psychic body*" (or "earthly" or "natural" or "animal" depending on the translations), there is also a spiritual body" (1 Cor 15:44). According to our classification, these three bodies of Saint Paul could be subdivided as follows:

- Physical body = material and etheric body
- Psychic body = emotional and psychic body
- Spiritual body = energetic and spiritual body

The physicist from Orsay who became a priest, Jean-Claude Hanus, faced with mystical phenomena such as deceased saints who come into physical contact with clairvoyants, bilocation (Padre Pio, Mother Yvonne-Aimée de Malestroit, etc.), or the multiplicity of out-of-body experiences during near-death experiences (NDEs), wonders whether there might not rather be a "deep body", spiritual, unique and multimodal, given from our conception (Hanus, 2023). The question is asked.

The Christian Tradition closely associates body and soul which are simultaneously created from conception and attempts to clarify the relationships between these two instances of human nature, one visible and corporeal, the other invisible and incorporeal. The soul is not associated with one of the bodies described above but with the heart, understood as both a physical and spiritual organ. Saint Macarius the Great (+ 390) deals with it in this way in his famous homilies:

"The heart governs the whole bodily organism and reigns over it, and when grace possesses the heart, it governs all the members and all the thoughts, for it is in the heart that the intellect and all the thoughts of the soul as well as its desires are found; through it, grace also penetrates all the members of the body." (Chariton de Valamo, 2004).

These thoughts and desires do not come from the psyche or emotions (psychic body and emotional body) but from the soul, as Saint Macarius comments, following Jesus who Himself specifies: "*For it is from the heart that evil thoughts come*" (Matthew 15:19).

Undoubtedly, the classifications and hypotheses posed previously require deeper and more detailed explorations, they only pose essential but sufficient baselines for the purpose of this article. Each body or psychic instances would deserve an exposition of its own characteristics, functions and properties. However, the non-recognition by Western medicine of the existence of different bodies and non-visible spiritual instances makes the dialogue between medicines almost inaudible. Without taking into account these data in the Western approach to traditional medicines, these exchanges are condemned to an impasse.



Nature beings

Nature beings represent a category of beings of sensitive creation, linked to the elements of nature (water-earth-air-fire) and therefore often referred to as "elementals", but even more often and incorrectly, are called "nature spirits". This latter formulation is due to the fact that these beings do not have a physical body, only an etheric body (electro-magnetic envelope) and an energetic body, but it is confusing since it associates them with the entire world of "spirits".

All traditions around the world have recognized the existence of these beings of nature and according to their association with one of the elements of creation, have given them different names while identifying similar characteristics.

- Water: undines, sirens, nymphs, dryads, etc.
- Earth-Forests: gnomes, elves, trolls, sylphs, elves, etc.
- Air: djinns, fairies, etc.
- Fire: salamanders, vulcans, etc.

The list of their various names is endless: follets, farfadets, servans, sottais, kobolds, nutons, matagots, gripets, korrigans, nisses, brownie, gobelins, hobgolins, leprechauns, puck, etc., with multiple regionalisms.

In various traditions, there are generic names grouping these different beings of nature (and sometimes confusing them with demons, divinities, spirits...). This is the case of the Laminak of the Basque Country, the Devas of India, or the Pixies of England.

Western tradition has also recognized their existence, but with rationalism, it tends to transfer them and confine them to the realm of the imaginary, folklore, mythology, "popular beliefs", superstition, tales and legends.

Depending on the traditions and places, these beings of nature are designated as Little People, Good Neighbors, Minor Nobility, People of Peace, Inhabitants of the Hills. In a fairly detailed work, "L'Univers Féérique", Edouard Brasey summarizes quite well what can be said about these beings of nature:

"They know nothing of good and evil; they act only according to their impulse of the moment, according to their whim and their fantasy. They are neither good nor bad, or they are both, but without having any awareness of the beneficial or disastrous consequences of their actions. They are fundamentally amoral... Certain initiatory traditions teach that the elementals make up the "third kingdom", on the fringes of the angels and that of humans. Among the Latins, the Celts or the Germans, the worship of the divinities of nature and the elements went hand in hand with what the Romans called the genius loci, the "genius of the place". If the angels, these messengers of heaven, represent purely spiritual entities whose role consists of ensuring the link between human beings and the Divinity, the beings of nature form "energetic" entities, animating matter with their energy and protecting it from all the disorders that could affect its integrity. They are, in a way, the guardian spirits of nature and matter, in the same way that there are guardian angels for humans. They watch over the growth and good health of animals and plants and make up the spiritual part of the earth,



Some conceptual obstacles in the dialogue between traditional medicines and Western medicine

stones, rivers and wind. They feed exclusively on the subtle essence of natural elements. These guardian spirits are not totally invisible; they have a body, even if it is not a physical and material body like ours, but a body composed of pure energy, luminous, translucent and mobile, which blends with the natural environment of which it adopts the form and color, like chameleons. This is why it is so difficult to see them: they blend in with the foliage, the bark of trees, the wave of the sea or the clouds that glide across the sky" (Brasey, 2008).

Their specific reduction to the sole etheric body (the energetic body being common to all beings of creation), deserves that we briefly describe the characteristics of this body, because it is their only common structure with humans and therefore the one by which they will eventually communicate or interfere with them.

The etheric body

The etheric body is perishable at death and sexed (different for males and females), which is not the case for the energetic body. The etheric body (sometimes also called the astral body) is sensitive to the influences of the stars and in particular the moon (but not the sun), and to climatic influences.

In humans, the etheric body manifests itself somatically through the autonomic nervous system. As a result, alterations of the etheric body manifest themselves through an imbalance of the orthosympathetic/parasympathetic system which manages the automatic, unconscious functions of maintaining life (body temperature, heartbeat, digestion, breathing, etc.). This symptomatology will be medically classified as a vagal syndrome: sudden changes in temperature, diarrhea and vomiting, tremors, changes in heart rate, pallor, dizziness, headaches, feeling of general malaise. These manifestations disappear after cleansing and regulating the etheric body, in particular by using substances capable of absorbing electromagnetic waves on the one hand and with the closure of the etheric body by immersion baths in salt water⁹ on the other hand.

The etheric body can be highlighted, visualized and quantitatively measured by the system of Korotkov's GDV (Gas Discharge Visualization) bioelectrography (not to be confused with the aura linked to the spiritual body) (Korotkov, 2010; Grozdeva & Dikova, 2018).

The etheric body is sensitive to electromagnetic waves and it is this that comes into play for magnetizers and water diviners. It is at this level that sleepwalking and paranormal phenomena (poltergeist, for example) manifest themselves. These are to be differentiated from mediumship which is exercised only at the level of the energetic and spiritual bodies.

The etheric body is not limited by physical obstacles in particular for its movements.

After death, the soul and the immortal bodies (energetic and spiritual) are immediately separated from the physical body and leave this world, while the mortal bodies (etheric, emotional and psychic) can



⁹ Salt, given its electromagnetic properties, helps restore the integrity of this electromagnetic envelope. The individual must immerse for twenty minutes (except the head) in a bathtub of water in which a handful of coarse sea salt has been previously dissolved. After leaving the bath, the person must lie down and remain at rest for two hours to prevent possible dizziness.

Some conceptual obstacles in the dialogue between traditional medicines and Western medicine

persist there for a certain time, alone or together, in particular following sudden or violent deaths, when the persona does not have time to become aware of their physical death. This presence manifests itself in the form of ghosts. These ghosts wander in places that were familiar to them or in the proximity of loved ones. In the Amazonian tradition, rituals at the time of death and in their immediate aftermath aim to remove the disturbing presence of these deceased (*difuntos*). Inadequately, the indigenous speak of "souls that suffer" (*almas que penan*) since these are not souls but secondary mortal bodies. In some religious traditions, the term "wandering souls" is used, which is also inadequate in the strict sense, for the same reasons.

The etheric body is labile at birth and will stabilize over time to normally reach its full stability at the age of 12. This relative instability makes the child fragile to certain powerful, sudden or violent stimuli, inducing a relative detachment of the etheric body from the physical body. This is the case of fears (*susto*) which require care at the level of the etheric body (therefore of the neuro-vegetative system or autonomic nervous system). This can be the case of children (or fragile people) who, on the bank of a river, have their etheric body carried away by the etheric force of the river in flood. In this case, the reintegration of the etheric body into the physical body will be the object of specific care, carried out by specialists among whom we still find today the "soul callers", an incorrect term since it is not about the soul (immortal spiritual instance) but about the etheric body. This confusion is understandable since the etheric body is invisible (non-material), has some attributes of the deceased when it comes to ghosts (proceeding from the psychic and emotional bodies), and it seems to animate life since an extreme unresolved disturbance of the etheric body can result in death.

One of the most common maneuvers in various traditions is to restore the integrity of the etheric body by passing over the patient with inert or plant or animal substances capable of absorbing these electromagnetic disturbances. The inert substances used range from alum stone, to newspaper, to candles; in the Amazon, plant substances can be the wood of the chonta palm (*Bactris gasipaes*) or the leaves of the piñón colorado (*Jatropha gossypifolia* L.); animal substances can be, in the Amazon and in the Andes, the guinea pig (cuy, *Cavia porcellus*) (Reyna Pinedo, 2002)¹⁰ and on the Peruvian coast, ancestrally, the "Peruvian hairless dog" (Maniero, 2015)¹¹ or even certain varieties of chickens.

To return to the beings of nature, sometimes referred to as "Little People", they are therefore sexual beings, who are born, reproduce and die. They are mortal although their lifespan can reach centuries. They are fiercely attached to their territory and defend it against any unauthorized intruder. They feed on the etheric energy of the natural element to which they are linked (earth, water, air or fire). They assume functions of protection and preservation of the elements and territories that correspond to them. Having no emotional, psychic or spiritual body, they do not have a moral conscience and therefore are neither good nor bad. They can adopt a "benevolent" behavior towards those who respect them and their territory, as well as become aggressive or even dangerous towards intruders. They live in nature, often in places far from the disturbances induced by humans and their modern and urban lifestyle. They are generally invisible, but sometimes allow themselves to be seen by sensitive or



¹⁰ An old breeder from Isère told us that a breeding technique of his time consisted of putting a guinea pig among the rabbits, because it was the one that got sick and that acted as a shield between the illness and the rabbits.

¹¹ The Moche Culture (1st-7th century) of the Peruvian coast left numerous ceramic representations (huacos) of this dog and its therapeutic use. See op. cit.

sufficiently harmless and pure humans, in humanoid forms. Having no physical body, these modes of humanoid perception must be understood, not as an absolute reality, but as a visualization of their own characteristics perceived symbolically by the human brain. They are generally small, even very small, and for this reason sometimes called dwarves (cf. The 7 dwarves of Snow White).

In the Western world, it was Paracelsus, a 16th century Swiss-German physician, who attempted to organize knowledge around these "elementary beings" as he called them, particularly in his "A Book on Nymphs, Sylphs, Pygmies, and Salamanders, and on the Other Spirits" (Paracelsus, 1566 [1998]). It was he who invented the word "gnome" (gnomi). Didier Khan (2021) takes up this question of the elementary beings of nature in various writings of Paracelsus by showing his gropings and sometimes corrections in the exploration of this mysterious domain. However, some basic definitions will remain, that can be grouped as follows:

"They are neither demons (they can however be possessed by demons themselves), nor properly spirits, nor human beings. They have a subtle flesh that cannot be bound or seized, because it is not made of earth. This subtle flesh can pass through a wall, because it is like a spirit, while stille being very real flesh, blood and bones. They give birth to children and offspring, speak and eat, drink and walk, things that spirits do not do. They have no soul and are therefore excluded from Salvation by Christ, are mortal and are sensitive to weather events."

We recognize in this "subtle flesh" an equivalent of the etheric body, with a very clear differentiation from human beings and spirits, despite similarities that generate confusion.

Healers and sorcerers can manage to master the relationship with some of these beings, just as it is possible to tame an animal, and put them at the service of their beneficial or evil ends.

In the same way that animal species show their own characteristics, the different families of beings in nature have specific traits. It is remarkable to note that these are found almost identically in cultures extremely distant in space and time.

Let us take two illustrative examples, that of mermaids and that of elves with "unequal feet".

Sirens

Sirens are found in Homer's Odyssey from 3,000 years ago as well as in Andersen's tales (1837). We can admire magnificent specimens in Poitevin Romanesque art between the 11th and 12th centuries: that of the portal of Saint-Hilaire de Poitiers, for example, that of the western portal of Saint Pierre d'Aiffres, or that of Saint Pierre de Chauvigny (Daoudal, 2007). In Greek myth, they are more bird-mermaids, while the idea of fish-mermaids started developing especially from the 7th-8th centuries.

But the "myth" of the mermaid remains extremely present today. We have been able to observe it as much in Gabon, as in Australia and in the Amazon. The Amazonian healer Ignacio Pérez Ortiz, from the small village of Rumizapa, with whom we worked for many years, invoked in his healings his mermaid friend whom he said was called Dina Albertina. Another of these masters, Aquilino Chujandama, living in Yukanayaku on the Huallaga River, a tributary of the Amazon, had a mermaid



who lived, he said, in a pit of a torrent at the foot of his house. He wept bitterly when, following the passage of fishermen who used dynamite, his mermaid disappeared.

In a Conference in Bangui on "Witchcraft and Justice in the Central African Republic", the extreme topicality and prevalence of witchcraft is reported. Newspapers publish weekly articles dealing with "exceptional" stories of mermaids, such as this article from L'Agora, 2007, N° 032, entitled: "An excessively jealous mermaid arrives at her lover's home" (Collectif Bangui, 2008).

As Solène Daoudal notes, "The motif of the mermaid appears to be deeply protean and loaded with great ambiguity: demonized, the mermaid ends up being eroticized; she arouses wonder between attraction and repulsion" (Daoudal, 2007).

In all traditions, the mermaid is associated with the theme of seduction through her song. Popular tradition has retained it in the expression "to yield to the songs of sirens" evoking a seductive but deceptive call. At the abbey of La Sauve Majeure in France, on one of the capitals, two naked men, chained by plant vines, hold their feet with their hands, to resist the temptation of the fish-mermaids located on the opposite capital¹².

In the Odyssey, Circe had advised Ulysses not to listen to the song of the sirens who would lure them onto the rocks. This seduction was such that Ulysses had to plug his ears with balls of wax and have himself tied to the mast of the boat in order to be able to resist. It should be noted that Ulysses was preparing to enter an unknown territory and that the sirens, guardians of this space, opposed this intrusion.

The Shipibo ethnic group of the Ucayali River and tributaries, in the Peruvian Amazon, recognizes the existence of a "water world" (Jene nete) where people of water live, similar to the world of humans.

"Shipibo myths tell of the existence of the "world of water", Jene nete, where there are beings among which are the people of the water. They have roads, houses, means of transportation, food, drink, etc. In other words, life underwater, in a certain way, is parallel to life outside. (...) As Grandpa Rodríguez comments, each being has its space, but none of them can live independently of other beings or resources. Likewise, he mentions the names in Shipibo of certain spaces, such as water, earth, forest and sky. (...) In the past, this is how they lived, that is, they learned from all the plants that are here and from there they learned all things to be able to do evil, to heal, to be able to do their things, to magically attach to a woman; so that they would have their protections. These men manipulated them like their offspring. (...) That's what the world is all about, Nete. That's how they know it, from there they learn."¹³

Mermaids, along with freshwater dolphins (bufeos), are the main inhabitants of this water world:

"That is where the mermaid is that these men manipulate for these and for those. (..) - Mermaids are beings that can also transform into people. They tend to take humans underwater. They communicate with the Shipibos through dreams." (UNICEF-CILA, 2012).

www.takiwasi.com Centre de Réhabilitation de Toxicomanes et de Recherche sur les Médecines Traditionnelles E-mail: <u>takiwasi@takiwasi.com</u> Tel. +51 942023915 Prolongación Alerta № 466, Tarapoto – Pérou



¹² Les chapiteaux de l'abbaye de La Sauve Majeure... - Une bonne nouvelle par jour - le blog d'écureuil bleu

¹³ Our translation from Spanish

The sirens teach healers their songs of seduction that they use in particular in ayahuasca sessions, very high-pitched songs, which induce ecstatic states of fascination. These songs allow sorcerers to put their victims under their spell, arouse blind adherence, provoke irresistible love. These techniques are part of the practices of control and manipulation of people, very developed in traditional Shipibo medicine (Tournon & Silva, 1988).

We were able to experience these states of ecstatic fascination ourselves during ayahuasca sessions with the famous Shipibo sorcerer Guillermo Arévalo (Ketsembetsa). The siren songs in the Shipibo language with a head voice, induce an abolition of critical sense, and an imperative attraction.

The elves with "unequal feet"

Elves are nature beings linked to forests, a particular species of which is characterized by an asymmetry in the lower limbs, one foot larger than the other, or feet backwards. This family of elves is found in France and Switzerland with the dahu and its many regional variants, or with the "kavere" or "kapere" of New Caledonia¹⁴, "strange elves with legs backwards". Its equivalent in the Peruvian Amazon is the chullachaqui (from the Quechua Chulla or Ch'ulla, [odd, unequal, unique, asymmetrical] and Chaki [foot].

Their mischievous, playful, prankster and malicious side characterizes these elves: they like to play, deceive, make objects disappear... They are at the origin of the French verb "lutiner" which means "to tease" and "to torment" in the gallant vocabulary (Dubois, 1992). In New Caledonia they "*love to laugh at the expense of men by making them get lost in the mangrove or in the mining scrubland... their legs are backwards and following their tracks inevitably leads to getting lost*". In the Amazon, the chukllachaki, also called "shapishico", takes the appearance of a known person with the purpose of deceiving his victims and making them get lost in the jungle. They hide the machete of the indigenous working in the forest and play jokes on them that are not always in good taste. They are recognized as guardians of the forest, both respected and feared (Galeano, 2009).

Anthropologist Rosendo Gualima notes that the Ashéninka of Peru "have always believed in a Father, Creator, Almighty God, the Pawa Tajorentsi, as it has been translated; also, in the spirits of the forest, of the different plants and trees, as well as in the "mother" (madre) of water, which is the spirit of water, represented in different ways. In the same way, the holder (dueño) of the forest and the animals, known by some as chullachaqui, is in charge of taking care of the animals and punishing those who exceed the hunting limits, for example", (Gualima, 2021).

In the realm of pranks, the dahu (or dahut) has two lateral legs shorter than the other two, in order to hold well on mountain slopes and it is associated with the initiatory joke of the "dahut hunts" (Jacquat, 2000).

Nature beings are dedicated to preserving the territory entrusted to them and the proper balance and growth of natural elements. Undue human intrusion into this territory prompts them to fiercely defend



¹⁴ See the excellent documentary "The tribe of the invisible in New Caledonia" which presents many contemporary testimonies on the relationship of the natives with the elves.

it and act against the intruder, sometimes aggressively and violently, without this involving a moral sense of which they are devoid. Traditional practitioners called upon to intervene or enter a space that is unfamiliar to them will generally begin by first performing a ritual in order to request permission from the nature beings who are guardians of the place and as a precaution to protect their etheric body. In these situations, in the Amazon, every individual systematically makes an offering of tobacco (juice or smoke) to the guardians of the place and blows tobacco smoke on their body (soplada) in order to protect themselves.

Thus, the recognition of the ontological existence of these created beings, endowed with specificities according to their species, and their differentiation from "spirits" and ghosts, conditions a good mapping and understanding of the invisible world and the possible pathological manifestations that they can cause in humans. The multiplicity of these beings and their mode of perception by humans, their absence of a material body, their extraordinary potentialities (invisibility, rapid movements without obstacles of matter, etc.), their role perceived sometimes in a beneficial way, sometimes in a harmful way, facilitate both popular imaginary and projective discourses and symbolic interpretations among scholars, make their grasp by rational minds very difficult, and explain the confusions about them among indigenous peoples, traditional practitioners themselves, as well as scientists, jurists and religious people seized of these questions. Between the denial of rationalist-materialist thought and the imaginary explosion of "believers", there should remain a reasonable space to approach the calm and composed study of this mysterious universe extremely neglected by the Academia, with exceptions such as that of Claude Lecouteux, professor at Paris-Sorbonne (Lecouteux, 1988, 1995, 2000), who "*regrets the absence of a definition of the semantic field of elves, which causes many false ideas about them, and a loss in the understanding of the traditions and myths linked to them*".

3.3. The ontological existence of spirits

As noted in the introduction, while in the indigenous conception the spiritual dimension transcends and covers the psychological dimension, in the modern Western world, on the contrary, the psychological dimension attempts to account for what is qualified as spiritual, by designating it as a subjective by-product of the mind or simple neuropharmacological mechanisms. The key point of this difference is centered on the nature of spirits: metaphorical (representational) for some and real (present) for others. The ontological existence of spirits is the stumbling block of this major dilemma.

The traditional notion of real, good and bad spiritual entities that can impact human health (O'Shaughnessy, 2017) characterizes Peruvian herbal medicines (*vegetalismo*) (Luna, 1986), and more specifically the shamanic practices of the region where the Takiwasi Center is located (Barbira-Scazzochio, 1979). Witchcraft associated with relationships with evil spirits spans the entire Amazon and represents a common denominator of the "shadow" of indigenous practices throughout the world, as soon as they take refuge in "darkness and secrecy" (Whitehead & Wright, 2004). Recognizing the reality of spirits and identifying their modes of operation allows us to account for both the effectiveness of the healing function of the healer and that of the sorcerer in his evil interventions. It opens up the field of possibilities to heal not only the body, but also to pacify the mind and free the spirit from all spiritual contamination. Witchcraft and the influence of evil spirits generate within



indigenous populations a state of permanent fear, even terror, which deserves more than a distant and coldly intellectual attention.

Evil spirits are likely to contaminate or intrude into the different bodies of the human being. Discernment must then be exercised to differentiate in the pathological manifestations of these different bodily instances, what comes from an illness specific to such a body and what originates from a possible parasitization of this same body by a malignant entity. Conversely, an injury to a body facilitates its possible parasitization by an impure spirit. For example, a psychological trauma such as sexual abuse can provide an entry point for the attachment of an evil spirit that will exacerbate the disturbances provoked by sexual abuse. It will then be necessary to adopt therapeutic strategies aimed firstly at expelling the evil spirit and secondly at healing the psychological wound to close it and avoid further contamination.

Evil spirits can invest not only humans but also animals, plants and inert objects. One of the arts of witchcraft, contact witchcraft, consists precisely in using these supports to reach their victims, for example by the occult ingestion of food previously contaminated during a ritual.

Evil spirits can parasitize any element of creation therefore also have the ability to contaminate beings of nature. These then manifest themselves in a diabolical way, which explains the fear they arouse in populations despite their sometimes benevolent appearance. As we have pointed out, beings of nature do not have a moral conscience, but their investment by a demon then clearly positions them on the evil side, not by nature but by infestation. In this case, a simple electromagnetic cleansing of the etheric body of the person affected by an infested being of nature will prove insufficient, it is necessary to resort to spiritual liberation measures. These intertwinings between these various entities of the invisible world complicate its cartography and account for the numerous confusions surrounding these subjects.

Questioning the Western denial of the existence of spirits

The manifestation of beneficial or evil entities is generally interpreted in the West only through a psychological, individual or collective symbolic reading grid. The symbolism invoked here is intended to be virtual, without incarnation, without objective reality. These would be mere metaphors devoid of objective substance. This rationalist reductionism of Western thought has infiltrated all academic disciplines, including medicine and psychology.

The a priori exclusion of the reality of non-humans prevails as much in the medical and psychological sciences as in the social sciences. The existence of invisible beings is recognized in the human sciences only as a particular mode of cultural representations of a given society. This does not account for their universality since they manifest themselves, with great similarity of substance, in all cultures, all religious and spiritual traditions, at all times and everywhere in the world. Only the relatively recent and geographically reduced Western rationalism (but with hegemonic tendencies), supports this denial, paradoxically in an irrational way, that is to say by exempting itself from the obligation of proof. This almost systematic and consensual way of dodging the approach to the invisible world allows us to exempt ourselves from accounting for this reality on the ontological level.



In the field of social and religious sciences, O'Shaughnessy (2017) and Dubbini (2019) agree that "while there is no problem writing about the utilitarian function of spirituality in a psychosocial sense, the same cannot be said of an approach that considers the spiritual world itself as an objective and discoverable external reality."

In the religious universe of missionary pastoral work, the Chilean priest José Fernando Díaz, who shares the life of the Mapuche indigenous group, discovers the same resistances and the contempt for the "other" that goes with it:

"It does not seem acceptable to me to attribute everything to a simple syncretic attitude, as if the community and its religious leaders lacked spiritual intelligence and did not have their own processes of religious contrast and theological discernment. The intensity of the religious spiritual life of a community and especially of its spiritual leaders, such as they themselves allow us to know it and share it intimately, does not fit into these obscure classifications and labels of religious syncretism or popular religiosity. There are other paths of understanding and spiritual validation that Western rationality still seems to ignore."

He adds that "these cultural and spiritual differences with the way of life of indigenous peoples, differences or otherness, cause breaking points" and that it would be "necessary to better specify the points of irreducibility that emerge in these ruptures" instead of too easily neutralizing them with the labels of "animism and shamanism" (Díaz Fernández, 2022).

Even contemporary crucial questions of geopolitics cannot avoid returning to the ontological foundations of cultures, as eloquently expressed by Pierre-Antoine Plaquevent (2023) drawing on what Count Joseph de Maistre (1753-1821) called a "metaphysics of political ideas" (De Maistre, 1797):

"If we seek to grasp the ontology of a culture or a civilization, we are naturally led to seek the spiritual core that founds it. Because there are no peoples, nations, cultures or states that are not structured by a spiritual core, even if secularized."

And in this approach, Western thought, which tends to pose itself as the supreme arbiter and supposedly situated above these contingencies, is no exception to the rule:

"Rationalist atheism itself, which has now become the common cultural norm of Westeners, has its roots in a set of non-rational and in fact "para-religious" ideas and conceptions. Ideas that appeared in an underground manner during the Renaissance and which began to impose themselves as the diffuse ideology of Western elites from the Enlightenment. "Enlightenment" whose very term also refers to Illuminism and Masonic esotericism."

The resistance to the recognition of the ontological existence of spirits in the West would essentially stem from a kind of "inverted pantheism", built during a long historical process in which the idea finally took hold that, ultimately, the spirit would be only a subtle and particularly elaborate stage of matter:

"A form of permanent noetic autopoiesis of matter and of the whole of reality, perceived from then on as an inverted pantheistic continuum. Inverted, because here it is indeed matter that



precedes the Spirit and not matter that flows from the Spirit as in the emanationist hypothesis of the Plotinian or Brahmanic type; nor even the Spirit that creates matter ex nihilo as in the creationist hypothesis of the revealed Abrahamic religions. Systems in which the Creator and creation have radically distinct and separate essences.

This reverse monistic spiritual conception, which establishes the mind as an "evolved" stage of matter, is the one that underlies most contemporary Western intellectual, technoscientific, political and social orientations.

Externally, the West can continue to be perceived as a "Christian club" but this is now inaccurate because its elites are essentially transhumanists. The political and strategic West is therefore now post-Christian and transhumanist."

These are the same very powerful sociological and political forces that, according to Emily Chandler (2012), explain the glaring and strange absence of spirituality and religion in the nosology and taxonomy of diagnostic psychiatry in the DSM (Diagnostic and Statistical Manual), despite their important role in experiences of managing health and illness. In a survey by the Quebec Institute of Statistics, researchers May Clarkson, Lucille Pica and Hébet Lacombe (2002) note that "the importance given to spiritual life (very or quite important) and the belief in a positive effect (a lot or a little) of spiritual values on physical or mental health are strongly linked to each other." This perception by users is supported by research showing that religion can help relieve symptoms and find meaning, even in the case of severe psychoses such as schizophrenia (Mohr et al., 2006). The Swiss psychiatrist Philippe Huguelet (2014), who participated in this investigation, does not fail to note that in the debates on the psychiatry/religion interface, "most of the time, the difficulty of mental health caregivers to consider religion with serenity was striking" and often marked by "remarkably dogmatic" positions.

These considerations invite us to rethink the place of epistemology in the training of researchers, doctors and therapists, so that they can become aware of the unconscious ideological foundations that underlie their "Western" approach, and know its limits. This exploration would allow us to take into account the fact that the scientific approach does not allow us to "tell the truth", but only to state what, at a given moment, is not considered false, until proven otherwise. Therefore, claiming to guarantee the truth through scientific proof constitutes an abuse of language and violates the epistemology of science. In medicine, 50 years ago, I was taught that the axons of neurons could not regenerate, that the pineal gland was only "a vestige of evolution" and that the appendix played no immune function, all things today considered totally erroneous.

Indigenous peoples then remind us that there are universal invariants and that if the laws of visible nature exist, there are also laws of invisible nature. In other words, they remind us that the world is organized according to an intangible order and that the worst that can happen to human beings is to only worry about themselves and forget the existence of "the other". Self-referentiality is opposed to otherness as narcissism is to love. The experience of induced modification of states of consciousness, ritualized and well-conducted, then aims to reconnect human beings to this ontological memory (natural law, in religious terms) and reintegrate and harmonize the individual internal order within the great universal order, which is revealed to be profoundly curative and healing (Mabit, 2009).



Ouestions surrounding materiality, bodily and physical, are also found in the phenomena of materialization and dematerialization to which some expert healers and sorcerers claim to have access. The introduction of objects or animal or plant parts into a person's body and their subsequent extraction, generally by suction (*chupada*) by the healer, can be observed in Amazonian medicines with "magic darts" (virotes) (Reátegui & Tournon, 1988), and also among the aborigines of Australia (McCoy, 2006). The denial of these phenomena by Western ethnocentrism is found from the beginning of the Conquest in the Jesuit chronicler José Chantre y Herrera who in his "History of the missions of the Society of Jesus in the Spanish Marañón" (1738-1801), in his Book II, devotes an entire chapter (VI) to the theme of beliefs and practices. This chapter on health, eloquently titled "On the most harmful superstition of these people and of sorcerers, fortune tellers and healers" (pp.77-82). In more modern times, scientism that has taken over as a new religion allows one to claim that "with viruses, the explanations of many shamanic beliefs are consistent with microbial ecology and, rather than metaphysical entities, shamanic "spirits" conform to contemporary ideas about microorganisms" as proposed by anthropologist César E. Giraldo Herrera on a discussion forum on ecology and the environment in anthropology and related social sciences¹⁵. This assimilation of the magic dart to the virus as "pathogenic projectiles" is taken up by the French anthropologist Jean-Pierre Chaumeil (1995). These subterfuges allow one to circumvent the question of the reality of these phenomena without even considering their possible existence.

The Return of the Repressed

A return or revision of the ideological or dogmatic postures of Western thought on these subjects is emerging for various reasons.

The disappointing results of conventional psychiatry, particularly in the field of depression and chronic dissociative states, has led to the search for new therapeutic avenues and sparked a craze for what is now called "psychedelic medicine". This current is initially very strongly inspired by the practices of modification of consciousness from indigenous cultures that have also proven effective for Westerners, thus breaking the argument of cultural suggestion alone (Berkovitch, 2021).

At the same time, economic limitations, particularly in low- and middle-income countries, and the complexity of providing mental health services to people from diverse cultures, has generated the Global Movement for Mental Health (GMH) which aims to provide urgent treatment to people suffering from mental illness. The use of psychoactive plants as a bridge between traditional healing practices and Western medicine is in this context considered as a possible response to these needs (Ona, Berrada & Bouso, 2022).

Psychiatry and the Reality of Minds

While clinical and field medicine and public health are modestly opening up to a transcultural approach (Mabit & Gónzalez, 2013), in the field of mental health, many psychiatrists and



¹⁵ <u>http://www.eanth.org</u>

anthropological observers are unaware of existing indigenous health care systems, the modalities of expressing distress, and the therapeutic interventions used by indigenous populations. For this reason, the Diagnostic and Statistical Manual of Mental Disorders of the American Psychiatric Association (APA), considers and describes "culture-bound syndromes" that have emerged in specific indigenous cultures. However, these nosographic categories are also the subject of much debate and criticism (Ventroglio, 2016).

But it is in anthropology, which until now considered this field of research as exclusive to its discipline, that important changes appear partly due to the intervention of health professionals and the birth of ethnopsychiatry. The lack of medical training of researchers in ethnology and anthropology does not allow them to rationally evaluate clinical observations when it comes to health. They are therefore reduced to the game of "interpretations", of "representations", without ever having to support their discourse with defensible scientific evidence.

If anthropology can circumvent the sanction of facts by not having to account for the effectiveness of its hypotheses, this approach becomes more difficult in health due to its confrontation with the clinic. In health, for both the healer and the doctor, the sanction of facts is inevitable. This is why the Takiwasi Center has equipped itself with the necessary means to scientifically evaluate its results and publish them. Beyond the theories and hypotheses of any therapeutic practice, which is both an art and a science, clinical data remain fundamental and, in this case, show that the results of the Takiwasi Center in the treatment of drug addiction are much superior compared to centers that treat this same type of patient.

This form of a posteriori verification, through the results of the therapies, validates to a certain extent the approach of the Takiwasi Center or at least invites serious reflection on the clinical and theoretical approaches that support its practice.

A major figure in Italian ethnopsychiatry, the psychiatrist Piero Coppo, make an ironic allusion to the structuralism of Lévi-Strauss and his famous autobiographical book "Tristes Tropiques" (1997), in an article entitled "Psychotropes tristes?" (Consigliere & Coppo, 2013) where he criticizes the rationalist position of the French ethnologist Jean-Loup Amselle who claims to be a Marxist and atheist, and who allowed himself to write an entire book on the "ayahuasca fever in the Amazon" (Amselle, 2013) after 4 months of fieldwork, without ever attending a session and only on the basis of interviews with third parties, without their informed consent. Coppo, an explorer of the new frontiers between cultures and medicines, did not stop at theory but had to deal with real cases of patients in Africa for many years in collaboration with the Dogon healers of Mali. Then he took charge of African migrants in Italy. This is what makes the difference between a theoretical anthropologist and a practicing doctor.

Ethnopsychiatry is a clinical discipline whose objective is to analyze all therapeutic systems, without exclusivity or hierarchy, whether they present themselves as "knowledge" or as practices belonging specifically to a collective, an ethnic, religious or social community. It is a discipline that aims to test, while respecting them, the concepts of psychiatry, psychoanalysis and psychology at the risk of group theories whose therapeutic devices it studies. It seeks to demonstrate its hypotheses on the therapeutic devices observed in different cultural contexts, by developing methods allowing the representatives of these groups to decide on their validity.



Tobie Nathan, a student of George Devereux, is the best-known representative of ethnopsychiatry in France, even if he is not a doctor but a psychologist. He proposed the re-evaluation of traditional therapies by taking into account the meaning that patients attribute to their illness, even if they postulate "irrational" explanations according to Western ethnocentrism. The effectiveness of these practices would not be reduced to simple "good listening" through cultural empathy, but to an ability to seek answers and solutions in the invisible, to identify hidden intentions and, from there, to develop real therapeutic strategies. Nathan treated patients as a psychologist, including African migrants residing in France, and dared to associate healers of the same culture with his consultations (Stengers & Nathan, 2012).

Anthropology facin the reality of minds

This ideological influence is particularly evident in the field of social sciences, where imagination can develop without limits and without having to confront reality or the requirement of proof. The introduction, in their traditional field of research, of more concrete sciences and, above all, confronted with the requirement to account for their effectiveness as in medicine, inevitably questions these disciplines. Faced with the tangible results of therapies, effective outside their zone of cultural influence, the anthropologist only addresses the systems of representations that surround them and that remain inoperative in the clinical field that does not constitute their space of intervention.

Until recently, the development of etic and emic approaches in anthropology attempted to fill this gap without responding to the substance or ruling on the validity of clinical observations since this is not the purpose of their discipline. In anthropology and the social sciences, the adjectives "emic" and "etic" designate two types of research in the field and the points of view that result from them: emic, from within the social group (i.e. from the point of view of the object of study); etic, from outside (i.e. from the point of view of the observer). It is always possible for an anthropologist to develop theories and construct hypotheses since they do not have to be confronted with facts or subject to the requirement of proof. It is enough to be convincing and to know how to construct a sophisticated discourse. The researcher thus escapes the sanction of reality and proceeds by way of affirmation and not demonstration.

One of the fathers of anthropology, Claude Lévi-Strauss (1962), uses a similar virtuality in structuralism with the proposition of an undemonstrable "symbolic efficiency", which remains at the level of concepts without compromising on the reality of the observed facts.

Anthropology considered by ethnocentric reflex the indigenous assertions on the spirit world as symbolic or metaphorical cultural representations, thus invalidating the universal character of their knowledge. Recent currents in this discipline, such as the "ontological turn" (Holbraad & Pedersen, 2017), propose to reconsider these positions born of Western anthropocentrism, both with regard to the possible ontological reality of spirits and the ritual efficiency to enter into a relationship with non-humans (Apffel-Marglin, 2011). They have the merit of establishing a priori as true the assertions of indigenous peoples or healers about their reality.

Eduardo Viveiros de Castro, a Brazilian americanist ethnologist with extensive research in the Amazon, theorizes under the name of "perspectivism" the fact that some peoples not only think that



animals behave like humans, but that animals also perceive humans as animals, as if the point of view of a species on others always depended on the body in which it resides (Viveiros de Castro, 2014). The question of reality in general, and in the Amazon in particular, will focus on the ontology of spirits (Viveiro de Castro, 2007) and will be the subject of debate with Philippe Descola who will rather take up the old concept of animism by questioning the classic opposition between nature and culture (Descola, 2005). These academic jousts and controversies, which anthropologists are fond of, will animate a France-Brazil match for more than a decade (Erwan Dianteill, 2015).

But in the end, these are ultimately constructions of philosophy (inherited from Ortega y Gasset, Nietzsche and others) that persist in the field of social theory, and which come to assume the <u>impossibility of defining ontological realities</u> or of establishing a multi-ontology that is again a similar form of <u>relativism</u>. It is in a way the "doctrine of the point of view", a philosophical doctrine that maintains that all perception and ideation is subjective.

The positions of one and the other are the subject of criticism and heated academic debates, feverish jousts, articles and conferences, but with ultimately little concrete impact on medical-psychological practice and daily clinics. Almost all of them are part of a naturalist framework where there is no Creator outside of creation, and a relativism that exalts subjectivism and denies the possibility of accessing ontological truths.

Anthropologist Frédérique Appfel-Marglin is one of the few academics who dared to enter indigenous rituals, first in India and then in the Peruvian Amazon, and to actively participate in their healing practices. Based on her own experiences of participatory self-observation, she proposes to reconsider the positions born of Western anthropocentrism, both with regard to the possible ontological reality of spirits and the ritual effectiveness in entering into a relationship with non-humans (Apffel-Marglin, 2011).

Indigenous Amazonian people claim to have discovered ayahuasca by indication of the spirits and the anthropologist Jeremy Narby (1997) points out that in fact the rationalist explanation of the discovery by the trial-and-error method, even in the long term, cannot account for the association of two specific plants among 80,000 species, of the vine of one and the leaves of the other, in precise proportions, with a preparation-cooking system. The statistical possibility of the discovery by chance of such a technology is of the order of impossibility.

Intellectual speculative constructions to better deny the reality of minds

Of course, science is not applicable beyond the situations that can be subjected to the scientific method, so the entire field of the invisible remains to be explored and that is not a small one! What is surprising in this area of the "invisible" is the position (or dogmatic posture) which consists a priori in excluding the possibility of an "objective", "ontological", "natural" existence of certain invisibles. Dismissing this hypothesis out of hand, by pure ideology, does not allow it to be taken into account and possibly verified. However, we only find what we are looking for.



On the other hand, this space of the "invisible" includes very diverse instances (spirits, soul, beings of nature, non-physical bodies, angels...) which do not fall into the same categories (spiritual, moral, psychic, emotional levels...) and require the application of discernment.

What is the motivation behind the principle postulation "not to attribute real existence to these invisibles"? Why would it be so embarrassing? Would it be forbidden or taboo, and for whom and by whom? Why can the sensible world be objective, endowed with natural data, and not the insensible world? This a priori seems to hide or rather reveal an ideological domination which, fundamentally, questions the status of human nature.

De facto, cornered by the scarcity of concrete results and the limits of their conceptual tools, academic institutions and their actors, challenged on a personal level, sure of their right, adorned with humanist virtues (without God) serving as their moral justification, by the classic mechanism of accusatory inversion, are tempted to operate in the face of their opponents with the same sectarian and authoritarian model that they claim to denounce.

Many honest observers in psycho-psychiatric clinics recognize the patent experience of patients who affirm the tangible presence of an invisible "other" that invades them and that they describe as an incorporeal entity, endowed with intelligence, volition, intentionality, a "personality of its own", sometimes even with its own name, capable of acting and affecting the human being. This description corresponds exactly to what a spirit is. The inconsistency between the clinical data and their ideological position of denying the ontological existence of spirits, which would risk "coinciding" too much with religious "beliefs" and "primitive" thought, leads these atheist, positivist, existentialist, materialist intellectuals to engage in extraordinary rationalist conceptual contortions in an attempt to escape at all costs from the universal categories of demonology, particularly illustrated in Christian doctrine.

Thus, they appeal, for example, to the concept of "active objects" of the French philosopher and sociologist Bruno Latour (1994), which would be active in a defined cultural context. There would be active material and immaterial objects, but even the material ones "*speak and bring with them knowledge, and have a continuous need for interaction with man, otherwise they die*". However, to die, one must be alive... What life are we talking about and where does it come from? It is that "*the object has in itself something more than the matter that composes it, it has an 'invisible'*", according to Latour, "*which gives a soul to the object itself and which is born from the reciprocal interaction between human beings and objects within a culture.*" Latour offers here a beautiful illustration of ethnocentric cultural reductionism seasoned with magical and superstitious thinking.

Isabelle Stengers, a Belgian philosopher, shares Latour's cultural reductionism when she asserts that "*the unconscious is a mysterious and dominant object*" and that spirits, demons, etc., exist, but only as a category of "*cultural invisibles*" (Stengers, 2012).

Others also resort to the proposals of psychoanalysts Nicolas Abraham and Maria Torok (2006), who "associate transgenerational transmission with the fact that an individual can harbor ghosts, forces, energies." Studying people who said "I acted like someone else," the two analysts speculated on the possibility of the presence of a "ghost, present within an individual, escaping from a family crypt." But for the authors "the ghost is a formation of the unconscious" and thus, once again, the possible



reality of the active entity, never questioned, is reduced to an abstract concept mysteriously endowed with life without anyone knowing how.

Words endure everything, even the magical thinking of Western rationalism which allows, through a "verbal sleight of hand," to affirm that an object or a concept would mysteriously become a living being.

Active objects, cultural invisibles, psychic ghosts: these conceptual artifices, which are nothing more than beliefs and speculations, comfortably serve as a justification for the ineffectiveness of conventional Western therapies. And it is that these theories, although they also develop interesting concepts on occasion, fundamentally lack a confrontation with the clinic, accompanied by the publication of the results (when they exist) of the proposed therapies. The problem is projected onto the patient and his cultural context, when it is above all a deficiency and a limitation of the ideology of Western science, itself locked in its "modern" cultural denial of the spiritual dimension (of the spirit world) and its universality.

If we understand symbolism as an analogy that is valid simultaneously on the physical, psychic and spiritual levels, which gives it its evocative force, we must go back to the psychic dynamics described above to see how they apply or make sense in the spiritual sphere. All the more so if we consider that there is a natural hierarchy in creation that places the spiritual as superior to the psychic, and the latter superior to the physical or material dimension. Freed from rationalist reductionism and the taboo placed on a spiritual approach to science and more particularly to questions of mental health, it is possible to access another, more satisfying meaning of health issues and to consider bold therapeutic solutions that emancipate us from the prohibitions dictated by a kind of puritanism of the "ideologically correct".

Conclusion

Science must accept knowing how to let itself be surprised in this domain of the "invisible" and get out of the dogmatic position or posture which consists a priori in excluding the possibility of an "objective", "ontological", "natural" existence of certain invisibles. Dismissing this hypothesis from the outset, by pure ideology, does not allow it to be taken into account and possibly verified.

Why can the sensible world be objective, endowed with natural data, and the insensible world could not?

Active objects, cultural invisibles, psychic ghosts: these speculative conceptual artifices fundamentally lack a confrontation with the clinic, and maintain the limitations of the ideology of Western science locked in its "modern" cultural denial of the spiritual dimension and its universality. As a result, they hinder access to the establishment of a fruitful dialogue with traditional medicines.

The limitations of Western science, when it comes to approaching traditional medicines, invite us to evolve towards a post-materialist paradigm proposed by certain scientists in neuroscience (Mario



Beauregard, 1995)¹⁶, to get out of closed and self-referential tautologies, and to open up to a theory of complexity to approach reality, such as that proposed by the philosopher Edgard Morin (1995).

¹⁶ https://opensciences.org/files/pdfs/Manifesto-for-a-Post-Materialist-Science.pdf



Centre de Réhabilitation de Toxicomanes et de Recherche sur les Médecines Traditionnelles E-mail: takiwasi@takiwasi.com Tel. +51 942023915 Prolongación Alerta № 466, Tarapoto – Pérou takiwasi

www.takiwasi.com

RÉFÉRENCES

Abraham N., Torok M., (2006) Symboles, cryptes et fantômes, Fournitures diverses, Éditeur ERES.

Amselle JL. (2013) Psychotropiques : La fièvre de l'Ayahuasca en forêt amazonienne, Albin Michel.

Apffel-Marglin F. (2011) Subversive Spiritualities: How Rituals Enact the World, Oxford University Press, pp. 255.

Barbira-Scazzochio, F. (1979). *Etnicidad y Fronteras en los Quechuas de la Selva Peruana*, University of Cambridge, Centre of Latin American Studies, Cambridge, pp. 257.

Berkovitch L., B. Roméo, L. Karila, R. Gaillard, A. Benyamina (2021) Efficacité des psychédéliques en psychiatrie, une revue systématique, L'Encéphale, Volume 47, Issue 4, 2021, Pages 376-387, ISSN 0013-7006, <u>https://doi.org/10.1016/j.encep.2020.12.002</u>.

Berlowitz, I., Ghasarian, C., Walt, H., Mendive, F., Alvarado, V. & Martin-Soelch, C. (2018). Conceptions and practices of an integrative treatment for substance use disorders involving Amazonian medicine: Traditional healers' perspectives. *Revista Brasileira de Psiquiatria* 40 (2): 200-209. doi: 10.1590/1516-4446-2016-2117

Berlowitz, I., Walt, H., Ghasarian, C., Mendive, F., & Martin-Soelch, C. (2019). Short-Term Treatment Effects of a Substance Use Disorder Therapy Involving Traditional Amazonian Medicine. *Journal of Psychoactive Drugs* 1–12. doi:10.1080/02791072.2019.1607956

Berlowitz, I., Walt, H., Ghasarian, C., O'Shaughnessy, D.M., Mabit, J., Rush, B., & Martin-Soelch, C. (2020). Who Turns to Amazonian Medicine for Treatment of Substance Use Disorder? Patient Characteristics at the Takiwasi Addiction Treatment Center. *Journal of Studies on Alcohol and Drugs* 81 (4): 416-425. doi:10.15288/jsad.2020.81.416

Bopp, M., & Bopp, J. (2011). The Esketemc (Alkali Lake) community story: a case study. Calgary, Canada: Four Worlds Centre for Development Learning, Four Worlds Press.

Brasey E., (2008) L'univers féérique, Pygmalion Ed., 864p.

Chandler E. Religious and spiritual issues in DSM-5: matters of the mind and searching of the soul. Issues Ment Health Nurs. 2012 Sep;33(9):577-82. doi: 10.3109/01612840.2012.704130. PMID: 22957950.

Chantre y Herrera J., (1738-1801) "De la superstición más perjudicial de esta gente y de los hechiceros, adivinos y curanderos" in "Historia de las misiones de la Compañía de Jesús en el Marañón español", Libro II, capítulo VI, pp.77-82.

Chariton de Valamo (2004) L'art de la prière, Anthologie de textes spirituels sur la prière du coeur, Collection Spiritualité orientale n°18, Abbaye de Bellefontaine.

Chiappe, M. (1968). Técnica del tratamiento curanderil del alcoholismo. Anales del V Congreso Latinoamericano de Psiquiatría. Colombia.



Chiappe, M. (1976). El empleo de alucinógenos en la psiquiatría folklórica. Boletín de la OPS, 81 (2), 176-186.

Chaumeil, J.-P. (1995). « Du projectile au virus. Un art chamanique de l'agression pathogène en Amazonie ». Études mongoles et sibériennes. 26, pp. 63-82.

Clarkson M., Pica L., Lacombe H., (2002), Spiritualité, religion et santé : une analyse exploratoire, Enquête Sociale et de Santé 1998, Collection la santé et le bien-être, Institut de la Statistique du Québec, Chapitre 29, p.608.

Colectivo (2008) La vida secreta de las plantas medicinales en los pueblos Kichwa, Kukama-Kukamiria y Tikuna Una aproximación al conocimiento de algunas plantas de uso medicinal en la Comunidad Educativa de Zungarococha Iquitos, Programa de Formación de Maestros Bilingües de la Amazonía Peruana, Asociación Interétnica de Desarrollo de la Selva Peruana, Instituto Superior Pedagógico Público "Loreto", Iquitos, 2008.

Collectif Bangui (2008) Colloque : Sorcellerie et Justice en République Centrafricaine, Université de Bangui, 1et et 2 Août 2008, Revue Centre-Africaine d'Anthropologie RECAA n°2.

Crosnier C. (1993) La plante à l'image de l'ordre corporel, Ecologie Humaine XI (f) : 7-27. Janvier 1993, p. 16.

Daoudal S. (2007) Sirènes romanes en Poitou (XI^e-XII^e siècles). Avatars sculptés d'une figure mythique, Rennes, Presses Universitaires de Rennes, 2007, 180p.

Denys, A. (2013). Des plantes médicinales au service d'une action thérapeutique dans la prise en charge de l'addiction. *Ethnopharmacologia* 50: 69-78.

De Maistre J. (1797) Considérations sur la France, suivi de l'Essai sur le principe générateur des constitutions.

Descola P. (2005) Par-delà nature et culture, Gallimard.

Dianteill E. (2015) Ontologie et anthropologie : dix ans de controverse (Brésil, France, États-Unis), Les symboles et les choses: une approche anthropologique, Revue européenne des sciences sociales, 53-2 | 2015, p. 119-144, <u>https://doi.org/10.4000/ress.3314</u>

Díaz Fernández J.F. (2022) Dialogues actuels entre la foi chrétienne et la spiritualité des peuples autochtones, Intervention au Colloque International « Le défi des réarticulations théologicospirituelles en Amérique Latine », deuxième bloc : « Transmission de la Foi et des Spiritualités », 08 au 10 novembre 2022, Université Alberto Hurtado, Santiago, Chili, <u>https://takiwasi.com/docs/arti_fra/dialogues-foi-chretienne-spiritualite-peuples-</u> <u>autochtones.pdf</u>

Dubbini, A., Gallizioli, M., Friso, F., Torres, J., Mabit, J., & Politi, M. (2019). Synergism between Catholicism and Indigenous Spirituality within the Drug Addiction Rehabilitation Program of Takiwasi, a Therapeutic Community in the Peruvian High-Amazon. *Studies in Religion/Sciences Religieuses*. XX(X), p.13. <u>https://doi.org/10.1177/0008429819885615</u>



Dubbini, A., Mabit, J. & Politi, M. (2020b). Therapeutic Potential of Spirituality and Mystical Experiences in the Treatment of Substance Use Disorders. *Revista Cultura y Droga* 25 (29): 41-62. doi: 10.17151/culdr.2020.25.29.3.

Dubois P. (1992), La grande encyclopédie des lutins, Paris, Hoëbeke, 191 p.

Galeano JC (2009) *Folktales of the Amazon*. Libraries Unlimited, 2009. *Chullachaki: Owner of Trees and Animals*, p. 43. *The Flute of the Chullachaki*, p. 53.

Giovannetti, C., Garcia Arce, S., Rush, B., & Mendive, F. (2020). Pilot Evaluation of a Residential Drug Addiction Treatment Combining Traditional Amazonian Medicine, Ayahuasca and Psychotherapy on Depression and Anxiety. *Journal of Psychoactive Drugs* 1–10. doi: 10.1080/02791072.2020.1789247

Giove, R. (1996). Medicina Tradicional Amazónica en el tratamiento del abuso de drogas: *Experiencia de dos años y medio (92-94)*. CEDRO, Lima, 135p.

Giove, R. (2002). La liana de los muertos al rescate de la vida, medicina tradicional amazónica en el tratamiento de las toxicomanías. Tarapoto, Perú: Takiwasi.

Giove R., Mabit J. (Octubre 2022) Percepción y tratamiento del susto por madres de familia de la ciudad de Tarapoto, RPA *Revista Peruana de Antropología* Vol. 7, N° 11, pp. 32-50. <u>https://takiwasi.com/docs/arti_esp/percepcion-tratamiento-susto-tarapoto.pdf</u>

Grozdeva D., Dikova T. (2018) Gas discharge visualization – historical developments, research dynamics and innovative applications, September 2018, Scripta Scientifica Salutis Publicae 4:27-33, DOI:10.14748/sssp.v4i0.5448

Gualima Padilla R. (2021) "La enfermedad en las comunidades ashéninkas, el susto y el choque de aire", Revista *Amazonía Peruana* nº34, pp.79-98

Håland, R. 2014. Healing with Plants and Spirits. A Phenomenological and Ontological Perspective of the Treatment Practice of Patients and Visitors in Takiwasi, Peru. Master thesis, University of Oslo, Oslo, Norway.

Hargous S. (1985) Les Appeleurs d'âmes : L'Univers chamanique des Indiens des Andes, Albin Michel.

Hanus J-C. (2023) D'un corps à l'autre, Apparitions, bilocations, EMI, résurrection : le corps spirituel mis en lumière, Une réflexion sur l'idée d'un « corps profond », spirituel, unique et multimodal, Editions Grégoriennes.

Holbraad, M., Pedersen, M.A. (2017). The Ontological Turn: An Anthropological Exposition. Cambridge: Cambridge University Press, 352 pp

Holbraad M., Pedersen M.A. (2022) El giro ontológico, Una exposición antropológica, Colección Entregiros, Nola Editores.

Huguelet P. (2014) Psychiatrie et religion : par-delà les préjugés, Rhizome 2014/3 (n°54), pp. 3-4.



Husain, A.A., Huang, E.W., Mitrano, M. *et al.* Pines' demon observed as a 3D acoustic plasmon in Sr₂RuO₄. *Nature* 621, 66–70 (2023). <u>https://doi.org/10.1038/s41586-023-06318-8</u>

Jacquat M. (2000), *Petit précis de dahutologie* in L'Alpe N° 8, p. 20-25., Editions Glénat/Musée dauphinois, Grenoble.

Kahn D., (2021) La question des êtres élémentaires chez Paracelse. Roberto Poma; Maria Sorokina; Nicolas Weill-Parot. Les Confins incertains de la nature, Vrin, pp.213-237, 2021, 978-2-7116-3017-2. (hal-02887009)

Korotkov KG, Matravers P, Orlov DV, Williams BO. Application of electrophoton capture (EPC) analysis based on gas discharge visualization (GDV) technique in medicine: a systematic review. J Altern Complement Med. 2010 Jan;16(1):13-25. doi: 10.1089/acm.2008.0285. PMID: 19954330.

Latour B. (1994) « Une sociologie sans objet ? Remarques sur l'interobjectivité », Sociologie du travail, Elvisier.

Lecouteux C. (1988) Les nains et les elfes au Moyen Âge, Imago, 1988, 207 p. ; (1995) Démons et génies du terroir au Moyen Âge, Imago, 218 p. ; (2000) La Maison et ses génies : croyances d'hier et d'aujourd'hui, Imago, 202 p.

Lévi-Strauss C. (1962) La Pensée sauvage, Plon.

Lévi-Strauss (1997) Tristes tropiques, Terres Humaines, Plon, 500p.

Luna, L.E. (1986). *Vegetalismo: Shamanism Among the Mestizo Population of the Peruvian Amazon*. Stockholm: Almqvist & Wiksell International.

Mabit J. (1993) "El Monasterio de las cuevas del bambú: Shamanismo budista y toxicomanía", *Revista Takiwasi*, N°2, pp. 57-78, Tarapoto, Perú, 1993.

Mabit, J. (2007) Ayahuasca in the treatment of Addictions, In *Psychedelic Medicine (Vol. 2): New Evidence for Hallucinogic Substances as Treatments*, eds. Thomas B. Robert and Michael J. Winkelman, pp. 87-103. USA: Praeger Ed.

Mabit J. (1988) "El cuerpo como instrumento de la iniciación shamánica en la Alta-Amazonía Peruana", *Anales del II Congreso Internacional de Medicinas Tradicionales*, Lima, Perú, Julio 1988. Réédité : Mabit, J. (2021). *Plantas medicina y clínica terapéutica*. Editorial Libros Enteogenicos, Rosario, Argentina.

Mabit J. (2009) "Ayahuasca: memoria y conciencia, nuevas aplicaciones de una práctica indígena ancestral". Conférence inaugurale pour el 25ème anniversaire de la Society of Anthropology of Counsciousness, 15.04.2005, University of Massachussetts, USA., in *Psiquiatría y Salud Mental*, año XXVI, n°3-4, Julio-Diciembre 2009, pp.172-189, Santiago, Chile.

Mabit J., & González J. (2013). Hacia una medicina transcultural. Reflexiones y propuestas a partir de la experiencia en Takiwasi. *Journal of Transpersonal Research* 5 (2): 49-76. Traduction en français « Vers une médecine transculturelle. Réflexions et propositions fondées sur l'expérience du Centre Takiwasi" <u>https://www.takiwasi.com/docs/arti_fra/vers-medecine-transculturelle.pdf</u>



Mabit J. (2018) "Apports thérapeutiques de l'Ayahuasca dans le cas d'addictions, in "*Histoires et usages des plantes psychotropes*" sous la direction de Sébastien Baud, éditions IMAGO, 2018.

Mabit J. (2020) La integración de la sabiduría ancestral en el tratamiento de las toxicomanías: el caso del Centro Takiwasi, Dialogos transdisciplinarios ancestrales, Revista digital del Foro de Estudios, Investigación y Saberes Transdisciplinarios Ancestrales, Año 1, nº1, Mayo 2020, Cochabamba (Bolivia).

Makary M A, Daniel M. Medical error—the third leading cause of death in the US BMJ 2016; 353:i2139 doi:10.1136/bmj.i2139

Maneiro E. (2015) El perro sin pelo del Perú, una herencia milenaria. Edición bilingüe, Librería Cultura Peruana, pp 224.

McCoy B.F. (2006), Healers, Clinics and Aboriginal Peoples: Whose Health and Who Benefits ? Health Issues, 2006, Number 86, pp. 13-16.

Mendive F., Giovannetti C. & García Arce S. (2023) Ancient medicine for a modern disease: traditional Amazonian medicine to treat substance use disorders - Medicina Ancestral para una Enfermedad Moderna: Medicina Tradicional Amazónica para los Trastornos por el Uso de Sustancias, The American Journal of Drug and Alcohol Abuse, DOI: <u>10.1080/00952990.2023.2264466</u>

Mohr S, Brandt PY, Borras L, Gillieron C, Huguelet P. Toward an integration of spirituality and religiousness into the psychosocial dimension of schizophrenia. Am J Psychiatry 2006;163:1952-9.

Morin Edgar, 1995, Penser la complexité in Sciences humaines, n° 47, février 1995.

Narby J. (1997) Le serpent cosmique, l'ADN et les origines du savoir, Georg editeur.

Ona G, Berrada A, Bouso JC. Communalistic use of psychoactive plants as a bridge between traditional healing practices and Western medicine: A new path for the Global Mental Health movement. Transcultural Psychiatry. 2022;59(5):638-651. doi:10.1177/13634615211038416

O'Shaughnessy, D.M. (2017). *Takiwasi: Addiction Treatment in the "Singing House"*. PhD thesis, James Cook University, p. 286.

O'Shaughnessy, D.M., Berlowitz, I., Rodd, R., Sarnyai, Z., & Quirk, F. (2021). Within-treatment changes in a novel addiction treatment program using traditional Amazonian medicine. *Therapeutic Advances in Psychopharmacology* 11: 1–18. doi:10.1177/2045125320986634

Paracelse (1566 [1998]), *Le Livre des nymphes, sylphes, pygmées, salamandres et de tous les autres esprits*, trad. Sylvie Paris, Nîmes, Lacour-Ollé, 1998. L'édition Huser est intégralement consultable sur la base de données THEO, établie par Urs Leo Gantenbein (directement accessible sur www.paracelsus-project.org).

Plaquevent P.A. (2023) *L'orientation spirituelle contemporaine de l'Occident*. <u>http://www.pierreantoineplaquevent.fr/2022/06/02/lorientation-spirituelle-contemporaine-de-loccident-pierre-antoine-plaquevent/</u>



Politi, M., Friso, F. and Mabit, J. (2018). Plant based assisted therapy for the treatment of substance use disorders - part 1. The case of Takiwasi Center and other similar experiences. *Revista Cultura y Droga*, 23 (26), 99-126. DOI: 10.17151/culdr.2018.23.26.7

Politi, M., Friso, F. and Mabit, J. (2019). Plant based assisted therapy for the treatment of substance abuse disorder – Part 2. Beyond blurred boundaries, Revista Cultura y Droga 24 (28), 19-42., DOI: 10.17151/culdr.2019.24.28.2.

Politi M. and Lelia Pisani (2014) Traditional pharmaceutical recipes from a metabolomics perspective: Interviews with traditional healers in Mali and comparison with modern herbal medicines, Advancement in Medicinal Plant Research Vol. 2(1), pp. 1-6, January 2014.

Politi M., Giorgia Tresca, Marco Soffiato, Richer Garay Montes, Fernando Mendive (2019) Phytochemical profiling of Amazonian herbal medicinal products: The role of traditional processing methods Journal of Medicinal Herbs and Ethnomedicine 2019, 5: 1-7 doi: 10.25081/jmhe.2019.v5.3832 <u>https://updatepublishing.com/journal/index.php/jmhe/</u>

Reátegui U., Tournon J. (1988) Enfermedad y medicina entre los shipibo conibo del alto Ucayali, Amazonía Peruana, VIII, Núm. 15; 1988. pp. 9-31.

Reyna Pinedo V. (2002) La soba o limpia con cuy en la medicina tradicional peruana, Laika Comunicaciones Ed., 116 p.

Rush, B., Marcus, O., Garcia, S., Loizaga-Velder, A., Loewinger, G., Spitalier, A. & Mendive, F. (2021). Protocol for Outcome Evaluation of Ayahuasca-Assisted Addiction Treatment: The Case of Takiwasi Center. *Frontiers in Pharmacology*. doi: 10.3389/fphar.2021.659644

Rush B. et al, (2023) Ayahuasca Treatment Outcome Project (ATOP): One Year Results from Takiwasi Center and Implications for Psychedelic Science, J Stud Alcohol Drugs. 2023 08 24 [Online ahead of print] https://www.unboundmedicine.com/medline/citation/37615330/Ayahuasca_Treatment_Outcome_P roject_(ATOP): One_Year_Results from_Takiwasi_Center_and_Implications_for_Psychedelic_Sc ience

Saucedo, G., Friso, F., Torres, J., & Politi, M. (2018). Uso de tecnologías de la información en la gestión de un centro de medicina integrativa especializado en adicciones. *Revista Peruana de Medicina Integrativa* 3 (3): 123-31. doi: <u>http://dx.doi.org/10.26722/rpmi.2018.33.92</u>

Schouten, Anna & Sager, Leeann & Mazziotti, David. (2023). Exciton-Condensate-Like Amplification of Energy Transport in Light Harvesting. PRX Energy. 2. 10.1103/PRXEnergy.2.023002.

Stengers I., Nathan T. (2012), Médecins et sorciers, Paris, La Découverte, coll. « Les Empêcheurs de penser en rond », 230 p.

Sumner LW, Mendes P, Dixon RA, (2003) Plant metabolonmics: largescale phytochemistry in the functional genomics era. Phytochemistry, 62(6):817-836.



Tournon, J., & Silva, M. (1988). Plantas para cambiar el comportamiento humano entre los shipiboconibo. Anthropologica, 6(6), 161-176.

Tresca G., Olivia Marcus & Matteo Politi (2020) Evaluating herbal medicine preparation from a traditional perspective: insights from an ethnopharmaceutical survey in the Peruvian Amazon, Anthropology & Medicine, 27:3, 268-284, DOI: 10.1080/13648470.2019.1669939

UNICEF-CILA (2012) Shipibo, territorio, historia y cosmovisión, Instituto de investigación de Lingüista Aplicada (CILA), Universidad Nacional Mayor de San Marcos, Lima, y UNICEF.

Viveiros de Castro E. (2014) Perspectivisme et multinaturalisme en Amérique indigène, Journal des anthropologues 2014/3-4 (n° 138-139), pp. 161-181

Whitehead N., Wright R. (2004). In Darkness and Secrecy. The Anthropology of Assault Sorcery and Witchcraft in Amazonia. Durham : Duke University Press.



13