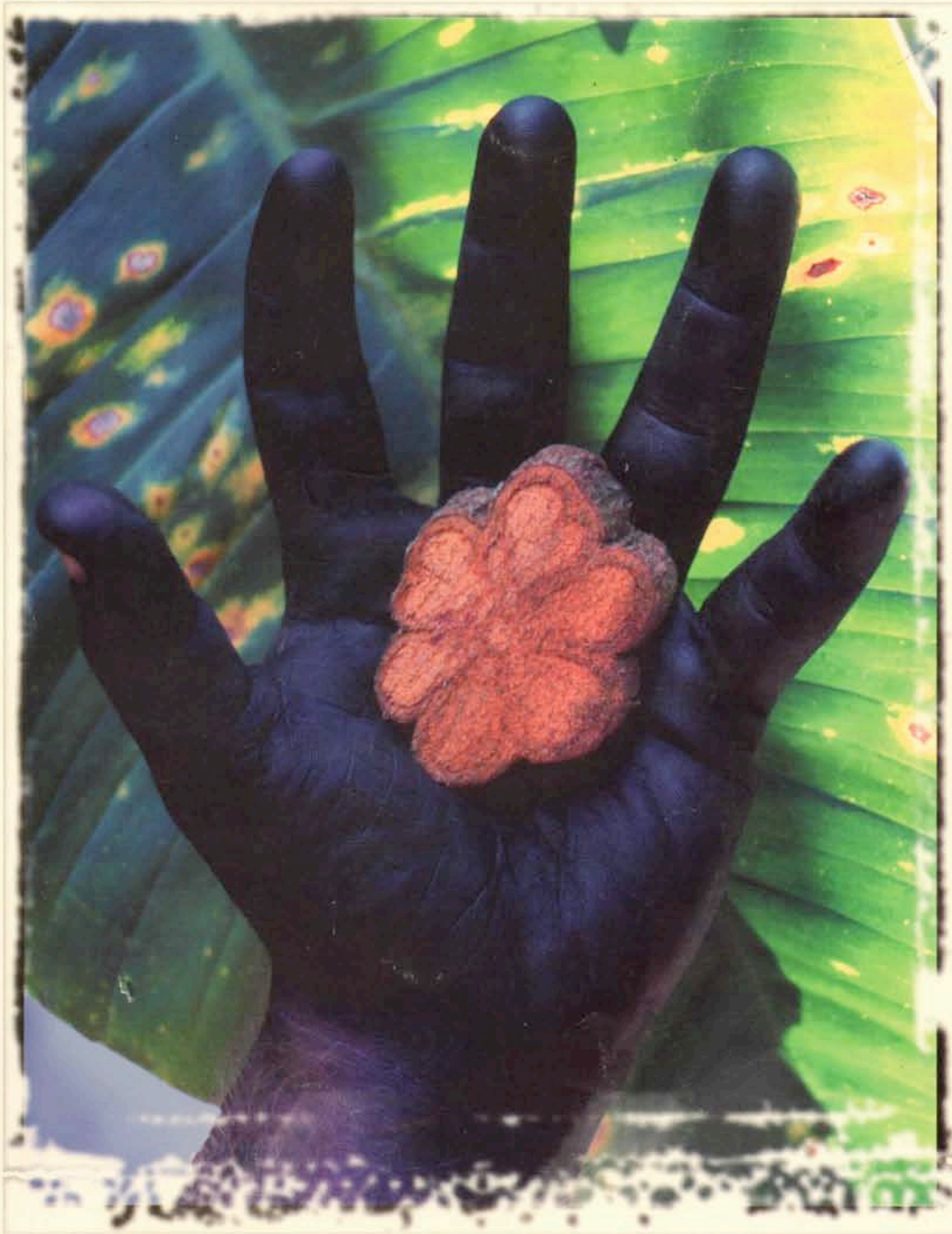


MIAPS



Please
LOOK
ONLY!

THIS
IS
NOT
FREE!

Thanks
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The front & back cover photos were taken near Iquitos, Peru by photographer Jim McGuire.

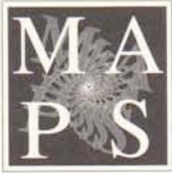
front cover: The hand—holding a cross section of *Banisteriopsis caapi* vine—is covered in *huito*, a fruit pulp which is mixed with clay that stains the skin blue for several days. Some *ayahuasqueros* have people cover their bodies with *huito* as part of the regimen of cleansing in preparation for taking ayahuasca.

back cover: *Banisteriopsis caapi* in its natural habitat.

“I went to Peru to work with the *ayahuasquero*, don Agustín Rivas-Vasquez. Agustín required a period of purification and ritual before I was allowed to ingest the “vine of the dead.” I found ayahuasca to have a purgative effect, literally and figuratively; it seemed to expel unresolved emotional issues. I could see the “big” picture which was rather unpleasant but had the seeds of expansion and awareness. The brew was a poison and a medicine. The experience was deeply cathartic and showed aspects of the Self that warranted revisiting.

I am curious how this plant is going to affect the modern value system of the individuals who choose to visit its essence.”

—Jim McGuire



MAPS

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SEVERAL important regulatory decisions will be made this Fall that will profoundly impact MAPS' efforts to catalyze research with psychedelic drugs and marijuana.

We expect the FDA to respond soon regarding the third draft of the MAPS-supported MDMA research protocol submitted on July 25, 1998 by Charles Grob, M.D. and Russell Poland, Ph.D., Harbor-UCLA Medical Center. The protocol is for an experiment designed to administer MDMA to breast cancer patients in a dose-response study. The study will primarily investigate issues related to the safety of administering MDMA to breast cancer patients. Preliminary information will also be gathered about possible long-term changes in levels of anxiety and depression related to a diagnosis of cancer. These psychological changes will be the focus of any future efficacy studies, assuming the safety issues can be adequately resolved. We anticipate that this protocol will become the first FDA-approved study of MDMA in a patient population.

Letter from Rick Doblin, MAPS President

In October, 1998 the National Institutes of Health will complete the review of a MAPS-supported grant application for the study of marijuana in patients whose migraines require a visit to the emergency room. The grant application was submitted earlier this year by Ethan Russo, M.D., University of Montana. Dr. Russo's grant application is the second he has submitted to NIH; the first was rejected. As far as we know, Dr. Russo is the only researcher in the U.S. currently seeking approval for a study of any medical use of marijuana in a patient population. Unfortunately, the National Institute on Drug Abuse (NIDA), which has a monopoly on the supply of marijuana legal for FDA-approved research, continues to impose excessive restrictions on all medical marijuana research proposals. NIDA's policies prohibit all privately-funded projects from receiving supplies of marijuana and require government funding before any medical marijuana project can go forward. Needless to say, obtaining government funding for medical marijuana research is no easy task. It can be done, however, as MAPS and Donald Abrams, M.D., UC San Francisco, have demonstrated. Dr. Abrams has published an article about our struggle to obtain permission for his study; (Abrams D, Medical Marijuana—Tribulations and Trials. *J of Psychoactive Drugs*, 30(2), 163:169. April-June 1998.) Dr. Abrams is currently treating patients in his study, the first to evaluate the medical use of marijuana in a patient population in fifteen years.

Data analysis will soon be completed on a major research project supported by MAPS, the 35- to 42-year follow-up study of the pioneering LSD research of Dr. Oscar Janiger. A positive and lengthy cover article about the follow-up study appeared in the July 2, 1998 issue of *LA Weekly* and was reprinted in other weekly papers. The article is available on the Internet at www.laweekly.com in the archive section. The next big issue of the *MAPS Bulletin* will feature a complete report on the results of this follow-up study.

In Israel, Moshe Kotler, M.D., Ben-Gurion University of the Negev, is in the midst of the protocol design process for a MAPS-funded project intended to investigate the use of MDMA in the treatment of patients with post-traumatic stress disorder (PTSD).

In the Netherlands, a preliminary report by Nicole Maalsté and Hans Ossebaard, Utrecht University, is expected soon regarding their MAPS-supported follow-up study of Dr. Jan Bastiaans' LSD therapy in the psychological treatment of concentration camp survivors.

One personal note—My wife, Lynne, and I are expecting our third child in mid-November. For those looking for evidence of brain damage as a result of my prior use of psychedelics, the conscious decision to add yet another element of chaos to our lives may be it. Yet we look forward to new life with enthusiasm and exhaustion.

Best wishes, Rick Doblin, MAPS President

Perspectives on DMT Research

From **DMT: The Spirit Molecule**, a book in progress

Rick Strassman, M.D.

Prelude: The First Sessions

IN NOVEMBER, 1990, we gave Philip the very first dose of DMT in our research project. In this case, we were going to administer it by the intramuscular (IM) route. This is in contrast to how we later gave DMT. As you'll see, the effects of IM DMT were too slow and we changed to the IV (intravenous) route after this, Philip's first session.

Philip was 45 years old when he began the DMT project. Bespectacled, bearded, and of medium height and build, he was an internationally-known clinical psychologist, psychotherapist, and workshop leader.

Philip had smoked DMT before and I was glad he had. He and Nils, our second volunteer, had taken it in Philip's house about a year before. This was the day after a Peruvian shaman, or folk healer, had conducted a religious ceremony using plants that contain DMT. This psychedelic plant brew is called ayahuasca or yage, the famous "vine of the soul," or "vine of the dead." The two men were enthusiastic about this orally active form of DMT, and were eager to smoke it that next day, when some members of the workshop made it available. They wanted to feel its effects in a much more immediate and intense manner.

Philip's and Nils' experiences on smoked DMT were typical of many people's. Incredibly rapid onset of effects, a kaleidoscopic display of visual hallucinations, and separation of consciousness from the physical body. And, most curiously, there was a feeling of "the other" somewhere within the hallucinatory world to which DMT allowed them entrance.

While I could not encourage psychedelic drug abuse, only experienced psychedelic drug users were potential candidates for our research. This is partly for reasons of informed consent. Can someone really know what they are getting into with this type of research without having had their own experiences beforehand?

It was hard to believe we were actually now able to give DMT. The two-year process of obtaining permission and funding, which I felt would never end, was finally behind me. Attaining the goal never seemed as likely as a continual struggle to do so. While it was an historic day, the fact that we were going to be giving Philip DMT by the intramuscular, or IM, route had me already thinking ahead. I thought the IM method might be too slow and mild compared to the smoked drug. What I had read about IM DMT suggested it took up to a minute to start working, much longer than the smoked method, where effects are felt while holding the breath from the first inhalation. But, since all but one previously published research paper on DMT used the IM method, I was obliged to begin this way. I thought 1 milligram per kilogram (mg/kg), or about 75 mg, would be a moderately high dose based upon the older medical literature.

It was at least five years since I gave anyone an IM injection of anything, and I was nervous about giving our first dose of DMT this way. What if I missed? Probably the last IM injection I gave was the anti-psychotic drug, haloperidol, to an agitated patient with psychosis. These patients often had arms and legs restrained involuntarily by psychiatric orderlies or the police beforehand, to make sure the patient's disorganized and frightened state didn't end in violence. This also kept the patient's arm in a relatively stable position for me to inject them.

While it was some years ago, I did remember the confidence with which I used to give IM shots, having given hundreds over a nearly 10-year span. I liked giving shots. The secret was to think of the syringe as a dart. We were taught in medical school to pretend you were throwing a dart into the rounded shoulder muscle of the patient's arm, or else the gluteus maximus muscle, which makes up most of the bulk of our buttocks. A single, fluid motion, letting go just as the needle pierced the muscle through the

In introducing MAPS readers
to my book-in-progress:
DMT: The Spirit Molecule,
I hope a sense
of the multitude of feelings:
excitement and anxiety,
discovery and responsibility,
awe and confusion,
surrounding our
DMT research
is at least
partially conveyed.

skin, usually gave excellent results. We had practiced on grapefruits.

Philip, however, was neither a grapefruit, nor an acutely psychotic patient delivered up to me for involuntary tranquilization. He was a professional colleague, friend, and research volunteer with equal footing to us in many ways. Philip was to be the scout. Cynthia, our research nurse, and I were to remain at "base camp," to hear about where he went after he returned.

I practiced my technique in the air, walking down the hall, before entering Philip's room.

I explained what we were about to do: "I'll wipe your shoulder with some alcohol. Take as much time as you need to collect yourself. Then, I'll inject the needle into your arm, draw back to make sure I'm not in a blood vessel, and then squeeze the plunger on the syringe. It might sting, or it might not. You ought to feel something in a minute or less. And, I'm not sure what that something will be."

His eyes were closed, already preparing to venture into unknown territory, a territory only he would perceive, leaving us behind to look after his life functions. He opened his eyes widely to look at us once more.

He needed little time to calm and prepare himself. He closed his eyes again and said, "I'm ready." The injection went without a hitch.

After about 60-90 seconds, Philip opened his eyes and began breathing more deeply and looking "altered." His pupils were large, he began groaning, and the lines of his face smoothed. He closed his eyes while Robin, his new girlfriend, held his hand. He looked up at her at about 25 minutes.

His first words were "I could have done more."

We all breathed a collective sigh of relief.

Forty minutes after the injection, he started speaking slowly, and haltingly, in his soothing voice.

"I stayed in my body," he said, meaning he stayed aware of his "physical self" throughout the session.

He continued, "Compared to smoked DMT, the visuals were less intense, the colors were not as deep, and the geometric patterns did not move as fast."

He sought my hand for comfort. My hands were damp from nervousness, and he laughed good-naturedly at my anxiety, which was clearly greater than his!

When he arose to go to the bathroom, he was quite shaky. He returned and drank grape juice and ate some yogurt, while filling out our rating scale. He felt "spaced-out" while we walked back and forth to another building where I had to do some errands. I wanted to accompany him and see how he was for the next hour

or two. He seemed well enough three hours after his DMT. We said good-bye in the parking lot, and I told him I'd call him later that night.

When we spoke that night, Philip said Robin and he went to eat lunch after leaving the hospital. He immediately felt more alert and focused. While Robin drove them the 40 miles to her home, in the mountains outside of Albuquerque, he was euphoric and colors seemed brighter. He sounded quite happy on the phone.

Philip sent me a written report a few days later. Most important was his last comment: "I expected to jump to a higher level, to leave the body and ego consciousness, the jump into cosmic space. But this did not happen."

Philip did not believe the effects broke through the "threshold" he expected. This threshold, what we have called the "psychedelic threshold" for full DMT effects, is crossed when there is a separation of the mind from the body, and the complete replacement of the mind's contents with the effects of the drug. There was a sense of wonder, awe, and a feeling of undeniable certainty in the reality of the experience. This level of effect was not found in Philip's experience with IM DMT.

I was glad to have someone like Philip in the role of "human guinea pig." He was psychologically mature and stable, familiar with the effects of these drugs, and could make clear, understandable comparisons among different drugs' effects. I felt reassured in the correctness of enrolling only experienced psychedelic users for this research.

Philip's report left no doubt that IM DMT effects lagged behind those of smoked. We could have given a higher dose of intramuscular DMT, but I didn't think the IM route would ever give the "rush" that is one of the hallmarks of smoked DMT. This rush refers to the first 15-30 seconds of DMT's effects, when the entire shift from normal to psychedelic reality takes place

with breathtaking speed. Perhaps the fact that there is so little time to prepare for the rush makes the effects of DMT so unusual. There was not much someone could do, except hold on, and watch, and remember. There was no working up to it.

Because our work focused on the effects of psychedelics as normally experienced by typical users, we believed it important to reproduce as closely as possible effects of smoked DMT, the way it is normally used "on the street." In addition, I also thought that since DMT is produced naturally in the human body, the best way to determine its effects and possible role in our mental lives is to get it into the brain as fast as possible. A more rapid way of getting it into the system was clearly needed.

Smoking DMT on the Research Unit was impossible. Besides

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the terrible smell of burning DMT, likened to that of burning cellophane, we didn't know what potentially harmful by-products of burning DMT were produced and might get into the lungs. Nor were we certain that all the DMT would be absorbed by smoking. DMT smokers typically describe needing to take 3-4 long "tokes," or inhalations, to get the full effect. I knew that as DMT is smoked, the room seems to be shattering into millions of crystal-line pieces, and your body with it. Deciding whether you were inhaling or exhaling was complicated enough, let alone making sure you got enough DMT vapor into the lungs.

I spoke with my colleague who had made the DMT, Professor David Nichols at Purdue University, an international authority on psychoactive drugs. He thought a switch to the intravenous route was necessary, but he was glad he wasn't going to be the one giving it!

I then called the physician at the FDA who was overseeing this research. He said five words that surprised, reassured, and frightened me, all at the same time: "You're the expert. You decide."

This was true, but the implications of his remark were great. The re-opening of American psychedelic research with humans had begun with this project, by my conceiving of and shepherding through the protocol through two gruelling years. Now I was doing it. With this responsibility came some uncertainty, too. Was I really up to this, despite the many years of training? The challenges and risks seemed almost too great. And now, after our first dose of DMT, I was faced with having to decide to do something with DMT never done before: giving it directly into the bloodstream of a normal volunteer by the IV route.

The only previously published information on IV DMT was from one report published in the 1950's. And, that project studied severely disabled patients with schizophrenia, most of whom were not able to give clear reports of their experiences. In fact, one unfortunate schizophrenic woman's pulse was not detectable for a short while after her dose of IV DMT. I was glad we had made certain all our volunteers had healthy hearts.

The FDA physician continued, "Try about one-fifth the IM dose when you switch to the IV route. That will probably give you lower maximum blood and brain levels of DMT than you produced by giving it IM, and you should have some room to maneuver."

Philip and Nils both eagerly volunteered for this new and uncharted phase of the research, finding a satisfactory IV dose of DMT in normal volunteers. Since both had smoked DMT, we could compare directly the effects of IV to smoked drug. And, in Philip's case, we could compare IV to IM routes.

Nils, who lived in Arizona, moved in with some friends in

New Mexico for a month so he could start the DMT study. He was 36 years old when he began participating in our research. Nils supported himself for the last 15 years by dealing drugs: marijuana, LSD, and psilocybin-containing "magic" mushrooms. He had also written popular underground pamphlets, under a pseudonym, about smoking the psychedelic venom of the Sonoran desert toad, which contained high levels of a compound closely related to DMT, 5-methoxy-DMT. Nils was a long and lanky fellow, charming, and fun to be with. He was keenly interested in psychedelics, and always was looking for a neglected plant or animal product that might produce a psychedelic effect. He was a store-house of obscure plant and chemical information. He had taken LSD many times, having "lost track after the 150th dose." Nils was no stranger to psychedelic drugs and their effects.

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Nils was powerfully moved by his first and only use of smoked DMT, taken at Philip's the year before. He said, "It made strong telepathic impressions causing mental bonds with the people around me. This was confusing and overwhelming. I became very excited, as an inner voice spoke to me. This was my intuition directly relating to me. It was the most intense experience of my life. I want to go back. I saw a different space with bright bands of color. I couldn't raise my hands, I tripped so hard. It is a mental Mecca, an excellent reference point for all other psychedelics. Those around me looked like alien space insects. I realized they were all part of it, too."

Nils received 0.2 mg/kg intravenous DMT about a week after Philip's first IM dose, in November, 1990. Similar to Philip's first ever dose of DMT, while the actual administration was a landmark, I also felt it was just a dry-run, a rehearsal for the real thing, as I believed we would certainly go beyond 0.2 mg/kg. Such is the method of medical research: slow, baby steps to ensure no harm is caused. Unfortunately, it is sometimes hard to listen to one's own advice, as will be seen soon enough.

The actual quantity of DMT solution was small when it arrived on 5E of the University of New Mexico Hospital, the site of the Research Center, no more than a cc (cubic centimeter), one-sixteenth of a tablespoon. So that I could control the rate of giving the drug, without squirting it all in at once, I added an additional 4 cc of sterile salt water. While this would dilute the DMT in the blood stream only an insignificant amount, I now could slowly and smoothly give the drug in one continuous "push" over a minute or so.

Cynthia, our research nurse, and I sat on either side of Nils, who was inside his familiar regulation Army sleeping bag. He took this bag with him when he travelled, both literally and figuratively: when he would travel on the road, or when he would

take a psychedelic drug "trip." As the injection was half-way complete, he said, "Yes, I taste it." Nils turned out to be one of the few volunteers who could taste the DMT as the drug-rich blood rushed passed through his mouth and tongue on the way to his brain. A metallic, slightly bitter, taste.

Upon finishing the injection, I noted and was impressed with how quickly the DMT solution had made its way upward. I thought, "This seems to be fast enough." I finished the injection by flushing his IV line with a small amount of additional sterile salt water, to ensure that any DMT sticking to the sides of the tubing was washed free and delivered entirely to his bloodstream.

My notes are sketchy as to the effects of 0.2 mg/kg IV DMT on Nils. This may have been because he is a taciturn man by nature, or because I was not impressed with the intensity of the experience either. But, he did say he thought this dose of DMT was "maybe one-third to one-fourth" a full one, relative to his smoked DMT experience.

Perhaps feeling a little puffed up with confidence by the ease with which these first two sessions, Philip's IM and Nils' IV, had gone, I decided to proceed immediately to three times Nils' IV dose: to 0.6 mg/kg. In retrospect, a more cautious move to 0.4 mg/kg, the aforementioned "baby step" forward, was definitely in order. My confidence was premature. Thankfully, I didn't jump to 0.8 mg/kg, which I would have done if I had followed up Nils' comment that 0.2 mg/kg was one-fourth a full dose.

One cold windy Albuquerque morning in December, 1990, I entered Nils' room. He was lying under his Army sleeping bag, awaiting the first 0.6 mg/kg dose. Cynthia had placed a small needle into a forearm vein, for injecting the DMT solution. She was sitting on his right side, while I was on his left, where the tubing from the intravenous line was dangling off his arm. Philip also was here, as he was scheduled to receive this same dose later in the morning, if things went well with Nils. Philip sat at the foot of the bed, curious as to what Nils was about to experience, and to provide moral support for all of us. Little did we suspect we'd need him to give us physical support, too.

I infused the solution of DMT somewhat more quickly than I did for his previous 0.2 mg/kg dose, over 30 seconds, rather than 45. I thought a faster injection might produce less dilution of the DMT in the bloodstream, and thus produce higher peak blood, and therefore brain, levels. After the infusion of drug and saline flush were complete, he said, "I can taste it... Here it is!" Immediately after saying this, he started tossing and turning under his sleeping bag. He then sat up with a start, "I'm going to vomit."

He looked at us, dazed and uncertain. Cynthia and I looked at each other at the same time, and realized we had nothing for him

to throw up into. We never thought people would vomit. He mumbled, "But, I didn't have any breakfast... so there's nothing to throw up." Nils was becoming agitated, pulling the pillow and sleeping bag over his face. He curled into the fetal position, away from us and the blood pressure machine, kinking the tubing connecting the cuff to the machine. We could not get an adequate blood pressure reading at either 2 or 5 minutes, when we expected it to be at its peak, and potentially dangerous, level. He "tried" climbing out of the bed, but this seemed to be more a purposeless flailing of his arms and legs, a substantial volume of limbs in someone 6'4". His hands were cold and clammy as all three of us maneuvered him back into the now- too-small-

seeming bed. He retched at 6 minutes into a basin we found in the closet. Because he had to sit up to do so, we got a chance to reposition him in a way that would let us see him more clearly, and to get a blood pressure and heart rate recording.

He then reached out to Cynthia for some contact, touching her arm and sweater. He looked as if he were about to stroke her hair, but quickly seemed to forget what he was going to do. He began staring at me, saying, "I need to look at you now, not Philip or Cynthia." I did my best to look calm, answering his gaze with my own; praying quietly he would be all right. By 10 minutes, when we finally got a satisfactory reading, his pulse and blood pressure were surprisingly normal. At 19 minutes, he sat up on his elbows and laughed. He looked very "stoned:" large pupils, lopsided grin, mumbling incoherently.

He finally said, "I think the best high dose is between 0.2 and 0.6."

We all laughed and the tension in the room dropped a few notches. Nils still had his wits about him, at least at that moment.

He continued, "There was the movement of the self. I am disappointed that it's ending. It was a cafeteria of colors. A familiar feeling. Yes, I've returned. *They* were there and we recognized each other."

I asked, "Who?"

"No-one or thing identifiable as such." He still seemed quite under the influence; I did not want to press him.

He continued, "Coming down from the high was very colorful, but it was boring compared to the peak. At the peak, I knew I was back where I had been when I smoked it last year. It was a lonely feeling leaving there.

"I thought I had gotten really sick. I felt you hovering over me, like I was dying, and you all were trying to resuscitate me. I hoped everything was all right. I was just trying to catch what was happening inside."

He paused, and said, "I'm tired. I'd like to nap, but I'm not really sleepy."

"Those around me

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Nils had little to say beyond this, other than that he was ravenously hungry, having (fortunately) skipped breakfast. He ate heartily while filling out our rating scale. So, even Nils thought 0.6 mg/kg was "too high"!

I spent a few minutes in the nurses' lounge, reflecting upon what we had just seen. From a cardiac point of view, Nils' blood pressure and heart rate had been only moderately affected, although we missed the readings at their presumed peak. Thus, there seemed to be no physical harm from administering 0.6 mg/kg IV DMT. However, I was not sure if the thinness of Nils' report was because he could not remember what had happened, or if it was more of his style to keep most of what had taken place to himself.

I wondered about "them," with whom he had re-acquainted himself. What did he mean, "We recognized each other"? Why was he "lonely" as he left "them"? He thought they were "friends" and was sad to part. I was intrigued by Nils' sense of the "inhabited" nature of his experience. This did not jive with many of the stories I had heard about other psychedelics, such as LSD or psilocybin mushrooms, but did with many of the DMT tales I had heard while interviewing DMT users for the development of our rating scale.

We had clearly broken through the "psychedelic threshold." The suddenness and intensity of onset, the irrefutable nature of the experience, the temporary (and perhaps too prolonged) disorientation at the beginning while getting his bearings, the inhabited sense Nils described, all added up to a "full" DMT dose, according to both Nils' report, and with stories I had heard about DMT from other users. But was it too far beyond the psychedelic threshold? Nils was a self-acknowledged "hard head," requiring higher doses than most to attain comparable levels of altered reality perception from the same drug. How would Philip fare?

Philip and I walked down the brightly lit hall. We passed Nils in the hall, looking for more food. He felt great. I was happy to see how well Nils looked so quickly after being pushed off a seeming psychic cliff.

I asked Philip, "Are you sure you want the same dose?"

"Yes," he immediately replied.

I was not so sure.

I hoped Philip, as we prepared for his session, would decline undergoing an experience such as Nils just had. Perhaps he would settle for 0.5 or 0.4 mg/kg, which would have been easy enough to do, stopping short of emptying the entire syringe full of DMT solution. While I believed this dose most likely was physically safe, the mental effects loomed in front of all of us with even more uncertainty than they had before Nils' session. However, Philip was not to out-done by his friend and fellow "psychonaut." He was ready for his 0.6 mg/kg dose.

This tendency in our volunteers, to persevere even under the possibility of an annihilating psychedelic experience, was marked. It was most apparent during our tolerance study, in which no volunteer, no matter how worn out, refused the fourth and final high dose of DMT in one morning.

I was faced with a scientific, personal, and ethical dilemma. My training was such that one always had to prescribe a little too much of a medication to see what toxic effects were, to be able to recognize them quickly in various circumstances. This is even more important when a new experimental drug is involved. I could have told Philip I did not want to repeat the 0.6 mg/kg DMT experience with him. That was within my power as the principal investigator of the project. But, Nils seemed fine now, his blood pressure and heart rate never approached dangerous levels, and most importantly, Nils was the first and only person to get this dose of DMT. I had planned to give two 0.6 mg/kg doses that morning, and saw no convincing reason not to. Philip lived far from Albuquerque, and to force him to drive there again to get 0.6 mg/kg if 0.4 or 0.5 were not "enough," would have inconvenienced him. Also, I liked Philip, and he did want his dose of 0.6 mg/kg. How much of a role did my valuing our friendship, and doing as he requested to maintain it, play? Many competing priorities. I hoped I made the right decision by agreeing to give Philip 0.6.

Philip and I joined Cynthia and Robin, his new partner, in his room. Another 0.6 mg/kg IV DMT session was about to take place. Philip's bare and sterile room had brightly waxed linoleum floors; salmon pink walls; and tubes for oxygen, suctioning of secretions, and water, exiting from behind the bed. He had taped a poster of Avalokitesvara, the 1000-armed Buddhist saint of compassion, on the outside of the closed bathroom wooden door which faced his bed. A television attached by a maze of cables hung from the ceiling, looking down at his mechanized, single bed covered with thin hospital sheets. The air conditioning hummed loudly. He wore a t-shirt and pants, laid down on the bed, and made himself as comfortable as possible.

Cynthia smoothly and skillfully inserted an intravenous line into one forearm vein for giving the DMT. This arm also had wrapped around it the blood pressure cuff. His other arm had a larger IV in place for blood drawing, so we could measure concentrations of DMT in blood after administering it. This line was attached to a clear plastic bag dripping sterile salt water into the vein, so the blood in the blood-drawing tube would not clot. Cynthia and I sat on either side of Philip, not sure what to expect in light of Nils' reaction.

Robin sat off to the side, near the foot of the bed. Philip, fresh

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from Nils' harrowing session only an hour ago, needed little preparation for the process of drug administration, and what to expect from us while he was laying in bed, most likely unable to move, speak or otherwise interact. He knew we would get up and help him if he needed it. We wished him luck. He closed his eyes, laid back, took some deep breaths and said, "I'm ready."

I watched the second hand of the wall clock approach the "6", so I could finish the 30 second injection of drug at the "12", what was seeming more to me as "time zero." It was nearly 10 a.m.

Just as I finished inserting the needle of the syringe containing the drug into his intravenous line, but before depressing the plunger, emptying the DMT solution into Philip's vein, there was a loud, insistent knocking on the door. I looked up, paused, and removed the needle from the line, capped it, and placed it on the nightstand next to Philip's bed.

Dr. Davis, the Director of the Research Center Laboratory, was waiting outside the door. We stepped into the hall, out of ear shot from the room. He said, in a curt and what seemed, in my own heightened state of awareness, a little too loudly, that previous blood samples for DMT analyses had been incorrectly collected. I told him we would modify our technique.

I then let myself back into Philip's room, and took my chair by the side of his bed once more. He seemed unaware of the interruption, having begun the inward turning and letting go which we have found allows for the smoothest possible entry into the DMT realms. For him, in this way, "the trip had already begun."

I took a deep breath, and apologized for the interruption. Trying to joke, I said, "Where were we now?" He replied with only a grunt, opened his eyes, nodded for me to proceed, and closed his eyes again. I uncapped the syringe, and inserted its needle into his IV. Cynthia nodded, too, to go ahead if I were ready.

I said, "Okay, here's the DMT."

I slowly and carefully began infusing the 0.6 mg/kg DMT into his vein.

Half-way through the injection, Philip's breath caught in his throat, sounding like a cough that never quite got out. Later, we were to find that whenever this catching in the throat followed a high dose injection, we were in for a wild ride. Twenty-five seconds after the infusion was complete, he began groaning, "I love, I love..." His blood pressure rose, and his heart rate jumped to 140 beats per minute, up from his resting level of 65 beats per minute. This rise in pulse is about what would happen racing up 3-4 flights of stairs. But in this case, Philip hadn't moved an inch. At one minute, he sat up, looked at Cynthia and me with saucer-sized eyes, his pupils hugely dilated. His movements were automatic, jerky, puppet-like. There seemed to be "no-one home"

behind Philip's movement.

Philip leaned toward Robin and stroked her hair: "I love, I love..." Twice this morning, a volunteer in a dazed state, attracted to a woman's hair. Nils to Cynthia's, Philip to Robin's. Perhaps it was the most powerful image of living, organic, familiar existence available when one looked around, in such a highly psychedelic state, a dreary hospital room, as Philip and Nils both found themselves today.

To our relief, he laid back down without prompting or assistance. His skin was cold and clammy, as Nils' had been, his blood drawing poorly from the vein because of the intense vasospasm. This is where, due to high levels of adrenaline, the tiny muscles lining the veins clamp down, reducing "unnecessary" blood flow to the skin.

His body was in a classic "fight or flight" reaction: high blood pressure and heart rate, cold clammy skin, blood moving into the vital internal organs, all while performing almost no actual physical activity. At 10 minutes, he began to sigh, "How beautiful, how beautiful..." Tears ran down his cheeks. "Now that was what you would call a transcendent experience. I died and went to heaven." He continued, "There were less visual effects, more feeling."

His pulse and blood pressure were completely normal at 30 minutes.

"It was flying within a vastness. There was no relative space or size."

I asked, "What did you feel when your breath caught in your throat?"

"I felt a cold, contracting feeling in my throat. It frightened me; I thought maybe I would stop breathing. The thought, 'Let go, surrender, let go,' was there for a split second, then the rush of the drug swept even that away."

"Do you recall sitting up and stroking Robin's shoulder and hair?"

He replied, "I did what?"

Forty-five minutes after the injection, drinking tea and no longer feeling any effects of the drug, he said he had no recollection of sitting up, looking at us, or touching Robin.

He and Robin drove 90 miles to his home later that day, and we spoke the following evening. He felt a little run down, but had slept very well. He had "more interesting than usual" dreams, although not particularly bizarre ones, which nevertheless, he could not remember. He worked 10 hours the next day, although "not at full steam." However, "Nobody but I would have noticed I was tired."

Amazingly, these are all the notes I have from that session and the next day's report. This is in great contrast to Philip's usually quite eloquent descriptions of his drug sessions. Maybe his getting through the session safely was the important information

"Now that

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experience.

I died

and went

to heaven."

I really needed from him.

After Philip's session, comfortable with his state and confident Robin could look after him, I walked out of the north end of University Hospital. I went through a hard-to-find door in this building, which has been added on to piecemeal for the last 30 years. An icy breeze whipped around my face, jolting me from my reverie. I squinted into the sun and sighed, exhausted from the morning's activities.

There were several explanations for why Nils and Philip had such poor recollection of their experiences. One possibility relates to what is known as "state specific memory." State specific memory refers to what happens when things perceived, felt, and thought in an "altered state of consciousness" are not accessible during the "normal" state. This occurs with drugs such as alcohol and marijuana, and prescription drugs like the sedatives, Valium or Xanax. It also occurs with non-drug altered states, such as hypnosis as in the so-called post-hypnotic suggestion, or in dreams.

Another possibility is that Nils and Philip may have suffered from a brief delirium, an "acute organic brain syndrome" or "acute confusional state." This term comes from the Latin, *de*, "from, or out of," and *lira*, "a furrow;" literally, "going out of the furrow," or "out of it." Delirium can be caused by overwhelming psychological stress, or physical factors such as fever, lack of oxygen, drugs, or low blood sugar.

I was unsure how much "psychological stress" contributed to Nils' and Philip's brief episodes of confusion, or "deliria," early on in their sessions. How much was a "reaction" to the drug's effects, rather than a direct effect of the drug itself? That is, climbing a ladder to view a scene of unimaginable shock value might throw one into a delirious or confused state, but it is not the ladder, rather the view the ladder provided, that's responsible. Was what Nils and Philip saw so bizarre, so incomprehensible, so utterly aberrant, that the lights just went out to spare them the shock of seeing clearly what was there? Sadly (or perhaps not) they nor we may never know.

In either case, too much drug or too much experience, whatever 0.6 mg/kg IV DMT did to these two seasoned psychedelic veterans, it was "too much."

Philip went on to develop a month or two of "flashback"-like symptoms from his 0.6 mg/kg experience. These will be discussed in the chapter on adverse effects, which will cover the topic in general, and describe what we have seen in our own work. We stayed in close contact during this time, both by phone and in person. He referred to his 0.6 mg/kg session as "a cosmic blow torch... a tempest of color, bewildering, like I was thrown overboard into a storm and spinning out of control, being tossed like a cork."

Driving the 40 minutes to our home in the mountains outside of Albuquerque that night, I had time to think. I was glad that both these intrepid volunteers had come out the other side of their 0.6 mg/kg sessions intact. But, I also thought, "What was the point of giving doses of DMT that didn't lay down any accessible memories?"

Professor Nichols and I again discussed DMT dose. What should be a lower "high" dose? A 0.5 mg/kg dose would only be one-sixth less, while a 0.4 mg/kg dose would be a full one-third less. It was hard to decide. I had several conflicting motivations. One of these was a desire that volunteers "got enough," so as to

make their participation worthwhile, in what I was concerned might be an overly demanding study. On the other hand, I did not want to have volunteers' "minds blown" from too much DMT. "First of all, do no harm" is the overriding dictum for medicine in general, and for research with humans even more so. Having a group of psychically damaged volunteers was not an option.

Sobered by Philip's and Nils' 0.6 mg/kg sessions, I decided to make 0.4 mg/kg our top dose of DMT for future studies.

Later in the month, I had the opportunity to speak by phone with Dr. Stephen Szara, the Hungarian psychiatrist and chemist who was the first person to inject himself with intramuscular DMT, having found that it was inactive orally. This took place in Budapest in the mid-1950s. Soon thereafter, Dr. Szara immigrated to the US, where he embarked upon a successful 30-year research and administrative career at the National Institute on Drug Abuse.

I asked Dr. Szara, "Did you ever give too much DMT to your volunteers?"

He thought for a moment, and answered in his thick East European accent, "Yes. They could not remember anything. They could not bring back memories of the experience. We did not believe it worthwhile administering those kinds of doses."

After administering 0.4 mg/kg IV DMT to 56 volunteers over 100 times, I have seen that there is an extra-ordinarily wide range of sensitivity to this dose of DMT. A few have said, "I could have done more." However, there also have been those who said they would have dropped out if the dose were any higher. And some, even at this lower dose, could not remember what happened at the peak effects. I am glad we decided to perhaps "under-dose" some, rather than "over-dose" any more people, as we did Philip and Nils.

Lastly, while driving over the winding mountain roads home, I was struck by several themes that appeared in Nils' and Philip's accounts. These were to be repeated many times over by our volunteers, and serve to inspire much speculation about what happens on high doses of DMT. While in this article, I'm not

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enthusiastic about numbering items, there are many but discrete topics that were raised by their sessions that day.

1) The "inhabited" nature of the DMT realms. Who or what do our volunteers encounter? Where do "they" reside and what is their nature? How do we address what they "say," or "tell" us? Are they figments of the "imagination" or do they represent denizens of independent, free-standing "alternative" realities?

2) The near-death, or death theme. How is it that people believe they have died, or are near death, on a high dose of DMT? Is this indeed a foretelling of the state encountered at the time or death? Or is it a so-called "near-death experience," whose relevance to actual death is hotly debated?

I have proposed that the pineal gland might produce DMT and other tryptamines at the time of death. If this were the case, might a "dry-run," using "outside administered" DMT, the same compound released at the time of death, provide practice for those either dying, or interested in the dying process?

3) The religious/spiritual nature of the experience. Near-death states share much with mystical/religious experiences. These, then share much with high-dose psychedelic sessions. My years of practice and study with a Buddhist contemplative organization inspired and helped shape my thinking about our DMT work. Now that these sorts of experiences were being had by our volunteers, how would the "rubber meet the road"?

Many senior students had shared with me the importance of their own psychedelic experiences in prompting their pursuit of the monastic, meditative life. Could those same leaders of an organized religion, albeit one based upon mystical consciousness, absorb and hold experiences that traditionally were brought on by what are disparagingly referred to as "intoxicants," or the "wine of delusion."

On the other hand, could these drugs be used to help religious practitioners? Or, could they hurt the progress of those practitioners? If these drugs are to be used "religiously," how is the best way to do so?

4) The element of fear that accompanied both of our courageous volunteers' initial entrance to the DMT state. The sudden, unexpected, unpreparable, and totally compelling nature of the shift from normal reality to that of DMT is the "acid test" of one's ability to let go. People's inability to manage this transition seems to be the major ingredient in the development of adverse reaction, to both DMT, and later on, we would find, to psilocybin.

5) My motivations for giving DMT. Was this another example of "research is me-search"? In retrospect, I ought to have given a lower dose than 0.6 mg/kg. We could have gone to 0.4 mg/kg, and then if that weren't "enough," 0.5 or 0.6, depending on how close to "enough" we had gotten.

However, as alluded to, there were many conflicting feelings

driving my decisions to give 0.6, and as time went on, many more issues involving my relationships to our volunteers emerged. In general, I wondered if I were up to the challenge. Was Pandora's box opened? Should it have been kept shut? Were there greedy and manipulative motives conflicting with altruistic and helpful ones? What effect did giving so much DMT to so many people have on me: personally, psychologically, professionally, spiritually? How did it impact my family?

6) The model. While scientific data collection was the sine qua non of this research, how did this model affect our volunteers? What are other competing models? Is "psychedelic

research" an oxymoron, a contradiction in terms? Along these lines, who should give psychedelics, and how should they be trained and monitored? Should people have their own experiences if they administer the drugs?

7) Are these drugs good or bad? That is, what is the real benefit to risk ratio? Were more people helped more than they were hurt? Who was helped, and who was hurt? How are these terms even defined? Could we predict who had what type of response?

How important is set and setting? If these drugs have inherent utility, is just sitting around quietly enough? How much preparation, guidance, and supervision should be provided? If "stacking the deck" in favor of a particular type of reaction is to be encouraged, how then does the role of the drug itself take shape? Do you even need a drug?

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This was not easy work. Neither was it ever straight-forward or conflict-free. Three years have elapsed since we left New Mexico, and this research ended. Even with that much time, answers to questions raised by this project are not yet as in-focus as I wish they were. However, the questions are becoming clearer. It is only by asking the right questions that the debate

surrounding psychedelics can be enlarged adequately enough for us to find the best answers.

In introducing MAPS readers to my book-in-progress, *DMT: The Spirit Molecule*, I hope a sense of the multitude of feelings: excitement and anxiety, discovery and responsibility, awe and confusion, surrounding our DMT research is at least partially conveyed. •

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A Pharmacological Study of **Ayahuasca** in Healthy Volunteers

Jordi Riba and
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Although ayahuasca is not as widely used by the general public as amphetamine derivatives of the MDMA type, it has achieved a certain popularity and is beginning to attract media attention in Spain; in Summer 1997 a weekly general interest magazine labelled it a "fashionable drug" on the Spanish island of Ibiza.

THERE CAN BE few natural psychoactive preparations whose consumption has increased so spectacularly as has that of ayahuasca in Europe over the last decade. The Amazonian inebriant *par excellence*, whose Quechuan name means "vine of the souls" or "vine of the dead" enjoys great prestige among several intellectual circles and in certain religious practices of Brazilian origin as a medium facilitating introspection and self knowledge. The fact that it is natural is highly valued in these spheres, to the detriment of synthetic drugs with analogous properties to which, in contrast, inferior qualities or clearly harmful properties are attributed. Although ayahuasca is not as widely used by the general public as amphetamine derivatives of the MDMA type are, it has achieved a certain popularity and is beginning to attract media attention in Spain; in Summer 1997 a weekly general interest magazine labelled it a "fashionable drug" on the Spanish island of Ibiza.

Our study aims to be the first controlled pharmacological study of ayahuasca in humans undertaken in a Western country and with local volunteers who are familiar with its consumption. In this first phase we do not intend to discuss the possible adverse psychopathological effects derived from repeated consumption, nor to study the hypothetical therapeutic qualities suggested by some. In addition to collecting information about the preparation's pharmacokinetics and tolerability after the administration of different single doses we also aim to place special emphasis on its neurophysiological and subjective effects; quantitative pharmacoelectroencephalography and an evaluation scale of the subjective effects of hallucinogens, whose validation in Spanish will be undertaken in the course of the project, will be used respectively. We also aim to model pharmacokinetic-pharmacodynamic relationships using *N,N*-dimethyltryptamine (DMT) plasma levels and the modifications observed in the electroencephalogram.

In addition to the study's pharmacological aspects we propose to collect information regarding phenomenological aspects of the experience through interviews with the volunteers after the experimental sessions. This is a very ambitious project indeed and our group is therefore in contact with Rick J. Strassman, a psychiatrist who consulted, and James C. Callaway, a neurochemist who participated in the 1993 Hoasca Project¹ and who have kindly made valuable suggestions for the carrying out of this study.

We shall now take a brief look at the recognised pharmacological aspects of ayahuasca and comment on the objectives and methodological issues of this study.

The pharmacology of ayahuasca

As most readers will be aware, ayahuasca, a brown-reddish drink with a strong taste and smell, is a shamanic drug originating in the Amazon. It is obtained from infusing the shredded stalk of the malpighiaceae plant *Banisteriopsis caapi* with the leaves of other plants, generally *Dyploteris cabrerana* or *Psychotria viridis*. During the cooking process, which may last for hours, a plethora of chemical compounds from these plants enter the infusion. *Banisteriopsis caapi*'s chief contribution is three alkaloids generically known as β -carbolines, namely harmine, tetrahydroharmine and to a lesser degree harmaline, while *Dyploteris cabrerana* and *Psychotria viridis* contribute large quantities of *N,N*-dimethyltryptamine, or simply DMT. The final chemical compositions of ayahuasca infusions show great variability owing to fluctuations in the alkaloid contents of the plants used in its preparation, the differing extraction times and different practices with regard to the greater or lesser concentration of the infusions once obtained.

Of the four main alkaloids which the drink contains it is DMT which is chiefly responsible for its hallucinogenic effects. DMT is a potent ultra-short acting hallucinogen present in numerous species of plant growing in temperate and tropical regions. Before its presence in

¹Grob CS, McKenna DJ, Callaway JC, Brito GS, Neves ES, Oberlaender G, Saide OL, Labigalini E, Tacla C, Miranda CT, Strassman RJ and Boone KB (1996) Human Psychopharmacology of Hoasca, a Plant Hallucinogen Used in Ritual Context in Brazil, *J of Nervous and Mental Disease* 184(2):86-94.

ayahuasca was discovered it had in fact been identified, along with other indole derivatives in *Anadenanthera* hallucinogenic snuffs which had been used in South America since before Columbus. The compound is remarkable within the hallucinogen family because of its pharmacological characteristics; when administered parenterally it produces extremely strong effects which are felt almost immediately (intravenously) or within around ten minutes (intramuscularly), to disappear within the space of about half an hour or forty-five minutes. Surprisingly, when the drug is administered orally it provokes no psychoactive effects whatsoever, even in doses as high as a gram, appearing to be entirely destroyed in the intestines and at hepatic level by monoamine oxidase (MAO), an enzyme which is widely distributed throughout the body, and thus prevented from reaching systemic circulation and the brain. Because of DMT's inactivity when taken orally several other methods of parenteral administration have been used; *Anadenanthera* and *Virola* snuffs are taken through the nose and synthetic DMT has circulated in a free base form for smoking.

On a molecular level DMT interacts equally with serotonin 5-HT_{1a} and 5-HT_{2a/2c} receptor sites, just like LSD does. Unlike LSD, however, repeated administration of DMT does not lead to tolerance of the subjective effects, or at least it has not done so in studies carried out to date. Furthermore, DMT does not show cross tolerance with this classic hallucinogen; that is, an individual who has developed tolerance to the effects of LSD through repeatedly taking the drug will experience full hallucinogenic effects if administered a dose of DMT.

What is truly extraordinary about ayahuasca is that in a single preparation it combines DMT which is inactive when taken orally with the β -carbolines referred to above. These tricyclic compounds, to which proserotonergic and prodopaminergic properties are attributed, lack hallucinogenic activity but *in vitro* they display a potent inhibiting activity with respect to the MAO enzyme, or to be more precise, the isoenzyme MAO-A. In line with the generally accepted hypothesis the β -carbolines' inhibiting of this enzyme would prevent the oxidative deamination of the DMT, which could then reach and exercise its effects on the central nervous system. The experience which follows the ingestion of ayahuasca differs from the effects of parenterally administered DMT by being less intense and of greater duration; the onset of its effects is not instantaneous but occurs approximately an hour after ingestion and the effects usually last for a maximum of two hours, to disappear altogether after around three or four hours. In addition, adverse events such as nausea and vomiting, which are not observed in the parenteral administration of DMT and which are attributable to the action of the β -carbolines, frequently occur. The inhibiting of the MAO brings with it an increase in endogenous catecholamine and serotonin levels which would modulate the effects of the DMT, either reinforcing them or, as has also been postulated, reducing them given that the DMT now has to compete for the 5-HT₂ receptor with higher serotonin levels.

Design of the study and objectives

The study will be carried out at Hospital St. Pau in Barcelona and has been approved by the hospital's Ethics Committee and by

the Spanish Ministry of Health, which is responsible for approving clinical studies undertaken in the country. A total of 18 healthy volunteers of both sexes will participate, all of whom are acquainted with the effects of ayahuasca, or if not, with other hallucinogens. The study has been designed to take advantage of the presence of local people who are aware of the effects of ayahuasca and are in principle willing to take part in a study of this nature. The inclusion of individuals with experience of these drugs was decided on at the outset; using subjects who were not familiar with them seemed to us ethically unacceptable, a criterion which would doubtless be shared by any ethics committee, granted that the use of such drugs is not entirely without risk. To minimize the risk of adverse reactions appearing during the sessions special emphasis will be placed on the psychiatric examination of volunteers during the selection stage, and they will be put in contact with team members and able to familiarise themselves with the facilities in which the study will be carried out before the sessions begin. They will also be fully informed as to the nature and objectives of the study and will be required to give prior written consent to their participation.

During the course of the investigation two doses of ayahuasca (0.5 and 0.8 mg/kg of DMT) and one placebo will be administered. The study has been designed as a double blind, that is, neither the subject nor the researcher will know whether the drug administered is ayahuasca or a placebo, and if it should be ayahuasca they will not know the size of the dose. The double blind condition will be maintained until the information gathered is analyzed. The investigation will be cross-over and randomized, which is to say that the 18 participant subjects will receive the three preparations in totally random order, and a washout period of two weeks between experimental sessions will also be established.

Given the study's double blind nature the ayahuasca used will not be administered in its normal liquid form, as the preparation's appearance, color and flavor would prevent its being administered without the subject's knowledge. To achieve efficient masking the following process will be carried out: the ayahuasca will undergo a lyophilization process in which the water in the infusion is eliminated in a high vacuum chamber at low temperature, after which the solid obtained will be homogenised and analyzed. In this way the different alkaloid concentrations per gram of lyophilized product can be determined and the doses adjusted according to the main active element, DMT. Finally, a quantity of the lyophilized substance corresponding to 0.5 mg/kg and 0.8 mg/kg of DMT will be encapsulated for each subject; the quantity of β -carbolines administered in each dose will also inevitably vary. Instead of obtaining natural ayahuasca, lyophilizing and encapsulating it, we initially considered the option of administering a synthetic analogue which combined variable quantities of DMT with fixed quantities of β -carbolines. This would have permitted the elimination of the "background noise" of increasing levels of β -carbolines and other undesirable effects predominantly attributable to these compounds, but would have yielded results that could not have been applied to the natural preparation, which is ultimately the subject of the study. So, the study's objectives are as follows:

1. Description of the pharmacokinetics of *N,N*-dimethyltryptamine and β -carbolines, the main alkaloids in ayahuasca, after the oral administration of increasing doses of the preparation.
2. *In vivo* determination of MAO inhibition provoked by ayahuasca.
3. Quantification of ayahuasca's pharmacological effects on the central nervous system: neurophysiological and subjective effects.
4. General tolerability of the preparation.
5. Study of the concentration-response relationships (PK/PD).

Pharmacokinetics

The aim is to study the pharmacokinetics of the four main alkaloids present in ayahuasca, that is their absorption, distribution and elimination through determining their plasma levels at regular intervals. So, having administered two single different doses the plasma levels of *N,N*-dimethyltryptamine, harmine, harmaline and tetrahydroharmine will be quantified.

The MAOI effect

On a peripheral level the pharmacodynamic effect studied will be the inhibiting of the monoamine oxidase enzyme previously referred to. Blocking noradrenaline, dopamine and serotonin's natural metabolic breakdown pathway leads to measurable variations of these compounds in plasma and, in the case of dopamine and noradrenaline, to variations in the relationships between the metabolites obtained through this pathway and those deriving from the action of another degrading enzyme named catechol-O-methyl-transferase or COMT. One of this study's objectives is the *in vivo* verification of the inhibiting of MAO associated with ayahuasca, the effect which is generally assumed to be responsible for DMT's activity when administered orally. An alternative method traditionally used to study MAOI activity consists of determining the degree of platelet MAO inhibition; in comparison with the determination of monoamines and their metabolites in plasma, this approach does not have the drawback of requiring a complex analytical technique. However, its use in the study of selective inhibitors of MAO has been called into question as the predominant isoenzyme in the platelets is MAO-B, which consequently would only be inhibited by drugs with either non-selective blocking activity or one specific to isoenzyme B.

Effects on the Central Nervous System

There are many problems inherent in studying the effects of hallucinogens on the central nervous system. Their eminently subjective nature hinders quantification and the fact that they are highly incapacitating makes it difficult for volunteers to undertake tasks or communicate with the evaluator. The evaluation of drugs' effects on the central nervous system is usually carried out via psychomotor performance tests and by using questionnaires to which the subject responds at regular intervals before and after taking the drug, or which may be completed by the evaluator according to the volunteer's responses.

These tests and scales have been used with numerous psychoactive drugs which, although potent, do not completely prevent the subject from performing tasks nor from interacting with the evaluator. However, given the profound alteration of consciousness experienced by the subject after a hallucinogen has been administered and the overwhelming nature *per se* of the

effects of hallucinogens, asking the subject to actively collaborate by completing these scales is not feasible. Certain Visual Analogic Scales (VAS) which require minimal cooperation from the subject, and questionnaires which may be completed once the drugs' effects have worn off, are perhaps an exception.

Subjective effects study

The subjective effects will be studied through the use of scales which permit the ayahuasca's effects to be quantified. However, the subjects will not respond to the questions until the effects of the ayahuasca have worn off. One of the scales for use is the Hallucinogen Rating Scale developed by Rick J. Strassman, which has been translated by our group and whose validation in Spanish forms part of the study. The scale contains 100 items grouped according to six clinical factors which are characteristically affected by hallucinogens: cognition, volition, somesthesia, intensity, perception and affect. According to its author, this scale describes the effects produced by DMT more accurately than pre-existing scales, which were compiled on the basis of data gathered after the administration of LSD.

This scale does not permit the time sequence of the drug's effects to be followed and it will not therefore be possible to establish correlations with plasma levels, but it does allow the overall quantification of these effects to obtain numerical values which in principle will be in relation to the dose of the drug administered. One of the study's objectives, therefore, is to verify the validity of a scale which, despite being designed for a specific compound (DMT) and a specific means of administration (intravenous) also aims to be of use with other hallucinogenic drugs and other methods of administration.

Neurophysiological study

An alternative method which does not require the volunteer's cooperation and is therefore free from the limitations mentioned above is quantitative pharmacoelectroencephalography. This neurophysiological method, which is totally painless, non-invasive and causes minimal distress to the individual, permits the continuous registration of variations in the electrical activity of the brain cortex caused by drugs which act on the central nervous system. The electrical activity picked up by electrodes placed on the scalp is measured at regular intervals and can then be digitalized and submitted to a frequency analysis from which a series of variables is extracted. These then undergo statistical analysis to determine whether any of the 32 variables characteristically generated by the brain's electrical activity has been significantly altered with the administration of the drug, and whether the variation is dose-dependent.

The relative simplicity of registering this electrical activity allows information to be obtained continuously throughout the experimental session. This permits the subsequent correlation of the plasma levels of the drug administered (pharmacokinetic variable), in this case DMT, with the effect it sets in motion on the cortex's electrical activity (pharmacodynamic variable) in an integrated pharmacokinetic-pharmacodynamic model.

Tolerability

Tolerability refers to the modifications observed in the subject's vital signs after the drug's administration and any event, either physical or psychological, regarded as unpleasant by the

subject. The following vital signs will be measured at varying intervals during the experimental sessions: systolic and diastolic blood pressure, heart rate and body temperature; as all these variables can be modified by the different activation of the serotonergic pathways, variations in their rates and levels can be expected. All adverse events which may be produced will also be registered.

In addition, electrocardiograms and clinical analyses will be carried out between the experimental sessions to check whether these parameters have been affected by the administration of the ayahuasca.

Pharmacokinetic-pharmacodynamic modelling

We intend to approach the task of correlating pharmacokinetics and pharmacodynamics through using data on the evolution of the DMT plasma concentrations and information from the encephalography, in such a way that will enable us to describe the evolution of the ayahuasca's effects for each individual. This approach aims to go beyond classical dose-response curves, which are subject to great individual variability because of factors which may not be of a pharmacokinetic nature. Using this approach in the present study is particularly attractive because we are faced with a prototypical case of theoretic applicability in that the biophase (CNS) of the main active constituent (DMT) is clearly outside the denominated central compartment (plasma) so the maximum plasma concentrations and maximum central effect can be expected to be out of phase to a certain extent.



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Conclusion and acknowledgements

To summarise, this study aims to contribute to knowledge of the acute effects of ayahuasca, a plant hallucinogen which is widely used in South America and is becoming increasingly popular in our culture. Including highly-motivated volunteers who are acquainted with its effects will ensure the safety of the experimental sessions as far as possible and will permit the study of the pharmacokinetics at increasing dose levels, central neurophysiological and subjective effects, tolerability, and peripheral effects of a preparation whose characteristics are highly interesting from a pharmacological point of view and which has scarcely been studied up to the time of writing. We wish to express our gratitude to Dr. Rick J. Strassman at the University of British Columbia (Canada) for his advice on translating the Hallucinogenic Rating Scale, and to Dr. James C. Callaway at the University of Kuopio (Finland) for his useful suggestions and support in this early stage of the study and for offering to analyze the ayahuasca samples which will be used. Finally, we would also like to thank Rick Doblin and Sylvia Thyssen at MAPS for kindly inviting us to make our project known to the *Bulletin's* readers. •

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Religions of the ^{Twice}Born:

Northwest Amazonian **Ayahuasca Shamanism** and Near-Death Experience



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READING FOR A Ph.D. in Social Anthropology at Cambridge University, my project falls within the remit of current international multidisciplinary research initiatives directed towards an analysis of the biopsychosocial dynamics of hallucinogenic plant-induced "altered states of consciousness" with a view to developing new therapeutic treatments in the West for a variety of mental disorders. At present this research has specialised in the area of cross-cultural transference of medical knowledge appropriate to the establishment of accelerative pharmacological adjuncts to existing cocaine treatment protocols in Europe and America. However, it is hoped that successes in this field will qualify the use of such treatments in the psychotherapeutic rehabilitation of other substance dependency and depressive disorders.

Background

The successful clinical application of LSD-25 experience in the the psychotherapeutic preparation *for death* of terminally ill cancer patients (Kast, E. 1966; Grof, S. 1977) has led more recently to an examination of the potential of such hallucinogenically induced experiences for *augmenting* conventional analytic psychotherapies aimed at the rehabilitatory preparation *for life* of patients manifesting self-destructive disorders (drug abuse, etc.) (Grof, S. 1975, 1980). The proposed project is intended to explain further the link between certain categories of non-ordinary consciousness and the long-term, psychotherapeutically conducive self-referential "attitude changes" consequent to such experiences. To do this it hypothesises that the efficacy of such experiences in contributing to the rehabilitation particularly of drug dependents rests in large measure on the

explicitly *systemic* insights and cognitive orientations characterising human consciousness in proximity with an immediately perceived threat to its existence (so called "Near-Death Experience," or NDE).

Locale

Fieldwork for this project will be conducted in Iquitos, Peru. Given the high density of shamans inhabiting Iquitos and its jungle environs as a consequence of urbanisation, and the frequency with which a substantial proportion of the general population is involved in ritual/institutionalised near-death-type shamanic experiences (hallucinogenically induced), this Amazonian city presents itself as the ideal setting for research into the biopsychosocial dynamics of shamanistic/near-death attitude changes. Iquitos further satisfies the demands of the proposed research in that shamans are both accessible and open in their

magico-medico-religious practices with regard to local authorities, cosmopolitan health services, "state" religion, and foreign research workers.

More research on the NDE needed

While both ethnopharmacology and ethnopsychiatry, and the associated disciplines of medical anthropology and medical sociology, have made extensive studies of the indigenous therapeutic uses of hallucinogenic plants such as ayahuasca there remains a great deal of work to be done before the knowledge derived from the analysis of ethnomedical approaches may be fully accommodated within the modern clinic and the practice of scientific medicine. In cooperation with the international body of medical doctors, psychologists and anthropologists presently conducting collaborative research towards effecting such a transfer this project will afford a new anthropological explanatory perspective on a core dynamic (NDE) of hallucinogen-based psychotherapies. This may serve to legitimate further the claim that hallucinogenic plants and the indigenous knowledge associated with their cultivation, preparation, and administration have potentially a major role to play in the development of psychopharmacological preventative and alleviative treatments for the sorts of individual and social suffering characteristic of inveterate substance abuse and similarly self-destructive behaviors. In addition, the proposed research will fill a gap in more generally relevant cross-cultural understandings of the nature, role, and function of NDE, a phenomenon the incidence of which inevitably increases in line with the ever-improving resuscitatory technologies of biomedicine (a 1992 survey revealed that 13 million people in the United States alone had undergone some form of NDE). A collaborative presentation of the results of these research initiatives has been entered for the *Hannover 2000 Millennium Exposition*. •

Acknowledgements

On completion the results of the research project will be presented for examination by the Department of Social Anthropology and the Board of Graduate Studies at Cambridge University in the form of a doctoral dissertation not exceeding 80,000 words in length.

I would like to take this opportunity to express my sincerest gratitude to MAPS for offering me a stipend for travel to the Takiwasi Center in Tarapoto, Peru, in the context of my research into the biopsychosocial dynamics of the long-term attitude changes consequent to the ritualised near-death-type experience components of ayahuasca-based healing initiatives.

Ayahuasca in Europe

Alberto Groisman

IN THE END of the 1980s, the Brazilian cults of ayahuasca arrived in Europe. These groups use ayahuasca in a ritual and religious context, with an influence from Amazonian culture, shamanism, esoteric Christianity and Afro-Brazilian cults.

The first of these groups was founded in the 1930s, in Acre, an Amazonian state of Brazil. Nowadays, a branch of this original group, well known as Santo Daime, has more than 20 centres in different European countries.

The arrival and presence of Brazilian ayahuasca cults in Europe is the subject of my Ph.D. thesis, which is expected to be concluded in 2000.

Since October 1996, I have collected data on different aspects of ritual life, social context, motivations and personal perceptions of European participants. Since 1997 I have concentrated my attention on the Dutch Santo Daime groups, as the main study case. When I conclude the data collection in The Netherlands, I will start to research other countries.

The principal elements on which I am focusing in my research are: (a) meaning and impact of the arrival and presence on European territory of these Brazilian groups; (b) cosmological and ritual configuration of the existing centers; (c) influences and changes provided by the European setting in their ritual and doctrine, and (d) the worldview and spiritual style of European participants.

With regard to these aspects, I will analyse: (1) cross-cultural dimensions of the process of organisation of European groups; (2) contrasts and analogies between Brazilian and European styles; and (3) the way by which Christianity in a new sacramental guise is returning to Europe.

I would be grateful with comments and/or any other support to my research. •

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Ideas and reflections associated with **ayahuasca** visions

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AYAHUASCA IS FAMOUS for the visions it generates.

These have been discussed in the anthropological literature, and increasingly, they receive attention in the non-scientific, popular press. In an earlier report in MAPS as well as elsewhere (Shanon, 1997) I have made the case for a systematic study of the contents of these visions and presented data pertaining to them. These data indicate that common content items appear in the visions of individuals from different personal and cultural backgrounds. The most salient of these are serpents, the large cats (jaguars, tigers and pumas, but not lions), birds and palaces. Other frequently seen items include beings of all sorts, scenes pertaining to ancient civilizations (notably Egypt and the pre-Colombian American high cultures), open landscapes (e.g., large meadows and savannas) as well as celestial and heavenly scenes. Most of the objects seen in the visions are made of gold and gilded material, crystal, precious stones and white cloth. The corpus of ayahuasca visions depicted in *Ayahuasca Visions* (Luna & Amaringo, 1993) exhibit similar patterns. From the point of view of cognitive psychology, such findings are significant because they seem to attest to a level of cognitive universals of a totally new kind. Unlike the universals normally considered in the psychological literature, which have to do with schemes of thought and formal structures, the commonalities manifested in ayahuasca visions have to do with content. Moreover, the content items are specific—they are not general patterns of the drama of human life. In this respect the images differ from the Jungian archetypes which pertain to the different manifesta-

tions of themes such as the great mother, the adventurous youth, the hero, the wise old man, birth and death. Such themes are, of course, part and parcel of the human saga, regardless of place, time, socio-economic affiliation, intellectual level or cultural and educational background. The items commonly found in ayahuasca visions are categorically different. They are specific and non-reducible to the psychology of personality dynamics. As suggested by Huxley (Huxley, 1972), they may be regarded as indicative of layers of the psyche, or perhaps facets of ontology, which have nothing to do with individual psychology.

Other effects of ayahuasca

Salient as the visions are, they (along with the non-visual "hallucinations" that the brew induces) are not the only effects that ayahuasca induces. Another important facet of the phenomenology of the ayahuasca experience are ideas, insights and reflections. Many individuals report that the brew makes them think faster and be more intelligent. Some persons with extensive experience with ayahuasca even indicated that with time, these ideational effects are more meaningful than the visions. In general, under the effect of ayahuasca, people report that they are more insightful and given to new ideas than usual. Furthermore, it seems that the intoxication makes people more involved with deeper psychological analyses and with philosophical contemplation.

Naturally, the subject matter of thoughts that pass through a person's mind during the intoxication are prone to reflect the interests and concerns this person normally has. Very often, when consuming the brew, people ask for answers or solutions to specific questions or problems that actually bother them in their lives. They often gain insights with respect to personal questions, find answers or solutions that are subsequently applied in their lives, and also find comfort and solace.

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One person with extensive experience with ayahuasca told me that what the brew gives one is access to what he characterized as "divine wisdom." This term, he further explained, denotes all that can be known on any subject. The knowledge to be gained by any particular individual will depend on the interests and wishes of the person in question. "If the person is interested in philosophy he will learn more about philosophy, he wishes to gain understanding about the nature of the human mind he will become wise on that, if what interests him is being a thief, it is this in which he will become more knowledgeable."

This insight notwithstanding, it seems that as with the visions, the ideas entertained during ayahuasca intoxication exhibit some common, interpersonal features. These pertain to the domains being reflected upon, the general types of contents that become significant, and the overall perspectives from which things are being viewed. To my knowledge, this is a topic that has not received any attention or treatment in the scientific literature, neither anthropological nor psychological. The cognitive import of this phenomenon cannot, I think, be overstated.

Subject group demographics

As indicated in a previous MAPS report (*MAPS Bulletin* 7(3) pp 13-15.), in my work I have interviewed many subjects in different places, in different contexts of ayahuasca use, and with different levels of experience in its consumption. Here I focus on one group of subjects which I characterize as "independent drinkers." All are residents of Brazil, most of them of Rio de Janeiro and almost all are of the middle class. Ayahuasca is a central facet of their lives, and all partake of it regularly. At the time of the interview, none were mem-

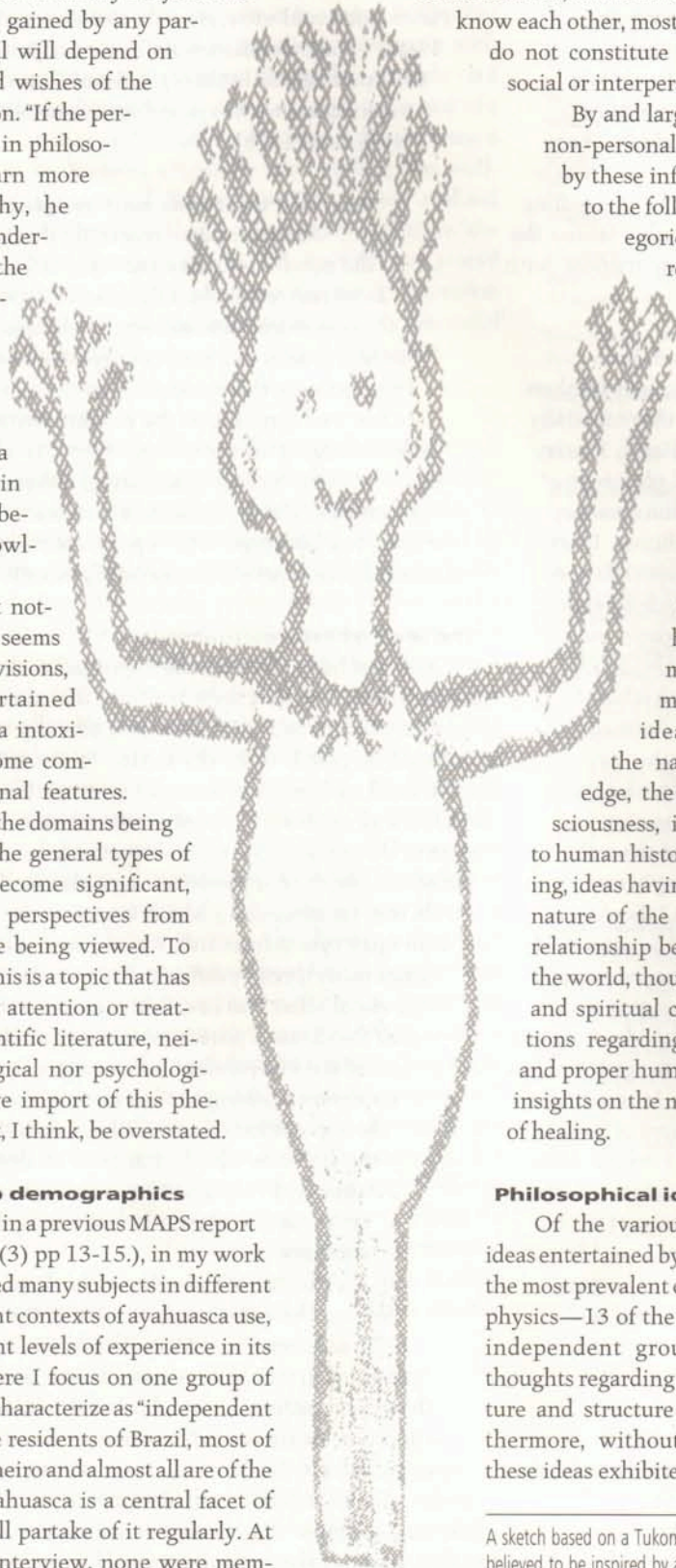
bers of any institutionalized group or sect. This group of informants is comprised of 21 persons, 15 males and 6 females. The characterization of the informants as a group pertains to the design of the research; while some of these people know each other, most do not and they do not constitute a group in any social or interpersonal sense.

By and large, the ideas of a non-personal nature reported by these informants pertain to the following main categories: metaphysical

reflections about the ontology and the structure and meaning of reality, reflections about nature and the phenomenon of life, insights regarding the human predicament and the meaning of life, ideas concerning the nature of knowledge, the mind and consciousness, ideas pertaining to human history and its meaning, ideas having to do with the nature of the Divine and the relationship between God and the world, thoughts of religious and spiritual character, reflections regarding ethical values and proper human conduct, and insights on the nature and praxis of healing.

Philosophical ideas

Of the various philosophical ideas entertained by the informants, the most prevalent concerned metaphysics—13 of the members of the independent group entertained thoughts regarding the ultimate nature and structure of reality. Furthermore, without exception, all these ideas exhibited one particular



A sketch based on a Tukonoan wall decoration believed to be inspired by ayahuasca visions.

metaphysical view, one which I would characterize as monistic idealism. Specifically, people feel that there is an aspect or level of reality which is non-material and that this defines the essence or the foundation of all Existence. They felt that all things are interconnected, and that in their totality they constitute one harmonious whole. With this, people appreciate that there is sense and reason to all things and that reality is invested with great, heretofore unappreciated, meaningfulness. Significantly, some specific expressions reoccurred in the words of different individuals. Those which appeared most often are "everything is spirit," "everything is interconnected," "all is one," "this world is an illusion," "everything has meaning," "the different levels and aspects of reality exhibit the same essential structure." My own first-hand experiences with ayahuasca reveal similar patterns.

Similarity with Western philosophies

These ideas are reminiscent of ideas put forth by many thinkers of both the East and the West. Of the latter, ones that especially come to mind are Plato, Plotinus, Spinoza and Hegel. Huxley referred to these by the umbrella term "perennial philosophy;" Huxley's book by this name (Huxley, 1944) is based on a comprehensive study of various religious and mystical traditions. Ideas of this kind are also encountered in contemporary reports based on the experiences of various individuals with psychedelics (not including ayahuasca); classical examples are Huxley's own reports based on experiences with mescaline (Huxley, 1959) and Watts' *The Joyous Cosmology* (Watts, 1962) which is based on experiences with LSD, mushrooms and mescaline. Interestingly, William James, while under the effect of another psychotropic substance, nitrous oxide, arrived at a similar idealistic world-view. By no means was this a simple matter for James—the philosophical ideas he conceived under the influence were reminiscent of the ideas of Hegel, a philosopher whose view James, as a philosopher, opposed (James, 1882). I should note that in no case were metaphysical ideas that would be associated with another philosophical line expressed. Given the theoretically possible space of philosophical ideas, this pattern is significant.

Similarities to classical Western philosophical ideas are not confined to metaphysics. They may also be related to epistemology, the philosophy of mind, and the theory of knowledge. Let me give just one example; this one too is taken from the interviews of independent drinkers. The person in question presented a whole metaphysical picture which he said came to him from ayahuasca. It was a radical idealistic view. When probing him with respect to the origin and possible veracity of this view, the man told me: "You are a professor so you think that you teach me, that you pass information to me. But this is not so. You only talk to me, and through this come up ideas and knowledge that are there, stored in my own mind. It is all there and, in effect, you teach me nothing." Plato's *Menon*, of which this person had never heard, strikingly entered my mind and I was baffled. I shall add that some ayahuasca drinkers who did have acquaintance with Western philosophy did, in fact, report to me that their visions were akin to Platonic idealism. In no case did anyone mention another philosopher to me. I,

too, thought of Plato several times in the course of my journey with ayahuasca. This was not a simple, straightforward matter. My professional work in cognitive psychology follows a strong anti-Platonistic line (Shanon, 1991). One of the most important effects ayahuasca has had on me is a serious entertainment of a Platonistic world-view. How the two tie together is a topic that I leave for another discussion. It is perhaps not irrelevant that Plato participated in the mysteries of Eleusis, where a psychotropic substance was probably consumed (Wasson, Ruck, & Hofmann; 1978).

How are the ideas and insights produced?

Often, the experience is like that indicated above—the mind works fast and one's reflective and creative faculties are significantly enhanced. On other occasions, the person feels that information is communicated to him or her, usually in a kind of telepathic non-verbal manner. (Interestingly, this mode of communication and knowledge are featured centrally in the esoteric writings of Blake and Swedenborg). However, very often the ideas are directly related to perceptual, hallucinatory effects that the person experienced under the ayahuasca intoxication. Here I consider two patterns; both types were reported to me by many individuals, both I have experienced personally as well.

The web of interconnectivity

The first has to do with the appreciation that all of reality is interconnected and that there is a force that makes it all exist and gives nourishment and sustenance to it all. Very often, this force is interpreted by people to be the Divine or the *anima mundi* and is characterized as being the fountain of everything—life, wisdom, health as well as intellectual and artistic creation. Personally, I have come to the ideas of this kind in conjunction with seeing what I called "the web"—translucent strings, like the threads of a spider web, that tie everything which is seen under the intoxication with open eyes. Afterwards, I have heard such an image mentioned many times by different individuals. The description of the visual effect was invariably the same and many persons used the identical phrase, "a web," to describe it. For instance, one of the independent informants told me that the most important teaching she has received from ayahuasca was the appreciation that the Divine does indeed exist. Asking her how she had arrived at this conclusion she answered by presenting a description of the translucent web that interlinks everything and sustains all of existence.

The case of the web may be characterized as literal, for in it the vision presents what to the person under the influence seems to actually be a certain facet of reality not perceived in the ordinary state of consciousness. By contrast, the second pattern is metaphorical. Functionally, the visions in question are similar to the images or visualization that often open parables in the Bible: An image will appear and the person under the intoxication will decipher it as a message. In the following example the message is personal, having to do with insights regarding the person's personal life, but similar patterns are

also encountered in conjunction with spiritual and philosophical ideas. Recounting her first ayahuasca sessions, one Brazilian middle class woman told me that she saw herself covered all around with a transparent plastic. Whenever she moved, the cover moved with her. She realized that in fact she is living her life separated from other people. Even though it seems that she is in contact with other people, in essence she is insulated and has no direct contact with anyone. The realization made this person change her attitude vis à vis human interpersonal relations. Another example is a vision of a building that was shabby and dilapidated. Apparently, the person having the vision understood, originally the building was well-designed and well constructed. Seeing this, the visioner realized that the building was him/herself and took it to mind that he/she had to make some basic change in his/her life. I use the compound masculine/feminine terms for indeed, I have heard of such a vision from two different persons—the first a Peruvian man of a low social class, the second a European woman visiting South America.

Seeing and knowing

In closing, let me return to the visual aspects of the ayahuasca experience and comment on the more general relationship between seeing and knowing. In the traditional Amerindian context, an intimate affinity between the two is encountered. As reported by Langdon (Langdon, 1992), the Siona Indians consider "seeing" to be the major characteristic of high level *ayahuasqueros*. Further, in the practice of ayahuasca healing, the ayahuasca is said to enable the healer to see the inner parts of his patient and thus establish a diagnosis. Similarly, on the basis of experience with mescaline, Castaneda repeatedly says that what entheogenic plants do is make "one see" (Castaneda, 1971). Does the traditional healer "really" see what other people cannot see or is it only that his intuition and insight are enhanced? In interviews conducted with several traditional curanderos, I have tried to clarify this issue. Some have insisted that the brew literally enables them to see the inner parts of their patients' bodies. Yet empirically there was no way for me to objectively verify these claims. Perhaps the difference between these two possibilities is less than seems to be at first glance. Perhaps deep down, there comes a point where a clear cut distinction between perception and comprehension is impossible to make or even meaningless. It is not at all an accident that in many languages, as in English, the phrase "I see" is commonly used in the sense of "I understand." The relation between perception and knowledge is a fundamental issue in cognitive thought. A school of thought that has greatly minimized the distinction between the two is that of ecological psychology founded by James Gibson (Gibson, 1979); for a most readable introduction and overview, the reader is referred to Michaels and Carello (Michaels & Carello, 1981). In a book in progress, I discuss this topic further, both from a cognitive-psychological and from a philosophical perspective. •

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Acknowledgments

This research was supported in part by MAPS. I thank Rick Doblin for his encouragement and support. Amit Hagar and Nurit Shacham helped with the compilation of the data and its analysis and Nurit Shacham and Yoel Strimling helped with the preparation of this manuscript.

Ayahuasca and cancer: one man's experience



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a YEAR AGO I NEVER DREAMED that I would be writing about two subjects, both of which are generally considered taboo. One of these is cancer. We avoid talking about cancer—"the Big C"—because it speaks of our fears of mortality and pain. When an office mate is rumored to have cancer, she is viewed differently. We avoid the topic, or speak in whispers about it. We wish it would go away.

For entirely different reasons, ayahuasca is talked about in muzzled tones. The Drug Enforcement Administration—the grand arbiter of all chemicals in America—is responsible for this taboo and has classified DMT, one of its constituents, as a Schedule I drug, thereby rendering it illegal and nearly unavailable for fascinating medical, psychological, neuroscientific, and spiritual research. Like cancer, we tend to talk about it in whispers, too.

Since I now enjoy the privileges of a recently retired person, and a friend of cancer and ayahuasca, I can speak freely about them both. I say "friend" because that is the way I now see the relationship I have with both.

My direct connection with cancer probably started with my birth sixty-eight years ago, which sent me into the world with a genetic structure determined, at least in part, by family members of previous generations on both sides who had died of metastacized colo-rectal cancer. If there is any validity to the genetic predilection theory, I was directly in line for a first hand experience with cells gone amok to form tumors.

Diagnosis

And that is precisely what happened to me ten years ago when I was diagnosed with cancer of the colon. Since I felt great, I had doubts about the accuracy of the diagnosis, and requested to see the biopsy along with a pathologist. Sure enough, with the aid of a microscope, I saw with my own eyes the little cells, all bunched up like globs of red mud. How did that happen? I wondered.

Immediate surgery was the order of the day. I begged off in order to experiment with natural healing. The surgeon and I agreed on a four-month timetable, during which I followed a naturopathic regimen: micro-doses of various substances, vegetarian diet, visualization and plenty of rest and exercise. After this period, the second biopsy revealed no cancer cells. I was overjoyed; the surgeon seemed disappointed, and asked for another biopsy in two weeks, to which I agreed.

This time around he was able to dig up some more tissue with cancer cells, and convinced me that I should have the surgery. I did, and was told five years later that I had been "cured" through the wonders of surgery.

Relapse

All went well until September 1996, when a routine physical exam revealed that my CEA count—an indicator of carcinogenic activity—was up. Another blood test shortly thereafter showed the CEA count going up rapidly. Further exams were conducted, during which two suspicious looking dark shadows were seen on the right lobe of my liver. A biopsy was soon performed on the tissue taken from the shadowed area. The verdict from the pathologist: the Big C.

Having lost a grandfather and father to metastatic liver cancer, I was seriously concerned over this new development. What to do? A preliminary conference with one of the oncologists said that surgery might be a possibility, provided there were no other tumors in my vital organs or lymph glands. That meant further exams.

Prognosis

While waiting for the results, I went to the University of Hawaii's medical library for some research on liver cancer. I was referred to the "bible" of oncology, a two-volume tome titled *Cancer: Principles and Practices of Oncology* (1989), edited by Vincent T. DeVita, Jr. I turned to Section 3: "Treatment of Metastatic Cancer to the Liver," by John E. Niederhuber and William D. Ensminger. The opening paragraph had the following encouraging words:

"The spread of malignant cells from a primary tumor to the liver and their growth therein carry a grave prognosis for the patient. While these meta-

static liver tumors may be the first evidence of the progression of a patient's cancer, and often—especially in colorectal cancer—are the only tumors detected, they almost always signal widespread dissemination of the malignancy. *Despite improvements in early detection of liver metastases, new drug development, improved surgical techniques for resection, and innovative targeted therapies, most patients will not survive.*" (p. 2201)

The remainder of the chapter was devoted to sustaining that dismal prognosis. In a word, the future looked pretty grim. Until, that is, I began to seek information on alternative therapies.

Seeking an alternative

I turned first to Dr. Andrew Weil, who recommended the following: 1) have the tumor surgically removed, if possible; 2) start taking micro-doses of *maitake* mushroom extract; 3) read Michael Lerner's book, *Choices in Healing*.

While waiting for my mail-order requests for the *maitake* and Lerner's book, I had further meetings with surgeons, who were not exactly reassuring. I was told by one that my chances for survival were around 25-30%. Another put it at under 15%, if you factor in the risks of the surgical procedure itself. It appeared that they had read De Vito's cancer bible, too. They also advised me that if surgery was possible, I should follow it up with a year of fairly heavy chemotherapy in order to kill off any remaining cancerous cells (along with the majority of healthy ones) that were undoubtedly floating around in my bloodstream.

When the Lerner book arrived in the mail, I sat down and read through its 621 fascinating pages as rapidly as possible. At the same time, I began taking the *maitake* mushroom extract, and to prepare myself both physically and mentally for the surgery and the follow-up. During this period I discovered other literature on alternative therapies, including Essiac, macrobiotic diets, reiki and coffee enemas, all of which offered as much or more hope than the oncologist's bible did.

Surgery

The surgeon (aptly named Dr. Payne) removed the right half of my liver on November 26, 1996. During the following five days I was attached to several catheters, one of which shot morphine directly into my spine. It was not until my discharge from the hospital that I realized how badly my body had been assaulted, not just by the surgeon's knife, but by a mixture of drugs that are part of the arsenal of invasive surgery. The thought of further assault by chemotherapy was frightening.

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of ayahuasca. I didn't give it much thought at the time, since it seemed unlikely that I would be going to the Amazon, and wasn't particularly interested in a psychedelic experience. Still, it lingered in the recesses of my mind, which was still reeling from the physical and psychic wounds of major surgery, the outcome of which was dubious.

Three weeks after the surgery, I went to my appointment with the oncologist who proposed beginning the chemotherapy treatment immediately. When I told him that I had decided against it, because I did not believe that further assault on my body would be beneficial, he seemed miffed, perhaps even insulted. When I told him of my plan to follow a program of alternative therapies, he snickered, but wished me well.

Santo Daime

In early April I heard of a group doing ayahuasca on the Big Island of Hawai'i. I began to make inquiries, which led me to a young man who had been with the group for several experiences, or "works," as they are called by the Santo Daime church of Brazil. We met at my house one evening, during which he talked non-stop for over three hours about the sacrament and its psychic and physical healing properties. I sat fascinated as I listened, and concluded that I must find a way to have this experience, to see for myself if the accounts I had read and heard were true. Could this really be a curative experience, or was it just another psychedelic trip?

A few weeks later I learned that there would be a "works" on the Big Island, and that I could join the group. I readily accepted, even though I was still in a weakened condition from the surgery. This was to be my introduction to ayahuasca.

The group met in the late afternoon on an isolated knoll where a devotee of the Santo Daime had built a house, consisting of a large hexagonal room with three or four bedrooms off on the side. (I learned later that the hexagon is an important symbol within the Santo Daime.) About sixty people from all over Hawai'i had gathered for the event, most of whom had done it before. We were all dressed in white (as required), and when the time came to begin we took our seats in chairs that had been arranged in two semi-circles facing each other, men on one side and women on the other. I then began to realize, much to my disappointment, that I was in a very structured, group experience, not at all what I had anticipated from my limited reading on the way ayahuasca is traditionally used in the Amazon. Nevertheless, I entered the experience with hope, as well as apprehension. The residual pain from the surgery was a constant reminder of why I was there.

I will not describe the Santo Daime rituals that I observed during the two successive nights of the "works." They have been described elsewhere. Rather, I will focus on my own experience, for which, as it turns out, I was unprepared. My only frame of reference was limited experiences with LSD, mushrooms and mescaline during the Sixties, none of which were associated with healing. I wanted to discover what it was about ayahuasca that led to the claims of its ability to heal and to teach.

First session

After some preliminary church rituals, we lined up to take our first cup of the brew just after sundown. A second dose was given about two and a half hours later. Within twenty minutes I began to feel what seemed like a faintly familiar rippling effect coursing throughout my body. As I looked around the room, I noticed that others were doing the same, while shifting in their chairs and trying to sing the church versions of *icaros* in Portuguese. At this point, I began to wonder if I had made the right decision.

Then, all of a sudden, the plant grabbed hold of me, and led me through a long trip into another reality, one that I was totally unprepared for. When I attempt to describe the ayahuasca experience to others who know something of psychedelics, I tell them that things like LSD and mushrooms distort and give new shapes to the reality that you are familiar with; ayahuasca takes you to another reality that you've never seen nor imagined before.

As I closed my eyes, images—if they can be called such—began racing at an ever-increasing speed before me. Swirls of colors, shapes, forms, textures and sounds simply overpowered me to the point where I became immobile. Like many others before me, no doubt, I became somewhat frightened. What had I let myself in for? When I opened my eyes, the phantasmagoria of forms vanished, and I saw myself in the same room with the others, all dressed in white, most of whom were moving their lips to the songs being sung by the Brazilians from the Santo Daime. I closed my eyes again, and immediately the images returned with surging intensity. They seemed to be trying to enter the deepest recesses of my body and soul. I found myself thinking, hey, this isn't much fun.

During this period of initial disorientation, I was able to regain my focus on what brought me here in the first place. I was a condemned man. The oncologists and their bible told me that my chances of survival were slim. I had come to ayahuasca for a second opinion. That is when I began to let go, and let the plant do its thing. That is when I began to get my first glimpse into the incredible, stunning world of ayahuasca. There was no going back now. There

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was nothing to do now but let it happen.

Ayahuasca visions

As others have reported, I saw plants, serpents, birds and jaguar-like animals soaring, swirling, twisting and racing at almost lightning speed throughout my entire system, as though they were exploring a new habitat. At first, they didn't pay any attention to me, even though I tried to stop them long enough to have a closer look. Before long, however, one of them would race up to me, pause momentarily, then rush off as though it had urgent business somewhere else. Then another would come up in my face, and do the same thing. There was no time for any communication between myself and the things that I was seeing. It was as though they wanted to take a complete inventory of who I was and what was going on inside me before they were ready to talk.

After a while (one loses track of time with ayahuasca) the figures began to slow down and fade somewhat in intensity. I was coming down, much against my will. My questions—whatever they were—had not yet been answered. At that moment, the Daime leader gave the signal to line up for the second dose of the brew. I took my place in the line. Needless to say, among the group of sixty people there had already been a lot of purging through vomiting; I was not yet among them.

As the second wave came over me, I felt much more relaxed and ready to talk to the animals if only they would talk to me. As though on cue, the racing figures began to stop by, look at me and smile before darting off into their world again. Then, all of a sudden, I saw a deep, black void. Nothing but darkness, which stayed in place for what seemed like minutes. All of the flashes, colors and forms disappeared while the blackness hovered over me. I sensed that it was death making its statement. It seemed to be saying, "Yes, I'm here too, part of the system; but I'm not so bad, so don't be afraid." In a short while, the darkness began to fade slowly as the kaleidoscopic frenzy returned until the brew and I both were exhausted, and I returned to my friend's house for a long but fitful sleep.

Second session

The group of sixty gathered again the following evening for a second "works," which I entered with much less trepidation, hoping for another bit of insight from the plant. That proved to be a false hope, probably because the plant had nothing more to tell me. Nevertheless, during the second trip I again felt the presence of the plant racing throughout my body, peeking and poking into every nook and cranny in search of something to work on, to straighten out, to put back in order, to polish. There was a definite presence, with similar shapes, colors

and sounds. But, unlike the first time, there was no message that I could discern. The plant was just busy doing its work.

Several months passed before my next experience with ayahuasca. In the interim, I had continued with my vegetarian diet and Chinese herbs. I was gradually regaining weight and strength, while the scars and soreness of the surgery were slowly healing. I wanted to visit with the plant again to see if it had anything new to tell me, and to determine whether my first experience was delusional.

Third session

By good fortune, I met a person who had studied ayahuasca in Peru, learning from the shamans. When I told him what I was seeking, he agreed to lead me and four others through a session. This time the set and setting were entirely different from that of the structured Santo Daime. After bathing in the blue ocean water, we drove up to the end of a mountain road, left our car, and hiked to an isolated spot, a small plateau deep in the Wai'anae mountains of O'ahu, engulfed in lush foliage with an unobstructed view of the Pacific ocean in two directions. It is called Pupukea Highlands. The setting itself was an invitation for spirits to enter. Our group was small, and all of us had learned respect for the plant and its powers. We shared a common set.

We arrived at our spot in time to arrange ourselves before the moonless nightfall. By candle light we practiced deep breathing and toning in preparation for taking the brew. In ceremonial fashion, including blowing tobacco smoke over the brew, we each took turns drinking. Soon after, our leader extinguished the candles, reminding us to "Remember, the plant knows what it's doing." The isolation, silence and darkness were awesome.

I positioned myself comfortably on the ground, my back against the trunk of a large paper-bark tree. I felt very calm and relaxed, closed my eyes and waited for the plant to go to work. Once again, after about fifteen minutes I began to notice the familiar rippling effect. This time, however, the rippling quickly turned into full-blown turbulence. The plant was loose, and was wildly racing around exploring its new environment. It felt as though a caged animal had been released inside me, and was having the time of its life.

As the images and shapes began to appear, they had an air of joy and exuberance. The serpents were smiling, the jaguars laughing, and the giant birds swooped down over me caressing me with their outstretched wings. A parade of persons, both known and unknown, streamed by, each of them smiling and reaching out to touch me and tell me by look that they loved me. As the serpents and plants

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twisted and flashed before me, they appeared to be smiling and reassuring me that they had looked everywhere inside me, and that everything was o.k. As the evening went on, this cycle kept repeating. Images would come directly towards me at break-neck speed, smiling and laughing, then veer off for another tour of my entire system. I heard myself chuckling softly under the starlit sky.

Where was the darkness that I had experienced before? Where was Mr. Death, I wondered? Then suddenly, as though the plant heard my question, I saw the void. Only this time it was clearly in the background. It seemed to be peeping through the montage of vibrant colors and forms, as though to say, "I'm still here, don't worry. It's not time for me yet." And then it faded away. As evening turned into night and morning, I saw the images slowing down and gradually fading away, almost reluctantly it seemed. We sure had a good time together that night.

Fourth session

About one month after that memorable night, I revisited Pupukea Highlands for another session, this time with a different mix of six people. I was prepared for a repeat experience, another exciting exploration and reassurance from the plant. But, that was not to be.

This time it was raining, which restricted our space under a makeshift tent. Again, we followed the procedures of the previous time, breathing, toning and ceremonially ingesting the brew. I lay down and waited for the action to begin. This time the onset was much more gradual, and never reached the intensity of the previous trip. The images were there: birds, serpents, plants, people. But, they were much less energetic, almost blasé. They seemed to be telling me, "We've already been this route, and we told you what we found. Let's try something new." Since I had entered the experience with a fixed agenda, the plant reacted as though it were bound. I now look upon that as my fault for not trusting the plant to take the lead.

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If ayahuasca could talk in words, I'm sure it would have told me during that first trip to Pupukea to, "Take this energy that I'm giving you, and run with it. Latch on to one of the animals and go for the ride. There is nothing preventing you from soaring to new heights of consciousness and life." That was the message that I got that first night in the Pupukea highlands.

Return to the doctor

Approximately two weeks after that session, I went for my scheduled visit with the oncologist. He greeted me warmly, and told me the results of my blood test the week before, which showed that my CEA count—the cancer activity indicator was not just normal. It was *below* normal! When he asked me what I had been doing to bring that about, I asked him if he had ever heard of ayahuasca. His reply was what one would expect from a physician trained in western allopathic medicine. I got as far as explaining that it is a medicinal plant used for centuries in the Amazon by shamans and healers, at which point he raised his eyebrows, shrugged his shoulders, and was no doubt thinking to himself, "Where did this nut come from anyway?" He ended the office visit with the pronouncement, "You're one of the lucky few."

Lucky? Perhaps so. But to dismiss my recovery against the odds as nothing but luck is to ignore centuries of experience by people who have learned to live with plants and understand them when they talk. From my experience thus far, I have learned to respect and listen to the plant, as well as those who know how to interact in the plant world. With more experience, I hope to learn some of that language myself. I will continue to treat my body and my spirit with ayahuasca, and work to teach others to respect it. As a former professor, the teaching part should come easily. In my current role as drug policy reformer, I will do all that I can to free this plant from the strictures that the DEA has so capriciously and arrogantly placed on it. I hope that people who read this article will join me in this effort. •

Jurema Ritual in Northern Brazil

Yatra-W.M. da **Silveira Barbosa**

Jurema, or
vinho da jurema,
is an
inebriating drink
made alternately
from the
root bark of
Mimosa hostilis,
M. nigra or
M. verrucosa.
(Ott, 1996).

WORK WITH “FRIENDS OF THE FOREST,” a non-profit foundation engaged in the research of psychoactive plants and rituals and the investigation of addiction treatment and other therapeutic applications. After researching *Mimosa hostilis* and *Peganum harmala* in Europe, I travelled to northeastern Brazil in January 1997 to undertake field research with the tribes who use Jurema (*Mimosa hostilis*) in a ritualistic way. I planned to learn about their rituals and preparation.

The use of Jurema in rituals is said to be extinct (Schultes & Hofmann, 1980) but continues underground. The children of those tribes who originally used it, a mixture between whites and Negroes, slowly lost their right to the indigenous land as they were no longer recognized as Indians (also called *caboclos*). A war started for land in that area (interior of Bahia, Pernambuco and Paraíba, the so-called Sertó) which has been going on now for about 80 years. The white people took the Indians away from their land, burning their houses, leaving thousands of them homeless.

In order to be recognized as Indians, re-establish their identity and reclaim the right to their land, they had to show a tradition. So, the Jurema Cult (*O Culto da Jurema*) was brought back among the Indian tribes to re-establish their indigenous identity. With the gap in time, much knowledge was lost, as this tradition had never been documented. All the knowledge was passed on from father to son, and the Indians were always very secretive about the ritualistic use of their psychoactive brew, because of the tremendous persecution from the white people.

I met two Brazilian anthropologists who had worked with these tribes and we travelled together. One of them is the director of the non-governmental foundation which takes care of the indigenous affairs in the area—ANAI (*Associação Nacional de Ação Indigenista*). We arrived in Sertão, a place where nothing grows but Jurema Branca (*Mimosa verrucosa*), Jurema

Negra (*Mimosa hostilis*) and cannabis, a true “Garden of the Gods.” I realized after a healing ritual (*cura*) with the Truká tribe, that the brew that they were drinking did not have psychoactive properties. With the gap in time, the tribespeople had lost the knowledge of the β -carboline-containing plant used to activate the effect of the DMT-containing Jurema. Their ceremonies did include trance possession rituals, where they drank the Jurema alone. These rituals are part of several syncretic religions with a heavy African influence.

I had *Peganum harmala* seeds with me, and I proposed that we do a ritual with a combination of Jurema and *P. harmala*. We demonstrated how to prepare them together, and in the evening we held the ritual with only Mestre Antonio (the spiritual leader of the tribe), Joaquim (the *Juremeiro*—the man who prepares and serves the Jurema during the rituals) and their four

best mediums (who incorporate the spirits during trance possession). It was incredible, the *Juremeiro* who normally never took part in the trance possession, but just dealt with the Jurema in their rituals, was possessed almost during the entire time. Sometimes, some panic would emerge, and we all kept singing until it passed away. The master had to lay down most of the time and reported having an amazing journey.

I left the next day to visit the Atikum tribe on the mountain of Umã, leaving some *P. harmala* seeds for the Trukás to plant, and some already extracted for them to drink and do their rituals with.

As we entered deeper into the Sertão, we were confronted with another war, the war on drugs. The biggest cannabis plantation in South America lies in this area. Because of lack of financial resources, Indians and local white folks deal cannabis for their survival, as there is no other economy available to them, and their land is extremely poor.

We had to arrive in the area by daylight, in order not to be taken as drug dealers. There was a lot of turbulence in that area, with gun shots and violence; a cold drug war was going on right there.

One Indian from the Atikum tribe, who lived with the Trukás, agreed to travel with us and to take us to his tribe, as it was extremely dangerous to go up into the mountain unless you were brought by a tribe member. At the end of the afternoon, we arrived at the Atikum village at the top of a mountain. What a beautiful place. Mirana, an English friend who was traveling with us, was the second *gringo* ever to come up there, and they appreciated his courage.

We were received by the *cacique* of the tribe, Ana Olinda da Conceição, who took us to her house, where we set our hammocks and stayed for a few days.

The next day, she organized a ritual for us. They have a few different settings for rituals, and she prepared what she calls "*Trabalho da Jurema*" (Jurema's work). We were taken for a long walk leading us to an immense rock with a cave. Inside this cave was an altar, the place where the ritual was held.

As the ritual began, they started to sing, and a little later, the Jurema brew was served. Ana started to sing, and the trance possession started. She incorporated the spirit of the *Caboclo* called Jurema, the Indian entity from the forest, who stayed throughout the ritual, singing many songs, praying and talking to the people as if to give advice. The brew was imbibed a few times more until the bottle was empty.

There are some very interesting similarities between Jurema rituals and the ayahuasca rituals from the Amazon Forest. Jurema rituals have characteristics of a ritual work done under a psychoactive influence. However, the Indians here also drink alcohol, as

alcohol is the only thing available to them to alter their state of consciousness and to highlight their rituals so as to serve the spirits manifested. Many bottles of *cachaça* (*aquardente* from sugar cane, the strongest alcohol one can drink in Brazil) lay around the altar, empty. Yet, it seems that by the end of the ritual, when the spirits who have drunk through the bodies of the medium participants leave, the participants are sober. This phenomena has been observed in Umbanda, Cadomblé and other African traditions that are part of the Brazilian syncretic religions. The next evening we held another type of Jurema ritual called the *Torè*. Participants go into trance possession during this ritual as well.

The day before we left, I asked permission to introduce a plant from another Kingdom to be drunk with the Jurema. They asked me, "What is the *toante* (the music) of this plant?" I sang for them a song that I channelled when I had the first *P. harmala* ritual with the Trukás just a few days before.

D. Ana and I cooked the brews together.

This was new for her, as typically the Atikum use cold extraction for their Jurema preparation, not boiling or cooking. The ritual was held in D. Ana's house, and surprisingly, though only a few people were invited, by the time of the ritual an enormous number of Indians had gathered in and around the house, and about ten of them drank the brew. One of the people who was drinking was one of the oldest women in the tribe, D. Cotinha, around 80 years old.

The ritual started. I served both brews together in small amounts with the intention of giving a second and maybe a third dose. We all started to sing their songs and my songs. D. Ana went into a trance possession, and meanwhile, D. Cotinha fell flat on the floor, losing consciousness for awhile. When this happened, the Indians panicked, but D. Ana gave me credit and told the others that I knew what I was doing and that they had to trust their Jurema. Her trust brought back order, and I started to sing for this old

lady who was lying unconscious on the ground just next to me. Some minutes later, she regained consciousness, stood up and started to dance the *Torè*, which she hadn't done for many years because of her old age. Suddenly she sat back down on the floor (we were all sitting on the floor), looked at the others and asked, "Have I been home?" D. Ana, the *cacique*, was the next one to fall unconscious, and I told her to just let it go and explore what was happening in the land of the enchanted people, as they call the spirits (*encantandos*). After a while she came to and started to dance and sing again. Only a few of them drank a second dose. The ritual was finished after four hours, and we all sat outside to contemplate the stars. They said, "We finally found the roots of our tradition."

My travelling companions and I left some *P. harmala* ready to

There are some very interesting similarities between Jurema rituals and the ayahuasca rituals from the Amazon Forest.

drink and lots of seeds to be planted. By the time we were ready to leave, many of the Atikum gathered again to say good-bye, and D. Cotinha, while giving me some bananas for our journey and a big hug, thanked me for bringing my knowledge of *P. harmala*. We repeated the same experience with the Funios and Caimbè, leaving *P. harmala* seeds with them to plant.

After interviewing many people, and participating in different Jurema rituals with the Indians, I also realized that the Jurema they drink in their brew is not *Mimosa hostilis*, but the root bark from *Mimosa verucosa*. Different tribes will call *M. hostilis*, the Jurema Negra and *M. verucosa*, the Jurema Branca, as well as other tribes call *M. verucosa*, the Jurema Negra. That means that when they say that they drink Jurema Negra, it does not necessarily mean they are drinking *M. hostilis*, but *M. verucosa* which is called both: Jurema Branca and Jurema Negra. •

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The Hoasca Project in the scientific literature

IN 1993, a biomedical investigation of long-term drinkers of hoasca (the Portuguese transliteration of ayahuasca) was undertaken, by invitation of the Medical Studies section of the União do Vegetal (*Centro de Estudos Medicos*). This study, which was conducted by an international consortium of scientists from Brazil, the United States, and Finland, was financed through private donations to various non-profit sponsoring groups, notably Botanical Dimensions, which provided major funding, the Heffter Research Institute, and MAPS.

Thus, the focus for the scientific study and understanding of ayahuasca has shifted from the ethnographer's field notes and the ethnobotanist's herbarium specimens, to the neurophysiologist's laboratory and the psychiatrist's examining room.

With the completion of the first detailed biomedical investigation of ayahuasca, science now has the basic corpus of data needed to ask further questions regarding the pharmacological actions, the toxicities and possible dangers, and the considerable potential ayahuasca has to heal the human mind, body and spirit. (excerpted from McKenna et al., 1998)

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A Conversation with **Albert Hofmann**

On November 26, 1996,

Charles Grob, M.D. visited with Albert Hofmann

in Rheinfelden, outside of Basel, Switzerland,

where Dr. Hofmann was recovering from knee surgery.

The following are excerpts from their conversation.

CG: Dr. Hofmann, thank you for speaking with me. I would like to tape record our discussion, with the understanding that you will be provided a transcript for review and approval before publication. I would first like to ask how old are you currently, and how is your health?

AH: I am 90 years old, and I am feeling very fit. I had knee surgery last month, but am now doing very well. The rehabilitation hospital has provided excellent physical therapies for my knee, and I am almost ready to go home to Rittematte. I am in very good condition, and swim in the indoor pool every day. I will miss the swimming, but I am looking forward to going home soon.

CG: I would like to speak with you about your views on psychedelic drugs. To start with, do you believe it is possible to re-establish psychedelic research as a respectable scientific field?

AH: I think there are many good signs. After years of silence, there have recently been some investigations in Switzerland and Germany, and also in the United States. We had a meeting in Heidelberg last year (*European College for the Study of Consciousness*), and there were many good presentations. In Heidelberg I enjoyed meeting with Rick Doblin (*of MAPS*) and Professor Nichols (*of the Heffter Research Institute*), and I think both of their organizations are doing fine work. Their approach appears to be quite different than that of some of their predecessors from several decades ago.

CG: Are you referring to Dr. Leary?

AH: Yes. I was visited by Timothy Leary when he was living in Switzerland many years ago. He was a very intelligent man, and quite charming. I enjoyed our conversations very much. However, he also had a need for too much attention. He enjoyed being provocative, and that shifted the focus from what should have been the essential issue. It is unfortunate, but for many years these drugs became taboo. Hopefully, these same problems from the Sixties will not be repeated.

CG: From the vantage point of where we are now, in the late 1990s, what implications do psychedelic drugs have to the field of psychiatry?

AH: I believe that shortly after LSD was discovered, it was recognized as being of great value to psychoanalysis and psychiatry. It was not considered to be an escape. It was a very important discovery at that time, and for fifteen years it could be used legally in psychiatric treatment and for scientific study in humans. During this time, Delysid, the name I gave to LSD, was used safely, and was the subject of thousands of publications in the professional literature. Actually, just last week, I had visitors from the Albert Hofmann Foundation, to whom I gave all of the original documentation, which had been stored at the Sandoz Laboratories. This early work was very well documented, and shows how well research with LSD went until it became part of the drug scene in the 1960s. So, from originally being part of the therapeutic pharmacopeia, LSD became a drug of the street and inevitably it was made illegal. Because of this reputation, it became unavailable to the medical field, and so the research, which had been very open, was stopped. Now it appears that this research may start again. The importance of such investigations appears to be recognized by the health authorities, and so it is my hope that finally the prohibition is coming to an end, and the medical field can return to the explorations which were forced to stop thirty years ago.

CG: What recommendations would you give to researchers now who want to work with these substances?

AH: When LSD was distributed legally by Sandoz, there was a little brochure which was given together with the Delysid, which explained how LSD could be used. As an aid to psychoanalysis and psychotherapy, and also as a means for psychiatrists themselves to experience these extraordinary states of mind. It was specifically stated on the package insert that the psychiatrist who was interested in using Delysid should first test it on himself.

CG: So, you would say that it is very important that the researcher, the psychiatrist, know first hand the psychedelic experience?

AH: Absolutely, absolutely. Before it can be used in clinical work, it must most definitely be taken by the psychiatrist. From the very first reports and guidelines written for LSD, this was clearly stated. And this remains of utmost importance today.

CG: Are there lessons we can learn from the past insofar as what went wrong with the research, why it was stopped, that we should be attentive to, so mistakes are not repeated?

AH: Yes, if it would be possible to stop their improper use, their misuse, then I think it would be possible to dispense them for medical use. But as long as they continue to be misused, and as long as people fail to truly understand psychedelics and continue to use them as pleasure drugs and fail to appreciate the very deep, deep, psychic experiences they may induce, then their medical use will be held back. Their use on the streets has been a problem for more than thirty years. On the streets the drugs are misunderstood, and accidents occur. This makes it very difficult for the health authorities to change their policies and allow medical use. And although it should be possible to convince the health authorities that in responsible hands psychedelics could be used safely in the medical field, their use on the streets continues to make it very hard for the health authorities to agree.

CG: It appears that young people are once again becoming interested in psychedelics and MDMA. We also have this new phenomenon of the rave, where young people take substances like MDMA and dance all night. What is your view on why these young people seek out such experiences? How can we respond to what they are doing?

AH: This is a very, very deep problem of

our time in that we no longer have a religious basis in our lives. Even with religion, with the churches, they are no longer convincing with their dogma. And people need a deep spiritual foundation for their lives. In older times it was religion, with their dogmas, which people believed in, but today those dogmas no longer work. We cannot believe things which we know are not possible, that are not real. We must go on the basis of what we know, that everybody can experience. On this basis, you must find the entrance to the spiritual world. Because many young people are looking for meaningful experiences, they are looking for this thing which is the opposite of the material world. Not all young people are looking for money and power. Some are looking for a happiness and satisfaction which is of the spiritual world, not the materialistic world. They are looking, but there are no sanctioned paths. And, of course, one of the ways young people are using is with psychedelic drugs.

CG: What would you say to young people?

AH: What I would say would most certainly be: Open your eyes! The doors of perception must be opened. That means these young people must learn by their own experience, to see the world as it was before human beings were on this planet. That is the real problem today, that people live in towns and cities, where everything is dead. This material world, made by humans, is a dead world, and will disappear and die. I would tell the young people to go out into the countryside, go to the meadow, go to the garden, go to the woods. This is a world of nature to which we belong, absolutely. It is the circle of life, of which we are an integral part. Open your eyes, and see the browns and greens of the earth, and the light which is the essence of nature. The young need to become aware of this circle of life, and realize that it is possible to experience the beauty and deep meaning which is at the core of our relation to nature.

CG: When did you first acquire this visionary appreciation of nature?

AH: When I was a young boy, I had many opportunities to walk through the countryside. I had profound and visionary encounters with nature, and this was long before I conducted my initial experiments with LSD. Indeed, my first experiences with LSD were very reminiscent of these early mystical encounters I had had as a child in nature. So, you see that it is even

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possible to have these experiences without drugs. But many people are blocked, without an inborn faculty to realize beauty, and it is these people who may need a psychedelic in order to have a visionary experience of nature.

CG: How do we reconcile this visionary experience with religion and with scientific truth?

AH: It is important to have the experience directly. Aldous Huxley taught us not to simply believe the words, but to have the experience ourselves. This is why the different forms of religion are no longer adequate. They are simply words, words, words, without the direct experience of what it is the words represent. We are now at a phase of human development where we have accumulated an enormous amount of knowledge through scientific research in the material world. This is very important knowledge, but it must be integrated. What science has brought to light is true, absolutely true. But this is only one part, only one side of our existence, that of the material world. We have a body, and matter gets older and changes, so therefore as far as our having a body, we must die. But the spiritual world, of course, is eternal, but only insofar as it exists in the moment. It is important that we realize this enormous difference between these two sides of our lives. The material world is the world of our body, but the material world is also where man has made all of these scientific and technological discoveries. We must see, then, that science and technology are based on natural laws. But we must also accept that the material world is only the manifestation of the spiritual world. And if we attempt to manifest something, we will have to make use of the material world. For you and I to speak with one another, we must have tongues, we must have air and so forth. All of this is of the material world. If we were to read about spiritual things, it is only words. We must have the experience directly. And the experience occurs only by opening the mind, and opening all of our senses. Those doors of perception must be cleansed. And if the experience does not come spontaneously, on its own, then we may make use of what Huxley calls a gratuitous grace. This may take the form of psychedelic drugs, or perhaps without drugs through a discipline like yoga. But what is of greatest importance, is that we have personal experience. Not words, not beliefs, but experience.

CG: Projecting into the future, do you envision that there may be an accepted role

within Euro-American culture for psychedelics?

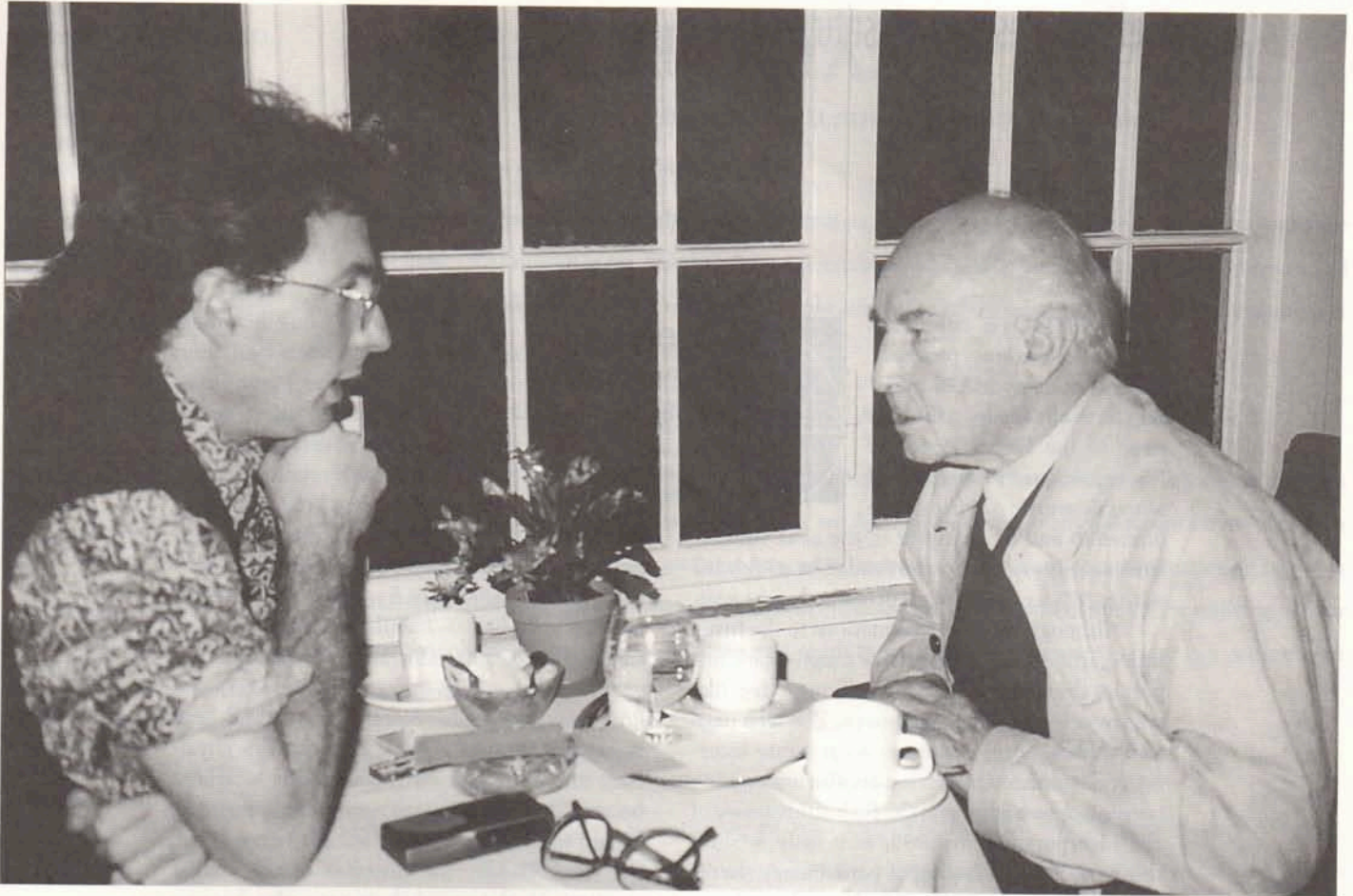
AH: Absolutely! I am convinced that the importance of psychedelics will be recognized. The pathway for this is through psychiatry, but not the psychoanalytic psychiatry of Freud and not the limited scope of modern biological psychiatry. Rather, it will occur through the new field of transpersonal psychiatry. This transpersonal view takes into account both the material world, including our body, as well as the spiritual world. It recognizes that we are simultaneously part of the material and the spiritual worlds. What fits with the concept of transpersonal psychiatry is that we open our doors of perception. What transpersonal psychiatry tries to give us is a recipe for gaining entrance into the spiritual world. This fits exactly with the results of psychedelics. It stimulates your senses. It opens your perception for your own experience. How this phenomenon affects our existence in the material world can be understood through scientific research, and how we can integrate this knowledge with our spiritual selves can be achieved through the transpersonal path.

CG: Dr. Hofmann, you have lived through two World Wars and a Cold War. When you look ahead into the future of mankind, are you hopeful or not?

AH: I am hopeful for the long distant future, but for the near future I am terribly, terribly pessimistic. I believe that what is occurring in the material world is a reflection of the spiritual state of mankind. I fear that many terrible things will occur around the world, because mankind is in spiritual crisis. But I hope that over time mankind will learn, finally learn, and that there will be hope. I just re-read the twelve lectures Aldous Huxley gave in San Francisco in 1959, called *The Human Situation*. I think that everything that we are concerned about today, about the ego, consciousness, the survival of mankind, it can all be read in this book. I would like to recommend it. Everything we are now trying to say, the ideas we are formulating, has been discussed by Huxley.

CG: What can we learn from the so-called primitive cultures who used psychedelic substances as part of their religious practices?

AH: I think the most important thing is that they use it in a religious framework and we don't. We must learn from them, we must identify the right structures, we must find new uses. I could imagine that it may be possible to create meditation centers for psychedelic use in natural surroundings, where teachers could



On November 26, 1996, Charles Grob visited with Albert Hofmann in Rheinfelden, outside of Basel, Switzerland, where Dr. Hofmann was recovering from knee surgery.

have experiences and train to become adepts. I perceive this as being possible, but first psychedelics will have to become available to medicine and psychiatry. And then it should be made available for such spiritual centers. Basically, all that we need to know we can learn from how the primitive people use psychedelics as sacraments, in a religious framework. We need such centers, but we also need the psychiatrists. These psychiatrists must become the Shamans of our times. Then I think we will be ready to move towards this kind of psychopharmacopeia.

CG: Back in the Sixties many people became frightened of LSD and other psychedelics, including many psychiatrists. Why was that?

AH: They did not use it the right way, and they did not have the right conditions. So, they were not adequately prepared for it. It is such a delicate and deep experience, if used the right

way. But remember, the more powerful the instrument, the more the chance of damage occurring if it is not used properly. And back at that time, there were unfortunately many occasions where psychedelics were not treated with proper respect, and used in the wrong way, and consequently caused injury. That is the great tragedy, that these valuable medicines were not always respected and not always understood. So, the psychedelics came to be feared, and were taken out of the hands of responsible investigators and psychiatrists. It was a great loss for medicine and psychiatry, and for mankind. Hopefully, it is not too late to learn from these mistakes, and to demonstrate the proper and respectful way psychedelics should be used. •

Heffter Research Institute

As we approach the fifth anniversary of our incorporation in 1993,
is it only wishful thinking or a real feeling of permanency
that is starting to develop?

THE INSTITUTE continues to make excellent progress. Of course, many MAPS members have already seen the first issue of the *Heffter Review of Psychedelic Research*, and several of our Scientific Advisors have offered to author a chapter in the next volume. We have now reviewed and funded, or co-funded with MAPS, a number of small research proposals.

Although the level of donations to the Institute is still inadequate to make a significant impact on the whole field, it is gratifying to feel like we are at least taking small steps. The web page (www.heffter.org) continues to generate interest, and our printed materials are also undergoing revision. As we approach the fifth anniversary of our incorporation in 1993, is it only wishful thinking or a real feeling of permanency that is starting to develop? The Board members themselves are increasingly being asked for consultation on a number of issues related to psychedelic drugs. We have recently decided to bring on board a part-time fundraising expert to help us increase the level of contributions to the Institute so that we can fulfill our mission. Development of a not-for-profit institute that does not provide memberships, or immediate visible benefits to the donor, has proven to be a far greater task than we originally imagined, but we are hopeful that in the next twelve months we can begin to meet this challenge! It is crucial in the coming months, when it seems that increasing attention (and money) is being targeted to the "drug war," that we clearly carve out a niche for the medical and scientific value of psychedelics. These substances are far too important to be ignored for another generation.



Heffter Research Institute

Research
at the Frontiers
of the Mind

On an interesting historical note, we received an e-mail from one of Arthur Heffter's grandsons, Dr. Lutz Rohrschneider. It seems that the descendants of Arthur Heffter had a family reunion in April 1998 and Lutz was kind enough to send me the family tree that had its roots with Arthur and Else Heffter. Although Arthur Heffter had no sons, he did have five daughters. They all married and had 3-7 children each. What is amazing about the Heffter family is that there is a very high percentage of doctors (both M.D.s and Professors) among his descendants. Indeed, Lutz Rohrschneider has a Ph.D., he married a physician, and they had twin sons, both of whom became physicians. In one very notable example, Arthur Heffter's daughter Elisabeth married Prof. Dr. Hans Geiger, the inventor of the Geiger counter! (And two of their sons also became professors). Heffter's distinguished descendants themselves represent a rather remarkable legacy for the people of Germany. Lutz said that he read the Heffter Institute web page, wondering who could have "remembered this remarkable man, who is unknown now in Germany." Although it was clear from the remarks of his colleagues and students that Arthur Heffter was a remarkable scientist and mentor, Heffter was also a devoted family man, who is warmly remembered nearly 75 years after his death by a large and very successful family. When we first named the Institute after Arthur Heffter, we knew of his important scientific contributions, but knew nothing of the personal traits that now seem to make him even more ideal to be the namesake of the Institute. •

E-mail: george@heffter.org

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*Deceased

THE HOFMANN REPORT

Throughout history people have used mind expanding substances to explore consciousness and enhance their lives. Our purpose at the Albert Hofmann Foundation is to gather the records of these endeavors and to further the understanding and responsible application of psychedelic substances in the investigation of both individual and collective consciousness.

TO OUR FRIENDS AND SUPPORTERS:

In the last report, I mentioned the satisfaction resulting from books I have written which stir up dormant personal connections of the past. Those who are familiar with the many benefits derived from the responsible use of psychedelics are hard pressed to understand the ardent negative evaluation by many government officials, mainstream scientists, and the public at large. Consequently it is gratifying to hear from those who are willing to speak up and share their personal experiences. Here is a recent letter forwarded to me by MAPS:

Dear MAPS and Mr. Stolaroff,

Enclosed is \$35.00 for a subscription to your quarterly Bulletin. My interest is very personal. I am one of the lucky people who took LSD at the International Foundation for Advanced Study in Menlo Park, California, in the 1960s. The two sessions I had there were some of the most valuable experiences of my life. Though I worked with some wonderful therapists after that, nothing approached the kind of straightening out I got with LSD. Many times in the intervening years I have wished for a place like the IFAS where I could take LSD in a safe setting.

Reading The Secret Chief has given me some hope that someday qualified therapists will be able to use these drugs in their practices. It also made me mourn that I did not know about Jacob and did not try to seek out a place where I could have done it anyway. My life would have been much different.

Thank you for all your work in trying to get these substances legitimized for therapeutic use. I'm 68 now, but I yearn for the opportunity to untangle more of my knots. Is it possible to participate in research studies? I also would be glad to write letters to Senators, Congressmen, the FDA, or anyone to help this process along. It's absurd to have these powerful tools unavailable to doctors, while the illicit drug trade sells everyone else whatever they want.

P. B.

In these times where there is so much misinformation regarding the true nature and potential of psychedelic substances, we strongly encourage those willing to share similar stories and experiences to contact The Albert Hofmann Foundation at the address below.

MAPS and AHF have not devoted specific space to the War on Drugs, as there are other organizations devoting their full attention to this issue. The Drug War has created a powerful climate of widespread resistance to rational and scientific evidence. This makes the job of educating the public concerning the true values and potentials of psychedelic substances considerably more difficult.

One of the most extreme documents concerning drugs that has recently appeared in print comes directly from the headquarters of the United Nations. They have issued a report (available from www.undcp.org) entitled the *International Narcotics Control Board Report for 1997*. Two persons very knowledgeable in this field, when first receiving this report, were convinced that it was a spoof on the Internet. Not so. Here are a few excerpts followed by my comments. The indented paragraphs are direct quotes from the INCB report:

While the elimination of all forms of drug experimentation, use and abuse will never be achieved, it should not be a reason to give up the ultimate aim of all prevention efforts, namely a drug-free society.

Humans have always used drugs, and if history teaches anything, they always will. The illogical attachment to this unrealistic objective obscures the rational examination of the situation and the development of more suitable solutions, such as harm reduction.

Restricting supply through interdiction, for example, pushes up the price of illicit drugs and makes them less available.

Have we totally forgotten the days of Prohibition? The scarcity of alcohol drove up prices, making it extremely lucrative for gangsters to take over the liquor trade. According to historian Andrew Sinclair, "National Prohibition transferred \$2 billion a year from the hands of brewers, distillers, and shareholders to the hands of murderers, crooks, and illiterates." Conditions became so bad with gangster wars, bribed judges, prosecutors, and cops, that the nation readily turned to the repeal of prohibition, the only constitutional amendment ever repealed. Yet close examination reveals many direct parallels between those days and current drug prohibition. For example, a recent drug king in Mexico grossed an estimated income of \$200,000,000 per week. U.S. murder rate, which dropped approximately 50% after Prohibition, has now resumed the same level, 10 per 100,000. Former Colombia high court judge Gomez Hurtado at a drug-policy conference in 1993, told Americans that the income of the drug barons exceeds the American defense budget. Yet supplies of drugs in America remain undiminished. In 1995, world coca cultivation reached a new high of 530,000 acres.

Article 3 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 refers to "publicly inciting or inducing others, by any means, to commit any of the offenses established in accordance with this article or to use narcotic drugs or psychotropic substances illicitly" (subparagraph 1 © (iii)) **and requires each party to establish such conduct as a criminal offense under its domestic law.** (Emphasis added.)

When considering the meaning of "public incitement," the word "public" can be understood to refer to an action taken in public or a situation where the public as a whole is addressed. The phrase "by any means" implies that the provision should be **broadly interpreted** and should cover incitement not only in public addresses or rallies, but also **incitement using any type of media, including printed, audio-visual and electronic media.** "By any means" should also be understood as covering any method of incitement and inducement, such as deceit, influence, monetary inducement or force. (Emphasis added.)

Writers and publishers of articles and books on this subject may well be indicted under such laws!

In some countries, the criminalization of public incitement to use drugs illicitly may run counter to guarantees of freedom of expression, either included in the constitution or embodied in statute law, judicial decisions or customary practice. **It should, however, be the duty of States to find a practical way of conciliation between the contradictory exercise of rights. The freedom of expression cannot remain unrestricted when it conflicts with other essential values and rights.** (Emphasis added.)

The above statement completely negates the remarkable wisdom of the founding fathers who wrote our constitution. For the most part wise, deeply spiritual men, they anticipated the circumstances whereby in the future men highly invested in their own self-interest would justify the trampling of the individual rights of others. Our Constitution has already been trampled in many areas by the War on Drugs. Let's hope we have the good sense to prevent further decimation of what many wise experts have considered the most valuable constitution ever conceived to preserve personal liberty.

Sensationalism, the desire to be provocative and the need for higher ratings, may also be behind the fact that several television companies in some countries in western Europe appear to be broadcasting many more programmes in support of a change in the drug law, if not the outright legalization of drugs, particularly cannabis, than programmes examining the consequences of following such a policy and the harm arising from it.

The above statement appears to be pure speculation. There is no objective data presented to substantiate this view. The statement totally ignores large bodies of evidence, gathered over millennia and by numerous official government studies, which justifies the actions of many honest, sincere people devoted to the truth.

Governments are also invited to seek the cooperation of the telecommunications industries and software providers in removing illegal subject matter from the Internet.

What is the definition of illegal subject matter, and how is this distinguished from educational material?

The Board wishes to remind parties to the 1988 Convention that article 3 of that Convention requires them to **establish as a criminal offense public incitement or inducement to use drugs illicitly.** (Emphasis added.)

The Board wishes to draw Government's attention to their responsibility **to counteract and limit the promotion of messages favoring the use of licit** as well as illicit drugs, because the **promotion of licit drug consumption also has ramifications concerning peoples attitudes towards illicit drug consumption.** (Emphasis added.)

This latter statement should make the pharmaceutical companies happy!

Beyond the above specific excerpts, the overall tone of the entire document appears to be written to emphasize and harden a specific point of view, that drugs are harmful and are destroying society to the extent that almost any means to eradicate them are acceptable. Harry Anslinger, in a 30 year career as head of the Federal Bureau of Narcotics, had convinced America of the evil of drugs with minuscule dependence upon facts. His ability to sway America through the ingenuity of his own fabrications had apparently convinced recent administrations that scientific data and the reports of prestigious presidential commissions need not be taken into account in pursuing their relentless War on Drugs. No scientific evidence is presented anywhere to substantiate the claims of harm and evil that are incorporated in so much current political rhetoric. In fact, programs and studies in other nations—England, Holland, Switzerland—handle the drug problem with much greater effectiveness, much lower costs, and ways that permit addicts to be useful and productive members of society, which seems a far more compassionate approach.

For those interested in psychedelics, we have seen our government officials and medical experts declare that the early successful research with psychedelics have no scientific bearing because the evidence is only "anecdotal." Yet in the drug war, government bodies assail us with information that cannot even meet the requirements of "anecdotal," but fall more into the categories of conjecture and misperception.

Let us hope that widespread knowledge of documents like this INCB Report of 1997, as well as excellent books like Dan Baum's *Smoke and Mirrors* and Mike Gray's *Drug Crazy* will help citizens everywhere more accurately evaluate the War on Drugs.

Myron Stolaroff, Editor

The Secret Chief

A Review and Commentary by **Ralph Metzner**

I AM PROBABLY one of the readers of this book in manuscript form that Myron Stolaroff refers to when he says (p.29) they would have preferred some editing of Jacob's "uninhibited language and looseness of expression," as it might turn off some potential readers. Whether this is so we will of course never know; but I am happy to go on record as saying that I'm very pleased that Jacob's story has been published and that his words have been presented just as he expressed them, without academic or literary varnish. We can all be grateful to Myron Stolaroff and MAPS for making available to a larger public the teaching and legacy of a remarkable man — a pioneer in the applications of psychedelic substances to healing and psychotherapeutic transformations.

I first met Jacob in the early 1970s, when he was running group weekend experiential workshops in a house by the ocean in Bolinas. I was withdrawing from psychedelic research and becoming involved in the Agni Yoga teachings of Russell Schofield. My book *Maps of Consciousness* had been published, and Jacob invited me to present a workshop on astrology, the Tarot, the *I Ching* and the other "maps." It is a measure of the extreme discretion with which Jacob operated, that psychedelics were never mentioned during this weekend; although I'm pretty certain that this same group met at other times for group psychedelic experiences.

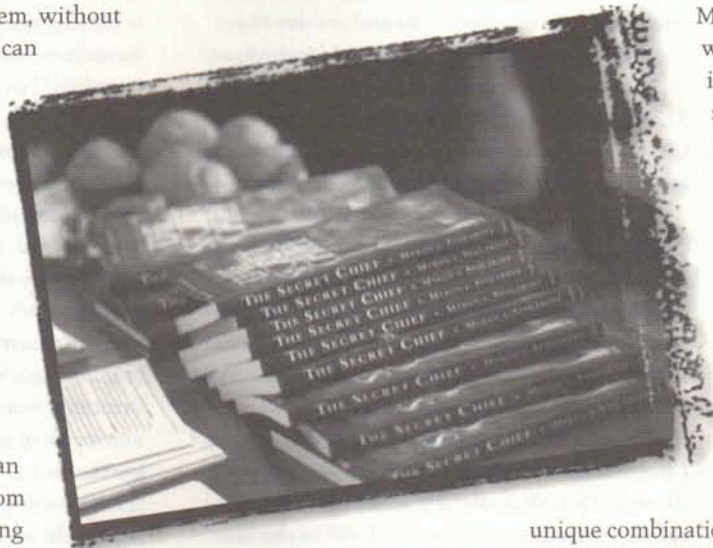
My next encounter with Jacob was in the early 1980s, when I was emerging from a self-imposed 10-year hiatus in psychedelic explorations. I learned from him then that he had been steadily and quietly conducting individual and group psychotherapy sessions over the last decade with the classical psychedelics, as well as with lesser known substances such as MDA, ibogaine, and harmaline (which they mistakenly referred to as yagé). He and his sizable

group of collaborators, clients and students had developed, over time, a humane and effective set of procedures for working with people on these "trips," as he called them. These procedures, which are well described in Stolaroff's book, reflect the psychological wisdom and spiritual humility which were the hallmarks of Jacob's approach.

I was fascinated to hear Jacob talk about the results obtained with his favorite, MDMA, which he called "Adam," which later became famous, or infamous, as XTC, Ecstasy or simply E. "Adam" as primordial human being, original nature, a condition of primal innocence and paradisiacal unity with all life — all seemed apt descriptions for the experiences people were reporting. Jacob offered to initiate me into this wondrous medicine, and guided me into an experience that was one of the most joyous of my life. I was deeply touched, as others have been, by Jacob's

unique combination of imperturbably cheerful calm and kindly warmth. Since my previous work with psychedelics had all been in groups, it was a new experience for me to be the recipient of such concentrated benevolent attention. He came to my apartment and sat by my bedside, while I lay on the bed. He provided me with earphones, eye shades and changed the music, as desired. He told me he would be sitting there, reading a "light" book — so his attention would not be too absorbed, ready to engage with me if requested to do so. The high point of my amazement at his graciousness came when he offered me a glass of water that had a bendable straw, so I wouldn't have to sit up but could drink from semi-reclining position.

For several hours I mostly hummed and sang, laughed and chuckled, as emotional defense patterns dissolved in empathic acceptance. I remember asking him what to do about a tenacious pain I'd had for years in my hip, that had resisted all my attempts at



I was fascinated to hear Jacob talk about the results obtained with his favorite, MDMA, which he called "Adam,"

solving or dissolving it. He suggested that I try just accepting it — that the healing power of acceptance was very great. I worked with that process for a while — the pain diminished considerably, but there was still a residue. I asked Jacob: "How can I accept the unacceptable — the fears that this pain might get worse, might lead to cancer and death?" He replied calmly, "Whatever you can imagine... you can accept." I suddenly realized, with immense relief, that to accept those fears, accept that I had them, did not mean I was moving closer to pain and disease. He then told me that he suffered from migraines for forty years, and had tried to treat them medically and resolve them therapeutically by every imaginable technique, until he learned to accept them unconditionally. They eventually disappeared — "I just outgrow them." This was a very valuable teaching for me, allowing me to relax into my process more.

AFTER this initiation, I started to work with Adam as an adjunct to psychotherapy, along the lines recommended by Jacob. This was in the innocent days before it was illegalized. I was as impressed with the results as everyone else who has worked with this medicine. With my colleague Sophia Adamson, I started to collect first-person accounts of therapeutic and meditative experiences with Adam, that were published in 1985 in the book *Through the Gateway of the Heart*. Jacob was very supporting of this project and contributed a good number of accounts from his own files and those of his colleagues and collaborators. He was also one of several financial supporters who made the first printing possible. He supported quite a few similar research projects in a quiet, behind the scenes kind of way. Characteristically, and in keeping with his practice of keeping a low profile, he never wanted or expected any public acknowledgment for this kind of benevolent activity.

A final point worth making concerns the origin of the term "secret chief." Terence McKenna used this term to describe Jacob at his memorial service, and everyone instantly felt it was perfect (p. 23). Jacob was unassuming, modest and not given at all to public pronouncements of any kind; yet everyone who knew him held him in the highest regard and willingly followed his guidance. The original "secret chief" is a character in one of Hermann Hesse's stories — *The Journey to the East*. In our paper on Hesse in an early issue of the *Psychodelic Review*, Timothy Leary and I pointed out that four of Hesse's novels (*Siddhartha*, *Journey to the East*, *Steppenwolf*, and *The Bead Game*) are written in what can only be considered as "psychedelic code." They appear to related the experiences and adventures of a league of seekers who secretly used psychedelic substances as part of their spiritual practice, which they described as "journeys to other places and times."

Journey to the East described a pilgrimage to Eastern lands by a league of seekers, each seeking a particular personal goal or treasure (e.g. the Tao, Wisdom, the Kundalini, the Princess), but all sharing the goal of enlightenment and spiritual liberation. "For our goal," writes Hesse, "was not only the East, or rather the East was not only a country and something geographical, but it was the home and youth of the soul." On the journey, artists, poets and musicians mingle freely with the characters that are their creations, as well as with figures from the times past and other lands. Our happiness, writes the narrator, "arose from the freedom to experience everything imaginable simultaneously, to exchange outward and inward easily, to move Time and Space about like scenes in a theatre." There are scenes in the story that are easy to recognize as multidimensional psychedelic celebrations.

which later became famous, or infamous, as XTC, Ecstasy or simply E.

THE CENTRAL CHARACTER of *Journey to the East* is a man named Leo, a servant who later turns out to be the President of the League. A secret chief. "Leo was one of our servants (who naturally were volunteers, as we were). He helped to carry the luggage and was often assigned to the personal service of the Speaker. This unaffected man had something so pleasing, so unobtrusively winning about him that everyone loved him. He did his work gaily, usually sang or whistled as he went along, was never seen except when needed — in fact an ideal servant... This servant Leo worked in a very simple and natural manner, friendly in an unassuming way." After a conversation with this servant Leo about what he calls "the law of service," the narrator says his words "left me with a feeling that this Leo knew all kinds of things, that he perhaps knew more than us, who were ostensibly his employers.

In Hesse's story, the servant Leo is later revealed to be the President of the League, wearing a "magnificent festive robe," and bearing his office conscientiously, "like a pope or patriarch." Although Jacob never assumed the office or robe of a president, pope or patriarch (indeed would probably have strenuously avoided it), he did have the quiet dignity and moral authority of a respected elder. One cannot help but be struck by how much the descriptions of this servant Leo resemble the language used by people who knew Jacob to describe him. I myself was reminded of Jacob's solicitude in our first Adam session. And I remember him once being the non-partaking guide in a group session with ayahuasca, where he quietly and cheerfully took care of the necessities for our safety and comfort, meditating or dozing peacefully when there was nothing to do. He had a calm dignity and radiance that made me see him as a king, like the elven king out of a Tolkien novel. Jacob was a "servant" in the sense that he dedicated his life and work to the service of others in their healing and growing process.

In serving others to reach their highest potential, Jacob understood what Hesse's character Leo called the Law of Service: "He who wishes to live long must serve, but he who wishes to rule does not live long." Jacob lived a long and productive life, serving others with wisdom and courage, for which his friends remember him with gratitude. He understood too that in serving others, you serve God. Jacob's spirituality was an integral part of his approach to psychedelic psychotherapy, although it was more implicit rather than explicitly verbalized. He was proud of his Jewish heritage, although also a devoted student of the Course in Miracles. It goes without saying that he never imposed his spiritual beliefs or values on anyone else, in or outside of a psychedelic experience.

As the interviews in *The Secret Chief* make abundantly clear, it was his sense of being spiritually guided that provided the antidote to the fear and paranoia that were the inevitable accompaniment of working in the legal-political borderlands of our drug-phobic society. "You see, again, a spiritual trip is what's involved here. This I have to say — it's the only way I know how to talk about it — what I do and even how I do it is not up to me. I'm guided. I can't define that, I can't explain it. If God didn't want me to do it, He would have stopped me a long time ago. I have a lot of faith that that's true. At the same time I keep a close eye on my integrity and my security... We're all in it together." (p.60)

Perhaps this is Jacob's most valuable legacy to his many friends and admirers: follow your spiritual vision and guidance, but keep your eyes open to the social and political realities that surround you. As the Sufi proverb goes: "Put your trust in Allah, but don't forget to tie up your camel." Thank you, Jacob. We can all do well to follow your example. •

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BOOK REVIEW by
Gary Bravo, M.D.

LISTENING INTO THE HEART OF THINGS The Awakening of Love On MDMA and LSD: The Undesired Psychotherapy

By Samuel Widmer from Basic Editions, 1997. 302 pages.

AS THE TITLE SUGGESTS, this is really a book about one man's spiritual journey, the goal of the journey being the uncovering or "awakening" of Love—which is Widmer's term for the ultimate essence of the universe, and thus of our own nature. The book is only secondarily about psychedelic psychotherapy, or "psycholytic psychotherapy" as European convention terms psychotherapeutic work with psychedelic and empathogenic substances.

Widmer's devotional odes to the qualities of Love are interspersed throughout the book and take some getting used to, as does his verbose prose and poetry, which seem to be roughly translated at times. But once the reader lets go of expectations of any sort of linear treatise and follows the path that Widmer invites one to take, the book convincingly lays out the spiritual path of psychotherapy, also known as "depth psychology," as Widmer has come to understand it through at least 25 years of work as a physician, psychiatrist, and psychotherapist. What makes Widmer's knowledge of this path unique among the plethora of spiritual and transpersonal psychology writings is his extensive work with the "forbidden" therapeutic tools of psychedelic and empathogenic drugs.

As Widmer points out in his introduction, he is not out to please the public or cater to the authorities, stating that he has gotten beyond the immature behavior patterns of "conformity and opposition." Instead he takes the courageous leap of saying what he really thinks, without apology, without mincing words or toning down his transpersonal philosophy so as not to offend those who don't share his framework. He points out the fragmentation and alienation of the modern, Western, intellectualized psyche—its split from the body and the transpersonal—and the institutionalized tyranny of our families and social structures. The "normal" person in our society has superficially adapted to a pathological system, and

most psychotherapies help people "cope" and "adapt" to this system, which denies the deeper layers of the psyche, and persecutes those who openly embark on the journey of self-awareness.

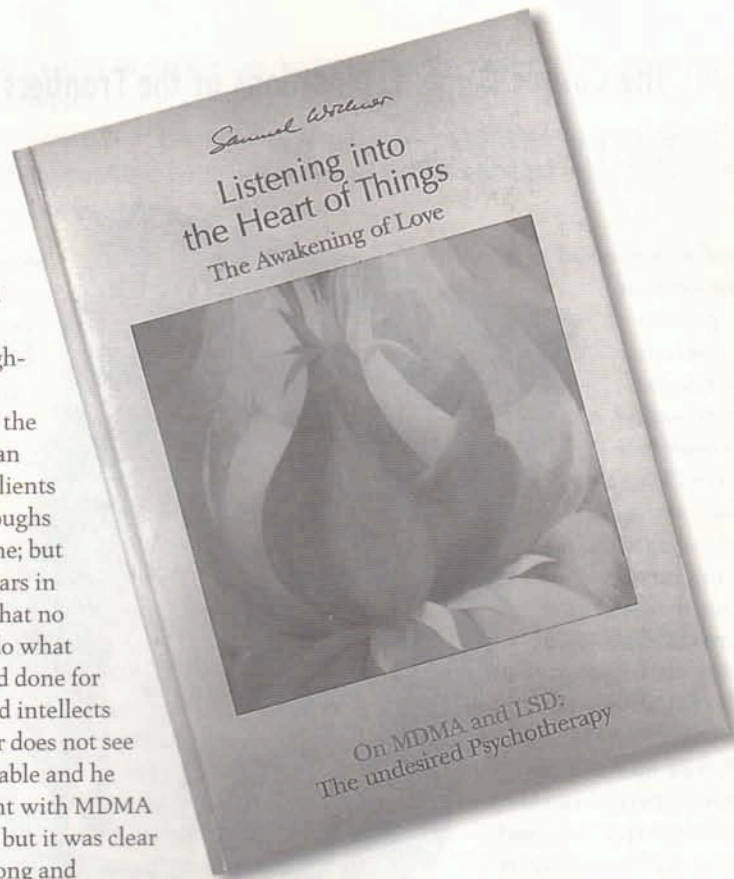
Widmer invites the reader to take this journey with him, exploring and accepting the onion-like layers of the psyche until one reaches what he calls the "kernel," the deep center of every consciousness which is the same for everyone and is identical to Love. But the journey to this Center is a difficult and frightening one, as personal identity and all levels of security and control have to be relinquished. To get there the traveler must first deal with repressed and suppressed feelings, first in the personal, then the societal, then the transpersonal unconscious.

Widmer's model of the psyche, illustrated with many simple diagrams in the book, is congruent with those of other transpersonal theorists and of the perennial philosophy. Again, what is unique to Widmer's thesis is his elaboration on how psychedelic substances can be used in the journey to awakening, a topic which has truly been "forbidden" due to strong taboos in modern cultures towards consciousness-expanding drugs, a reflection of the fear and repression in these cultures.

However, Widmer clearly sees the psychedelic drugs as adjuncts or tools of the psychotherapeutic path; and as this is a serious spiritual path he views the drugs as "sacraments." He has treated people who use psychedelics for "escapist" reasons who don't seem to develop spiritually; and in his personal psycholytic journeys he states he eventually has gotten to a place of repetition, where fascinating visions and states of mind have disappeared and a state of peaceful being predominates, a state that seems closer and closer to his baseline of everyday existence. He says that further psychedelic explorations have left him drained and so he has let them be a thing of the past.

Nonetheless, Widmer views the psychoac-

tive sacraments as extremely powerful tools, seeing MDMA and other empathogens as more useful for working with the personal unconscious, and LSD and the true psychedelics as more suited for opening up the transpersonal spaces. He spices up the book throughout with short case histories of treatment with MDMA or LSD, and the therapeutic breakthroughs which can result. He feels that many of these clients would have had the same breakthroughs eventually with psychotherapy alone; but the psycholytic substances saved years in many cases. In other cases he feels that no amount of talk therapy could ever do what one session with MDMA or LSD had done for some clients with strongly-defended intellects or character structures. Yet Widmer does not see psycholytic psychotherapy as infallible and he also gives examples where treatment with MDMA or LSD led to an opening in clients, but it was clear that it was just the beginning of a long and difficult working through, something which the clients either do or don't choose to do.



this is really a book about one man's spiritual journey

Those looking for a technical treatise on psychedelic therapy will be disappointed. There are no references to standard psychological, transpersonal, or psychedelic works and he doesn't compare his theories to other systems, although he mentions many influences. Widmer refers those readers interested in learning the more technical aspects of how to conduct psychedelic psychotherapy to the works of Stanislav Grof or Hanscarl Leuner. Part Three of Widmer's book is essentially an appendix which deals with some of the general issues of psycholytic therapy—mechanisms of action, indications and contraindications, the use of ritual, music, bodywork, etc. He gives no recipes as he correctly sees that healing is an individual and intuitive art, dependent mostly on the psychotherapist's spiritual development and experience.

Listening into the Heart of Things was originally published in 1989 in German, and at that time the Swiss government was just giving legal permission for the Swiss Society of

Physicians for Psycholytic Therapy to use psychedelics and empathogens in their work. Except for a few short footnotes the book does not discuss what has happened in Switzerland since then; and an update is needed. Nonetheless the book remains a courageous acknowledgement of the value of psychedelics in psycho-spiritual growth and healing; and a wise testament and inspiration to practitioners of the Way of Psychotherapy and all who want to get the most out of their consciousness exploration. •

Listening into the Heart of Things is available from Mind Books. European readers may also obtain the book from Basic Editions, Waldeckstrasse 8, CH-2575 Gerolfingen, Switzerland, tel: 41-32-396-1675, fax: 41-32-396-1676, E-mail: kurt.marti@datacomm.ch.

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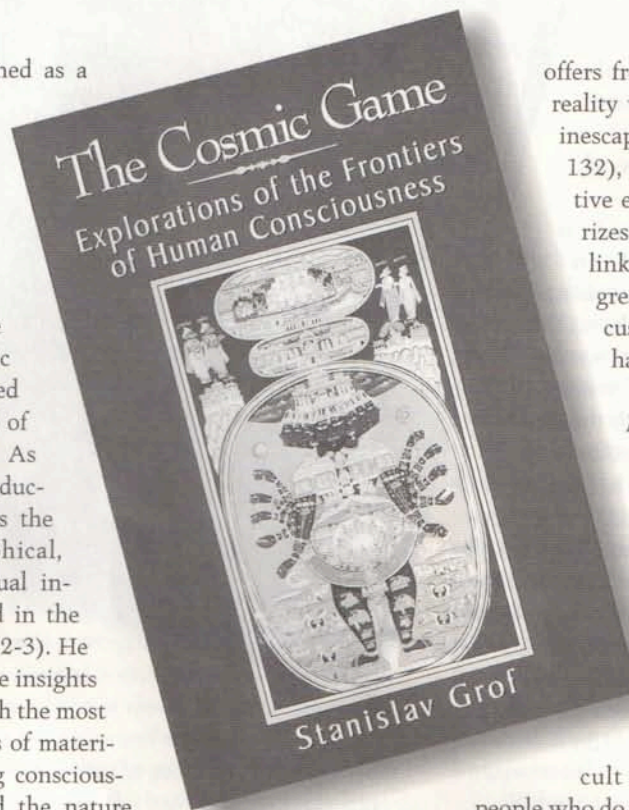
Stanislav Grof's **The Cosmic Game: Explorations of the Frontiers of Human Consciousness**

Reviewed by Stanley Krippner, Ph.D. and Christopher Ryan

Stanislav Grof is renowned as a pioneer in the world of psychedelic psychotherapy and research. During more than four decades of exploration in the field of consciousness studies, Grof has accumulated data on some six thousand psychedelic sessions, having conducted more than four thousand of these sessions himself. As Grof puts it in his introduction, "This book explores the extraordinary philosophical, metaphysical, and spiritual insights that have emerged in the course of this work" (pp. 2-3). He goes on to assert that these insights are "in radical conflict with the most fundamental assumptions of materialistic science concerning consciousness, human nature, and the nature of reality" (p. 3).

The Cosmic Game is an excellent introduction to Grof's work and the conclusions to which this work has led him. Just as *Memories, Dreams and Reflections* provides a biographical context helpful in understanding the genesis of many of Jung's most important ideas, *The Cosmic Game* is generously leavened with fascinating—and often touching— anecdotes from Grof's, and his patients' personal experience—drawing on both psychedelic sessions and day to day experience. These anecdotes are invaluable not only in providing background to Grof's research, but also in helping the reader to understand why the study of consciousness is so meaningful, both to Grof and to the rest of us.

By placing his intellectual conclusions within a spiritual, historical, and personal framework, Grof has written a book that will be especially helpful to those who may be new to the field of consciousness studies, or whose experiences with psychedelics may have led to difficulties or doubts concerning their previous understanding of reality. His work provides a succinct and very well-informed critique of mainstream scientific thought without resorting to naïve new age thinking (e.g. you create your own universe and are totally responsible for all that happens therein). He



offers fresh insights into the nature of reality vs. "virtual reality" (p. 76), the inescapability of evil in the universe (p. 132), the values and varieties of unitive experience (p. 79), and summarizes his original thoughts on the links between birth trauma and aggression (p. 204), which he discusses in *The Holotropic Mind*, and has termed perinatal matrices.

Along with *The Holotropic Mind*, *The Cosmic Game* offers several fascinating avenues for future research. For example, the link between birth trauma and aggression, mentioned above, could be explored. An investigator could check birth records of people who commit aggressive acts (clearly defined beforehand) to see if they had had more difficult

(i.e. traumatic) births than people who do not exhibit such behavior.

The Cosmic Game is carefully written and edited—we noted very few errors: moral rather than morale on page 168, and, arguably, referring to shamanism as a religion on page 255 (we would contend that shamanism is a spiritual technology and practice that predates organized religion by tens of thousands of years).

Although *The Cosmic Game* is essentially an introduction to and summation of Grof's unique perspective on human existence, we would not hesitate to use the word "classic" to describe it. We look forward to a future work in which Grof goes further in presenting his own paradigm, which may someday help to dislodge the current one, which *The Cosmic Game* so clearly and thoroughly exposes as being defunct. •

The Cosmic Game book is available from SUNY Press, 607-277-2211, fax orders: 800-688-2877, orderbook@cupserv.org. \$19.95 pb 0-7914-3876-7, \$59.50 hc 0-7914-3875-9. Published 1998; SUNY Press, 285 pg.

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IN A CONTINUING EFFORT to alert would-be translators, publishers and readers to noteworthy non-English publications on the subject of shamanic inebriants, we present here the third installment of mini-reviews of recent titles which Jonathan Ott thinks are especially valuable or interesting. Where possible, book prices and all salient ordering information are included, to facilitate direct and expeditious acquisition.

Non-Anglo Entheography:

Mini-Reviews of Non-English Publications, III

Jonathan Ott

Spanish originals

Al Trasluz de la Ayahuasca: Antropología Cognitiva, Oniromancia y Consciencias Alternativas [Ayahuasca Translucent: Cognitive Anthropology, Oneiromancy and Alternative Consciousness] Josep Maria Fericgla, 1997. Los Libros de la Liebre de Marzo [Apartado de Correos 2215, Barcelona 08080, Spain, Ptas. 2000]. Paperback; ISBN 84-87403-30-1; 151 pp., no index, 4 pp. bibliography of 78 sources; 20 b/w photos. Catalán ethnographer Fericgla here summarizes his research on ayahuasca among the Shuar (Jívaro) of Ecuador, previously covered in his book *The Jívaro: Hunters of Dreams* [Catalán original, translated into Spanish], a diary of his field work in 1992-93. There is an introductory chapter on methodology, followed by a survey of the ethnography of ayahuasca and notes on its entheogenic properties. The most detailed section of the book is a study of oneiromancy/dream-analysis among the Shuar, compared and contrasted with its analogues in psychoanalysis. There follows "Ethnopsychiatry and Entheogens," based on survey data from 113 Shuar informants, commencing with graphic analysis of ages and sexes of users, and consumption or not of the solanaceous shamanic inebriant *Brugmansia* spp. A useful and interesting final chapter summarizes "Contemporary Ethnographic Status of the Shuar Peoples" and is preceded by "Culture, Theory and Applications of the Imagery Generated by Ayahuasca." Herein Fericgla theorizes in the realm of what he calls "cognitive anthropology" and expands on previous conceptualizations of entheogens as non-specific adaptogens, again showing a penchant for skating on this ice, by linking his theories to

a controversial notion rejected by many (if not most) pharmacologists. While some might question Fericgla's scientific judgement, none will accuse him of lack of boldness, and perhaps some fruitful debate will result from this attempted synthesis of psychoanalysis and anthropology, in the tradition of Weston La Barre's *The Ghost Dance: The Origins of Religion*. Personally, I would have much preferred more hard data and less airy speculation.

Los Nombres de los Hongos y lo Relacionado con Ellos en América Latina [Names of Mushrooms and Related Things in Latin America] Gastón Guzmán, 1997. Instituto de Ecología [Apartado Postal 63; Xalapa, Veracruz 91000, Mexico, Pesos 200.00/\$30.00 (paper); Pesos 300.00/\$50.00 (cloth), all postpaid]. ISBN 968-786306-4 (apparently same ISBN for both editions); 356 pp., no index; 24 pp. bibliography of 486 sources; numerous photos and illustrations. Guzmán, who participated in the modern "rediscovery" of the psilocybian mushrooms, as field assistant to Rolf Singer in 1957, and subsequently became the leading authority on the taxonomy of *Psilocybe*, monographing the genus, here continues his ethnomycological research by assembling a valuable dictionary of Latin American mushroomic names. In all, some 5,500 names are listed alphabetically, covering roughly 1,750 species. Guzmán is to be commended for this painstaking assemblage of so much information of interest to mycologist, ethnobotanists, anthropologists, agronomists and linguists—a true bargain, highly recommended!

Alucinógenos: La Experiencia Psicodélica [Hallucinogens: The Psychodelic Experience] Luis San, Miguel Gutiérrez and Miguel Casas, Eds., 1996. Ediciones en Neurociencias [Numancia, 207; Barcelona 08034, Spain; Ptas. 3360]. Hardcover ISBN 84-88648-41-6; 255 pp.; 7 pp. index; bibliographies and figures. This is an anthology of 15 papers on the "psychodelic experience," the title orthography reflecting a psychiatric focus—nine of the papers deal with therapeutic aspects of psychoptic compounds, six of these with their purported role as "psychotomimetics" or exacerbatory agents in psychosis; and two with medico-judicial aspects of prevention of illicit use. A useful introductory review of visionary pharmacology is accompanied by an interesting therapeutic history of LSD and an historical review of Mediterranean entheogens; and there are papers on the pharmacology of ayahuasca, PCP and artificial amphetamine-like compounds, as well as psilocybin. *Enteaficionados* will perhaps be put-off by reviews of the largely-discredited notion of drug-induced "model psychoses" or "toxic psychoses," particularly the purported existence of animal models of such; by the discussion of cannabinoids as "psychotomimetics" and of cannabis consumption as a factor in "evolution of schizophrenia;" not to mention chapter on "hallucinogens and schizophrenia" and "mescaline, psilocybin and LSD as inducers of experimental psychoses"—not to forget the chapters on prevention of illicit traffic in such substances. Nevertheless, this book also contains many useful data on entheobotany and the history of entheopsychiatry.

German originals and non-English translation

Psychoaktive Pflanzen [Psychoactive Plants] Bert Marco Schuldes, 1997 [2nd. improved and enlarged edition]. Medienexperimente [Alte Schmiede; D-69488 Löhrbach, Germany] and Nachtschatten Verlag [Ritter Quai 2-4; CH-4502 Solothurn, Switzerland; DM15, SFR17, ÖS130]. Paperback; ISBN 3-925817-64-6; 126 pp.; 4 pp. index; 2 pp. bibliography of 52 items; b/w cover drawing repeated on decorative end-papers. A total of 73 categories of psychoactive plants are covered in this book, listed in alphabetical order of their scientific names, with subsections for each giving: use information; active principles; effects; side-effects; 'peculiarities'; commercial sources and 'other' [references to other parts of the book; useful tips for users; ethnobotanical *minutiæ*, etc.]. This clear, straight-forward and logical presentation makes all these data readily accessible, especially given the useful, 4 pp. index [unfortunately, there are many—8 or 9 in each case—orthographical errors in these names through table of contents, section headings and index—such as *Rauwolfia* for *Rauwolfia*; *Viola carophylla* for *calophylla*; etc.]. Being a second 'improved' edition, this is excessive, and while the bibliography is welcome, it is incomplete, lacking the dates. There is a brief introductory section before these plant monographs, which are followed by addresses of shamanic plant seed companies in Europe and the United States, with valuable tips on dealing with German customs for the latter. There are 33 pp. of trip-reports for 18 types of drugs, also in alphabetical order. The third part deals with *caveats* legal and psychonautic, the former of course specific for the German reader. While in many respects

this book is similar to *Las Plantas Alucinógenas* [see *MAPS Bulletin* 8(1), 1998], it is far better done, and presents some new information of psychonautic bioassay of some of the more recondite inebriants, many of these by the author himself, as is proper. This interesting and useful book, referenced and well-indexed, deserves far better editorial scrutiny and diligence.

Too Much: Erste Hilfe bei Drogenvergiftungen [Too Much: First-aid for Drug Poisonings] Richi Moscher, 1996 [5th improved edition]. Medienexperimente [DM5, SFR7, ÖS45]. Paperback; ISBN 3-925817-72-4; 62 pp.; 2 pp. cross-index; no bibliography; b/w inside-cover drawing as end-papers; 3 full-page cartoon illustrations. This is an extremely valuable and well-produced first-aid manual for drug overdoses, freak-outs and related medical problems. Speaking to German users and physicians, the psychotherapist author commences with the basics—how to recognize poisonings, artificial respiration, cardiac massage; emphasizing when and how to seek medical attention, including 24-hour 'phone emergency numbers in major German cities. There follows a brief section on prospective antidotes for given inebriants, another on some special contraindications for MAO-inhibitors, with an interlude discussing the "Right to Inebriants," and particular precautions for injectors. The meat of this 4 x 6 inch booklet consists of 16 chapters for individual drugs and typical adulterants: alcohol; anabolic steroids; quinine; Ecstasy; fentanyl; hashish; heroin; tropane-alkaloid-containing *Solanaceæ*; caffeine-rich drugs; cocaine; LSD; barbiturates; amphetamines; the 'cuts'; strychnine and *Valium*®—followed by a cross-index to these sections, which are listed in alphabetical order of their most rational German names. Each section gives chemical names, relative danger level, health risks from single- and chronic-uses, dangerous interactions with other drugs, adverse side effects and antidotes. The small size and clear design and typography are well-suited to the book's intended use. An English-language edition of the book is a *desideratum*, and should be present in every emergency room and drug-crisis center, as well as in the libraries of every intrepid psychonaut. The fact that 'cuts,' strychnine and quinine are included underscores a dirty little secret of putative drug [esp. 'heroin'] 'overdoses'—that such chiefly involve toxicity of adulterants/diluents, *not* of the drugs in question—hence are indirect results of *prohibition*, not of the drugs *per se*. Publisher Werner Pieper is to be congratulated for nicely producing this life-saving manual, at virtually a non-profit price [DM5 or about \$3.00]—this is an example of civic responsibility on the part of a publishing concern specializing in inebriant-related topics—and one that should be emulated here.

Von Fahrten in den Weltraum der Seele: Berichte über Selbstversuche mit LSD und Psilocybin [On Travels in the Universe of the Soul: Reports on Self-experiments with LSD and Psilocybin] Rudolf Gelpke, 1997. Medienexperimente / Rauschkunde [DM5, SFR7, ÖS45]. Staple-bound foldover; ISBN 3-930442-34-5; 27 pp.; no index; no bibliography; frontispiece photograph of author; 2 line-drawings by Li Gelpke; 2 by Dorette Huegin. We have here a facsimile reprint of Swiss Islamic scholar Rudolf Gelpke's [1928-1972] seminal and beautifully-written essay on

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Too Much: Erste Hilfe bei Drogenvergiftungen [Too Much: First-aid for Drug Poisonings] Richi Moscher, 1996 [5th improved edition]. Medienexperimente [DM5, SFR7, ÖS45]. Paperback; ISBN 3-925817-72-4; 62 pp.; 2 pp. cross-index; no bibliography; b/w inside-cover drawing as end-papers; 3 full-page cartoon illustrations. This is an extremely valuable and well-produced first-aid manual for drug overdoses, freak-outs and related medical problems. Speaking to German users and physicians, the psychotherapist author commences with the basics—how to recognize poisonings, artificial respiration, cardiac massage; emphasizing when and how to seek medical attention, including 24-hour 'phone emergency numbers in major German cities. There follows a brief section on prospective antidotes for given inebriants, another on some special contraindications for MAO-inhibitors, with an interlude discussing the "Right to Inebriants," and particular precautions for injectors. The meat of this 4 x 6 inch booklet consists of 16 chapters for individual drugs and typical adulterants: alcohol; anabolic steroids; quinine; Ecstasy; fentanyl; hashish; heroin; tropane-alkaloid-containing *Solanaceæ*; caffeine-rich drugs; cocaine; LSD; barbiturates; amphetamines; the 'cuts'; strychnine and *Valium*®—followed by a cross-index to these sections, which are listed in alphabetical order of their most rational German names. Each section gives chemical names, relative danger level, health risks from single- and chronic-uses, dangerous interactions with other drugs, adverse side effects and antidotes. The small size and clear design and typography are well-suited to the book's intended use. An English-language edition of the book is a *desideratum*, and should be present in every emergency room and drug-crisis center, as well as in the libraries of every intrepid psychonaut. The fact that 'cuts,' strychnine and quinine are included underscores a dirty little secret of putative drug [esp. 'heroin'] 'overdoses'—that such chiefly involve toxicity of adulterants/diluents, *not* of the drugs in question—hence are indirect results of *prohibition*, not of the drugs *per se*. Publisher Werner Pieper is to be congratulated for nicely producing this life-saving manual, at virtually a non-profit price [DM5 or about \$3.00]—this is an example of civic responsibility on the part of a publishing concern specializing in inebriant-related topics—and one that should be emulated here.

Von Fahrten in den Weltraum der Seele: Berichte Über Selbstversuche mit LSD und Psilocybin [On Travels in the Universe of the Soul: Reports on Self-experiments with LSD and Psilocybin] Rudolf Gelpke, 1997. Medienexperimente / Rauschkunde [DM5, SFR7, ÖS45]. Staple-bound foldover; ISBN 3-930442-34-5; 27 pp.; no index; no bibliography; frontispiece photograph of author; 2 line-drawings by Li Gelpke; 2 by Dorette Huegin. We have here a facsimile reprint of Swiss Islamic scholar Rudolf Gelpke's [1928-1972] seminal and beautifully-written essay on

his self-experiments with LSD and psilocybin. In all, there are reports of 3 psilocybin trips [of 9 total: 10,16 and 20 mg] and three with LSD [of 10 in all: 75,150 and 150 mcg], during a five-month period from April–September 1961. Albert Hofmann excerpted two of the LSD reports ["Dance of the Spirits in the Wind" and "Polyp from the Deep"] in his autobiography *LSD: My Problem Child* [McGraw-Hill, 1980], and Hofmann described one personal experience of psilocybin, in presence of Gelpke, along with Ernst Jünger [who himself chronicled this trip in *Annäherungen* (Ernst Klett Verlag, 1970)]. I was so impressed with Gelpke's literary skill, that I translated the entire paper into English [*Journal of Psychoactive Drugs* 13(1): 81–89, 1981]. In this welcome reprint of a German classic [*Antaios* 3(5): 393–411, 1962], it is unfortunate that Figs. 1 and 4 are transposed; while *true* pp. 24–25 appear after *true* pp. 26–27, potentially confusing readers. Moreover, the brown ink on yellow stock does not do justice to the illustrations, which were on glossy stock in the original. Outside of the writing of Jünger and Wasson, however, there are no better descriptions of the visionary effects of these entheogens, and it is wonderful to see this timely reprint.

Mit Einem Fuss in der Zukunft: Die Bemerkenswerte Spirituelle Reise einer Psychonautischen Oma [One Foot in the Future: The Remarkable Spiritual Journey of a Psychonautic Grandmother] Nina Graboi, 1997. Medienexperimente / Rauschkunde [DM5, SFR7, ÖS45]. Staple-bound foldover; ISBN 3–930442–09–4; 27 pp.; no index; no bibliography; frontispiece photograph of the author. This booklet is divided into two parts. The first "The Life of a Psychonautic Grandmother," was adapted by publisher Werner Pieper from Graboi's book *One Foot in the Future: A Woman's Spiritual Journey* [Aerial Press, 1991], summarizing the story of her life. There follows "I'm a Luminous Noodle in the Cosmic Soup," an interview of Graboi by David J. Brown and Rebecca McClen Novick, translated and excerpted from their book *Mavericks of the Mind: Conversations for the New Millennium* [Crossing Press, 1993]. The booklet concludes with "One Foot in the Present: An Afterword" by Pieper, in which he describes his meeting and correspondence with the Austrian author, and his compromise decision to excerpt her book for German readers. Unfortunately there was an error in imposition, such that the final three pages are in reverse order; otherwise this is a useful introduction to a book which would otherwise remain largely unknown in the German-speaking world. •

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1999 Entheobotany Shamanic Plant Seminars

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The Literature of Psychedelics

Bob Wallace

NEW BOOKS

The Cosmic Game Explorations of the Frontiers of Human Consciousness

Latest and broadest philosophical, metaphysical, and spiritual insights from Grof's research into non-ordinary states of consciousness, including his extensive explorations of the psychedelic mental states. The identity of the human psyche in its furthest reaches with the universal creative principle, the totality of existence, and the Divine Itself. Bibliography and index. (Stanislav Grof 1998; SUNY Press 0-7914-3876-7, 285 page paperback, \$19.95; also in hardback)

Zen and the Brain Toward an Understanding of Meditation and Consciousness

Professor of neurology and Zen practitioner James H. Austin explains what we know about the brain mechanisms and anatomy of altered states of consciousness. The focus is on Zen mental states, but includes several chapters on psychedelic states and various others. Also includes background on neurotransmitters and brain anatomy. For general readers. Glossary, references, notes, index. (James H. Austin 1998; MIT Press 0-262-01164-6, 868 page hardback, \$39.95)



The Heffter Review of Psychedelic Research, Volume 1, 1998

Excellent new scientific journal from the Heffter Research Institute. This premier issue has ten research papers on psychedelics: psychiatric research with psychedelics (Grob), brain correlates of hallucinogen states (Vollenweider), medical chemistry of phenethylamine psychedelics (Nichols), entactogens, flashbacks, ketamine therapy for alcoholism, and ayahuasca research update. Very professional; recommended. (David Nichols (editor) 1998; Heffter Research Institute, 85 page large paperback, \$9.95)

Mindscapes An Anthology of Drug Writings

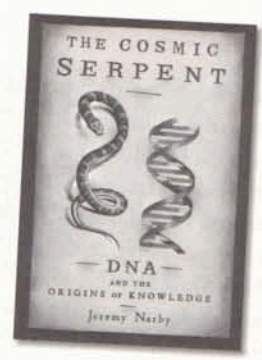
Older but still interesting selections by famous people. One section on ayahuasca, peyote, and psilocybin, with writings by Artaud, Burroughs, Wasson, Harner, Castaneda, and Terence McKenna. Another on mescaline and LSD features Huxley, Michaux, Nin, Leary, and others. Also has sections on nitrous oxide and hashish. Altered state experiences are hard to describe; these articulate writers help us understand them. (Antonio Melechi (editor) 1998; Mono 0-9532444-0-7, 251 page paperback, \$17.95)

The Ecstatic Imagination Psychedelic Experiences and the Psychoanalysis of Self-Actualization

General psychoanalytic theory of the psychedelic experience. The phenomenology of both Western self-reported and Native American cultural hallucinogen experiences joined with classical, ego psychological, and object relations psychoanalytic theories. Provides a rigorous approach to psychedelics and self-actualization. Bibliography and index. (Dan Merkur 1998; SUNY Press 0-7914-3606-3, 240 page paperback \$19.95; also in hardback)

The Evolutionary Mind Dialogs at the Edge of the Unthinkable

Terence McKenna again joins Ralph Abraham, leader of the mathematics of chaos, and Rupert Sheldrake, biologist who created the idea of morphogenetic fields. New topics include: grassroots science; psychedelics and computers; evolution and Hawaii; the World Wide Web; psychic pets; fractals; time; utopianism and millenarianism. (Rupert Sheldrake, Terence McKenna, & Ralph Abraham 1998; Dialog Press (Dakota Books) 0-942344-13-8, 207 page paperback, \$16.95)



The Cosmic Serpent DNA and the Origins of Knowledge

Molecular biologist Jeremy Narby works with ayahuasca shamans and concludes they were given the knowledge of the DNA double-helix. Combines personal adventure, study of Amazon ethnobotany, and investigation into sources of knowledge, intelligence, and consciousness. Extensive notes, bibliography, and index. (Jeremy Narby 1998; Tarcher (Putnam) 0-87477-911-1, 271 page hardback, \$22.95)

The Gift of Life Female Spirituality and Healing in Northern Peru

Personal and professional anthropology story of becoming a curandero in coastal Peru, using San Pedro cactus to learn what (or who) is causing an illness and how to handle it. Discusses healing, sorcery, and shamanism, as well as the different focus of male and female shamans. Notes on the classic mesa, and the "dano" or illness caused by a "brujo" or sorcerer. Scholarly as well as personal; notes, glossary, references, and index. (Bonnie Glass-Coffin 1998; Univ. of New Mexico Press (New Leaf) 0-8263-1893-2; 262 page paperback; \$15.95)

Acid: The Secret History of LSD The history of LSD, from a British perspective.

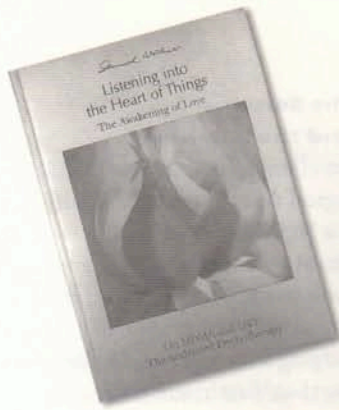
Hofmann, Leary, the CIA, and other well-known players join Ronald Stark, the Brotherhood, Operation Julie, the Weather Underground, and the Italian Mafia in this history. Adds some information not found in the more complete *Acid Dreams*. Bibliography and index. (David Black 1998; Vision (Last Gasp) 1-901250-11-3, 208 page paperback, \$16.95)

Psychedelia Britannica Hallucinogenic Drugs in Britain

The cultural history of psychedelics in Britain. From Lewis Carroll's *Wonderland* to R.D. Laing and LSD therapy in the 50s, the Michael Hollingshead story (he turned on Leary) and Alexander Trocchi in the 60s, plus music from Pink Floyd to the rave scene, Ecstasy clubs, and the shamanic insurrection. Introduction by Albert Hofmann, bibliography and index. Fascinating history. (Antonio Melechi (editor) 1997; Turnaround (Last Gasp) 1-873262-05-1, 223 page paperback, \$19.95)

Paddos: Our Little Brothers

Dutch book for new "magic mushroom" psychonauts, also great for anyone considering taking any psychedelic. Intention, set and setting, practical tripping tips, rituals, visualizing, hazards, resources. Recommended. (Translated from Dutch.) (Anonymous 1997; Egosoft 90-803696-2-4, 80 page paperback, \$3.95)



Listening into the Heart of Things: The Awakening of Love On MDMA and LSD: The Undesired Psychotherapy

Very interesting story of Swiss psycholytic therapy by one practitioner. Part one presents case studies to show how MDMA (and to some extent LSD) can be useful in therapy from a wider Jungian viewpoint. Part two focuses on love as the key element of ourselves. Part three covers the practical side of this therapy: the sacraments MDMA and LSD, set and setting, the therapist, body work, use of music, and counter indications. Written from the heart; not intended as a scientific study. Translation. (Samuel Widmer 1997; Basic Editions 3-9521250-2-4, 302 page hardback, \$45.95)

Altered State The Story of Ecstasy Culture and Acid House

MDMA and dancing have a natural affinity. Though it started with the New York and Texas club scene, both the scene and the book soon shift to England and the house/trance rave experience. Many true stories of chemists and DJs, clubs and parties of the largest youth movement in British history. Notes and index. (Matthew Collin 1997; Serpent's Tail (Consortium) 1-85242-377-3, 322 page paperback, \$16.95)

Salvia Divinorum Grower's Guide

Nice book on how to grow "Ska Pastoria," the diviner's sage containing salvanorin, an entirely new class of psychedelic. Rooting, humidity, soils, feeding, light, hydroponics, pests, problems, cuttings, seeds. Bibliography. (Sociedad para la Preservación de las Plantas del Misterio 1998; Spectral Mindustries 1-890425-01-X, 64 page paperback, \$11.95)



Wasson's First Voyage The Rediscovery of Entheogenic Mushrooms

Brief description of Wasson and his first meeting with Maria Sabina. Also has references and a Wasson bibliography. (John W. Allen 1997; Psilly Publications (Homestead), 31 page pamphlet, \$6.95)

Maria Sabina Saint Mother of the Mushrooms (John W. Allen 1997; Psilly Publications (Homestead), 31 page pamphlet, \$6.95)

Teonanacatl – Ancient and Contemporary Shamanic Mushroom Names of Mesoamerica and Other Regions of the World

Introduction, then lists mushrooms by species with traditional names in Spanish, Mazatec, Nahuatl, etc. plus current names in English and other languages. Also species photos (black & white) and references. (John W. Allen 1997; Psilly Publications (Homestead), 49 page pamphlet, \$9.95)

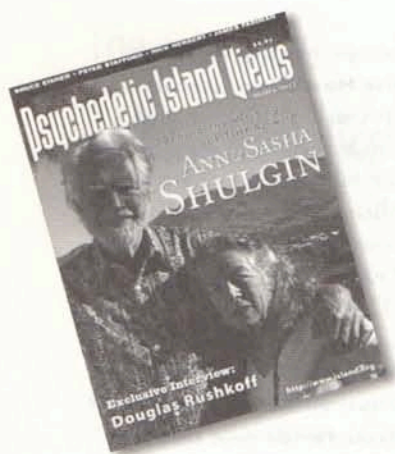
Magic Mushrooms of the Hawaiian Islands Species identification with photos, historical and current use, bibliography. (John W. Allen 1998; Psilly Publications (Homestead) 158214-030-8, 52 page pamphlet, \$11.95)

Some Recent Notes and Observations on the Occurrence and Use of Entheogenic Fungi in Third World Countries Magic mushroom tourism in Mesoamerica and Southeast Asia, with tips and stories. (John W. Allen & Jochen Gartz 1997; Psilly Publications (Homestead), 51 page pamphlet, \$9.95)

mushroom.man Novel; tale of loner whose move to the mountains takes him on an odyssey mapped by hallucinogen experiences. Sixties man, primal man, shaman, nowhereman, everyman; mushroom.man enters the world of forests, fungi, and spiritual discovery on the trail of an ancient and holy mystery, with help from a curious psychologist. (Paolo Tullio 1998; Lilliput Press 1-901866-09-2, 220 page paperback, \$16.95)

NEW EDITIONS

Phantastica Classic mind drug text: the Euphorica, Inebriantia, Hypnotica, Excitantia, and our friends the Phantastica, with peyote, cannabis, fly-agaric, several Solanaceae, caapi vine, and a few obscure ones. New preface by Bo Holmstedt; notes and index. (Louis Lewin 1924 (1998 edition); Inner Traditions 0-89281-783-6, 304 page paperback, \$16.95)

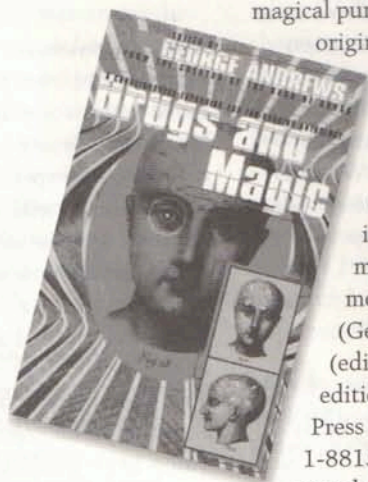


The Unfolding Self Varieties of Transformative Experience

New, revised edition of *Opening to Inner Light* helps us understand transformation with images of inner fire, death/rebirth, liberation, wholeness, return to the source, and other useful metaphors. Many examples from psychedelic experiences. (Ralph Metzner 1986 (1998 edition); Origin Press 1-57983-000-5, 344 page paperback, \$14.95)

Drugs and Magic

Anthology, by culture, of the many ways people have used psychoactive plants and compounds for shamanic and magical purposes. Includes original cultural



writings plus history and discussion. Covers many cultures: ancient, indigenous, medieval, and modern. Index.

(George Andrews (editor) 1975 (1998 edition); IlluminiNet Press (New Leaf) 1-881532-12-7, 612 page paperback; \$19.95)

Flowers of Wiricuta— A Gringo's Journey To Shamanic Power

True story of the author's work with the Huichols and with his personal spiritual and shamanic development. Many insights into Peyote, prayer, pilgrimage, and power. Chapters include Healing the Sacred Circle, Responsible Ecstasy, Spiritual Warrior, Sacred Marriage. (Tom Soloway Pinkson 1995 (1998 edition); 0-89281-659-7, 302 page paperback, \$16.95)

The Serpent and the Rainbow

Excellent ethnopharmacological detective tale. Story of the Haitian people, their secret "vodoun" societies, and their use of potent plants (and animals) in the process of judging a wrongdoer, simulating their death, and then maintaining control over them (now a "zombi"). A compelling story and good ethnobotany. Wade Davis 1985 (1998 edition); Simon & Schuster (Ingram) 0-684-83929-6, 297 page paperback, \$12.95)

Pharmaco/Poeia Plant Powers, Poisons, and Herbcraft

This delightful book of psychedelic plant poetry is back in print! Work continues on the next two volumes; stay tuned... (Dale Pendell 1995; Mercury House 1-56279-069-2, 302 page paperback, \$16.95)

NEW PERIODICALS

TRP: The Resonance Project, Issue 3

Vaporizer Review, Cult Secrets Revealed, Datura Eater, Datura: Yerba Del Diablo, interviews with Terence McKenna, Dr. Karl Jansen, Bruce Pavitt, D.M. Turner, and Ralph Abraham, plus news, book and music reviews. (James Kent (editor); Resonant Media, 68 pages, \$4.95)

Eleusis: Bulletin of the Italian Society for the Study of the States of Consciousness, Issue 8

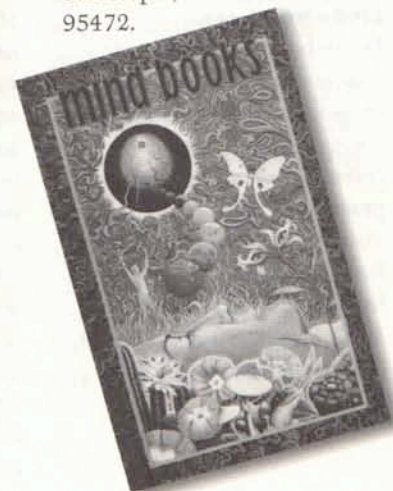
Papers on sacred use of psychedelics by Ralph Metzner and Nicholas Saunders; psychedelia in sixties Italy; the mushroom-tree of Plaincourault. (Giorgio Samorini (editor) 1997; SISSC, 52 pages, \$8.95)

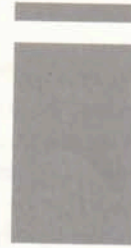
Psychedelic Island Views, Volume 4 Issue 1

The Shulgins, Owsley "Bear" Stanley interview (part two), and Douglas Rushkoff interviews, Nicholas Saunders, Elizabeth Gips, The Human Be-In (part two), Sandoz, raves, limericks. (Bruce Eisner, editor); Island Group, 64 pages, \$4.95)

WHERE TO GET THESE BOOKS

All books may be ordered from Mind Books, the author's company; of course many are available from other good sources. To contact Mind Books, call: 800-829-8127 or 707-829-8127, fax: 707-829-8100, E-mail: books@promind.com Web site: www.promind.com or write: Mind Books, 321 S Main St, #543, Sebastopol, CA 95472.





IMPRISONED IN AUSCHWITZ
for two years, having eluded death
by the narrowest of margins, the

man known as Ka-tzetnik 135633 survived the Holocaust to discover that survival alone would not end his torment. For over 30 years, through nightly dreams of terrifying intensity, the writer remained captive to the horrors of Auschwitz. Finally in 1976 he sought help from Professor Jan Bastiaans, the Dutch psychiatrist who first recognized Concentration Camp Syndrome and successfully treated camp survivors with a therapy involving doses of LSD. *Shivitti* is a memoir of that experience. MAPS has reprinted the Preface to the new edition of *Shivitti* with permission from the publisher.

Shivitti: A Vision

Preface to the new edition by **Claudio Naranjo, M.D.**

WE HAVE HERE a little book of immense bearing, which might well be announced in terms similar to those chosen by a reviewer of the recent movie on the sinking of the Titanic. Just as in his review he observed that the moviegoer should not come to admire such things as camera work or even plot, but to grasp the enormity of the event that was reflected by the movie—here the reader should not look so much for literature, psychotherapy, or history as for the extremity of the experience of the holocaust.

Before all else we should be aware of the rarity of this document. Not only was it exceptional enough for the author to survive Auschwitz, but it is a rare thing for someone who has undergone such a descent into hell to be able to tell the story. Furthermore, I am sure that most human beings don't even succeed in being truly present to themselves before such horror, while here we have still another striking

exception: De-Nur is able to be a witness in retrospect because he was an exceptional witness of life at its worst, while it was happening. It is precisely to this that we may attribute his very survival—or more exactly, to the fact that he was able to keep the *Shivitti* (i.e. the reminder of the presence of God) always before him throughout his years of imprisonment.

Beyond all that, this is a more exceptional book than a simple memoir would have been. That had been accomplished already by De-Nur under his pseudonym (Ka-tzetnik 135633) in his earlier book *Salamandra*, driven by a sense of mission in reporting what he had lived. The present volume is, rather, a report on hell revisited, i.e. one on the experience of dealing again with his scarcely bearable memories in order to heal from them and so to regain a peace of mind after thirty years of sleeplessness and nightmares. As I write this I am reminded of what I once heard a South American shaman

say concerning courage. "There is the courage of ordinary warriors," he said, "who risk their lives in battle, and there is the greater courage required for the inner adventure of ingesting 'teaching plants' that are part of a healer's training." If it was already a heroic feat for De-Nur to have been able to survive physically through an exceptional spiritual aliveness, an additional heroism was involved in his willingness to return to Auschwitz decades later under the effect of LSD.

I consider it a great privilege that Mr. De-Nur has asked me to write this preface to his very remarkable book, and take pleasure in feeling that I am the right person for it. I not only know but feel great regard for the three persons involved in his narrative: De-Nur himself, his wife Elijah (here Nike), and my colleague Dr. Bastiaans. Rather than commenting any further on a book that speaks for itself, I want to end this preface with some reflection on the deliberately ignored usefulness of LSD and other psychedelics in psychotherapy.

Having been one of the very few (along with Dr. Bastiaans and Dr. Grof) privileged to receive institutional support for clinical research in this field, I had occasion to draw the world's attention in the sixties to the extraordinary potential of substances that I then proposed to call feeling enhancers (now rebaptized empathogens) and fantasy enhancers (or oneirophrenics). Having had the opportunity to ascertain that these constituted something akin to psychological lubricants that make it possible to offer therapeutic help to some beyond the possibility of being reached effectively, I have naturally been sorry for the unfortunate way in which politics has interfered with the precious healing potential of psychedelics in psychotherapy. With the enlightened exception of the Netherlands and Switzerland, psychedelics are regarded today as dangerous drugs without any usefulness, and thus rendered useless through prohibition. I cannot help but feel that in times of global crisis when it becomes clear that our very survival is endangered by our obsolete patterns of relationship to self and others, and when our highest hope lies in the human factor, we allow ourselves to scorn such a powerful and timely therapeutic resource! It is true that some individuals are addiction prone and that

addiction is a sizeable social problem in our midst; yet it is no less true that addiction arises from improper drug use, and improper drug use is fostered by a social situation in which the constructive potential of drugs is thwarted.

I hope that the time comes when LSD and other therapeutically useful substances can be controlled (like morphine and the amphetamines) and yet put to good use by experts, and when schools arise for the transmission of expertise from the living few to a new generation of practitioners. Because of this I hope that this book not only conveys De-Nur's spiritual accomplishment and human understanding, but also speeds up the recognition of a form of psychotherapy that could be helping many if it were not for a questionable prohibitionism that is part of an excessively tough minded and puritanical Establishment. I consider this prohibitionism part of a truly evil aspect of our society, and I do not see great difference between the mind-set of those who persecuted Jews at the time of World War II and that of those who invoke morality to wage today's "war on drugs." Today, as ever, the foremost characteristic of the Adversary is that of pointing away from himself to say "there is the Devil!"

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Gateways Books and Tapes has republished a paperback edition of *Shivitti: A Vision*. *Shivitti* was first published in Israel in 1987, and then translated into English and published in the United States by Harper & Row in 1989. It has been out of print for several years.

Shivitti, Ka-tzetnik 135633

144 pages—ISBN 0-89556-113-1—\$15.95

Publication date: October 1998

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A SCIENCE IS BORN

Tucson III Conference: Towards a Science of Consciousness

Alex **Gamma** and Timothy **Butcher**

at

THE UNIVERSITY OF ARIZONA in Tucson there is slowly being born a curious new science of the mind.

The biennial conference "Towards a Science of Consciousness" does not merely deal with brain regions, neurons, and chemistry to understand the complex riddle of consciousness; rather, it brings together a broad spectrum of disciplines ranging from the neurosciences to quantum physics, from parapsychology to ethics. We attended this year's "Tucson III" conference from April 27 to May 2. When all of the dust had settled from hearing of the startling breakthroughs and unlikely theories revolving around the study of consciousness, it became clear that like any other branch of science, this one leaves just as many questions as answers. For every novel theory there are devoted proponents and equally dedicated opponents; and hypotheses that at first sound outlandish may very well one day become established truths.

THE TOPICS OF DISCUSSION were as varied as the speakers and the audience and included items such as the neural correlates of consciousness, philosophical questions of duality and free will, animal and computer intelligence, shamanic and altered states of consciousness (ASC), schizophrenia, dreaming and lucid dreaming, brain disorders, parapsychological approaches, neural networks, brain imaging, and quantum mechanical theories, ranging from the amazingly complex to the absurd. Of course, quantum mechanics is a wonderful playground for looking into consciousness since it is a science which is quite at home with absurdity

and contradiction. This was met with skepticism by many in attendance and with open arms by equally as many.

Consciousness and the quantum world

In recent years, several people (Penrose, Stapp, Bohm) have proposed that consciousness might arise from quantum processes on some level of brain organization. The most popular theory (Penrose, Hameroff) proposes the brain's microtubules as the place where such phenomena could take place. Microtubules are tubular arrangements of the protein molecule tubulin repeating in a highly organized fashion and are ubiquitous in any animal cell, forming kind of a mechanical support system. In the brain's neurons however, microtubule organization is even more complex due to the repetitive stacking of large arrays of microtubules. According to the theory, large-scale quantum superposition states (i.e. the simultaneous co-

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existence of several potential states) could build up in the brain's microtubules, which, when collapsing in a process called "orchestrated objective reduction," could give rise to conscious experience. Interestingly, the theory also predicts that the rate of emergence of such superpositional states could be greatly increased in ASCs, which would explain the "mental overflow" experienced by many people under psychedelic drugs.

Fascinating though this may sound, one could ask what the evidence for the involvement of quantum physical effects in consciousness is. Here we seem to leave solid ground. One rather cynical speaker offered the simple formula "whenever you have a phenomenon you can't explain, turn to quantum mechanics." The Australian philosopher David Chalmers put it in more diplomatic terms saying that the attractiveness of quantum mechanics might "stem from a Law of Minimization of Mystery" according to which "consciousness is mysterious and quantum mechanics is mysterious, so maybe the two mysteries have a common source." Another reason for the increasing interest in quantum mechanical theories

computation. He concludes that there must be a non-computational element to human cognition and invokes quantum physical effects in microtubules as a possible explanation. An interesting inference of the quantum-microtubule hypothesis is that, since microtubuli are ubiquitous in the animal realm, conscious experience might have to be attributed to much "lower" life-forms than previously argued on the basis of the presence and complexity of nervous systems. This has led proponents (Hameroff) of this theory to embrace *pan-experientialism*, which does not explain consciousness experience as an outcome or epiphenomenon of some biological process but as a fundamental ingredient of physical reality. In a fascinating and lucid lecture on this topic, entitled "On the intrinsic nature of the physical," G. Rosenberg argued the case that "physical facts are not the kind of facts that can lie alone at the foundation of a world... The problem is that they only yield a schema that requires some further content to carry it." This content, he proposes, are the so-called "qualia," the basic elements of experience. In other words, here we have a

It remains our hope that the psychedelic community will involve itself with the serious study of consciousness and...

of consciousness may be the obvious problems with the functionalist view of the mind so fervently endorsed by the Strong AI (Artificial intelligence) community since the 1950s. *Functionalism*, particularly *computationalism*, tries to explain cognition and consciousness as pure computation arising from algorithmic processes on the brain level. In short: the mind is a computer program (=software) running on the brain (=hardware) ...but as such it could just as well run on any other algorithmic system equivalent to a computer. Decades of research in cognitive science have been based on this computer metaphor, whose influence has become pervasive, invading many other disciplines like psychology and neuroscience (have you noticed that nowadays, everybody seems to talk about cognitive processes in terms of 'information processing'?). D.W. Salt and colleagues from the University of Derby have written a paper which traces the marks left by the computer metaphor on various scientific disciplines concerned with the study of the mind. In Tucson, their provocative and ironical presentation pointed out the similarities between strong AI proponents and religious fundamentalists. But I digress...

Anyway, the practical success of the computationalist strategy in building cognitive or conscious machines is considered by many as very little, and this has spawned alternative strategies such as the quantum mechanical approach. In his book "Shadows of the Mind," Roger Penrose develops a lengthy formal-logical argument on the basis of Gödel's Theorem to show that the human mind is capable of reasoning beyond mere algorithmic

radical reversal of traditional materialism, which attempts to build mind from matter. Matter, so this new paradigm tells us, is built from mind.

Anomalies of consciousness

Aside from the myriad of theories on just what and how consciousness is there were plenty of practical presentations as well. A hot topic this year was "blindsight," a mysterious phenomenon where damage to a person's visual cortex leaves him or her totally blind but paradoxically able to respond to visual cues such as movement. Also fascinating is the subject of split-brained patients whose corpus callosum—the relay system of nerves that connects the left and right hemisphere—has been severed. In most respects these patients seem quite normal but upon closer examination we find, strangely, that to a certain degree, each disconnected hemisphere is able to sense, perceive, learn and remember independently of the other. In extreme cases, the two hemispheres may even get into "fights" when trying to preform decision-making tasks such as picking out what clothes to wear. One hand will literally wrestle with the other for dominance. Two selves in one brain?

On the subject of ASCs there was a variety of presentations that were both practical and theoretical. Franz Vollenweider gave a spectacular account of the brain imaging and psychological changes which take place under the effects of different psychotropic drugs such as ketamine, psilocybin, and amphetamine. Steven LaBerge presented an intriguing talk on lucid dreaming. On the

subject of meditation various ideas were presented ranging from how to achieve "pure consciousness" through Transcendental Meditation to using various meditative and hypnotic approaches in therapy. Dr. M. Nagel gave a long speech to the effect that since scientist types are remarkably *untrainable* in the art of meditation, the idea of "state specific" explorations into altered consciousness by scientists themselves is virtually impossible. He did not realize of course that he was presenting a perfect case in point for why more scientists should be experimenting with psychedelic drug-induced states of consciousness. It can take many tireless years of training just to realize that you are unable to attain "pure consciousness" via meditation while it merely takes a small pill and a good bit of preparation for a dazzling glimpse into such states.

While the study of ASCs opens a fascinating window into the phenomenological complexity of consciousness, there is another puzzling aspect of the mind scientific theories of consciousness will increasingly have to deal with in the future. We're

both the statistical expectance but also from control data obtained before and after the conference in a different location. Russell Targ reviewed the remote viewing experiments at Stanford Research Institute, and, as a delicate little bit of contemporary history, revealed that the CIA had in fact long been employing this technique to obtain visual information on various sites of military interest in the former Soviet Union. Now, the CIA wouldn't bother with something that isn't real, would it?

Finally, in a plenary lecture chaired by Charles Tart, Marilyn Schlitz explored the transpersonal dimensions of consciousness and reviewed data from distant intentionality and healing experiments, which indicate that a person can influence parameters of another person's physiological activity from a distance.

In light of this and other scientific evidence for the reality of parapsychological phenomena which has accumulated over the past decades, it is surprising that the "belief" in such phenomena is still cited (and ridiculed) oftentimes as a prime example of irrational and unscientific thought not to be taken seriously by

that the scientific community will then have more exposure to and understanding of psychedelic-related principles.

talking of course about parapsychological phenomena. D. Bierman and D. Radin from the University of Amsterdam presented a simple and straightforward study of what they called "presentiment" effects: on a computer screen, subjects were presented with either emotionally arousing or calming pictures, with their skin conductance was measured before, during and after exposure to the stimulus (skin conductance has shown to be a good measure for emotional arousal). The results clearly demonstrate that there was a significant difference in skin conductance response between emotionally calm and emotionally arousing stimuli, which wouldn't be much of a surprise were it not for the fact that such a difference was already observed seconds *before* the stimulus appeared on the screen. The authors, after having ruled out traditional explanations for this effect, speculated that our minds are somehow able to scan the emotional content of our immediate future. They then called for replication of their results in "mainstream" laboratories in order to lend them more credence. Whoever is interested in this should get in touch with the authors (bierman@psy.uva.nl).

G.E.R. Schwartz, a psychologist from the University of Arizona in Tucson, had another interesting story to tell. Starting from the idea that "consciousness fields" can modulate the frequency of random events, he and his colleagues brought a sophisticated electronic random event generator (REG) to an international 3 day Qigong meeting in New York and found that the frequency of 1s and 0s generated by the REG deviated from

any rational thinker. But it looks like science bites its own tail there. Surely, the organizers have to be credited for their open-mindedness to include this field of study into the conference. Perhaps, at Tucson IV, they will be equally open-minded towards the idea of dedicating a plenary session to the study of the extraordinary effects of psychedelic drugs?

A manifold of perspectives

There is, of course, much more to consciousness. Fields of interest range from the search for the neural correlates of consciousness, the study of time and consciousness and evolutionary aspects of consciousness to philosophical, ethical and crosscultural perspectives, experiential, psychological and therapeutic approaches and the relationship between consciousness and art. Some of these fields tackle what David Chalmers has called the "hard problem": how physical processes in the brain give rise to conscious experience. Others take a broader and integrative look at consciousness. All of these perspectives are equally warranted and necessary in order to expand our understanding of this so familiar, yet strangely intractable phenomenon. The multidisciplinary spectrum of topics covered at the "Tucson III" conference reflected this essential variety of approaches. It can only be hoped that Tucson can consolidate its role as a cornerstone for the emerging science of consciousness. In fact, Fortune has already smiled: In December 1997, the Fetzer Institute approved a 3 year grant for \$1.4 million to the University of Arizona to establish a Center for Consciousness Studies. It

remains our hope that the psychedelic community will involve itself with the serious study of consciousness and that the scientific community will then have more exposure to and understanding of psychedelic-related principles.

Poetry slam

By the end of the week it had become obvious to anybody that lots of difficult and serious questions plague the phenomenon of consciousness, and many an exhausted mind may have asked itself what good consciousness is, if it's no fun? The organizers must have felt the same, for Friday night was entirely devoted to conscious amusement (although some forms of amusement may have ended in unconsciousness). Sheer hordes of conference attendants climbed on-stage to deliver their hand-made poetry—some of it inspired, some of it... well, less inspired—while an exhilarated audience laughed, heckled and shouted (mostly sarcastic) comments. After several rounds of competition, the jurors, in a somewhat chaotic process, elected the winner of the contest (who was honored with a conference t-shirt). By this time, the crowd had also witnessed a dramatically improvised and highly unlikely performance by Stuart Hameroff, David Chalmers and Pradeep Mutalik. David and Pradeep sang the "Zombie Blues," while Stuart orchestrated the audience (for want of musical instruments) which happily participated. (Zombies? you ask. In the philosophy of mind, zombies are imaginary beings who have exactly the same brain processes as we do except that they have no conscious experiences associated with them. These pitiful creatures are conjured up by philosophers to exemplify the point that the presence of an appropriate brain substrate does not necessarily or logically imply the presence of qualia.)

All in all, it was a memorable evening that lent a highly welcome personal and informal touch to the conference. It showed that serious science and serious fun are not mutually exclusive, and we trust that, after reading this article, you will be motivated enough to attend "Tucson IV" in the year 2000. After all, what better way for a vivid mind to celebrate the start into a new millennium than in a melting pot of startling theories about nature's greatest secret—the phenomenon of human consciousness. •

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University of Arizona
1433 E.Helen Street
Tucson, Arizona 85724
www.consciousness.arizona.edu

The Journal of Consciousness Studies:
www.zynet.co.uk/imprint

Institut de Prospectiva Antropològica
Las III Jornadas sobre **Enteógenos** y
Estados Modificados de Consciencia

Third International Conference on **Entheogens** and Modified States of Consciousness
May 30-31, 1998, Barcelona, Spain



Christopher Ryan

GORDON WASSON long ago suggested that both individuals and cultures can be neatly divided into those who love mushrooms and those who hate them—mycophiles and mycophobes (Wasson, 1957). Here in northeast Spain, mushroom hunting is a popular family-oriented weekend activity at certain times of the year and there are several restaurants that serve three-course meals consisting of nothing but various mushroom-based dishes. In fact, Catalans are reputedly the most mycophilic people on earth.



GIVEN THIS CONTEXT THEN, it is perhaps no surprise that Josep Maria Fericgla, Ph.D., a true Catalan, has once again succeeded in organizing an excellent conference oriented toward sharing recent research concerning entheogens. The list of presenters in this weekend conference (May 30th and 31st, 1998) included chemists, pharmacologists, anthropologists, psychologists, psychiatrists, and the occasional ethnobotanist. The conference was held in a sea-front building belonging to the Municipal Institute of Medical Investigation (IMIM) which

was, interestingly, originally formed to run anti-doping tests on athletes in the 1992 Olympic Games in Barcelona and is now one of two places in Spain in which government-funded research into hallucinogens is being conducted.

The conference began with a presentation by Dr. Esther Martínez Ibars, a radiologist and homeopath, entitled "How can entheogens support our contemporary vision of life?" (all titles awkwardly translated from Spanish or Catalan by the author). Dr. Martínez is especially interested in ayahuasca, and spoke of her seven years of experience working with the substance here in Spain.

Dr. Josep Manuel Barbanjo, a well-known pharmacologist in Europe and director of Institut de Recerca de St. Pau, in Barcelona, delivered a presentation entitled, "A bridge between molecular biochemistry and subjectivity: a neuropsychophysiological hypothesis of the active mechanism of psychotomimetics," which was every bit as dense and informative as it sounds.

After a short break, ethnobotanist Jonathan Ott took the stage. Well-known to MAPS readers and to virtually anyone else interested in psychoactive plants, Jonathan delivered a wide-ranging yet consistently focused presentation on the history of human interaction with sacred plants (based upon his new book, *Pharmacophilia*). His talk was spiced with asides on the role "serendipity" has played in research, as well as lines like the following: "The main problem with drugs in today's world is that there aren't enough of them." The wit and erudition of his presentation, delivered in impeccable Spanish, left the audience quite impressed.

After lunch, Dr. Joan Obiols gave a historical presentation on the all-but-forgotten Dr. Moreau of Tours, France. Dr. Obiols is a psychiatrist and professor at the University of Barcelona as well as the General Director of Mental Health in Andorra.

Another man familiar to readers of MAPS, Richard Yensen, Ph.D., then presented "A transcultural comparison of the use of entheogens for psychological growth," which included a very moving account of his first visit to the famous Maria Sabina in Hualtla de Jimenez. Yensen was young at the time (22 years old), and he met a man who'd seen his wife and children murdered by bandits. He had come to Maria Sabina for help. Having had the good fortune to witness the beginning of this unfortunate man's recovery seems to have impressed Yensen very much. Like Ott,



Josep Maria Fericgla and Jonathan Ott

Yensen delivered his presentation in flawless Spanish.

Dr. Alexander (Sasha) Shulgin then took the stage by storm. In a rush of energy and passion which left his translator gasping for air, Shulgin commenced a high-speed tour of some of the better known psychoactive molecules. After ten minutes, Jonathan Ott came to the rescue of the assigned translator, who was quite understandably in need of some assistance with Dr. Shulgin's highly technical vocabulary and free-association thought patterns.

Sunday began with a presentation by Drs. Jordi Cami and Sandra Poudevida, clinical pharmacologists who are conducting clinical studies of various street drugs used in Barcelona, with particular attention to MDMA. Dr. Cami is the Director of IMIM, and an important figure in the study of entheogens in Spain.

The organizer of the conference, anthropologist Dr. Josep Maria Fericgla, then presented a gripping account and analysis of his own shamanic initiation among the Shuar (Jívaro) in Brazil, his question being: "Is it possible to translate this experience to our cultural context?" Dr. Fericgla shared his allotted time with an unscheduled speaker, Mauro Bilarhinho, a psychiatrist who serves as a medical consultant to the União do Vegetal church in Brazil. Dr. Bilarhinho discussed the history of the UDV and gave a brief review of the relation between the UDV and the Brazilian government.

After a short break, Ann Shulgin, spoke about the use of MDMA in psychotherapy (giving her translator a much easier time than her husband had). Her passionate yet careful presentation covered the inherent dangers as well as the extremely positive applications of MDMA in clinical use.

After lunch, Dr. José María Poveda, a clinical psychiatrist and researcher based in Madrid spoke about "Modulation of the entheogenic journey: the shamanic model." In a presentation peppered with wit and irony, Dr. Poveda ranged over a great deal of material relevant to contemporary psychiatry, including some fascinating thoughts on his use of kittens to establish contact with autistic patients.

The afternoon continued with a round-table discussion about "The new ways drugs are being taken." At the table were the writer, Fernando Sánchez Dragó (who moderated), Felipe Borralló (president of ARSEC, and organization working to legalize the use of cannabis in Spain), Dr. Oriol Romani (anthropologist), Dr. Josep Maria Febregas (psychiatrist and director of the Center for Investigation and Treatment of Addictions), and Dr. Joan Colom (director of the Program for Addicts run by the government of Catalunya).

Afterwards, Luis Paniagua closed out the conference with a concert of world music played on various instruments he'd collected and made. •

Ayahuasca Tourism in South America

Written for *Anthropology of Tourism*, University of Maryland at College Park

John N. Grunwell

Within the last fifteen years
or so, a grass-roots
ayahuasca tourism industry
has sprung up,
with outposts
all over Amazonia.

Outsider's attraction to ayahuasca

What brings people from all over the world to South America, simply to use ayahuasca? Perhaps it is the sense that it provides an extremely novel, exotic experience. It might be part of spiritual pursuit, or the manifestation of an avid interest in indigenous cultures, shamanism or healing. Perhaps what has led to the popularity of ayahuasca are the many books written about it. The earliest reference to an outsider's use of ayahuasca (an experience marked mostly by vomiting) was in Richard Spruce's book of 1908, *Notes of a Botanist on the Amazon and Andes*, published fifty years after the fact (Stafford 1992:334). The popularity of LSD in the 1960s increased public awareness of such substances, and there was a generally higher demand for information. In 1963, for the first time, one book was to come along that was wholly about ayahuasca, William Burroughs' and Allen Ginsberg's *The Yage Letters*. It was a popular book, certainly a classic in world drug literature. Although criticized by anthropologists as misleading, the book has drawn continuing attention to this psychedelic drink (Stafford 1992:337). Other books that attract attention to ayahuasca include Manuel Cordova-Rios & Bruce Lamb's *Wizard of the Upper Amazon*, Wade Davis' *One River*, and Luis Eduardo Luna & Pablo Amaringo's *Ayahuasca Visions: The Religious Iconography of a Peruvian Shaman*.

The most influential books of the last decade and a half are likely those of Terence McKenna, author of such works as *Food of the Gods*, *The Archaic Revival*, and *True Hallucinations*. Perhaps the most popular of McKenna's books, *True Hallucinations* is a wild, exciting retelling of his apparently true journeys through Amazonia in the early 1970s, with all the requisite drugs, shamans, shysters, and oddball characters. Many internet accounts of ayahuasca experiences frequently mention McKenna as an

inspiration for their physical and mental journeys. The extent to which ayahuasca has entered public consciousness might be reflected in recent popular culture references. In a recent *Rolling Stone* interview, popular singer-songwriter Sting speaks of his experience with ayahuasca, what the interviewer calls dead man's root. Of the drug, Sting says: *...it's not a frivolous pursuit... there's a certain amount of dread attached to taking it—you have a hallucinogenic trip that deals with death and your mortality. So it's quite an ordeal. It's not something you're going to score and have a great time on* (Dunn 1998:26).

Another well-known musician to speak of their ayahuasca experience is Paul Simon. His account has been touched on in interviews and in the song *Spirit Voices: Spirit Voices is really based on event (sic) that happened to me on a trip into the Amazon. We went to see a bruho (sic) in a shack in a jungle... first he sang. He sang (sic) for a long time, chanted... these beautiful melodies... and then they made up this brew called iawasca (sic)... which we drank and they said the anaconda will appear to you... and you will see that in a vision... but no anaconda appeared* (Simon, 1991).

There also exist many internet sites devoted to psychedelic substances, featuring experiences, cultural histories, traveling opportunities and "recipes." Among the most popular and genuinely informative are The Lycaenum at www.lycaenum.org and Entheogen Dot at www.entheogen.com.

As a member of various private, psychedelic-related email lists, I have an inside view to the many beliefs often shared by people who use such substances. I have found that a commonly-held attitude toward psychedelic substances is one of reverence and awe mixed with outright fear. Many feel that these are not drugs to be trifled with; that casual use is at best pointless, and at its worse, physically and mentally dangerous. Those who maintain this position might feel more than a little uncomfortable removing ayahuasca and using it outside of its original context. Proper respect for ayahuasca's history and cultural milieu is the

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principal objective. Our culture has no all-encompassing model for controlling and ritualizing psychoactive drugs beyond alcohol, so those who wish to use ayahuasca often seek out what they imagine to be a proper set and setting, in this case Amazonia.

Ayahuasca is often presented as a quintessentially South American experience. It is possible that many who travel long distances to use it are not aware that the experience is currently possible all over the world. Many plants growing across the globe have chemical concentrations nearly identical (or much higher) to what would be found in *B. caapi* and *P. viridis*. These plants are not particularly difficult to purchase through specialty botanical suppliers. It seems apparent that issues of access to ayahuasca-like drugs are not what is really driving people to South America.

I contend that most who go are seeking novel experiences, perhaps something of a religious or mystical nature, something perceived as lacking in one's own life or culture. Anthropologist Marlene Dobkin de Rios emphasizes "the empty self of the post-World War II period, a self which is soothed and made cohesive by becoming filled up by consuming food, consumer products, and experiences" (1994:16). Active interests in non-Western indigenous traditions be they informal or academic probably bring a great many tourists to the Amazon. I have not been able to find any studies on such things, so much of what I say is personal conjecture and informed opinion. Dobkin de Rios says that drug tourists "...see the Noble Savage in the visage of the urban poor carpenter, tradesman, or day laborer. They see exotic people of color untouched by civilization, who are close to nature... drug tourists perceive the natives as timeless and ahistoric" (1994:17). Others may be seeking a healing experience. In many authentic milieus, ayahuasca is a purgative, a substance taken to cleanse and heal the body and mind. Shamans, sometimes called *ayahuasqueros* or *curanderos*, use ayahuasca to pronounce diagnosis of those that come to them. They tend to be general practitioners, fighting witches' curses and bad luck, treating physical ailments and mental problems, perhaps offering advice on interpersonal issues (Dobkin de Rios 1992:81-84). Perhaps there are ayahuasca tourists seeking non-allopathic treatments unavailable in their homeland.

The ayahuasca experience itself can sound quite attractive. The visionary art of Pablo Amaringo, featured in the aforementioned book

Ayahuasca Visions: The Religious Iconography of a Peruvian Shaman, is quite astonishing. The paintings are filled to the brim with extremely colorful images of shamans, magical beings, telepathic information embodied as objects, UFOs, spirits, imaginary jungle creatures, and large anacondas, among other icons. Visually, the world as it is represented in Amaringo's paintings is almost beyond the capacity to imagine. I for one do not believe that bizarre ayahuasca experiences can be fully comprehended by those without similar (i.e. psychedelic) experiences; to know what it is like to enter a psychedelic vision, it is necessary to dive head first into the sea of mind that psychedelics open up. I have read many accounts of first-time psychedelic experiences, and invariably, no matter how well-read the person was on the subject, all their preconceived notions were thrown out of the window and shattered in light of the actual experience; it is not like anything, but a world of experience in and of itself. The accounts of ayahuasca experiences are so attractive primarily because they are so well-written, but they never come close to how it feels to be living the experience, to be there in one's own head, seeing one-hundred aliens come off a UFO, only to telepathically announce that we are all one, and that death is only an illusion. To read of such outlandish, fantastic experiences is simply a wholly different universe than being there for oneself. Such accounts have been part of the allure of ayahuasca for decades. With the growing popularity of computers and the subsequent information explosion, they are reaching a wider audience, attracting more people to South America.

Advertising Ayahuasca Tourism

Advertising ayahuasca tourism is achieved through a number of media, primarily periodicals and the Internet. Most internet sites are devoted to a single group, offering tours either through Amazonia, or the use of a compound for ayahuasca sessions. Adverts for ayahuasca tourism can be found in periodicals such as *Magical Blend* and *Shaman's Drum*, perhaps elsewhere. Such groups concentrate much of their efforts in the villages, rainforests and jungles of Peru, Columbia, Bolivia and Brazil. Some tour groups venture into the wilderness to visit encampments of indigenous groups, experiencing ayahuasca in a supposedly authentic setting. Others visit *mestizo* shamans (more accurately, healers known as *ayahuasqueros*) or operate out of compounds

Perhaps
the ayahuasca tourism
phenomenon is
best understood
as part of this culture,
a culture that increasingly
seeks to know itself
and nature better,
both as individual entities
and interconnected systems.

organized around ayahuasca tour groups.

There are those that criticize such endeavors, particularly ones that involve outsiders interacting with unenculturated indigenous groups. Jonathan Ott believes "ayahuasca tourism can only disrupt the evanescent remnant of preliterate religiosity struggling to make a place for itself in the modern world, while attracting the wrong kind of attention to ayahuasca" (1994:12). When asked his opinions on the industry, Terence McKenna stated, perhaps a bit ironically since he is to a great extent responsible for ayahuasca's modern popularity, "I am against exploiting shamans or removing them from their cultural context or exporting Westerners into their cultural areas. The best course is to obtain the plants and the techniques and judiciously adapt them to one's own needs" (1998).

Who are the ayahuasca tourists, and why do they come?

Of all the topics this article covers, this was the most difficult section, for very few people are willing to speak up about their South American drug adventures. Those that organize the tours are also reticent when it comes to talking about their customers, for in doing so they must deal with tricky issues concerning their former clients' privacy. For a great deal of this section I am indebted to Kim Kristensen for supplying me with a very small survey he put together in early 1998. His survey included two trip leaders and ten clients he networked with through them. As Kristensen is quick to point out, "this is not a large sample" (1998:10).

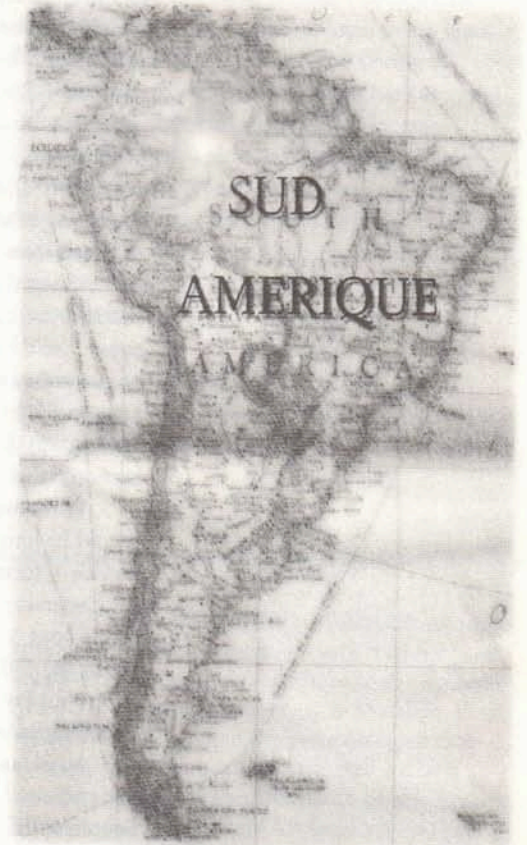
In his survey, Kristensen found that there were four main reasons that people became ayahuasca tourists: self-exploration and spiritual growth, curiosity, physical and emotional healing, and the desire for a vacation to an exotic location (1998:15). As far as education goes, only half of those surveyed held anything beyond a high school diploma, but most were self-educated and well-read. One even aspired to be a full-fledged shaman. Most participants are male, between thirty-one to sixty years of age. Kristensen indicates that half of the group leaders (not just from the survey, for he has taken many trips himself) are female, and they point towards ever-increasing numbers of female participants. One-hundred percent of the interview subjects were white, and while some claim to have Native American ancestry, there were no reports of African-Americans, Hispanics or Asians joining tour groups, either in survey or through anecdotal

data (Kristensen 1998:15-16).

Ayahuasca tourism's possible impact

Many Amazonians revere ayahuasca, believing it to be a sacred plant, imbued with a living spirit that speaks to them when they enter into discourse with the brew. Now that it is marketed to the world, at least to Western Europe and the English-speaking world, ayahuasca is in danger of being profaned. As many South Americans realize its money-making potential, they "come to adopt a New Age vocabulary of shamanic healer/spiritual voyager" (Dobkin de Rios 1994:18). Charlatans with little or no training with ayahuasca may now present themselves as *curanderos* or *brujos*, risking not only the mental health of their customers, but their bodies as well. Westerners find it difficult to fully integrate traditional models of ayahuasca use, often leading to confusion and inaccurate portrayals in the non-mainstream media. Dobkin de Rios indicates that ayahuasca use is linked in a matrix dealing with moral order, with good and evil, with animals and humans, and with health and illness, which has little correspondence or sympathy with the experiences of people in industrial societies (1994:18).

The industry also has an impact on the environment. Not only are the people of South American placing demands on the supply of ayahuasca, but with the influx of tourists, sources could be in danger of complete exhaustion. The UDV now harvests their plants from church-owned plantations, taking away valuable agricultural land. Not all effects are negative. Organized production of ayahuasca plants ensures that jungle resources are not depleted. The presence of tourist's money might serve to encourage environmental awareness and subsequent preservation among those who would otherwise have to cut down forests for sources of income. Ayahuasca tour groups, a relatively new phenomenon, also add to the income of local economies as they travel, buying food and supplies as they move. The compounds that many tour groups stay in, such as the one



owned by Agustín Rivas, insure that the tourists are not out unconsciously trampling plants vital to the jungle's ecosystem. With more tourists and increasing income, these ayahuasca compounds/ecological preserves can purchase ever-increasing amounts of jungle, insuring its preservation whilst simultaneously providing homes for jungle-dwelling indigenous groups. These hubs of activity reduce erosion of trails used by the jungle's original inhabitants, keeping cultural decline and disruption of wildlife in check. With the growth of ecotourism in places like Brazil and Columbia, controlled programs for such endeavors are especially vital. If ayahuasca tourism is to be sustainable, the people in the industry must work with the environment, rather than operating in a one-way, exploitive manner.

Conclusion

An article like this is certainly a very limiting format, and I think a strong graduate paper could be written about the phenomenon of ayahuasca tourism. In these pages I have attempted to touch on as much as I can without leaving anything vital out, which I feel I have accomplished.

Ayahuasca tourism is certainly unique. One would be hard-pressed to find a more evolved and alive form of drug tourism, particularly one with so many apparent benefits (assuming it is carried out correctly). A complete understanding of the industry and its clients is certainly far away, but I certainly hope this article has been educational, even if it can not be comprehensive.

Ayahuasca seems to appeal to people unconcerned with traditional modals of life, people searching for the extraordinary, the remarkable and unusual facets of life. That there even exists a tourist industry to serve this population strikes me as amazing. That this industry is heavily advertised and available to anyone with the financial means to undertake a trip, that it is not a hush-hush experience available only to a select few in the psychedelic drug underground, is perhaps even more astonishing. Perhaps it points to changing value systems in our own society. The popularity of alternative medicine, yoga, tai chi and New Age paradigms is likely part of the same pattern. Perhaps the ayahuasca tourism phenomenon is best understood as part of this culture, a culture that increasingly seeks to know itself and nature better, both as individual entities and interconnected systems. Apparently, many believe they can find this self-realization amongst the jungles and people of South America. •

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MAPS Mail...

Dear MAPS,

I have just returned from a three week stay in Brazil with Paulo Roberto Silva e Souza, who heads the Santo Daime church in Rio de Janeiro. I have

known Paulo since 1989 when I began doing The Work, or ceremonies, with him. I have been encouraging him to do a book for some time. On this trip I not only shot 20 hours of video, but helped him structure a book as well. I believe it will be the definitive story and history of the Santo Daime as told through his personal story, together with testimonies/case studies of people using ayahuasca from around the world, plus his understanding and research studies on the psychological, physiological and biological effects of the Daime, the name given to ayahuasca within the context of the Santo Daime church. Why Paulo's story is so moving and important, is that his is an extraordinary example of a life that has been informed and formed by the Daime.

As a young psychologist, he went into the rainforest on behalf of the government to find out what the Indians were doing. When the Padrinho gave him the drink of the Daime, he found his mission in life. Paulo is responsible for bringing ayahuasca through the Santo Daime to Rio, Europe, Japan, North America, and soon Africa. The impact he has had sociologically,

politically, psychologically, economically—all following the wisdom of the Daime—is awesome. Furthermore, he is eloquent, articulate and poetic. A book of this nature would educate and influence people around the world to the powerful potential of the Daime. It would do so from the perspective of a psychologist who has used it consistently in great quantity for twenty five years with thousands of people.

I have videotaped several hours that need to be transcribed. Moreso, I gave my equipment and taught someone to shoot, so that when Paulo went into Mapia, a three or four day trip from Rio by car and canoe, Paulo could interview his brother-in-laws. They are sons of the Padrinho who introduced the Daime to Paulo, one of whom heads the churches in Brazil, as well as some other key people. These tapes in Portuguese need to be transcribed as well for use in the book. I videotaped on digital video, so that eventually it might be possible to make a comprehensive documentary on the subject. In the meantime, I would like to cut together the material that I do have. Would you know an individual or organization who might support this effort, and/or a movie? Please let me know.

Maxi Cohen

565 Sunset Avenue, Venice, CA 90291

E-mail: maxision@aol.com

Seminar Announcements

Ayahuasca and Holotropic Breathwork

THERE WILL be an experiential seminar entitled "Ayahuasca and Holotropic Breathwork" in the Amazonian Rain Forest in Peru, January 14th to 23rd, 1999.

The purpose of this journey is to generate a deep self transformation, through the combination of ritual plant ceremonies, Holotropic Breathwork sessions, creative art work expression, meditations and purification diets. Every experience will be followed by an integrative group sharing. (in English & Spanish) The anthropologist Luis Eduardo Luna, Ph.D., Silvia Polivoy, psychologist and Ana Maria Aguirre, certificated Holotropic facilitator will facilitate.

For more information contact Silvia Polivoy: Tel/Fax (541) 774-3892, or by e-mail: spolivoy@hotmail.com, webpage: www.lycaem.org/~entheos/

Plants as Teachers, Traditional Wisdom & Rainforest Conservation Strategies

THE YEARLY Sentient Experimentals' "Plants as Teachers, Traditional Wisdom & Rainforest Conservation Strategies" are fundraisers to benefit and support a multi-faceted rainforest conservation approach which has been maintained for the past seven years in the Ecuadorian Amazon. Our approach to rainforest conservation is holistic and direct in nature. We assist Indigenous people in their struggle for cultural and territorial sovereignty through sustained solidarity to their movement.

For the participants, these 14 days will be an unforgettable, significant, real-life, magical experience. You will interact with and learn from authentic forest peoples, elders, traditional healers, shamans, progressive leaders, thinkers, visionaries, and rainforest activists—from the country of Ecuador and Peru—whose communities your tuition supports. This event is an authentic, intercultural exchange, an experience in the Indigenous worldview, personal transformation, healing and profound learning... deep in the Rainforest. Your tuition will support ground-level projects working with Rainforest Conservation and Cultural Heritage projects in Ecuador and The Usko Ayar School for Amazonian Painting in Peru.

SPECIAL TEACHER: Don Pablo Amaringo, renown Peruvian painter, co-author of the book *Ayahuasca Visions* and Director of the Usko Ayar School of Amazonian Painting in Pucallpa, Peru. He will facilitate copal-resin-incense purification and protection ceremonies, tell his rich stories of cultural experiences as a once-practicing shaman, share his visionary art on dreams and visions, his wisdom and his spiritual insight of the universe. Don Pablo dedicates his life to spiritual development, rainforest conservation, the arts and education. It is a true honor to have him present with us on this experiential journey.

Workshop: 14 days, Space: 20 participants, Tuition: US \$2800, Dates: 2 separate workshops during March, 1999. For a workshop manual and registration form please mail US\$10 to: Sentient Experimentals, PO Box 1004, El Cerrito, California 94530, USA. Telephone: (510) 235-4313; Fax: (510) 215-9840; E-mail: dahlia@igc.apc.org, www.hookele.com/experimentals



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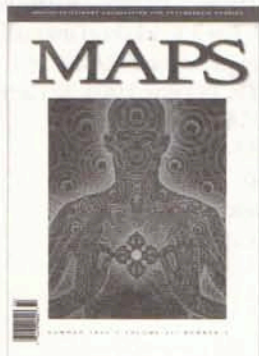
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MAPS MEMBERSHIP INFORMATION

MAPS IS A MEMBERSHIP-BASED non-profit research and educational organization. We assist scientists and researchers around the world to design, obtain governmental approval for, fund, conduct and report on research into the healing potential of psychedelic drugs and marijuana.

Our goal is to eventually gain governmental approval for their medical uses. With sound research results, psychedelic psychotherapy and medical marijuana have the potential to help millions of people in alleviating the pain, psychological distress and other symptoms of such illnesses as cancer, AIDS and addiction.

MAPS has disbursed over a quarter of a million dollars to worthy research projects since 1990. Positioned at the center of the conflict between scientific exploration and the politically-driven strategy of the War on Drugs, we are the only membership-supported organization supporting crucial research with psychedelics and marijuana. Join us—your financial support* is needed to translate hard-won scientific freedom into new data and possibilities.

Imagination is more important than knowledge.

—Albert Einstein

If you can even faintly imagine a cultural reintegration of the use of psychedelics and the states of mind they engender, please join MAPS in supporting the expansion of scientific knowledge in this area. Progress is only possible with the support of individuals who care enough to take individual and collective action.

**You may direct your tax-deductible donation to a specific research project. Gifts of stocks are welcome, as are trust and estate planning options.*

MAPS was founded in 1986 by Rick Doblin, who is currently in the Ph.D. program for Public Policy at Harvard's Kennedy School of Government and has previously graduated from the Grofs' Holotropic Breathwork 3-year training program.

Sylvia Thyssen is responsible for editing the *Bulletin* and oversees MAPS' website and outreach efforts. She is a graduate of the University of North Carolina at Chapel Hill.

Carla Higdon coordinates MAPS member services and the marketing and distribution of the *MAPS Bulletin* and *The Secret Chief*. She is a graduate of Western Carolina University.

Benefits of Membership

As a (confidential) member of MAPS, you'll receive the quarterly *MAPS Bulletin*. In addition to reporting on the latest research in both the U.S. and abroad, the *Bulletin* includes feature articles, personal accounts, book reviews, and reports on conferences and allied organizations. MAPS members are invited to participate in a vital online listserve and to visit our website, which includes all articles published by MAPS since 1988.

Basic Members: \$35

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Supporting Members: \$100

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Patrons: \$250 or more.

Patrons members will receive the *MAPS Bulletin* plus a copy of *The Secret Chief*, by Myron Stolaroff. Patrons may also request back issues of the *Bulletin*.



Rick Doblin,
MAPS President



Sylvia Thyssen,
Director of Communications



Carla Higdon,
Projects Coordinator

"I believe that if people would learn to use
LSD's vision-inducing capability more wisely,
under suitable conditions, in medical practice
and in conjunction with meditation, then in the future
this problem child could become a wonder child."

—Dr. Albert Hofmann

