



## Plants, **Shamanism** and Ecstatic States

**A Report on The Entheobotany Conference,  
Palace of Fine Arts Theatre, San Francisco, California,  
October 1996**

Robert Segal

### **Entheobotany:**

the science of plants that produce psychoactive substances which, when inhaled or ingested, awaken or generate mystical experiences.

### **The Conference**

The stated aim of the conference was "to discuss the history, and latest research on: ayahuasca, psychoactive mushrooms, tobacco, iboga, LSD-type drugs, entheogenic snuffs and their contained tryptamines, and peyote and the entheogenic mescalines." These discussions were well presented by an international array of anthropologists, chemists, art historians and neuroscientists. But the real importance of the conference extended beyond the podium into the lobby of the Palace of Fine Arts, where the presenters mingled with the audience and everyone shared information and experiences amidst exhibits of botanical plants and psychedelic artwork. The gathering itself was the most important aspect of the conference. There is an active psychedelic community in this country and this conference was an opportunity for people to meet each other, share ideas and information, and trade email addresses.

The gathering was organized by chemist and entheobotanist Jonathan Ott, and modeled after two previous conferences, the first held in San Luis Potosí, Mexico in 1992 the second in Lerida, Spain in 1994. Though the presenters and the presentations were very similar to those at the Lerida Conference (see MAPS Newsletter Vol. V No. 3), a distinguishing aspect of this third conference was that it was held here in the United States, the country which sets the agenda for international drug policy around the globe. This conference helped promote a clearer and more accurate understanding of the distinction between addictive and abusive drugs and the spiritual, religious use of nonaddictive sacramental entheogens.

Jonathan Ott opened the conference with a presentation entitled "The Natural Paradises." He recounted R. Gordon Wasson's unified field theory of anthropology, connecting shamanic ecstasy with the origin of all religion, from non-western shamanism to the Eleusinian Mysteries of ancient Greece, stating "visionary experience is the primal heart and soul of religious revelation. But somewhere in the history of western

civilization direct experience of the divine became the supreme heresy, taking all the religion out of religion, leaving an empty and hollow shell with no value or attraction to human kind." Contemporary drug prohibition can be seen as the modern secular expression of the ruling politics inquisition against direct personal experience of the divine. This taboo direct personal experience is what Wasson himself discovered in a quiet mountain top village in southern Mexico, which he aptly described as "religion, pure and simple, free of theology, free of dogmatics, expressing itself in awe and reverence."

The next presenter, Antonio Escohotado, Professor Of Sociology and Political Science, Universidad Nacional, Madrid, Spain, spoke on "Inebriation as Experience of the Spirit." He pointed out the important distinction between mere drunkenness and divine intoxication that is not readily acknowledged in our society. Certain states of inebriation can actually promote lucidity, rather than dull it. Inebriation threatens one's mask of composure, and Escohotado suggests that these masks can often be false personas, masks of duplicity and self deception. Inebriation pushes away the masks. Escohotado calls inebriation an occasion for self-diagnosis—the benefit of entheogens is to diagnose our degree of contact with the joy of living! The entheogenic path is not necessarily easy, it requires courage to take an honest look at one's life. This is not always guaranteed to be joyful, but it is instructional. Psychedelics cut through the masks of our defensive constructs and enable us, if we are willing, to examine and correct our way of living. Hence we can then find greater joy, not only in inebriation, but in all living.

### **Shift in tone**

The next presenter, chemist Kary Mullis, shifted the academic tone of the conference a bit. Mullis pioneered the technology of polymerase chain reaction (PCR), a technique that amplifies DNA for detection, diagnosis, and research, for which he was awarded the Nobel

Prize for Chemistry in 1993. Mullis strode up to the podium, cocktail in hand, and began a rambling account of his journey from Georgia Tech to UC-Berkeley to study biochemistry in the early sixties. He was curious and eager to learn about LSD after reading accounts in *Time* and *Life* magazines describing it as a therapeutic tool with great promise. He went to Berkeley with a degree in chemistry and "a fairly unexamined faith" in the fact that the universe is comprised of energy and matter and anything that needed to be explained could be explained in terms of these two things. He described his journey from a "very dry philosophy" of technical prowess, concerned with how to "make things," to a new and profound understanding of "how holy" these things really were. Reexamining his faith in science, Mullis recognized that the universe does have some order to it but it is not the order suggested by the classic models of physics or the stuff taught to him at Georgia Tech. "It's weird stuff, holy stuff, its the body of God is what it is, and I didn't learn this at the university but on my couch after taking 500 mics. (of LSD)" One result of his psychedelic speculations eventually became his Ph.D. thesis, "The Cosmological Significance of Time Reversal," published in *Nature* in 1968. Mullis accompanied his presentation with a slide show of computer representations of fractal equations, which he feels are a more accurate description of atomic structure than the little round balls surrounded by whirling electrons. After speaking for 45 minutes, Mullis ended his presentation as the slide projector screen slowly rose to reveal a four-person electric band, *Frida's Circus*, which played a brief set of reggae and rock and roll.

The evening program began with Johannes Wilbert, Professor Emeritus of Anthropology, UCLA, who gave the talk *Illuminated Serpents: Tobacco Hallucinations of the Warao*. Wilbert spoke on the culturated visions of snakes this indigenous people of South America people experience after extreme nicotine toxicity. Following a seven day fast, the aspiring shamans hyperventilate the smoke from three foot cigars of tobacco with a nicotine content of about 16% (American cigarette tobacco contains around 1% nicotine). Wilbert acknowledged taking part in the ceremony, but gave no account of seeing serpents.

#### **Richard Evan Schultes honored**

The final evening presenter who was scheduled to speak was Richard Evan Schultes, pioneer ethnopharmacognosist and retired

Director of the Botanical Museum, Harvard University. However, Dr. Schultes was ill and could not attend. Instead, Jonathan Ott read a paper from Albert Hofmann, Swiss chemist and discoverer of LSD, reminiscing about his years of collaboration with Schultes. Then Ott, Peter Furst and Bo Holmstedt presented a panel discussion recounting anecdotes about Dr. Schultes and entheobotany in general.

Bo Holmstedt, Chemist from Karolinska Institute, Stockholm, Sweden, opened Saturday's series of presentations with a retrospective of a 1967 conference on the search for psychoactive drugs held almost 30 years ago in San Francisco. He was followed by Rob Montgomery, co-sponsor of the conference, who recalled how that conference in 1967 was the starting point for his interest in founding the Botanical Preservation Corps. He presented an adventure travelogue of stories and slides from his expeditions collecting rare plant species throughout Central and South America. He spoke of plant teachers and plant spirits and told stories of sleuthing through markets in out of the way villages, tracking down exotic plants, and meeting local curanderos. Montgomery spoke with such awe and enthusiasm that one could feel his emotion for the power and beauty of these plants.

#### **Ibogaine**

Julie Staley, neurologist, University of Miami, Florida presented in lieu of her advising professor Deborah Mash, Ph.D. on their current research with the drug Ibogaine. Ibogaine is a psychoactive alkaloid derived from the bark of the iboga shrub of west-central Africa. The drug has far-reaching socio-religious importance among the people of the Congo and Gabon. It is used in small doses as a powerful stimulant, and at larger doses as a means to enter into the spirit world. In western medicine Ibogaine holds great promise as a treatment for addiction to alcohol, heroin, cocaine and nicotine. Mash hopes to research the effects of Ibogaine on disrupting chemical dependency disorders in humans. In 1993 she received FDA approval to administer Ibogaine in Stage I safety and efficacy trials at preliminary dose levels. These trials were completed and approval has been granted for further dose-level studies, but all grants for funding have been denied by the National Institute on Drug Abuse (NIDA).

Further research of Ibogaine treatment is in limbo, caught up in the politics of NIDA and American drug policy. In view of the social costs of chemical dependency, controlled scientific

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research of ibogaine should be carried out with government support. MAPS donated \$25,000 to Dr. Mash and Dr. Sanchez-Ramos' Phase I ibogaine research project.

#### **Talks on ayahuasca**

Saturday afternoon began a series of talks on ayahuasca, the sacred tea of the Amazon. Luis Eduardo Luna, anthropologist, Universidade do Florianópolis, Brazil, gave a cross-cultural overview of its use among the shamans of the Amazon Basin, and as a sacrament in the syncretic religions of Brazil. Luna outlined two underlying principles of the shamanistic universe: first, the existence of a complex, temporal, intelligent reality not immediately accessible to everyone; second, the existence of techniques to have access to these realities. Ayahuasca is part of the technique to access these realities. Luna explained how one ayahuasca shamanic initiation requires 49 days of repeated usage. At this point the shaman may meet the ayahuasca spirit as an intelligent being, described by the shaman guide as a "very sympatico" little man. Luna explained that ayahuasca creates a dialogue between the shaman and the world of nature, manifested to him by means of anthropomorphic and animal forms. The language that is used is often music, song and poetry. In a curious irony, Luna told how one Indian shaman complained to him how the young people of his village who go off to the city and learn to read and don't take hallucinogenic drugs often return to the village as disaffected youth: their behavior is anti-social, including fighting, drinking and having sex out of wedlock.

Dennis McKenna followed with a less poetic presentation explaining the chemistry and pharmacology of ayahuasca. McKenna reiterated the difficulty of pursuing research due to the lack of government funding. He provided a quantitative analysis of the active ingredients in ayahuasca: harmol, harmine, harmaline, and DMT.

Next James Callaway, neurochemist from the University of Kuopio, Finland provided more quantitative analysis, with facts, figures, graphs and charts. His presentation was very technical, "just mopping up," as he described it, and reviewed the data from the Hoasca Project, a multidisciplinary effort to examine the human pharmacology of ayahuasca as used by members

of the União do Vegetal Church. He accented his presentation with photographs of the UDV churches and the members who participated in the research, and a few personal anecdotes of the gastrointestinal disorders that these sacraments produce along with ecstasy.

Peter Furst, anthropologist, SUNY, New York, presented a very thorough and academic slide presentation on Native American Entheogens in Art and Archaeology. His talk was followed by an energetic introduction to basic psychoactive chemistry by UC Berkeley lecturing professor Alexander Shulgin. Shulgin gave an enthusiastic arm-waving demonstration of the chemical structures of phenethylamines and tryptamines and shared stories, anecdotes and subjective observations from his own research. In reference to the "purity of sources" debate between naturally occurring plant substances vs. synthesized chemicals created in the laboratory, Shulgin presented two points in support of chemistry. First, structurally there is no difference between a chemical that occurs naturally in the plant and one he produces in the lab, second chemicals created in the lab have a precise level of purity, therefore dosage can be measured with precision and accuracy. This second point was made in reference to Callaway's analysis of the ayahuasca brew used in three syncretic churches of Brazil, which showed the percentage of active ingredients varies greatly from church to church, and even within church groups the active ingredients vary from batch to batch.

#### **The scientist and the shaman**

Both Sasha Shulgin and Kary Mullis represent a twentieth century synthesis of science and shamanism, a framework that I find the most satisfying model for describing non-ordinary experiences of chemically altered consciousness. Both the scientist and the native shaman share some similarities in their respective quests to understand the world and universe we live in. The scientists simply describe it in terms of the world view of western science. For our society to be able to understand and accept the benefits of entheogenic use it would be useful if more scientists who have explored psychedelics would share their impressions and insights.

Sunday morning Stacy Schaefer, anthropologist, University of Texas Pan-American,

delivered a presentation on Pregnancy, Children and Peyote in Huichol Culture. She provided an interesting perspective of women's roles with the use of entheogens based on her work with the Huichol Indians of Mexico. Besides the biochemical aspects of peyote consumption during pregnancy, she discussed the beliefs and personal experiences of the Huichol women who take peyote throughout their pregnancy. The women described fascinating accounts of communion with their unborn children.

#### **Incense, smoking and sacred drink**

Christian Rättsch, anthropologist from Hamburg, presented on Entheogens Among the Lowland Maya, a native perspective of psychoactive plant use, drawn from the Mayan speaking indigenous peoples of southern Mexico, based on his 20 years of research among the Lacandón Indians of the rainforest. Rättsch outlined three principle practices in the current Mayan religion for mediating with the gods; burning incense, smoking tobacco, and drinking *balché*. Archeological finds suggest that these practices have ancient origins and represent a continuous heritage. Incense burning artifacts have been found in all Mayan ruins. According to legend, when incense is burned the smoke rises to heaven and is transformed into a delicious drink that the gods cannot make themselves—they need human help to offer it. The "heaven incense drink" intoxicates the gods. If kept happy, the gods will in turn provide that which is in their power to benefit the people on earth.

The tobacco smoked by the Maya, *Nicotina rosica*, has a nicotine content of about 16%. When Rättsch commented to an elderly indigenous man that in the west we are experiencing an epidemic of health problems associated with tobacco consumption, the old man replied, "that is because they inhale."

Finally Rättsch spoke about the sacred drink, *balché*, a combination of honey, water and the bark of the *balché* tree. The most essential ingredient of this drink is the prayer or magical spell invoking the souls of all the plants and animals of the forest which is recited over the steeping mixture. The Lacandón believe it is the correctness of the prayer which determines the strength and potency of the brew. After

steeping for a few days, the brew is consumed until it is all gone. Rättsch described the initial effects as euphoria, along with diarrhea, and vomiting. After the initial bodily discomforts pass the people sing and tell stories and recite the history, myths and lore of their tribe. The specific psychoactive effect, according to Rättsch, is not very visual but is very emotional and empathogenic, facilitating tribal unity and bonding.

Dr. Albert Hofmann was scheduled to deliver the closing address but did not attend the conference due to an injury and subsequent surgery. His spot was filled by Wade Davis, the ethnobotanist who first analyzed the voodoo drugs of Haiti and published his studies in the book *The Serpent and the Rainbow*, but due to scheduling constraints I was not able to attend this presentation. Others reported Davis's talk to be fascinating.

#### **Summary**

The 1996 Conference on Entheobotany explored the current state of shamanic plant sciences. The evidence presented by scholars of art and culture suggests that entheobotanical plants have played a far greater role in the development of our civilization than historians have previously suspected. From anthropology we see the roles that these plants still play in direct visionary experience used in healing, communion with nature and the Divine, and simply for ecstatic enjoyment. From chemistry and neuroscience we learn the bio-physical description of how these plants work in the human body. The most important thing left to explore is how we can best use these remarkable substances in contemporary western culture. Their usefulness as a sacrament in religious practice is time honored and, as we are discovering, neurochemically valid. Can modern industrial civilization recover the spiritual wisdom that was lost in the mad rush to master and control the material world? Can a real expression of awe and an awareness of the infinite mystery of life guide and mediate the use and choices of our technological prowess? If we hope to truly advance as a species and live up to our remarkable potential as human beings, it must. •

For additional information on future conferences, contact The Botanical Preservation Corps at (818) 355-9585.

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