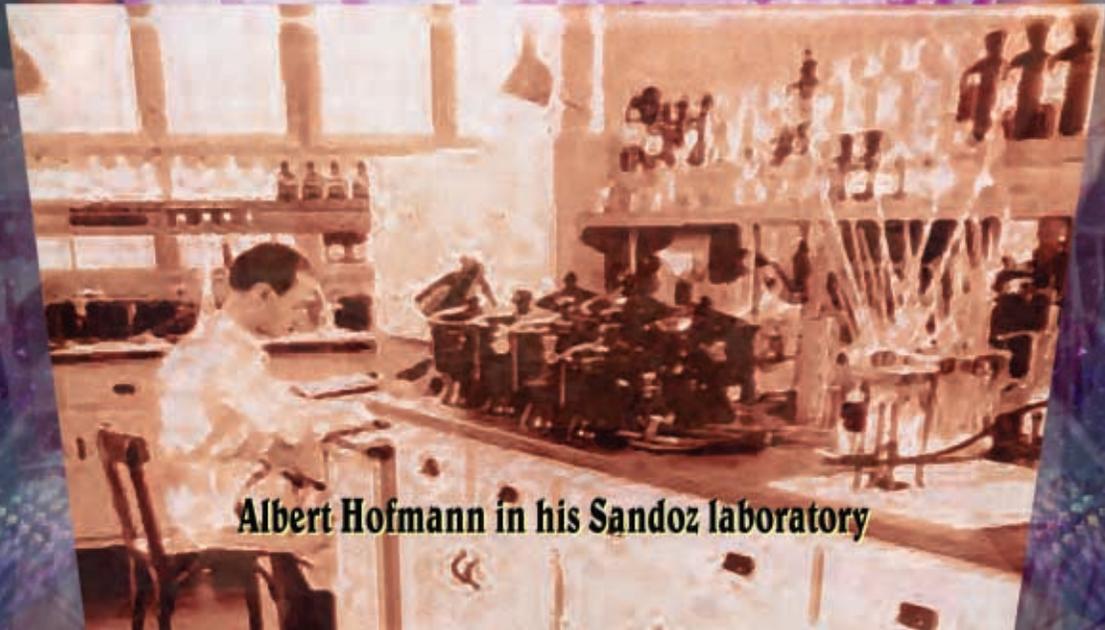
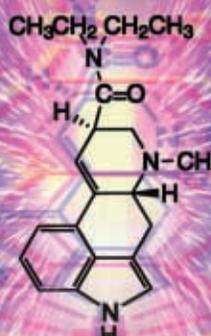
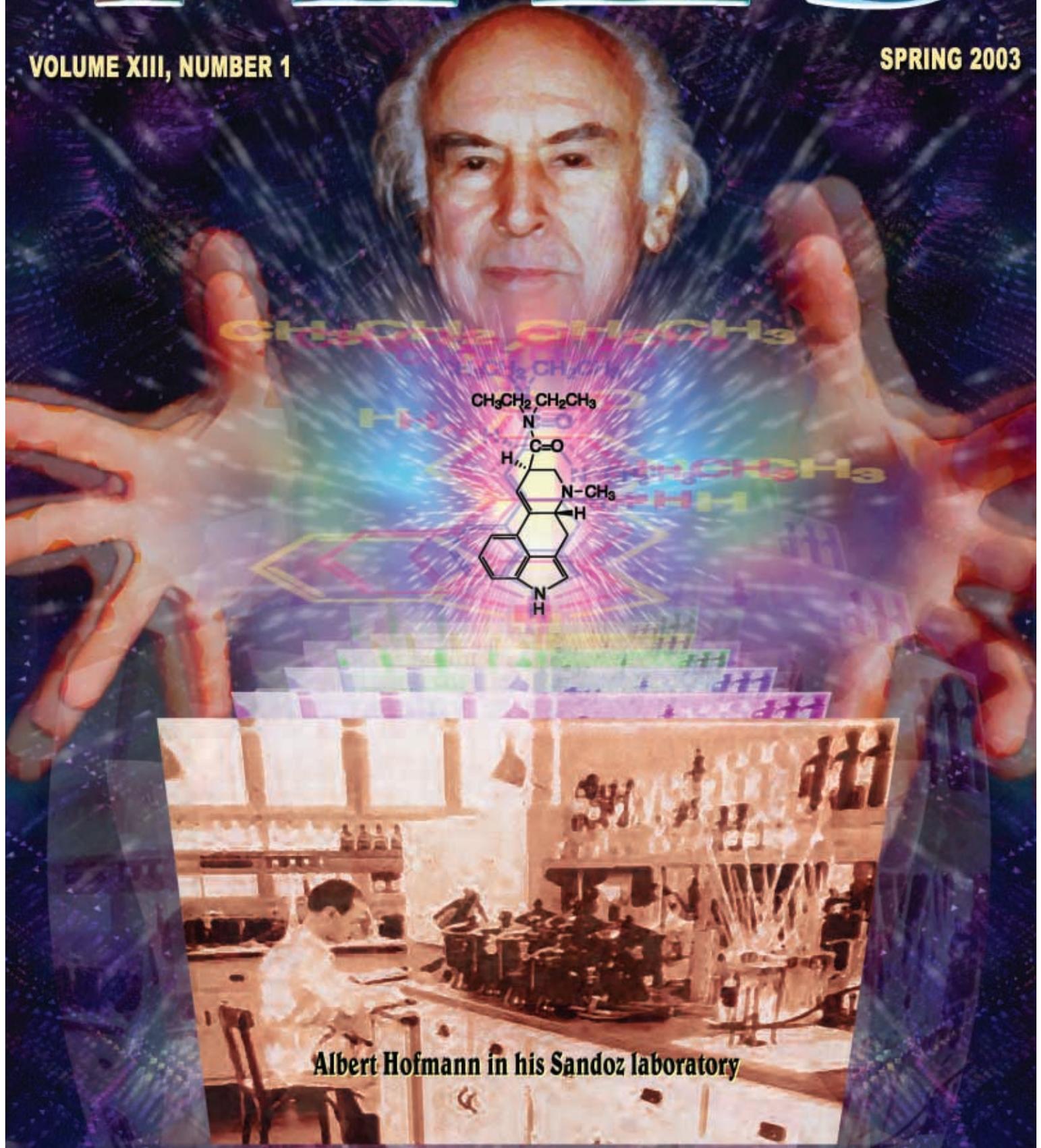


MAPS

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Albert Hofmann in his Sandoz laboratory

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MAPS (Multidisciplinary Association for Psychedelic Studies) is a membership-based organization working to assist psychedelic researchers around the world design, obtain governmental approval, fund, conduct and report on psychedelic research in humans. Founded in 1986, MAPS is an IRS approved 501 (c)(3) non-profit corporation funded by tax-deductible donations. MAPS is now focused primarily on assisting scientists to conduct human studies to generate essential information about the risks and psychotherapeutic benefits of MDMA, other psychedelics, and marijuana, with the goal of eventually gaining government approval for their medical uses. Interested parties wishing to copy any portion of this publication are encouraged to do so and are kindly requested to credit MAPS including name and address. The MAPS Bulletin is produced by a small group of dedicated staff and volunteers. Your participation, financial or otherwise, is welcome.

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Correction: The image on page 15 of the Sex, Spirit and Psychedelics issue (Vol. XII, No. 1) was actually of the mushroom species *Copelandia tropicalis*, not *Panaeolus cyanescens*, and was based on a photograph by John W. Allen.



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As I write this, the world is mesmerized by the technologies of war. In times of fear, trauma, and stress, MAPS' mission of developing technologies of healing becomes even more critical. While our efforts to initiate psychedelic and medical marijuana research are primarily directed at the treatment of patients with diagnosable psychiatric and medical illnesses, collateral benefits are anticipated. Psychedelic and medical marijuana research can also contribute to the treatment of cultural pathologies. These include the divisive and counterproductive Drug War and the prioritization of ideology and fundamentalism over science, common sense and compassion, as evidenced by the federal prosecution of medical marijuana patients and providers in California. Societies more open to psychedelic experiences are likely to be less blind to their own demons and prejudices, and perhaps less likely to wage wars of all types. The sort of blind prejudice I mean is typified by a stock reply of ex-Drug Czar General Barry McCaffrey that he once offered me, without obvious irony, admitting "I may frequently be wrong, but I am never in doubt." Suppressing research may temporarily keep doubt at bay, but it isn't healthy public policy.

Open-mindedness is not a hallmark of societies at war, making the research approval process much more difficult. Yet another Institutional Review Board (IRB) has seemingly been influenced by non-scientific social prejudices in its review of Dr. Michael Mithoefer's MDMA-assisted psycho-

Letter from Rick Doblin, Ph.D., MAPS President

therapy in the treatment of posttraumatic stress disorder (PTSD) (p. 4). In addition, we are meeting increasingly stubborn and unjustifiable resistance from the Drug Enforcement Administration (DEA) in regards to Dr. Mithoefer's 10-month wait for a license to possess and administer 3 grams of MDMA to patients in his study. Similarly, DEA has been obstructing Prof. Lyle Craker's efforts to obtain a license for a MAPS-funded medical marijuana production facility at UMass Amherst (p. 12). Even the International Narcotic Control Board (INCB), the body that monitors and enforces compliance with international drug control treaties, issued in its 2002 annual report a cautionary statement about MAPS' efforts to support MDMA/PTSD research. In paragraphs 171 - 172, under the heading "Provision of MDMA-assisted psychotherapy in the treatment of posttraumatic stress disorder," the INCB warned the signatory parties to the treaty (which include virtually all the countries in the world) to beware that "While the Board has been encouraging all Governments to support sound research on the medical use of controlled drugs, it has also been concerned over the possible misuse of research activities for the propagation of the non-medical use of drugs." I haven't determined whose fingerprints are on these paragraphs, but it's probably either the DEA or the Spanish Antidrug authorities (p. 7).

Despite these political pressures, MAPS stands on the verge of blossoming into a non-profit pharmaceutical company, in actuality as well as in intent, to develop psychedelics and medical marijuana into government-approved prescription medicines. Though we've been on the verge for a long, seemingly interminable time, I'm more convinced than ever that the non-profit research approach offers substantial promise. For example, on March 31, 2003, the Bill and Melinda Gates Foundation announced it would donate \$60 million to a non-profit organization to develop a topical gel to block the transmission of HIV. For-profit pharmaceutical companies considered the profit potential to be small and weren't doing the research. The abortion pill, RU-486, was also developed into an FDA-approved medicine by a non-profit organization.

In the midst of war, visions of healing must be sustained and developed. The MAPS staff is deeply grateful for your support in these difficult, challenging and promising times.

— *Rick Doblin, Ph.D., MAPS President*

MDMA-ASSISTED PSYCHOTHERAPY IN THE TREATMENT OF POSTTRAUMATIC STRESS DISORDER (PTSD): A SECOND UPDATE ON THE APPROVAL PROCESS.



Michael Mithoefer, M.D. (mmit@bellsouth.net)

About a year and a half ago, on November 2, 2001, we received FDA approval to conduct a MAPS-sponsored study of MDMA-assisted psychotherapy for the treatment of posttraumatic stress disorder (PTSD). This is the first Phase 2 MDMA study approved in the U.S. In the last issue of the MAPS Bulletin (volume XI number 3), I reported that the FDA was on the verge of granting permission for us to change the proposed study location from a university inpatient unit to an outpatient office setting with extensive emergency equipment and additional back-up medical personnel. On June 14, 2002 we did receive approval for that change. The FDA Division of Neuropharmacological Drug Products, in consultation with the

Division of Cardioresenal Drugs, concluded that with the agreed upon provisions, we would be able to respond to any medical emergency in this setting at least as effectively as in a hospital. We were impressed by the FDA's careful attention to patient safety and their professional approach to discussing and evaluating modifications in our protocol.

The next step was to submit an application for protocol review to a private institutional review board (IRB), as well as applications to the U.S. Drug Enforcement Agency (DEA) and the South Carolina Bureau of Drug Control (SCBDC) for a Schedule I research registration. The chronology of events has been as follows:

June 19, 2002: We submitted an application with accompanying copies of our protocol and literature review to The Western IRB (WIRB) in Olympia, Washington, one of the best known private IRBs in the U.S.

July 3, 2002: I submitted Schedule I applications to DEA and the South Carolina Board of Drug Control.

July 10, 2002: We received notification that our protocol had been approved by the WIRB with some modifications to the informed consent form but no other changes.

“On November 2, 2001, we received FDA permission to conduct a MAPS-sponsored study of MDMA-assisted psychotherapy for the treatment of posttraumatic stress disorder (PTSD).”

We were pleased to have received IRB approval, and we started to work actively to track, and hopefully expedite, the processing of my DEA application. I had a number of helpful conversations with the DEA field office in Columbia, SC about the security requirements for storing MDMA. In preparation for a site inspection by the DEA field officers we have made arrangements

to have a safe and an alarm system installed in the office. However, before the DEA field office or the SCBDC can act, they need approval from the DEA central office in Washington. The only information we have been able to get from that office, now nine months after my application was submitted, is that it is still under review and that the DEA has enlisted the involvement of a consultant outside the DEA. In phone conversations with DEA officials on January 14 I was told that they had concerns about “safety” but that the review should be finished “soon” and on February 19 that it “should not be long” before they come to a decision. It is my understanding that the DEA’s mission is to guard against drug diversion in pharmacological research, whereas the FDA is the agency with responsibility and expertise regarding safety. It therefore seems inappropriate that safety concerns are holding up my DEA application. Rick Doblin wrote the DEA in January to remind them of this.

A more troublesome series of events occurred with the WIRB:

- **September 5, 2002:** I received a phone call followed by a letter stating that the WIRB had decided to withdraw their approval of the protocol. At the request of “a WIRB affiliated physician” the board had met to reconsider our application. We were not informed of this meeting until after the fact. The physician (who remains unidentified to us) reportedly raised concerns based largely on telephone conversations with three scientists. We prepared a very thorough response to the WIRB addressing each of the concerns and including additional letters of support from prominent researchers (details available at <http://www.maps.org/research/mdma>). During this process, MAPS president Rick Doblin spoke to two of these scientists and to a co-author of the third in order to foster as much open discussion as possible. We informed the FDA and in-

“Not only did they waste a lot of our time, their actions do not appear to be consistent with the responsibility of an IRB to review research protocols based on scientific and safety considerations.”

vited their input. The FDA, has not, as of yet, requested any changes in the protocol.

- **October 3, 2002:** Rick Doblin had a detailed discussion with the Executive Director of the WIRB. Rick requested that he and I have the opportunity to address the board at their October 30 meeting, when, we were told, they would consider our appeal.

- **October 15, 2002:** We submitted our formal, detailed appeal to the WIRB, addressing all the concerns they had raised in their letter.

- **October 17, 2002:** Rick was informed by phone that the WIRB would not be reviewing the scientific aspects of our appeal on October 30. Instead, the WIRB’s Executive Policy Committee would decide whether there would even be a scientific review at all, at a November 19, 2002 meeting which would address their general policy on “this kind of research,” presumably Schedule I drug research.

- **November 20, 2002:** I received a letter from the WIRB stating that, “Western Institutional Review Board, Inc. (WIRB) has made the decision to not provide institutional review board services for the Multidisciplinary Association for Psychedelic Studies (MAPS). Please find enclosed a refund of your previously paid fees, along with the material you submitted for review.” There was no explanation for their unusual behavior: first approving our protocol, then two months

“We feel confident that, with persistence and responsiveness, we will be able to secure the approvals we need to move ahead with the study by Summer 2003.”

later withdrawing approval for alleged scientific reasons, and, when we exercised our right to appeal, declining to review our response to their stated concerns, instead making the decision to terminate their involvement. Not only did they waste a lot of our time, their actions do not appear to be consistent with the responsibility of an IRB to review research protocols based on scientific and safety considerations. This is another disturbing example of non-scientific influences constraining academic and scientific freedom of inquiry.

• **December 17, 2002:** Less than a month after the WIRB returned our application, MAPS submitted the MDMA/PTSD protocol for review to a new IRB in California, Independent Review Consulting, Inc. (IRC-IRB). The IRC-IRB has read the entire correspondence between MAPS and the Western IRB and has indicated its willingness to carefully review the protocol on its merits without bias due to the controversial nature of MDMA-assisted psychotherapy research. Their review of our protocol on January 3 resulted in a long list of questions and concerns. We submitted a thorough written response on January 21, and on January 28 Rick Doblin and I attended the weekly meeting of the review board to respond to their questions and discuss any concerns in person. The board told us they appreciated the thoroughness of our written response, and the meeting had a tone of mutual respect. They asked challenging questions and we had the impression that we had come to agreement on most of the issues raised.

To our surprise, what followed was an eight page letter which, while it indicated a willingness to continue to work toward possible approval, raised two major new obstacles: 1) The idea that we must hire an outside “Contract Re-

search Organization” (for which we got an estimate of \$ 178,000) to monitor data collection, and 2) That we start with a multi-site trial. We feel strongly that neither of these measures would be appropriate at this stage of our research (an initial pilot study). The first is unnecessary and very expensive. The second is impossible because before a multi-site study can be done, the treatment must be standardized in pilot studies. Although subsequent communications with the IRC-IRB has have indicated that the board may not insist on these measures, they have thus far been unable to reach a decision about either of these issues and have tabled discussion, pending a request that MAPS pay for consultants to address some unrelated questions about study design.

MAPS is understandably reluctant to spend this additional money when the board cannot tell us how or when it might reach a decision about the other two major outstanding issues. Therefore, in late February we discussed the study with a third IRB, fully informed them about what has transpired thus far, and were told they would be willing accept our application for review. We submitted that application on March 7, having after two weeks not received anything from the IRC-IRB regarding the promised estimate for the costs of the consultants. We then waited an additional two and half weeks without receiving the estimate before notifying the IRC-IRB on March 25 of our decision to pursue other options.

I am optimistic that our persistence will result in both IRB and DEA approval within the next few months. We appreciate the continued support and hard work from MAPS that makes this persistence possible, and we’re looking forward to moving beyond this application phase and to beginning subject recruitment and the experimental sessions themselves. ■

MDMA/PTSD RESEARCH IN SPAIN: AN UPDATE

José Carlos Bouso Saiz, Ph.D. Candidate, Co-Principal Investigator (jcbouso@correo.cop.es)

On February 17, 2000, our research team, whose members are located at the Universidad Autónoma de Madrid and at the Hospital Psiquiátrico de Madrid, Spain, received approval from the Agencia Española del Medicamento (the Spanish Medical Agency, equivalent to the US FDA) for an MDMA psychotherapy study. The study, funded by MAPS, is designed to assess the safety of different doses of MDMA in a population with posttraumatic stress disorder (PTSD) in a psychotherapeutic setting. So far, we have treated just six patients. All patients tolerated the treatment well, and there were neither physical complications nor remarkable side effects during the experimental sessions. None of them developed any psychological disturbance or distress associated with the effects of the drug nor suffered any psychopathological reaction, and we had no drop-outs during the treatment phase.



Unfortunately, we are having some problems with the continuation of the study. I have always been reluctant to discuss this project with the media — at least until it was finished — because some politicians tend to think that any discussion of the therapeutic potential of illegal drugs diminishes the risk perception of casual users. They tend to view illegal drugs as

“It is obvious that the risks of a drug are not defined by its legal status but by its pharmacological properties. Hence, no drug is free from risks, whatever its legal status.”

necessarily more dangerous than prescription drugs, basing their ideas on unscientific notions. It is obvious that the risks of a drug are not defined by its legal status but by its pharmacological properties. Hence, no drug is free from risks, whatever its legal status. In fact, prescription drugs have higher indices of mortality than illegal drugs, which represent only about 20 per cent of all drug-related deaths. The key when we propose clinical trials is to have a good balance between risks and benefits, and in the case of MDMA treatment it is quite clear that one or two doses of MDMA administered in a clinical setting would have a very low health risk while the benefits for patients may be quite high. The abuse potential of one or two doses of MDMA is also very low.

But last May, the Spanish media reported the news that we were conducting a study in which we administered MDMA to treat PTSD. The next day, we suffered a rude and unexpected inspection from the Health Department of the State of Madrid. Though the Spanish Ministry of Health is responsible for approving clinical trials in Spain, the inspections are carried out by the health departments of each state, with prior notice being given to the researchers. We received no such notice. They also have one month to submit a report from the inspection, but it too was never sent. Obviously, the inspection was meant to intimidate us.

The day after the inspection, the manager of the Psychiatric Hospital of Madrid met me to say that he received pressure from the Vice President of the Health Department to stop the study. As we

were using the facilities of that hospital, the manager told us that they could not lend the facilities anymore. Nobody ever gave us a reasonable explanation about why the study should be stopped, but it seems that the Madrid Anti-drug Agency pressured the Vice President of the Health Department to stop the study saying that it is not in accord with their prevention campaigns, that there is no reason to think that MDMA has therapeutic properties, and that it can produce neurological damage. Obviously, they did not take into account the opinions of the Ethics Committee, which is quite capable of making a scientific and ethical decision. We sent letters to the Vice President of the Health Department asking for explanation, and phoned him several times,

“I think that it is very worrying that politicians have stopped a well-designed project which had been approved by the scientific committees legally designated for that purpose.”

the Vice President of Health Department will not change his mind. I think that it is very worrying that politicians have stopped a well-designed project which had been approved by the scientific committees legally designated for that purpose. We are now working hard to resume the study, as we also look for ways of asking for political accountability. ■

but he never answered our letters or calls. Finally, the Rector of my University sent him a letter and the Vice President of the Health Department answered that the study could not continue — but without giving any rational explanation.

Though we still have all the permits in order, we have no place to finish the study, and I am afraid that



'Galileo facing the Roman Inquisition', by Cristiano Banti (1857)

MAPS-SUPPORTED MDMA/PTSD RESEARCH IN ISRAEL: AN UPDATE

Rick Doblin, Ph.D.

Since 1998, MAPS has been engaged in an active and ongoing effort to sponsor a pilot study in Israel into the use of MDMA-assisted psychotherapy in the treatment of posttraumatic stress disorder (PTSD). A report on MAPS' 1999 international conference on clinical research with MDMA and MDE, held at the Dead Sea, can be found on the MAPS website at: <http://www.maps.org/news-letters/v09n3/09309isr.html>

On November 14, 2002, MAPS presented a seminar about MDMA/PTSD research at Beer Yakov Hospital near Tel-Aviv. Attending were officials from the Israeli Ministry of Health, Israeli Society of Addiction Medicine, and the Israeli Antidrug Authority. Organizing the event on the Israeli side was Dr. Jorge Gleser, Deputy Director, Mental Health Services, Director, Department for the Treatment of Substance Abuse, Israeli Ministry of Health. Costs of the seminar were covered by a donation to MAPS from Tim Butcher.

“The open label study will be followed by a double-blind, placebo-controlled study with people who have war or terrorism-related PTSD.”

Speakers at the seminar were Dr. Michael Mithoefer, principal investigator for the MAPS-sponsored and FDA-approved MDMA/PTSD study (p. 4); June May Ruse, Ph.D., lead author of MAPS' MDMA/PTSD treatment manual; Jose Carlos Bouso, Ph.D. candidate, principal investigator in the MAPS-sponsored MDMA/PTSD study in Spain (p.7); Peter Cohen, Ph.D., Director of the Centre for Drug Research (CEDRO) - Faculty of Social and Behavioral Sciences, Universiteit van Amsterdam (see www.cedro-uva.org), and myself. The seminar was favorably reported in Maariv, a major Israeli newspaper, (www.maps.org/media/maariv11.15.02.html). Dr. Cohen spent several days after the seminar in meetings with the Israeli Antidrug Authority, while I had an opportunity to meet with Antidrug Authority Director, General Haim Messing.

On November 17, MAPS organized a smaller protocol design meeting with several psychiatrists in the Ministry of Health including Dr. Moshe Kotler, the principal investigator of the Israeli MDMA/PTSD study; Dr. Rakefey Rodrigez, who is interested in working as a co-therapist on the project, and Dr. Gleser. Tentative agreement was reached on protocol design, with the research plan calling first for a small (N=4) non-blinded (“open label”) pilot study to be conducted in patients with war or terrorism-related PTSD. The purpose of this study would be to train treating therapists in conducting MDMA-assisted therapy and to gather initial information about MDMA-assisted psychotherapy in this population. If the open label study generates promising results, it will be followed by a randomized, double-blind, placebo-controlled investigation in a slightly larger sample of people (N=12) with war or terrorism-related PTSD. The placebo would be a very low dose of MDMA, as compared to a full dose. In both studies, treatment includes two extended MDMA-assisted therapy sessions within the context of a twelve-week course of psychotherapy.

The Israeli team has indicated that it will be ready to seek Ministry of Health approval for the Israeli pilot study as soon as the US MDMA/PTSD study is approved both by the FDA and an IRB. We're hoping the Israeli study will be ready to start before the end of 2003. ■

MDMA RESEARCH AT MCLEAN HOSPITAL

John H. Halpern, M.D. (john_halpern@hms.harvard.edu)

Harrison G. Pope, Jr., M.D.



MAPS funding to our laboratory (\$12,000) is now being applied to a new pilot study we have undertaken to investigate whether repeated use of illicit MDMA induces functionally significant neurocognitive damage. Much like our prior study comparing Navajo members of the Native American Church who ingest peyote with Navajo who ingest peyote, have a history of extensive alcoholism only or have no history of significant drug or alcohol use, our blinded rater administers an extensive battery

of neurocognitive tests to users and non-users of MDMA. Our study is distinct from prior published reports in that we are securing volunteers who have minimal to no exposure to any other drug of abuse or alcohol. Moreover, we are carefully assessing for past and current evidence for psychopathology, and thus we will be able to control for extent of depression and anxiety at time of testing, for example. Psychiatric conditions must be screened for, since we already know that these illnesses negatively impact cognitive performance. Few controlled studies of MDMA users' cognitive performance have also carefully tested for these illnesses. In order to also control for possible differences between groups due to sleep deprivation, we have chosen control subjects who also experience a comparable amount of sleep deprivation from sharing in the same all-night-party lifestyle. By controlling for sleep patterns, we increase the likelihood that any differences are due to Ecstasy but not to the lifestyle which accompanies it (and we do know that sleep deprivation causes impairments on many of these tests). At present, 15 controls and 25 MDMA users have completed this protocol. Preliminary results will first be used in an NIH grant application to expand the study to eventually test approximately 200 individuals. Interim results may be presented at a relevant scientific conference as well as in a further update to the MAPS Bulletin. We are greatly indebted to MAPS for providing the needed "seed money" and helpful advice and assistance in securing the published papers from the relevant literature. ■

“MAPS funding to our laboratory (\$12,000) is now being applied to a new pilot study we have undertaken to investigate whether repeated use of illicit MDMA induces functionally significant neurocognitive damage.”

“Our study is distinct from prior published reports in that we are securing volunteers who have minimal to no exposure to any other drug of abuse or alcohol.”



VAPORIZER RESEARCH: AN UPDATE

Dale Gieringer, Ph.D. (canorml@igc.apc.org)

MAPS and California NORML have completed a first, preliminary round of experiments demonstrating the feasibility of testing the Volcano vaporizer (www.vapormed.de). Conducted by Chemic Labs, this \$30,000 feasibility study indicated that the Volcano does produce remarkably clean vapor containing THC and other cannabinoids. We have raised an additional \$25,000 from a grant from the Marijuana Policy Project (first grant proposal rejected, second approved) and have just

completed a follow-up “protocol” study conducted according to FDA standards. This is the first vaporizer study designed to detect a broad spectrum of toxins in the gas phase of cannabis smoke or vapor, and will provide the necessary quantitative data to apply for FDA approval of human trials using the vaporizer. The results show that the vapor contains no detectable levels of a wide range of toxins present in marijuana smoke, but does contain substantial amounts of cannabinoids.

This study was urgently needed to keep smoked and/or vaporized natural cannabis on track for FDA approval in the face of competition from other, non-smoked delivery systems, notably GW Pharmaceuticals’ oral spray. A human vaporizer study would likely be of interest to the California Center for Medicinal Cannabis Research (CMCR), of whose scientific advisory board I am a member. Dr. Donald Abrams, UC San Francisco, has worked closely with us to develop a research protocol which would for the first time demonstrate how effectively vaporizers deliver cannabinoids into the human bloodstream. This study, for which Dr. Abrams submitted a grant proposal to the CMCR on April 1, 2003, could in turn pave the way for further medical studies using the vaporizer. Dr. Abrams will submit the protocol to the FDA in early April.

In the meantime, however, the DEA is pushing to discourage CMCR from further research with the cannabis plant, on the grounds that smoking is an unsatisfactory method of drug delivery. Furthermore, GW Pharmaceuticals has shown interest in approaching the CMCR about conducting research with its cannabinoid extracts, as a substitute for the cannabis plant. If vaporization research does not proceed, there is a good chance that the DEA or NIDA will succeed in blocking additional Phase II and eventual Phase III efficacy studies using the cannabis plant, studies which are needed to obtain FDA approval for rescheduling cannabis for medical use.

Obtaining FDA permission to use a vaporizer in human clinical trials is the first of two critical milestones to be achieved prior to embarking in earnest on a medical cannabis drug development program. The second milestone is obtaining an independent, non-governmental source of high-potency cannabis for FDA-approved research. MAPS is developing a project of this kind in association with Prof. Lyle Craker, Director of the Medicinal Plant Program, Department of Plant and Soil Sciences, UMass Amherst (p. 12). ■

“This will be the first vaporizer study designed to detect a broad spectrum of toxins in the gas phase of cannabis smoke, and will provide the necessary quantitative data to apply for FDA approval of human trials using the vaporizer.”

DEA AND THE UMASS AMHERST MEDICAL MARIJUANA PRODUCTION FACILITY: AN UPDATE

Rick Doblin, Ph.D.

DEA Finally Replies After 18 Months

Since 1992, MAPS has been working to sponsor a privately-funded medical marijuana drug development research program. In late 1999, MAPS and Prof. Lyle Craker, Director of the Medicinal Plant Program, Department of Plant and Soil Sciences, UMass Amherst, began working together to establish a Massachusetts Department of Public Health and Drug Enforcement Administration (DEA)-licensed medical marijuana production facility. The facility is to be funded by a grant to UMass Amherst from MAPS and is intended to produce high-potency marijuana for use exclusively in federally-approved scientific research. In June 2001, Prof. Craker submitted his license applica-

“The fundamental question posed to the DEA by Prof. Craker’s application for a license to produce marijuana is whether or not the DEA will open the door to a privately-funded medical marijuana drug development program.”

tion to the DEA, with full support from the UMass Amherst administration. For a complete, documented history of this effort, see <http://www.maps.org/mmj/mmjfacility.html>

On December 16, 2002, several DEA agents went to UMass Amherst to meet with Prof. Craker and several senior members of the UMass Amherst administration. Unfortunately, it turned out that the purpose of the meeting was to persuade Prof. Craker and UMass Amherst to withdraw the application, which they declined to do.

On March 4, 2003, DEA responded in writing for the first time to Prof. Craker’s application, more than 20 months after the application was originally submitted (it had been “lost” for over a year). The letter, from Frank Sapienza, Chief, Drug and Chemical Evaluation Section, stated that DEA was inclined to reject the application because it believed that NIDA

can supply marijuana “acceptable to the research community.” The testimony of Dr. Ethan Russo, who wrote to DEA to say that he found the quality of NIDA material to be substandard, was discounted since Dr. Russo “has not been registered by the DEA to conduct research with marijuana.” Ironically (at least to us), Dr. Russo was not registered with DEA to conduct human clinical research with marijuana (though he is registered with the DEA to conduct laboratory research with marijuana) because NIDA and the Public Health Service (PHS) didn’t like his privately-funded, FDA-approved protocol and refused to sell him marijuana, effectively preventing his study from taking place.

MAPS Response

MAPS responded in writing to the DEA letter by pointing out that while the poor quality of

NIDA material is an important consideration, there are other fundamental reasons why DEA licensing of the UMass Amherst facility is necessary to facilitate medical marijuana research. As long as NIDA retains its monopoly on the supply of marijuana that can be used in research, private sponsors of medical marijuana research 1) cannot select the exact strain of marijuana with the exact mix of cannabinoid content that the sponsors consider most likely to be safe and efficacious, 2) cannot manufacture the drug they wish to research and thus are not in control of either availability and cost, and 3) cannot supply the exact drug that was used in research for possible prescription use since NIDA is legally authorized to grow marijuana for research but cannot supply it on a prescription basis.

MAPS also emphasized a procedural reason why DEA support for NIDA's monopoly on supply serves to obstruct medical marijuana research. At present, NIDA will not sell marijuana to a researcher with a privately-funded and FDA-approved protocol unless the protocol is also approved by a NIDA/PHS review process. Since NIDA has a monopoly on the supply of marijuana, but not any other Schedule I drug such as MDMA, LSD or psilocybin, this additional review process exists only for marijuana research and has twice been used to prevent privately-funded, FDA-approved protocols from taking place.

As a result of NIDA's monopoly, no rational sponsor will invest millions of dollars in medical marijuana research while it remains dependent for its supply of research material on NIDA, whose institutional mission is diametrically opposed to exploring the beneficial uses of marijuana and which cannot legally provide marijuana for prescription use.

The fundamental question posed to the DEA by Prof. Craker's application for a license to produce marijuana is whether or not the DEA will open the door to a privately-funded medical marijuana drug development program. This is the model adopted by GW Pharmaceuticals in England, licensed by the British Home Office to

grow a variety of strains of marijuana as part of its privately-funded research into the medical uses of marijuana extracts. Unfortunately, DEA support for NIDA's monopoly seems to be more about controlling medical marijuana research than about controlling drug diversion, DEA's primary responsibility.

MAPS has asked the Marijuana Policy Project, the Drug Policy Alliance, the National Organization for Marijuana Laws, and Patients Out of Time to write letters to the DEA. These letters will point out, among other things, that as long as the DEA defends NIDA's monopoly, funders will not invest in scientific research they perceive as politically obstructed but will continue to prioritize state and federal legislative approaches and state initiatives. MAPS has also been in contact with Senator Edward Kennedy and his staff, who we are hoping will eventually take an active role in support of the UMass Amherst facility. DEA support of NIDA's monopoly effectively discourages privately-funded research, making federal calls for more research ring hollow. ■

Marijuana Research in Israel

MAPS is also working to facilitate medical marijuana research in Israel. The Israeli Ministry of Health has approved a small number (about ten) of physician-recommended patients for legal access to marijuana for medical purposes. MAPS has agreed to donate \$10,000 to cover the costs of a researcher to periodically evaluate the health status of these patients. Maripharm, a Dutch-government licensed medical marijuana growing company, is considering donating the necessary marijuana for the study. This project is tentatively scheduled to begin in mid-2003.

EFFECTS OF PSILOCYBIN IN OBSESSIVE-COMPULSIVE DISORDER: AN UPDATE

Christopher Wiegand, M.D., Co-Investigator (cbw@u.arizona.edu)

At the University of Arizona, we are currently conducting a study that investigates the effects of psilocybin in obsessive-compulsive disorder (OCD). As this is an FDA Phase I study, our first and foremost goal is to demonstrate safety and tolerability of psilocybin in human subjects. At the same time, we are collecting pilot data regarding psilocybin's efficacy in treating OCD. The latter effort is

“As this is an FDA Phase I study, our first and foremost goal is to demonstrate the safety and tolerability of psilocybin in human subjects.”

based on anecdotal and theoretical evidence which suggests that psilocybin relieves the symptoms of OCD in some patients.

Thus far, we have had 7 subjects and a total of 22 psilocybin dosing sessions.

All sessions have been tolerated well with no significant adverse effects. All 7 subjects have said that they would, if given the chance, repeat their session experience again. We are still looking for volunteers to participate as subjects in the study, and hope to finish the study before July

2003. Preliminary findings will be made available in May at the American Psychiatric Association meeting in San Francisco.

Potential subjects must meet the following criteria: age 21-65 years old, must have previous experience with psychedelic drugs, and must have OCD which is treatment resistant (e.g. have tried one or more first-line medications at adequate dosage for a minimum of 4 weeks without significant improvement in OCD symptoms). Those interested in volunteering can contact Dr. Chris Wiegand at (520) 626-7708 or via e-mail: psilocybinaz@yahoo.com. If you are chosen to participate, travel and lodging expenses can be defrayed if you are in need of assistance. ■

I would like to thank MAPS for their support of my trip to Switzerland and Germany. I had the opportunity of visiting Dr. Franz Vollenweider and his team of researchers at the Heffter Research Center, Psychiatric University Hospital in Zürich. We discussed projects currently underway or planned at both Arizona and Zurich. We exchanged impressions and hypotheses about mechanisms of potential therapeutic applications, and shared experiences and strategies to overcome hurdles frequently encountered in the process of conducting psychedelic research. We also discussed the potential for collaborations in current efforts and future projects.

I also visited Dr. Torsten Passie, a very gifted and experienced psycholytic therapist and researcher in Hannover, Germany, who is currently conducting some interesting experimental studies in the effects of psilocybin on binocular depth inversion, binocular rivalry, neuropsychology and synaesthesias in healthy physician volunteers. This experience was also very enriching.

– Francisco Moreno, M.D., Co-Investigator

SALVIA DIVINORUM: CLINICAL AND RESEARCH POTENTIAL

Karl R. Hanes, Ph.D. (khanes@rocketmail.com), Cognitive-Behavioural Treatment Centre, Melbourne, Victoria, Australia

Salvia divinorum is a perennial Mexican herb from the labiate (mint) family (Epling & Jativa, 1962) that has a history of use chiefly for the initiation and facilitation of shamanic practice among such peoples as the Mazatec Indians of the Sierra Mazateca region of Oaxaca, Mexico, and possibly by earlier human civilizations (Johnson, 1939; Wasson, 1962; Ott, 1995). In its capacity as a tool of divination, the predominant known use of this plant (aside from general problem solving, such as finding lost objects) occurred in the context of healing ceremonies, for the treatment of disease.

Typically, these healing rituals involved the oral consumption of large doses (50-100 leaves) of the plant in order to induce altered states of consciousness that fostered the detection of specific ailments. Significantly, the means of such identification of a specific condition was often through self-report. The Mazatec Indians, who referred to this herb by a number of names, most commonly 'ska Maria pastora' ('leaves of the Virgin Mary, the Shepherdess'), also employed this plant medicinally for the management of such conditions as headache, diarrhoea, rheumatism and anaemia (Valdez, Diaz & Paul, 1983).

Recent investigations have isolated the neoclerodane diterpenes Salvinorin A, B and C as the main constituents (Ortega, Blount & Manchand, 1982; Valdez et al., 2001; Roth et al., 2002), and the psychoactivity of this herb, identified by earlier investigators (Wasson, 1962), has been clearly delineated only recently (Siebert, 1994). Like other plant substances (e.g. nutmeg) and many prescription medications (e.g. belladonna alkaloids), there may be considerable variation in the psychoactivity of *Salvia divinorum* depending on dosage and method of ingestion. Oral consumption of *Salvia divinorum* requires that the herb material be brought into extended contact with the oral mucosa (held in the mouth for 15-30 minutes), producing significant effects lasting up to an hour.



Salvia divinorum

“Although it is too early to draw definitive conclusions regarding the antidepressant potential of *Salvia divinorum*, initial results are promising, with the majority of patients reporting lasting benefits from their use of this herb.”

Clinical use

In December, 1997, following discussions some months earlier concerning the possible healing potential of various plant substances in psychiatric conditions, a treatment-resistant depressed patient (Ms. G) under the care of the author reported the serendipitous management of her symptoms of depression with use of *Salvia divinorum* obtained via a mail-order herbal supplier (Hanes, 2001). Despite initial cau-

“Furthermore, this herb demonstrates a very broad and unique spectrum of psychoactivity, ranging from very mild ‘mood-altering effects’ to purportedly more profound experiences....”

tion, the author has treated several patients with refractory (or treatment-resistant) depression since that time, adapting to varying circumstances and requirements the broad protocol followed by Ms. G in the self-management of her symptoms of depression, namely oral dose of 2-3 *Salvia divinorum* leaves (1/2 to 3/4 of a gram of leaf material) three times per week. Prior to the prohibition of *Salvia divinorum* in Australia in June 2002, I had introduced the herb to six additional patients, five of whom have provided valuable feedback regarding their use. I have also had contact with over 20 individuals from around the world who report beneficial effects of this herb in their lives, including relief from depressive symptoms.

Although it is too early to draw definitive conclusions regarding the antidepressant potential of *Salvia divinorum*, initial results are promising, with the majority of patients reporting lasting benefits from their use of this herb. In addition to significantly reduced scores on quantitative measures of depression, some of the reported benefits of the herb include mood enhancement and increased feelings of relaxation and self-awareness. In the case of a severely depressed 24-year old patient, who has since discontinued use of the herb, the use of *Salvia divinorum* over several months stimulated an ongoing interest in meditation and hypnogogic/hypnopompic states. The author has received no reports of any deleterious effects arising from the use of this herb. Only occasional feelings of ‘lightheadedness’ have been reported as a side effect, with some patients also expressing dislike for the bitter flavor of the leaf material.

Among the initial barriers to such work is the lack of availability of *Salvia divinorum* in a standardised form, the relative sparsity of refractory depression cases, the difficulty control-

ling for the possible benefits of self-administered larger doses of the herb, and the apparent differential sensitivity of patients to the herb’s effects. Notably, the emphasis in this work thus far has been largely on patient management, and not on producing results, even if this were possible, commensurate with a clinical trial.

Finally, several patients have reported benefits of a broadly ‘psychospiritual’ quality from their unsanctioned occasional use of larger doses of this herb, incorporating such experiences as loss of body awareness (e.g. becoming numbers, household objects), being present in an alternate reality, ineffability (difficulty describing the experience with words), nature mysticism, and increased intuitive insight (Hanes, 2001). These experiences certainly fall outside the parameters of mainstream mental health practice. However, the personal growth and healing significance of integrating such experiences into the lives of those bearing such symptoms as hopelessness, worthlessness, loss of interest/pleasure in all activities and difficulty finding ‘meaning’ in their lives cannot be underestimated.

Discussion

The use of plant substances for the treatment of depression has a long history in herbal medicine, and herbs such as St John’s Wort are now well recognised treatments for this condition (Linde et al., 1996). Given also that there is an extensive literature supporting the use of psychedelic agents in psychiatric conditions, including depression (see Riedlinger & Riedlinger, 1994 for a review), it would not be surprising that herbs demonstrating short-acting and unique psychoactivity, such as *Salvia divinorum*, may find some application in this broad interface between such disciplines as psychiatry, psy-

chopharmacology and herbal medicine.

In terms of future directions, exploring the effect of this herb on specific receptor and neurobehavioural systems (eg. Ukai, Suzuki & Mamiya, 2002), and its propensity to uncover underlying emotional or psychic conflicts, consistent with its traditional use to detect illness, also merits study. Furthermore, this herb demonstrates a very broad and unique spectrum of psychoactivity, ranging from very mild 'mood-altering effects' to purportedly more profound experiences such as 1) 'becoming objects', suggesting possible overlap with such attainments of yoga practice as 'samadhi' or 'enstasy' (see Eliade, 1969); 2) 'psychospiritual experiences' (Hanes, 2001); and 3) out-of-body experiences (Siebert, 1994). Correspondingly, the future prospects for this herb may extend beyond its clinical use for conditions such as refractory depression toward the unfoldment of human potential (Walsh & Vaughan, 1993; Tart, 1997). ■

References

- Eliade, M. (1969). *Yoga: Immortality and freedom*. Princeton, NJ: Princeton University Press.
- Epling, C, & Jativa-M (1962). A new species of *Salvia* from Mexico. *Botanical Museum Leaflets, Harvard University*, 20: 75-76.
- Hanes, KR. (2001). Antidepressant effects of the herb *Salvia divinorum*. *Journal of Clinical Psychopharmacology*, 21, 634-635.
- Johnson, JB (1939). The elements of Mazatec witchcraft. *Goteborg Ethnografiska Museum Ethnologiska Studier*, 9: 119-149.
- Linde, K, Ramirez, G, Mulrow, CD, Pauls, A, & Weidenhammer, W. (1996). St John's wort for depression – an overview and meta-analysis of randomized clinical trials. *British Medical Journal*, 313: 253-258.
- Ortega A., Blount JF. & Manchand PS (1982). Salvinorin, a new trans-neoclerodane diterpene from *Salvia divinorum* (Labiatae). *Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry*, 2505-2508.
- Ott, J. (1995). Ethnopharmacognosy and human pharmacology of *Salvia divinorum* and salvinorin A. *Curare*, 18: 103-129.
- Riedlinger, TJ & Riedlinger, JE. (1994). Psychedelic and entactogenic drugs in the treatment of depression. *Journal of Psychoactive Drugs*, 26:41-55.
- Roth, BL., Baner, K., Westkaemper, R., Siebert, D., Rice, KC., Steinberg, S., Ernsberger, P., & Rothman, RB. (2002). Salvinorin A: a potent naturally occurring nonnitrogenous {kappa} opioid selective agonist. *Proceedings of the National Academy of Sciences, U.S.A.*, Sept. 3; 99: 11934-11939.
- Siebert, DJ. (1994). *Salvia divinorum* and Salvinorin A: new pharmacologic findings. *Journal of Ethnopharmacology*, 43: 53-56.
- Tart, C. (Ed.) (1997). *Body, mind, spirit: Exploring the parapsychology of spirituality*. Charlottesville, VA: Hampton Roads.
- Ukai, M., Suzuki, M. & Mamiya, T. (2002). Effects of U-50, 488H, a kappa opioid receptor agonist, on the learned helplessness model of depression in mice. *Journal of Neural Transmission*, 109: 1221-1225.
- Valdes, JL III, Diaz JL, Paul AG. (1983). Ethnopharmacology of Ska Maria Pastora (*Salvia divinorum* Epling and Jativa-M). *Journal of Ethnopharmacology*, 7: 287-312.
- Valdes, LJ III, Chang, H-M, Visger, DC, & Koreeda, M (2001). Salvinorin C, a new neoclerodane diterpene from a bioactive fraction of the hallucinogenic mexican mint *Salvia divinorum*. *Organic Letters*, 3: 3935-3937.
- Walsh, R. & Vaughan, F. (Eds.) (1993). *Paths beyond ego: The transpersonal vision*. Los Angeles: J.P. Tarcher.
- Wasson, RG (1962). A new Mexican psychotropic drug from the mint family. *Botanical Museum Leaflets, Harvard University*, 20: 77-84.



PEYOTE POPULATION GENETICS STUDY

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Peyote is becoming scarce in areas of South Texas where it was once abundant. Native American Church (NAC) leaders are finding it increasingly difficult to obtain adequate supplies for their church meetings, and even when they succeed, the peyote buttons are smaller and the price is higher. Why is this happening?

The dwindling of peyote populations is in part attributable to agricultural practices such as rootplowing, which totally annihilates populations of peyote and other plants, and permanently destroys the habitat by converting it into “improved” pasture.

Almost as damaging is improper harvesting by the agents of the peyoteros who are licensed to collect and sell peyote to members of the NAC. “Proper” harvesting means cutting off the consumable crown (or head) of the cactus at ground level, leaving the root intact to sprout one or more “pups” that will grow into new adult crowns over a period of a few years. But some of these contract peyote harvesters are digging whole peyote plants up by the roots, which the peyoteros then cut off and discard (or give to their customers as lagniappe, to be used for making tea). This practice obviously precludes regeneration and any subsequent production from the uprooted plants. Replenishing the dug-up population by seed is also difficult; peyote is an extremely slow-growing species, and it may take a peyote plant ten years from germination to reach a harvestable size under natural conditions.

The harvesting of peyote for illicit use almost certainly occurs, as well, but because it is illegal, it is also unregulated. There are no records to provide quantitative data, so its extent is unknowable.

The other major source of depletion is chronic over-harvesting. Faced with steady to increasing demand for peyote by the NAC, and a decreasing number of ranchers willing to lease peyote harvesting rights, the peyoteros or their agents are returning too soon to harvest peyote from ranches where they harvested previously, without waiting for adequate regrowth to occur from plants that were properly harvested the last time. The visible result of this hurried reharvesting at ever-smaller time intervals is that the peyote buttons offered for sale by the peyoteros have markedly decreased in size in recent years. The more subtle result of this repeated too-frequent harvesting is that eventually the rootstocks of the peyote plants are exhausted, and no further regeneration of new sprouts occurs – the plants simply die.

Is there a solution to this problem in sight? There are as yet no U.S. regulations to



“There are as yet no U.S. regulations to protect peyote as a species, as it does not (yet) meet the criteria of the Endangered Species Act for ‘threatened’ or ‘endangered’ status.”

protect peyote as a species, as it does not (yet) meet the criteria of the Endangered Species Act for “threatened” or “endangered” status. But if the current trend continues, there will inevitably be calls for a regulatory assessment by the U.S. Fish & Wildlife Service (FWS). At that point, the inevitable questions the FWS will ask include:

- What do we know about the number, location, size, and age distribution of peyote populations (in both the U.S. and Mexico)?
- What do we know about the genetic diversity of those populations, and is there a difference in genetic diversity between “healthy” populations and overharvested/decimated ones?
- What do we know about the breeding system of peyote, and what are the implications for recovery of “ailing” populations and for the reintroduction of peyote into its historical habitat from which it has been extirpated?

At our lab at Texas A&M we are currently conducting a population genetics study to address these very questions, using repeating sequences called microsatellites in peyote DNA as genetic markers, and examining representative populations of peyote from all parts of its geographic range. Based on the observation that effective regulations are based on good science, the practical purpose of our study is to have the relevant data already in hand when such data are requested for regulatory decision making.

Donations are needed to complete this study, and can be made through MAPS. Readers interested in the conservation of peyote can learn more about this study by contacting Martin Terry for further details: (254) 746-7968, mterry@mail.bio.tamu.edu. ■

Deep Spirit & Great Heart: Living In Marijuana Consciousness

By Louis Silverstein, Ph.D.

“A first-person account, of thoughtful, healing, sensuous and provocative journeys into the earthly and spiritual aspects of awakened existence and being while under the influence of cannabis sativa. Captured in words by Ganja and given to Louis to be the journal keeper, we read of a plant teacher used to reveal multiple realms of consciousness and to make of life a rapturous experience. Journal entries relating insights into life’s challenges and possibilities and that describe a joyous daily existence, awareness of eternal truths, ecological wakefulness, sexual ecstasy and spiritual enlightenment are to be found as we read of Ganja’s travels into the land of Great Spirit & Deep Heart.

Highly crafted tales of respectful and disciplined use of marijuana reveal ‘heaven’ to be neither destination nor place, but a state of consciousness. Written in such a manner to appeal to both marijuana aficionados and to the general public, it is intended to promote dialogue on the role of marijuana in contemporary culture within the context of divergent and alternative views that serve to take to task the oppressive and dysfunctional ‘Say No Or Say Nothing’ societal dictum imposed by the drug war establishment being essential to the spirit and practice of freedom of expression and enlightened discourse on the subject of mind expansion.”

To Order: www.amazon.com, www.borders.com or www.barnesandnoble.com. Also, the author discusses his work in an online video at <http://www.pot-tv.net/archive/shows/pottvshowse-1771.html>

HOFMANN COLLECTION DATABASE LAUNCHED!

Brandy Doyle (brandy@maps.org)

We are pleased to announce the online launch of the Albert Hofmann Collection, a database of more than four thousand published papers on LSD and psilocybin. As reported in the Summer 2002 Bulletin, MAPS has been collaborating with Erowid to create an online, searchable database of the papers Dr. Hofmann donated to the Albert Hofman Foundation in 1996. These papers were collected by the staff of the Sandoz Pharmaceutical Company during Dr. Hofmann's residence there, and comprise a comprehensive bibliography of LSD and psilocybin research from the mid-1940s to the mid-1970s.

The late Bob Wallace was the primary funder of this project, and thanks to his generosity and the hard work of the Erowid-led team, the database represents a significant contribution to the body of available psychedelic research. These papers have been converted into searchable PDFs, allowing users to find and download the complete articles. While these papers all exist in various libraries around the world, they are now accessible to anyone over the Internet. While some references are listed in Medline, the National Library of Medicine database, Medline generally includes only abstracts, and rarely offers the full text of articles. Also, Medline only references articles from 1966 to the present, so many papers in this collection are now referenced in electronic form for the first time.

Erowid is working to fill in the gaps in the database, creating PDFs of documents that were improperly labeled or otherwise misplaced, making these files fully text-searchable, and adding better scanned and more articles. The original documents have been returned to Dr. Hofmann in Switzerland, where they may eventually be placed in a museum. We were honored to inform Dr. Hofmann of the database launch when we sent him birthday greetings and flowers, to celebrate his 97th birthday on January 11, 2003.

The collection is available on the MAPS website as part of the World Wide Web Psychedelic Bibliography, at <http://www.maps.org/wwwpb>. You can choose to search just the Albert Hofmann Collection or search all the databases included in the bibliography. On the Erowid website, the collection is at http://www.erowid.org/references/hofmann_collection.php. ■

Signed books available

Dr. Albert Hofmann and translator Jonathan Ott have signed a limited number of hardcover, English-language editions of Dr. Hofmann's *LSD: My Problem Child*. While these books are not new (1980), this is presently the only edition available in English. Books are available for \$100, plus \$15 for taxes and shipping. To order, send check to:

Nachtschatten Verlag
Roger Ligenstorfer
Kronengasse 11
CH-4502 Solothurn

Or write to info@nachtschatten.ch or call +41 32 621 89 49.

NEW LSD RESEARCH: GENE EXPRESSION WITHIN THE MAMMALIAN BRAIN



*James K. Thornton, Executive Director,
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As readers of this magazine will know, Bob Wallace, a great friend and a pivotal Heffter board member, died not long ago. One project of particular interest to Bob, and which shows how perceptive he was, is a new-technology LSD research program at Vanderbilt University.

Why did this research intrigue Bob? Despite research over the past 30 years, the mechanism of action of hallucinogenic drugs remains largely mysterious. Studies have focused primarily on how the drugs affect neurotransmitters. A team of researchers at Vanderbilt University—Drs. Charles D. Nichols and Elaine Sanders-Bush—has now for the first time used state-of-the-art functional genomic and molecular methods to investigate the brain's genetic response to LSD.

Heffter and the National Institutes of Health (NIH) jointly funded the work, and we are happy that this is the second time we have collaborated in funding a research project on hallucinogens with NIH. On a more personal note, Dr. Charles D. Nichols is the son of Heffter Board President Dr. Dave Nichols, and it is very pleasing to be able to report on the work of a second-generation neuroscientist studying LSD.

Genes are most familiar as the repositories of instructions that our sex cells carry so that they can build the next generation of human beings. But genes do a great deal more than that. They code for and control the myriad chemical functions that the body is carrying out in every cell all the time. It is the genes that switch on and off the cellular processes that ultimately control life and consciousness. Genomic technologies allow investigators to see for the first time how genes behave in response to a given molecule, allowing a new level of delicacy in understanding how cells function.

The investigators began by questioning whether some behaviors elicited by hallucinogens result from temporary changes in gene expression in the brain. After giving LSD to one group of rats, they extracted the expressed RNA (the molecules made from turned-on genes) from the brains of the LSD rats and from control rats. They compared the differences by analyzing the sample with the powerful technology of DNA microarrays—small glass slides, about thumbnail sized, that have about ten thousand gene sequences printed onto them using actual DNA. Each of these sequences represents a unique gene. The researchers have now screened two chips, which taken together represent some 15,000 expressed genes. Because the predicted number of genes in a human is only 30-40,000, these two gene “chips” may represent nearly half of the total genome!

Results to date show that LSD induces expression changes in a relatively small but important collection of genes. Many of these genes influence the way neurons change physically to alter functional abilities in the brain. At least one of the genes is involved in the process of growth and differentiation of various cell types, and has been shown to be necessary for memory consolidation. A common theme of many of the genes regulated by LSD is the process of synaptic plasticity. The genes that LSD affects may thus play an important role in learning and the storage of memories.

Genomic research opens a new frontier in understanding how hallucinogens work in the brain. And by combining the results of the gene studies with current signal transduction mechanisms, electrophysiology, and behavioral experiments, we may finally begin to grasp the larger picture of how the effects of hallucinogens are produced in the brain at the molecular level. This will in turn help us understand the physical substrate of behavior and cognition. ■

INTERVIEW WITH LARRY HAGMAN: STAR OF *DALLAS* AND *I DREAM OF JEANNIE*

Rick Doblin, Ph.D.

Rick Doblin (RD): I found out about your autobiography [*Hello Darlin': Tall (And Absolutely True) Tales About My Life* by Larry Hagman with Todd Gold] after my mother-in-law sent me a book review, which mentioned your experiences with LSD. When you wrote the book, what thoughts did you have about whether or not to include those stories?

Larry Hagman (LH): There was never any thought of not including it. LSD was such a profound experience in my life that it changed my pattern of life and my way of thinking and I could not exclude it. I didn't write the book to sell the book, but to tell my experiences.

RD: Did you have anybody advise you not to put that in, that it might hurt your reputation?

LH: No, not at all.

RD: Has it influenced your reputation?

LH: I'd say it probably has. Now people can dump me in that big ashcan of Hollywood kooks, instead of someone who's experimenting with self-awareness. Now they can brush me off as one of those people who are not like them. And I'm not. Again, of course we know I am one of them as they are me.

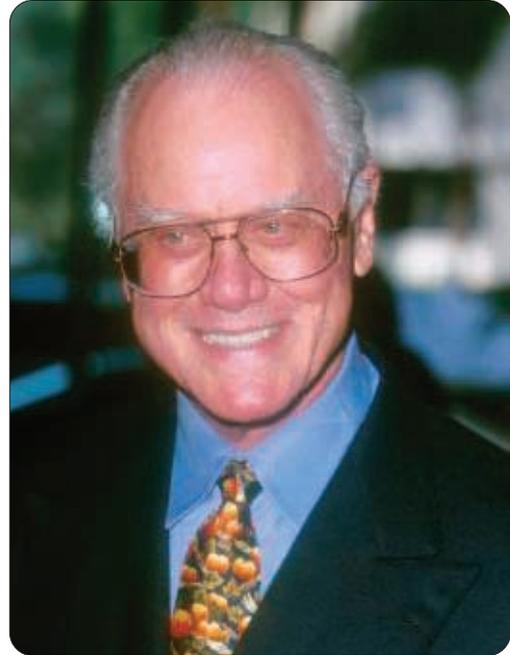
RD: Would it be fair to say that you don't regret putting that in the book?

LH: Not so far. I'm sure I will when they haul me off to jail for something I did over 30 years ago.

RD: Had you thought about talking about it at earlier stages in your career?

LH: It's never bothered me. I've always talked about it, though I haven't talked about it on Larry King or any of those kinds of things. Actually, in a way I did. I alluded to it when I was on his show talking about having an out-of-body experience and a white-light experience. I didn't say LSD, but anybody who had the experience could see that it was exactly what I was talking about.

RD: Near the end of your book, you talked about an experience after your transplant and said that "on medication, I was able to blend into the bigger picture, the way I had done on my first acid



trip.” Earlier in the book, you wrote about your first LSD experience and said “more than anything else, the experience changed my way of looking at life and death.”

LH: Especially death... Here’s a bit of my history. Before I tried LSD, I’d been going to a psychologist for a couple of years. I found out about success that you have to fight for it a lot, then when you achieve it you can’t give up the fight. I was kind of like flogging a dead horse. I’d achieved what I wanted to and didn’t know how to stop. I had been addicted to tobacco and Bontril, a mild form of amphetamine, doctor-prescribed of course. I’d come out here to California and run out of my prescription. I went in to have it refilled and they said, well, we can’t do that until you get a doctor’s prescription, which I got, and they gave it to me. On the bottle it said, Caution, this medication may become habit forming. I thought that’s a lot of shit, I’ve been taking it every day for five years for weight control for crying out loud. It never occurred to me that I was addicted to something like that. Well, I decided to stop. And I did. I stopped smoking, and I stopped speed at the same time. My body and my psyche said, What the fuck’s going on here? We can’t do this without punishing you. I was having spells of anger and depression, like you go through when you quit smoking. Quitting those two drugs put me in a state when one day, on the set, I started crying and I started shitting and my nose was running, ear wax was coming out, I was like exploding, or imploding, and every kind of impurity in my body was leaving my body. They threw me in the back of a pickup truck because nobody wanted to put me in their car.

They didn’t want to touch me because I was just covered in excrement, and I mean just everything. They took me to a friend of mine’s

psychologist, Sidney Prince, a wonderful guy. He cleaned me up, I took a shower, and he sat me down and said, What’s the problem? I said I honestly don’t know. It just never occurred to me that withdrawal was causing this stuff. I didn’t know anything about drugs. I had smoked marijuana before that, but that was the only drug I had been familiar with, except tobacco and alcohol of course. We had a good couple of hours session and I had gotten a lot of stuff out. At the end of that session, he said he

wanted to tell me something and that I might not agree with him, but one of these days I might. I said, God, what is it? Give me

“I think you need some sort of catalyst...I think you ought to drop acid.”

the answer. He says, Don’t worry about it. It was such a simple statement and so profound that I just kind of dismissed it as a panacea. Don’t worry about it. Sure, don’t worry. Don’t worry about it. Here I am at the height of my success at that time making a lot of money. Then he also said, Well, look at it this way. You’re in a golden prison and they let you out on weekends, and you go home to Malibu and you swim and play with your children. And then on Monday through Friday you’re in this golden prison where everybody loves you and takes care of you and admires you and nurtures you. That’s not so bad. I didn’t get the picture. It took me a couple of years. He was dead right of course. I mean when you look at the suffering around the world and here was this rich asshole who was having problems.

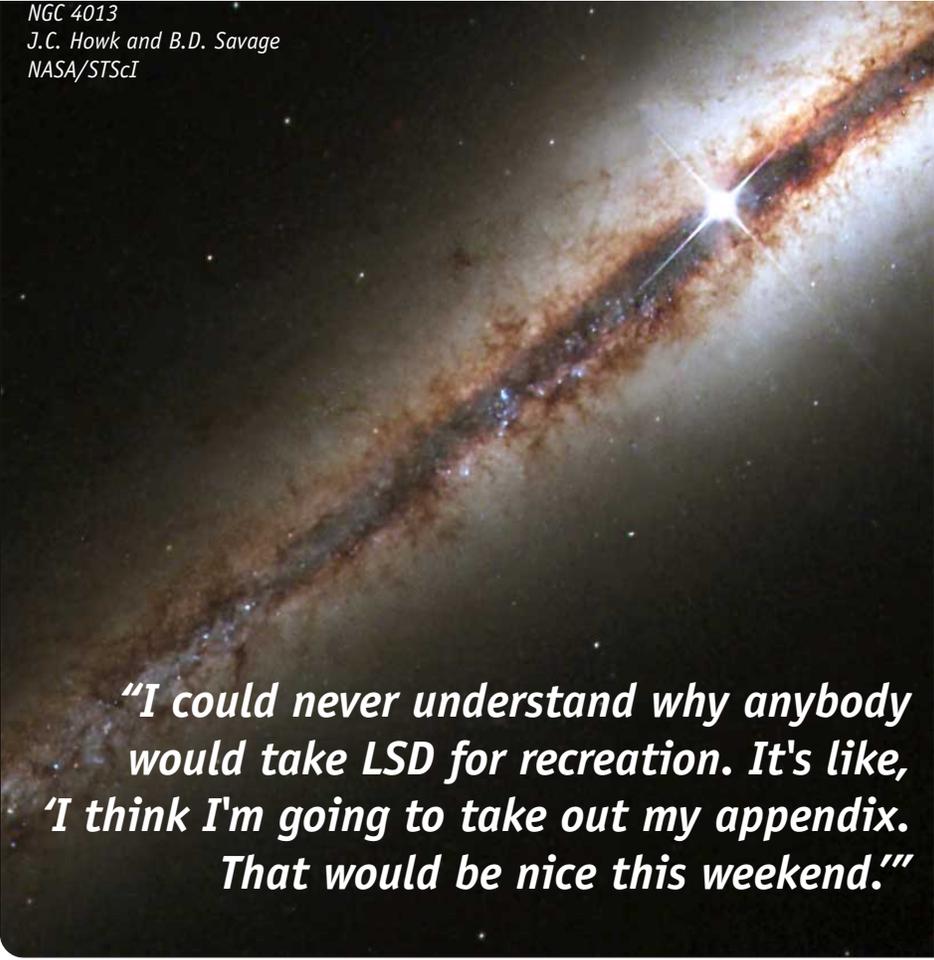
I did successfully kick tobacco at the age of 34. I smoked for like 20 years, from 14 to 34. Then I kind of reached a point where I was pretty happy with everything. So Sidney asked me how much further did I want to go with this? He said, Larry, you’ve gotten to a point now where you’re repeating yourself and you know you’re lying about a lot of stuff, lying through just not telling me. I said, yeah, you’re right, there are a

lot of things. I didn't regress into my childhood much. I didn't know that much about it or care. He said, I think you need some sort of catalyst to get your psyche jogged so you can start looking at other facets of yourself in your past and your future. So I said, well, how do we do that? He said, I think you ought to drop acid. Oh, no shit. I don't know. That's pretty heavy stuff. It was demonized in those days, as it is today.

Anyhow, I started looking for it. I was backstage at a performance one time with Crosby, Stills & Nash and I was talking about it to David Crosby. David said, well, shit, man, here. He handed me a handful of little pills. I said what the fuck? He says this is LSD. It was the best going around at that time. This was before Blue Cheer and Windowpane. This was the original Owsley. He gave me about 25 pills. I said, well, how much should I take? He says, well, don't take more than one. [LAUGHTER] So I started. I found a friend of mine who'd been through several, perhaps too many, LSD experiences and I asked him to take me through it.

RD: What do you mean perhaps too many?

LH: He was neurotic to begin with and he was certainly much more neurotic after two or three hundred times. He took LSD too frequently and too many on top of each other, and often too much for recreation. I could never understand why anybody would take LSD for recreation. It's like, I think I'm going to take out my appendix. That would be nice this weekend. [LAUGHTER] So we went and I got comfortable. Maj [his wife] was in the room and I was sitting on the floor in a brown robe that she had made for me. I dropped this acid, the tiniest little pill. I fasted



"I could never understand why anybody would take LSD for recreation. It's like, 'I think I'm going to take out my appendix. That would be nice this weekend.'"

for a day before so I was fairly pure, because that was what you were supposed to do. I also had read a book called *The Joyous Cosmology* by Alan Watts, which I didn't understand a word of but I forced my way through it. I had also tried to read the *Tibetan Book of the Dead*, which at that time was recommended, which I also had no inkling of what it was about. I had absorbed that about a month before this in preparation for the trip. I was sitting there and all of a sudden I felt this vibration in the area between my pubic bone and my pelvis. It was a shock. I couldn't figure out what that was, because it was, [NOISE] but it didn't stop because you ran out of breath. I mean it just went [NOISE], and I'm thinking, wow, have I poisoned myself? Then finally it went up into my psyche and I found myself looking at the most ferocious kind of a griffin lion on one side that had feathers instead of fur, and on the other was this humungous octopus. I'm thinking, oh, my God, what is this? There was kind of an open entrance to a cave. I was really scared. My friend

said, just go with it. Don't fight it, don't pull away from it and if it's a wonderful experience don't try to grab it and keep it because it will disappear and leave you. I couldn't understand what he was talking about. I looked up to my left, about eight feet in the air right up against the ceiling was sitting my grandmother in the same robe. I mean exactly the same robe. She's communicating with me, not verbally but she's looking down at me very benignly. She was so sweet and so kind and supportive. She was telling me not to fear the portal, not to worry about it, not to care whether I went in it or not, not to fight being pulled into it, and not to hold onto a pleasurable experience down the line. She made me relax, and I went [NOISE] through this tunnel. Sure enough at the end was this brilliant

white light. I got to the end of it and I kind of stepped out into this wonderful light that was warm. It felt like blood, you know, it felt like body temperature. It was the perfect place. There was a figure, kind of a presence there saying something like how are you feeling? Are you feeling OK? I said, yeah, everything's wonderful. I got this great feeling of love and oneness with everything. I had seen the Aurora Borealis one time, and I had the feeling that it was made up of atomic particles and electrons and magnetism, and there were these waves of brilliant light and beauty, and I became part of that. I felt that it was so natural, so familiar like I'd always been there. It wasn't anything new. It was just coming home.

Then the presence kind of said, OK, you've had a glimpse of this. I don't really know what it said, it was this inner feeling. It said, that's all for now, but you're familiar with it. You know where you've been. I went out sitting in front of

“My grandmother was telling me not to fear the portal, not to worry about it, not to care whether I went in it or not, not to fight being pulled in it, not to hold on to a pleasurable experience....”

this cave opening that was closed up and there weren't any more horrible animals and figures. My grandmother was still there and she just looked down at me and kind of nodded and just kind of faded away. Well, it was the most impressive thing that ever happened to me. I'd read about people having religious experiences and that would be my religious experience. I don't like the use of the word religious, because religions have been handled by too many interpretations, too many corruptions. It was like the basic teachings of the universe, of the oneness of the universe. Then I started getting up and wandering around, and I was really very strong. I mean I was invincible. My friend gave me an orange and I peeled the orange, and as I was peeling it I could see it moving like maggots un-

derneath my fingers. I could see that it was dying, it wasn't replacing itself. In other words, it wasn't rejuvenating itself or regenerating itself. It was a piece of dead flesh, but it was moving all the time in my hands, moving. Then I looked up in the mirror, which was a big mistake, and I saw that my face was doing the same thing only it was dying and regenerating itself. All the skin was sloughing off, not down to the skeleton or anything like that, but it was just like it was dying and being reborn. In other words, the cellular structure was not dead like the orange. It was rejuvenating itself. It was moving very well. I had to take a few breaths because it was a new experience to see yourself dying, literally dying. Then all of a sudden I felt that the whole experience had been of dying, and it was wonderful. I don't know how you put it scientifically – loss of ego, loss of self, combining with everything, being part of everything, being part of the mirror, being part of

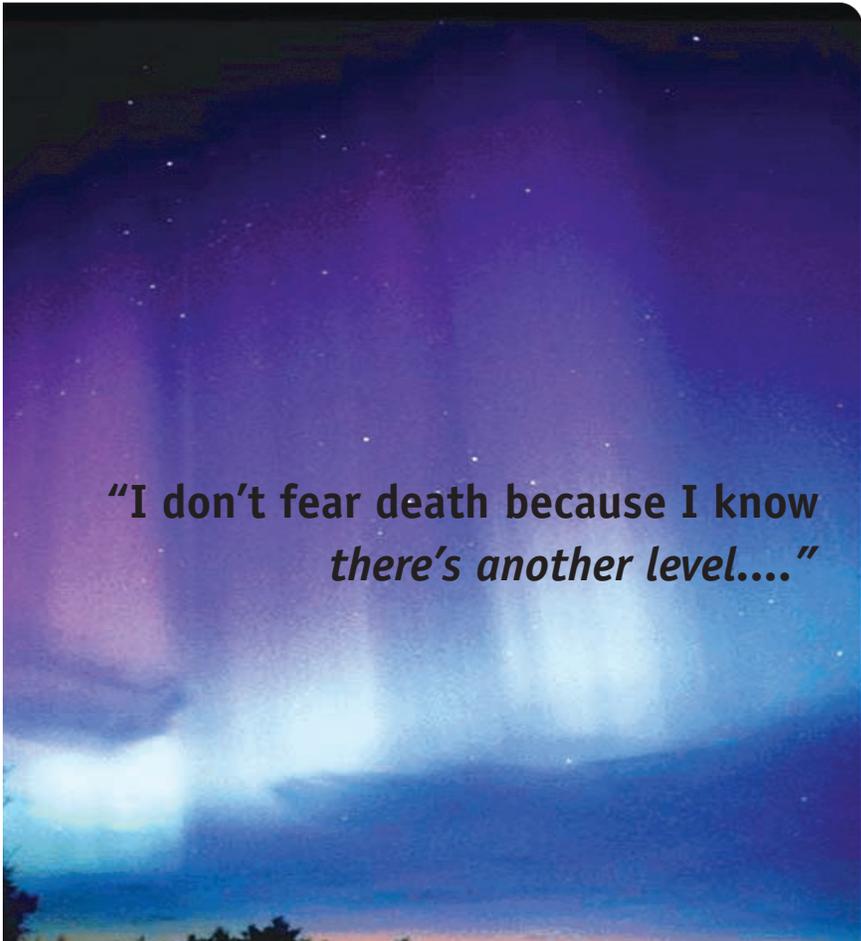
the woodwork and being part of the air. It was the most familiar feeling I've ever had. Then my friend and I got in a car and he gave me a 16-millimeter camera and we went around Santa Monica and Beverly Hills, him driving and me looking at people. It also had a zoom on it, and I could zoom into people's eyeballs with this thing. I could see what they were thinking, I could read their thoughts, I could anticipate their moves. It was a very psychic experience. Then I was them, I could anticipate what they were doing even before they did it. Well, that was kind of a wonderful experience, too, and disturbing in the sense that I could see a lot of sadness. Then I went home and I didn't eat that day. I just wasn't hungry. My solar plexus and my pubic area, I mean that chakra was just exhausted. I can't remember ever being so tired without physically being tired from exercise. Then I had three months of introspection, I guess that was what it was, trying to analyze what I'd been through. Of course I told everybody and I became the prognosticator. I was the guy who said the world's got to do this. It'll save the

world. Of course, that was what was going on in those years, the decade of love, with so many people going through those experiences and transferring them onto other people and trading off on them and wanting to include everybody because it was a gift. I'm sure it was Jesus or Mohammed or Buddha, those people who had this gift and they wanted to give it to people and they couldn't stop themselves. Well, of course I told some wrong people, including my bosses and so forth. [LAUGHTER] They were another generation, like 20 years older than I, and of course it made them scared of me. It made them feel like I was generating that light you get in your eyes when you're out there, proselytizing. I was kind of naïve at the time, too.

In essence, next to being born which I don't remember at all (I mean I suppose I could trace it back if I were to try), my first acid trip was the most illuminating experience of my life. I would highly recommend it for people who study and prepare for it and who are not neurotic or psychotic. I don't know what it would do to psychotic people. I know what it does to neurotic people who can't handle that. They get terrified and do crazy things like jumping out of windows and stuff like that. That's happened to a couple of friends of mine.

RD: Now that you've had all these years to look back on it, does it still seem like a valid experience? Have you been tempted to dismiss it as an aberration or a mental illness?

LH: No. Fuck no. I took it three times after my first experience. None of them were of that intensity, but it did bring me back to the place. The whole thing was so familiar that I know I've been there before many times, maybe in reincarnation, which I don't particularly believe in because nobody's ever convinced me that it's possible. But I cer-



**"I don't fear death because I know
there's another level...."**

tainly knew that I had reached a level that was familiar to me, and that the next level of existence and awareness is not necessarily the only. There could be trillions. There could be infinite levels of these types of experiences. For one

“Just now, when I was telling you about the experience, I was there. I was absolutely there emotionally, physically. It was very moving.”

thing, the experience was of ultimate love, of ultimate oneness, of ultimate understanding of nature. There was still a sense of discovery at the same time, but the love was so familiar. That didn't happen on the same level on the other three occasions because I had taken it with someone else. Well, to tell you the truth, my wife, I took her through her first experience. She had exactly the same thing, so we had something to compare it to. Then we took it together a couple of times after that. It was never sensual, although it is the ultimate sensuality. It was never a sexual thing. I've never gotten into that. I was 34 and I was old enough not to have been drawn into the fun and games that many people experienced. I never found it to be fun and games. I found it to be enlightening and mind expanding. It does take a toll, because it takes some time for me to digest that experience. Just now, when I was telling you about the experience, I was there. I was absolutely there emotionally, physically. It was very moving.

RD: What's amazing to me is that it is so vivid in your memory. Is there anything from that same period of time that is as imprinted?

LH: Well, of course the Vietnam war. There was always that trauma of the war. I always felt guilty that I had not been more vocal about it. I was

playing an astronaut in the United States Air Force, and they were always asking me to go to Vietnam and entertain the troops. I couldn't do it. We went down to a location at Coco Beach in Florida where the launches eventually started, and they wanted me to wear a Major's Air Force uniform like the one I was wearing in *I Dream of Jeannie*. I couldn't do it. I had made a dark, dark blue navy suit and I had an enameled dove that I had gotten, a little dove. I wore that to the Officer's Club at Cocoa Beach. Well, boy, talk about naïve. I had a woman come up to me at the bar and say, what are you wearing? I said a peace dove. She says, you son of a bitch, my husband's over there (and he was eventually killed in Vietnam), and he's giving his life and his family for you, to protect you from the commies. You come into this place, you cocksucker... And they had to kind of drag that poor woman off. I've never been confronted quite like that before. Of course she was absolutely right. I should have worn a nice dark blue suit and shut my fucking mouth and played the game, but I didn't do that. But that was about the only protest that I made, because I was scared like everybody else. I was scared like everybody is now.

Anyhow, that whole period of time was my psychedelic time. I also experimented with mushrooms and peyote once, never again.

RD: Because of the vomiting?

LH: No. I did it in Santa Fe, New Mexico, with an Indian, an old man. He says come and have one of our religious meetings. I said sure. I didn't know it was peyote. I didn't know what he was talking about. So I went out there. I was interested in religion and everything of that sort. I went to this old Quonset hut, and there were about eight Indian boys there and a couple of guys my age who were familiar with it and this old shaman. His name was Tellus Goodmorning. He had an empty can and a coffee can full of peyote beans or buttons and a

“I became this kind of warrior bird like a hawk, only it had fur instead of feathers on it...not bird claws but animal claws like dog feet or wolf feet....Then I took off and flew around and I flew right through the walls of the Quonset hut....Then I got back to earth and went through a series of things where I found my song, I found myself.”



can of water. He says, you're going to eat these peyote buttons slowly and chew them and they will not taste good. Boy, was he ever right. They were slimy and really awful. I said to myself, what the fuck am I doing this for? Well, I got about half of them down. They were big and I got sick like I've never been sick before, but as I was being sick it was like purifying my body. I could feel things going from my fingertips, bad things going all over my body and in through my bowels and up through my vomit and into this empty can. Then I had tremendous thirst, so I would drink the water and then vomit, then eat some more buttons and vomit. I was doing what I was told and I was starting to have an interesting experience. I became this kind of warrior bird like a hawk only it had fur instead of feathers on it. I'm looking down at my feet, which are like animal claws, not bird claws but animal claws like dog feet or wolf feet. Then I took off and flew around and I flew right through the walls of the Quonset hut. I was flying around and looking down and seeing through the walls and seeing the Indian boys freaking out. I mean they thought they were going to go and get drunk or sniff gasoline or something. Their entire orientation was just suddenly – there wasn't any

orientation. I thought they it might have been prepared better by the shaman. Well, anyhow a couple of them had to be taken to the hospital and the other boys were like, I mean screaming and crying and having a terrible, terrible time. I flew around, and I flew around the mountains up there looking down. Everything was like sunlight, but not sunlight. Everything was not bright but seeable and beautiful. Oh, my God, I could actually fly, I mean the feeling of being able to fly. I'm sure you've done it in dreams, it was just almost sexual. Then I got back to earth and went through a series of things where I found my song, I found myself. That gave me something to hold onto in real life when I had my transplant. After the transplant I was disoriented and so forth, and I was drugged with morphine and all kinds of things. I found my song again, which helped me get through those times. It was a wonderful experience, not that I've ever wanted to do that again. I wouldn't want to do it. It was too, too, I don't know. It wasn't as good as the LSD experience or any of the mushroom experiences.

RD: I've had experience with a fair amount of pure mescaline, which has a lot of warm body energy without the nausea.

LH: Oh God, energy. All of these experiences are accompanied by tremendous physical power. That's why you often find yourself bruised and knocked about afterward, because you do things you wouldn't normally do. Your brain says don't jump off that tower, don't jump off the second story building because you can. Well, some people jump from a little too high.

RD: Can you describe the song more?

LH: Oh, I can even sing it. The lyrics I can't sing, but the song is about ancient things, ancient animals that were ancient before man was here. It was before man knew what to do with himself. It was all kinds of animals that I'd never seen before. And it goes [HUMMING]. That man, Tellus Goodmorning was a great shaman. He took a lot of people through that ceremony, and he was my mentor. When I'm in trouble I think of this old Indian as one of my life mentors.

RD: Can you understand in a way how he could be in touch with such spiritual power and yet still be a drunk?

LH: I don't know. I met Alan Watts one time up at Esalen. I wondered in there with my son. We went on a father-son trek up to San Francisco and on the way back down I stopped at Esalen. I'd been there once before with my wife, when Alan Watts was there. I thought that this guy was brilliant. I'd never heard anybody talk about Zen, nor did I know anything about it. It was a very nice experience meeting him, actually getting to know him, and bathing in the hot springs with him. It was really a great experience. Then a couple of years later he came down to Malibu and a friend of mine wanted Watts to take him through the LSD experience, which he did. Well, I was all psyched up to see him again. I had my engineer Bill outfit, which is striped overalls, striped coat and an engineer drill hat. It was

one of those periods of time. It had peace doves all over it and feathers. I was going to make an impression. I thought that that was the cat's meow, and it was. I felt good in it. So Alan Watts comes in and he sits down at the bar and he says, "I'd like a very strong gin martini, thank you very much," and proceeded to drink about five of them and was absolutely gone. Here was another mentor of mine. Oh, by the way, after

"That man, Tellus Goodmorning, was a great shaman. He took a lot of people through that ceremony, and he was my mentor."

the LSD experience I totally understood what his book was about, *The Joyous Cosmology*, because it was so much fun even though it was scary. It was so illuminating and so fun. It was a joyous cosmology that we live in that's available to us at all times. [LAUGHTER] Then I thought, oh God, here's this guy coming to take this guy through a spiritual experience and gets shit-faced the first minute he walks through the door. I thought that was kind of interesting. I don't know. People do strange and exotic things. In a conversation I had with him one time I asked him how would he like his room to be? He said "I'd like to be in a room, a teak wood room, ancient, ancient boards and ancient cupboards. I'd like to crawl all over the room with drawers with all kinds of spices and smells and sights and drugs in them," you know, everything available to mankind that was known at the time and some that weren't. He says that's my room. That's not too shabby. I wouldn't mind that myself. [LAUGHTER]

RD: You mentioned going to Esalen with your son to expose him to some of these ideas and doing LSD with Maj. One of the main motivations and rationalizations for the war on drugs is to protect the kids. I'm wondering how did you educate your kids, how did you share these experiences with them? Or, did you even?

LH: Well, we didn't make any bones about smoking pot or anything like that. We always did it in front of them, especially when we'd go camping. I never really thought about it much.

RD: Did you feel that it would be worse to try to hide it from them?

LH: Of course it is.

RD: Virtually none of my friends who smoke pot will do that in front of their kids.

LH: I know, and their kids are smoking pot and they didn't want to do it in front of their parents. You know, really, that's too bad because it is a wonderful experience to have that closeness that you achieve there, from those kind of herbs.

RD: It's also a way to educate kids about appropriate and responsible use.

LH: Of course.

RD: What about your grandkids? Have you spoken to them about drugs or have they asked you about the LSD?

LH: Well, I have spoken about it to my 17-year-old granddaughter. I've asked her if she smoked pot and she says she hasn't. She's been heavy into volleyball and I think that's one thing to keep kids off drugs. I don't think anybody under the age of 35 should do anything until they've got a certain mindset and they've got as much education as they can.

RD: Well, now you're talking just like Jewish mysticism, because the idea is that you don't

even deal with mysticism until you're 40. That's the tradition.

LH: Really?

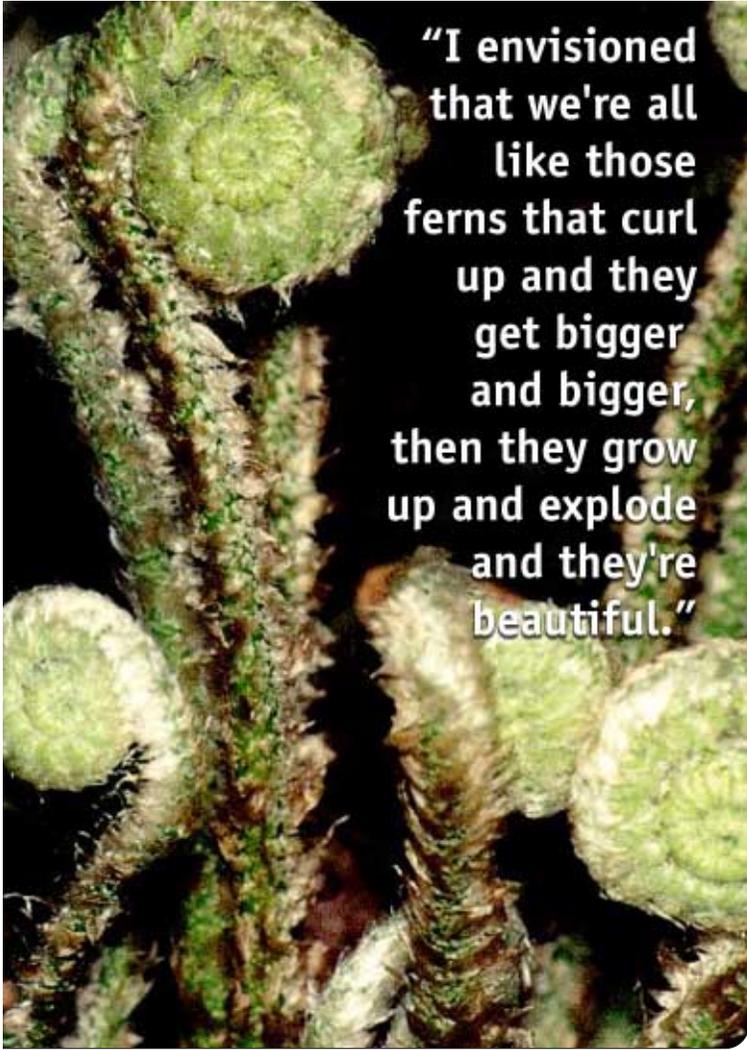
RD: But if you look at the Native American Church culture, if you look at the cultures that use ayahuasca, they don't have age limits on drugs. They invite their kids to the ceremonies and their kids learn a certain kind of respect and that there's a time and a place for it. They also offer them small amounts if they're

interested in it. I think the cultures that have successfully integrated psychedelics in particular, the young grow up in it. If they're called to it, they try it; if they aren't, they don't.

LH: How about the technological influence? It seems we're talking about a pretty primitive culture, in the sense of technology. Perhaps in a religious sense or from the psychic sense and a metaphysical sense, they might be long beyond us. But they don't also have the pressures of music, cars, and television, films, dancing, sounds and interaction with complicated cultures.

RD: In Brazil, the ayahuasca religion has moved out of the jungles into middle-class, upper class society. That's one of the reasons why it was able to be declared legal in Brazil, because there were some advocates there who had mainstream connections like physicians and lawyers. Our technological culture is different than the native cultures but I think we do have some examples where young people are brought up

"I was about 34 when I first smoked marijuana...I remember my best friend offering me the joint and I went home and I burst into tears. I said, my best friend's a junkie. I swear to God, because that's the way people were taught."



"I envisioned that we're all like those ferns that curl up and they get bigger and bigger, then they grow up and explode and they're beautiful."

*Fiddlehead Ferns
W. Carl Taylor*

swear to God, because that's the way people were taught. I just felt that that was the worst thing you could possibly do. I mean, that was like heroin.

RD: Well, since some adolescents and college students will be reading this interview what would you like to say to people of that age?

LH: Well, the people of that age, what culture are we talking about? American, [LAUGHTER] Black American? Hispanic American? White American? Jewish American? Presbyterian? Catholic? I mean, there are so many different societal levels out there. I can't relate to rap; I just can't. It seems to me a language of rage and hate. Yet I've read some of the lyrics and it's not all that way. It could be very sensitive observations of social behavior and the pressures of the other social behaviors that make them what they are. But I cannot identify with tattoos and piercing and self-mutilation. Yet that's a big part of our culture now.

Well, I've never been in a forum where I could comfortably converse like that about drugs. I mean, I am 71 years old, for God's sake. I'm an old fart. But I meet people much younger than me who are really old farts and they're just cast in concrete. There's no out for them. I feel sorry for them. But then again, I also meet people who drop acid daily and take cocaine and I think they're destroying their mind. I'd love to talk to college-age kids and high school kids. But I'd have to do it in person.

RD: You do so much for the American Cancer Society. What's your view on how tobacco should be handled in our society?

LH: Well, obviously, making things illegal does not do anything. RJ Reynolds will set up in Mexico, Brazil or something like that and somehow get the tobacco to you. They tried it with alcohol. There was a living experience that outlawing something doesn't work. It made people

within a context that accepts psychedelics, where adults are not prevented from talking to kids about it and they don't feel embarrassed about it and that somehow they're crossing a line. A great detriment of our society is that those adults who are responsible users feel intimidated about sharing any information about it with young people so we perpetuate this silence, with parents hiding it from their kids, kids hiding it from their parents. You said people should wait until they're 35 or so. But the other part is this is the idea of rites of passage and of adolescents trying to figure out where they belong in the world.

LH: Well, I only said that because I was about 34 when I first smoked marijuana. I didn't know what it was about and that it was always illegal. I remember my best friend offering me the joint and I went home and I burst into tears. I said, my best friend's a junkie. [LAUGHTER] I

drink more, made them more aware of it. It increased the excitement of it and, of course, alcohol is violence-making. Tobacco, of course, just plain old kills you, slowly and painfully. Outlawing those things doesn't work. Education, I guess, is the only way to do it. I'm also an advocate for drug courts, which gives your 18 year-old daughter a choice not to have to go prison for two years for getting caught with an ounce and a half of marijuana. It gives her a chance to go and clean up her act and take drug testing and pay for it herself and walk away after six months or a year, or two years, or whatever it takes. Drug Court gives them a choice, gives them some sort of out.

RD: I'm still curious about how LSD helped you reduce the fear of death.

LH: Totally, absolutely gone from my life, at this stage. I don't know what it's gonna be when that moment comes. You can't ever predict that, but I don't fear it now. I do fear pain and immobilization and all the things that go with being old, but I don't fear death, because I know there's another level. I've been there. I've been there twice. The other time was my transplant, when I went through a slightly different way. I had the out-of-body experience, looking down at myself, floating, and I could hear everybody's conversation and I knew what was going on and I could see them and me, wide open down there and then I went into that next level, that warm, familiar love level and didn't worry about it again. I mean, it was wonderful. And there was one extra thing in that particular out-of-body experience, psychic experience, that I envisioned – that we're all like those ferns that curl up and they get bigger and bigger and bigger and they grow up and then they explode, you know, and they're beautiful? I envision us as all of that and all of the life force that we have. It was kind of a mixture of animistic and soul and we are all of that, everything with soul, in there, inside where we have

blooming guts and so forth inside of us. We're growing all the time. And that pulse went along with my song, which was a pulse, da-da-da-da-na, da-da-da-da. And this thing would explode and the life force like sperm would come out of that explosion and then it'd wrap back up again and I'd get the song going and it would pulse and pulse and pulse and pulse and pulse and then, boom! Spread our seed through the universe. Woo! Boy! That was different. You ever had anything like that?

RD: Not just like that, no.

LH: The pulsating and the striving to spread our seed, the striving for survival of existence of our genes, whatever it is. Oh, God! That was tremendous! It was sexual, a real sexual experience and there I was, lying wide open. I could see myself having that experience at the same time. It was very odd and very, kind of comforting, in a way, to have a new experience, one I had never even envisioned before, that we were animal, vegetable and the desire and the strength and the striving to survive was always there, in us. That wears you out! Boy! The human race, unless we totally destroy ourselves, which isn't quite imminent, might possibly become, already is a strong, strong pulse in the universe. God help us, I think, actually, somebody knows that we're fucking up down here. We're so infinitesimal in the whole scheme, in the universe. If you look out there and you see hundreds of bil-

“Death and LSD go hand and glove....”

ions and trillions of stars with systems as big as our whole Milky Way, it's just infinite, I guess. Could there be a finite end? I think that death and LSD go hand and glove. If you have a large chance of having an enlightening, life-enhancing experience, or making death easier for you, even enjoyable and something to look forward to, what's wrong with that? ■

PSYCHEDELICS IN PARADISE: MIND STATES – JAMAICA

Brandy Doyle (brandy@maps.org)

With a crowd of about 80 people, Mind States: Jamaica was a relaxed and intimate event, participants and speakers mingling and discussing consciousness in a lush resort setting.

This friendly environment made it a pleasure to represent MAPS at the conference, held in Negril October 1-6, 2002. The event was the third Mind States conference organized by Jon Hanna. Like the other Mind States events, the conference had an intensive seminar schedule, with our days filled with lectures from some of the most interesting speakers in the psychedelic community.

Some of these talks were primarily informative, like ethnopharmacologist Jonathan Ott's discussion on shamanic snuffs and chemist Sasha Shulgin's report on his recent research with psychoactive cacti. Others, like Mark Pesce's "Bios and Logos," were more abstract. This was a broad-ranging muse on consciousness development, predicting future trends and providing new insight into some of Terence

McKenna's work. I was particularly fascinated with a discussion by Earth and Fire, of the Erowid website, on theoretical aspects of working with drug information, and the potential for creating a grassroots peer review process. Richard Glen Boire, of the Center for Cognitive Liberty and Ethics, talked about drug prohibition and other aspects of control culture in the U.S.

One of my favorite talks was Ann Shulgin's "Psychedelics and the Shadow," about facing the dark side of the psyche in psychedelic therapy.

Another highlight for everyone was visionary artist's Alex Grey's hands-on workshop, as well as his review of his own works and career. Other creative experiences included Stephen Kent's didgeridoo performance and workshop and Jon Hanna's video presentation on psychedelics and animation.

In breaks from our busy schedule, participants enjoyed the tourist offerings of Negril, attending a beachside reggae party, taking a glass bottom boat ride, shopping, and snorkeling. Negril is known for its sunsets, which were spectacular.

While most of the talks were fascinating, for me the best part was the chance to meet new people in the psychedelic community. There were 21 MAPS members present, including the speakers and staff, and I was able to meet most of them. Several other folks joined MAPS during the week. I was also very excited to meet the winners of the Mind States/MAPS raffle, which paid for three lucky people to attend the conference. Of the 221 entries, the winners were Jason Richard, of Austin, Minnesota, Bill Freimuth, of Los Angeles, California, and Chuck Hughes, of Tempe, Arizona.

If you missed this event, you're not too late for Mind States IV: Continuing Perspectives on Altered Consciousness, which will be held in Berkeley, CA, May 23-25, 2003. For more info or to register, go to <http://www.mindstates.org>. ■

"If you missed this event, you're not too late for Mind States IV: Continuing Perspectives on Altered Consciousness, which will be held in Berkeley, California, May 23-25, 2003."

GROUND CENTRAL STATION AT THE BOOM FESTIVAL: CREATING A SAFE SPACE FOR WORKING WITH PSYCHEDELIC CRISES

Sandra Karpetas, Higher Knowledge Network (windforme@graffiti.net)

Over the last few years, there have been ever-increasing numbers of young people attending large music events, raves and trance festivals around the world. This global emergence of events, although mostly focused on music and the arts, has also seen an increase in the use of psychoactive substances. Progressive promoters are beginning to respond by including harm reduction elements in the organization of their events, such as chill-out rooms for dancers to rest and safe spaces for those undergoing psychedelic crises.

“Ground Central Station was set inside a 16-foot diameter geodesic dome covered by white parachutes and decorated to be a cozy and inviting environment.”

With the support of MAPS and festival promoters, we have been creating a model for services which reflects the needs of those who choose to use drugs at these events, thereby, directly meeting users “where they are.” Our intent is to provide spaces in which people can safely allow their psychedelic experiences to unfold, as well to provide central and reliable sources of information for those who seek to deepen their awareness of altered states. This is one of the emerging faces of harm reduction being put into practice.

The Boom Festival

During the August 2002 full moon in Idanha-a-Nova, Portugal, the Boom Festival was a 5-day, 12,000 person, psychedelic trance festival. It was set up as a temporary autonomous zone for an intentional gathering of the global trance/dance community.

The organizers created an environment in which to explore the music, dance, time-as-art mindframe, and the ever evolving and changing culture born out of the psychonautic experience. An excerpt from the promotional material stated: “Every culture is expressed by its Art. It emanates through the many expressions and shapes it assumes. A cultural event as an expression does not just focus on one of the aspects of the Art, but in the whole.” This statement



The serene location for the 2002 Boom Festival, on the shores of the Barragem de Idanha-a-Nova, in Portugal.

helped to create the general mindset of those participating, to become involved in the event as a co-created space in which to explore the many potentials inherent within a community focused on creating art to express itself.

Aspects of the festival included the main stage, an Ambient Garden chill-out area, a Psy-art gallery, a Dreamspell/Mayan calendar workshop dome, Psynema (showing movies and video from the psytrance community during the evenings), a market, chai tents, and an interactive daytime conference area known as the Dynamic Mythologies Tent. Organized by InVisible Productions, the Dynamic Mythologies Tent was intended to generate dialogue with festival participants on the nature, implications and integration of the psychedelic experience. Hosting presentations, workshops, and discussions over the course of the festival with the exploration of such themes as: consciousness and the nature of reality; resacralization of space and time; textures of hyperspace and visionary art; earth stewardship; shamanism and the Gaian mind; chaos and ecology; culture building and the integration of the psychedelic landscape into everyday life. Presentations and workshops from such notable psychedelic visionaries as Erik Davis, Jon Hanna, Alex Grey, Wilbert Alix, Zoe Seven, Charles Hayes, Morgan Brent and next-generation neuronaut linguists Sijay and Delvin made for a very interesting, interactive experience unlike any other offered at a music festival.

Ground Central Station

The creation of a safe space for Boom Festival participants was an excellent foresight of the Good Mood Productions team, organizers of the Boom Festival. It was named "Ground Central Station" to give it the sense of an easily accessible, welcoming space to which Boom participants could come to 'ground' themselves if needed. Ground Central Station was intentionally created to be a place to which those undergoing difficult psychedelic experiences could come if they required solace from the constant stimulus and continuous

trance music of the festival.

Hosted by experienced volunteer facilitators from the Higher Knowledge Network and a certified Holotropic Breathwork practitioner and underground psychedelic therapist, the project's aim was to facilitate journeyers while minimizing interference with the flow of the user's experience. In May of 2002 MAPS hosted a similar space called the Serenity Tent at the Hookahville festival in Columbus, Ohio, which I also helped to facilitate. (For details see the article written by Brandy Doyle in the fall edition 2001 of the MAPS Bulletin or <http://www.maps.org/ritesofpassage/difficultexperiences.html>)

Ground Central Station was set inside a 16-foot diameter geodesic dome covered by white parachutes and decorated to be a cozy and inviting environment. It was supplied with information about MAPS, including articles about how to treat difficult psychedelic experiences (see www.maps.org/ritesofpassage/anonther.html), the Psychedelic Crises FAQ from Erowid.org (www.erowid.org/psychoactives/faqs/psychedelic_crises_faq.shtml), and drug info from a Portuguese harm reduction organization called *Conversas Da Rua* (Street Talk). This provided an opportunity for people to inform themselves as well as find a safe space for challenging psychedelic mind states.

The space was designed to operate not only as a safe zone, but also as an interactive exploratory dimension for interested trippers. It included art supplies for nonverbal expression, bottled water, fresh fruit and other snacks, as well as a collective altar space for objects which represent the Sacred, including galactic trading cards provided by Dew Press, aromatherapy oils, and incense. These elements made the environment more interactive and helped to create an atmosphere of comfort and grounding.

The Role of the Facilitators: "Response-abilities"

While the job of assessing physical emergencies remained in the hands of the medic team, it

“As a facilitator of the Ground Central Station tent, my experience at the Boom festival has had a very positive effect on my life. I not only got to make many new friends, but also had yet another opportunity to witness the powerful effects that psychedelics can have on us.”

was our job to deal with crises situations of a more psychological nature. We worked in conjunction with the medics, security, and festival organizers, and whenever anyone was found needing our assistance, we were instantly contacted by radio handset. People came to the tent under the supervision of festival staff, some were brought in by friends, and some wandered in on their own.

Those who did experience difficulties with their trips almost immediately calmed down once inside the tent and were often able to enjoy their experiences afterward. Some retreated to an internal state to reflect upon their journey and take time to integrate whatever it was that they were feeling and experiencing. Others seemed to appreciate the support we had to offer and many engaging discussions were generated about the nature of the psychedelic states being explored. All in all, the benefits of creating this space were readily apparent and many of those who had had need of the service affirmed it by coming back at a later time to say thanks.

A part of our job as facilitators was to walk around the festival grounds to see if we could find anyone needing help. On the fifth day of the festival, I found a young man seated on the ground in the blazing sun. He looked disoriented, dehydrated and seemed to be talking aloud to himself. I ap-

proached him calmly and offered him some water to drink. I sat there with him trying to establish rapport, and when we did begin to communicate, he seemed very comfortable with me. He told me he had taken LSD for the first time in years along with a little MDMA. He said he was “pretty high” but that he was enjoying his experience. He explained to me that he had been addicted to heroin for a few years and that he and his girlfriend were trying to kick the habit together. They had come to the Boom Festival to get away from their usual scene and to try to have some fun while going through the harsh withdrawals together. He was quite proud that they hadn’t used in the last two weeks on their trip there, and was really glad to have an opportunity to be at an event like the Boom Festival. He felt the LSD and MDMA were helping him that day to work through the issues he had around his addiction, such as; his reasons for using heroin, his family life, the pressure he placed on himself, and issues with physical pain.



A mural in spray paint at the 2002 Boom Fest

As we walked around the festival we had an opportunity to discuss the insights that he felt he was gaining from the experience and what he communicated to me was indeed a testament to the potential therapeutic benefits of consciously used psychedelics and entheogens.

For reasons I can only guess, we only had a small number of people come in for assistance. It was amazing to see that at a festival of 12,000 people, the majority of the participants had very few problems with psychedelic usage. It may be because the population was mostly made up of experienced trippers who knew the effects, quality, choices, and combinations of the substances they were taking (such as hash, LSD, 2C-B, Mushrooms, MDMA, Mescaline, DMT, and Cocaine). However, the well-organized set & setting of the event itself probably had a positive effect as well.

As a facilitator of the Ground Central Station tent, my experience at the Boom festival has had a very positive effect on my life. I not only got to make many new friends, but also had yet another opportunity to witness the powerful effects that psychedelics can have on us. I gained skills that enable me to be a better facilitator, listener and friend. It opened me up to the patterns involved in the process of communication as well as in the content, and to using the skills of intuition, empathy, respect and understanding that I had become more attuned to through personal use of psychedelics and entheogens in the past.

The experience of facilitating gave me the chance to explore and recognize that each individual's reality or model of the world enables us to cherish, rather than judge or fear, the differences that make us unique, and made me more aware of the amazing and wonderful diversity of humanity.

The Next Level...

The Ground Central Station project was a great success in that all those who participated in or used the services felt it was a beneficial and rewarding experience. I can only speculate as to what would've become of those who needed help if we

hadn't been there. Nobody should ever have to go through a difficult psychedelic journey without knowing that support can be found if needed.

The potentials for a project like this are vast and multifaceted. The Serenity tent / Ground Central Station model can be adapted to each event depending on its specific needs and situations. Factors influencing this might be location, type of event, age / demographic of participants, and availability of substances. Some events will require more focus on crisis situations, others may involve more detailed information booths and others may require something more interactive and play oriented. Pill testing would also be an extremely valuable function of this project. The task of designing an overall safe space and environment would be a benefit to any gathering where people are involved in psychedelic exploration.

It would be of great value if every music festival and event promoter /organizational team were to take this safe space model into consideration in their future planned events. It shows great dedication to the spirit of community and demonstrates a shared response-ability to look out for and take care of each other.

Perhaps in the future, through education, support and other opportunities to learn and communicate about this vast landscape of the psychedelic experience, the benefits and healing that can result from psychonautic exploration will be common knowledge. Until then, addressing and reducing the potential harms associated with the uninformed use of drugs is an important step to take. Ground Central Station offers an excellent model to move the culture in that direction, and in the meantime, offers those who choose to use psychoactives the support they need in times of crises. ■

AN INTRODUCTION TO ASMEVEI, A RECENTLY FORMED GROUP OF VEGETALISTA HEALERS IN THE PERUVIAN AMAZON

Kevin Jernigan (*baraka@arches.uga.edu*)

In the Summer of 2001, while doing anthropological research on ayahuasca healing in Iquitos, Peru, I had the opportunity to attend some meetings of a newly formed healers' organization, ASMEVEI (Asociacion de Medicos Vegetalistas de Iquitos). I made the acquaintance of several of its members, who assisted me with my research and remain my friends to this day.

I brought the existence of the group to the attention of MAPS, which has generously offered them a donation of \$500 to help support traditional plant-based psychedelic healing.

The group, whose name means Association of Plant-based Healers of Iquitos, formed on June 17th, 2001, with several important goals in mind. These are:

- 1) To strengthen and reestablish the value of traditional cultural practices and the social values represented in the treatment of illness with medicinal plants of the Peruvian Amazon
- 2) To gain recognition and support from public and private institutions
- 3) To contribute to improving the state of public health, holistically, by using knowledge and practice of traditional treatments with medicinal plants from the region
- 4) To promote the training of new herbal doctors in order to disseminate and perpetuate medicinal uses of plants.
- 5) To contribute to the promotion and diffusion of traditional medicine
- 6) To promote, coordinate and support the development of projects for the benefit of members and the community
- 7) To promote the conservation, cultivation, management, and careful use of medicinal plant resources so as to avoid overexploitation of the forest
- 8) To formulate and carry out holistic development plans, through the activities of the association so that they may contribute to profitable use by their country.

This group of curanderos was formed with the assistance of Elsa Rengifo, a biologist working with the Peruvian governmental research institution IIAP (Institute for Research on the Peruvian Amazon). Currently there are 32 members of the association, 21 men and 10 women who practice the vegetalista tradition.

The vegetalista tradition often in-



Association member Odelia Chota and family selling medicinal plants

volves the use of ayahuasca, tobacco and other visionary plants as means of diagnosing those illnesses which are thought to have a spiritual cause. In a typical healing ceremony, both the patient, the healer, and in some cases, the patient's family or friends will take ayahuasca to understand the cause of the illness and as a means of purifying the body and spirit. These healers often treat other kinds of illnesses as well, and tend to be knowledgeable about a variety of medicinal herbs.



ASMEVEI members with medicinal plants and preparations

Ayahuasca and similar plants also play a vital role in training to become a curandero. The process of training involves learning the curing techniques directly from the spirits of teacher plants, in a process called dieting. During the diet, the apprentice abstains from sex and all but very bland foods (without sugar, salt or spices), and isolates himself in the forest to consume a particular healing plant, along with ayahuasca and tobacco, which also facilitate the learning process. To become a curandero, one must usually go through four or five such diets, although many healers continue to learn more by dieting throughout their career. The variety of plants considered capable of teaching medicine is large, and many of these plants have not been well studied scientifically. Much work remains to be done in understanding their chemical constituents and their potential

psychoactivity. For more information on the botanical identity of some of these plants, and their cultural uses, see McKenna et al., 1995, and Luna, 1984.

Since its formation, ASMEVEI has held meetings weekly. It has ratified its bylaws in order to obtain official recognition as an organization by the Peruvian government. It has also held workshops as a format for exchange of knowledge about healing practices among its members. As one of their first projects, the association conducted surveys of its membership, in order to collect and archive information about their personal history, training as healers and their current healing practices. A couple selections from these archives will serve to give the reader a better understanding of this healing tradition.

Norma Panduro Navarro, the vice president of the association, for example, became acquainted with the healing path when she was seventeen years old. She was living in Iquitos, the city of her birth, when she became ill with tuberculosis. Her mother took her to visit a curandero living on the Ucayali river, who cured her illness with plant-based medicine. She writes "from that moment on, I firmly embraced natural medicine." Since then, she has learned much about medicinal plants, their healing barks and resins, about ayahuasca and the magical songs called icaros that healers use in their curing. Norma recounts that during her first experience taking ayahuasca, she saw the pot that was used to boil the brew shine a brilliant gold, and she could smell the fragrance of flowers in its smoke. Then the spirit of ayahuasca approached her whistling its magical song. It sat before her with its eyes closed. When its eyes opened they were shining with the brilliance of the moon. It asked her if she wanted to learn good or bad magic, and she accepted the former. Currently, Norma is working on building a healing center outside of Iquitos to treat addiction and other kinds of illness.

Another healer, Humberto Chota Cenepo also began his career by recovering from an illness. He journeyed to the Pastaza river to cure a seemingly incurable hernia.

He dieted for nine months abstaining from sex as well as

sugar and salt, consuming five medicinal plants, *sacha ajos*, *sanago*, *sananguillo*, *copaiba* and *sangre de grado*. One night, the spirits of these plants appeared to him, first taking the form of skulls, then disappearing, only to reappear later in person. They told him "From this moment on, you are a *curandero*, and will cure all kinds of illnesses with our help." Later, one day, he met a sick man and decided to see whether the spirits' had told him the truth. He called upon them in the manner that they taught him, and, sure enough, they appeared and helped him with his curing.

I believe that organizations such as ASMEVEI could have a key role to play in the struggle to gain international recognition and legal acceptance of plant-based psychedelic healing, since these healers are the heirs of traditions that first discovered these plants. In order for this to happen, however, there must be a mechanism for their voices to be heard on an international level. One of the goals of ASMEVEI, to create a web site for communicating their ideas, will help toward this end. I also hope that researchers who are studying or planning a study with ayahuasca or other traditional plant medicines would consider the benefits of exchanging ideas with these or other traditional healers. ■



Healer Antonio Barrera Banda performs a ceremony for parents who want their child to grow up to be a healer.

Works Cited

McKenna, D. J., Luna L. E., and Towers, G. N. 1995. Biodynamic constituents in ayahuasca admixture plants: An uninvestigated folk pharmacopoeia. In *Ethnobotany: Evolution of a discipline*, eds. R.E. Schultes

and S. von Reis. Portland: Dioscorides.

Luna, L. E. 1984. The concept of plants as teachers among four mestizo shamans of Iquitos, Northeastern Peru. *Journal of Ethnopharmacology* 11:135–156.

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Yana Yakumama
 Detail
 Pablo Amaringo

FIRST INTERNATIONAL CONFERENCE ON AYAHUASCA AMSTERDAM 2002

Patricia Savant (patsavant1@aol.com)



Deep in the jungles of the Amazon basin, a vine grows. A large woody vine, it resembles a snake as it twists and undulates toward the sky. It also, some say, resembles the double helix of DNA. Within this vine is a teacher. The teacher's name is "Ayahuasca," a Quichua term meaning "vine of the soul."

The discovery of ayahuasca is lost in the mist of prehistory. Some say it has been used by the indigenous peoples of Peru, Ecuador, Columbia, Brazil and elsewhere for thousands of years. Its use was chronicled by the missionaries who came on the heels of the Spanish conquistadors. In conflict with Catholicism and misunderstood, its use was labeled "diabolical." The shamans were murdered and the Indians forbade its use.

"Held in Amsterdam November 22-24, 2002, this was the first conference designed to bring the international community together and to disseminate the latest information about the use of ayahuasca, its healing properties, and its spiritual vistas. "

And so it remained in the shadows of history for the last 400 years. Its secrets were kept by the jungle people who retreated into the forest as "civilization" consumed the trees and gobbled the land.

Scroll forward to 2002, the new millennium, and Amsterdam. Ayahuasca has reemerged, first in its native continent, where it has now married its former opponent, Catholicism, spawning three churches: the Santo Daime, União do Vegetal (UDV), and Barquinia. But it has also emerged across the globe, here in Amsterdam, throughout Europe and the United States. The Psychoactivity III conference, held in Amsterdam November 22-24, 2002, was the first conference designed to bring the international community together and to disseminate the latest information about the

use of ayahuasca, its healing properties, and its spiritual vistas.

About 200 participants and presenters came to Amsterdam from around the world. Eduardo Luna, Ph.D., a professor of anthropology from Helsinki, Finland has a 30 year history with ayahuasca and now conducts neo-shamanic retreats in a beautiful Brazilian sanctuary he has built. From Israel came Benny Shanon, Ph.D., a delightful dumpling of a man brimming with enthusiasm. Benny is a cognitive psychologist, a philosopher, and a professor of psychology at the Hebrew University in Jerusalem. He first encountered ayahuasca during a vacation to Brazil in 1991. Amazed by his experience, he began a serious study of the phenomenon culminating in his book *The Antipodes of the Mind: Charting the Phenomenology of the Ayahuasca Experience* (see a review of this book on page 47). Jace Callaway, Ph.D., a neurochemist from Finland, presented on the phytochemistry and neu-

rological effects of ayahuasca. Others speakers included Christian Raetsch, Ph.D., ethnopharmacologist and cognitive anthropologist, author, explorer from Hamburg, Germany with his wife, Claudia Mueller-Ebeling, Ph.D., art historian and ethnologist, Adele Van DerPlas, the Dutch attorney who successfully defended the Santo Daime church in Holland.

And there were the shamans, masters of the ayahuasca experience, to present, first-hand, the ancient rituals. Kajuyali Tsamani, Ph.D., anthropologist and Jaguar Shaman from Columbia; Hilario Chiriap, a Shuar shaman from Ecuador; and Yatra W.M. da Silveira Barbosa, who treats addictions with the help of ayahuasca. These rituals lasted through the night....which made sitting through the conference in the day a challenge.

Kajuyali Tsamani sat in the center of a mandala carefully constructed of differently colored sand. Symbolically, the Sun Jaguar, red lines of energy, was within the center of Pachimama, a deep earthy brown, the four directions spiraling out in gold. This was an ancient design, the design of the cosmos, from the Orinoco tradition. Kajuyali told us the old story of the origins of ayahuasca and of yopo, the sacred snuff. And he sang the old songs, the icaros, of peace and love. A foot-high crystal occupied the circle and a song was sang to call the celestial crystal to bless the conference. It was a magical beginning.

Then Eduardo Luna, Ph.D. described Wasiwaska, the House of the Vine. This is Luna's breathtakingly beautiful retreat center in Brazil. Here he brings groups to do ceremony and deep transpersonal work. Luna is a "neo-shaman," combining the ancient ways and the experience of ayahuasca with modern methods such as Holotropic Breathwork, artistic expression, and eclectic music. The participants maintain a strict diet and observe certain behavioral guidelines as they immerse themselves in the deep journey of the soul. Arno Adelaar was a strong presence as the host of the conference. He also filled in for Hans Bogers, giving a presentation on the safety aspects of Santo Daime and other similar rituals.



Shaman Kajuyali Tsamani, Ph.D., ceremonially opens the Psychoactivity III conference

Hans could not attend the conference due to pressure from the local Santo Daime church which is intent on protecting its legal status.

Christian Raetsch, the one I think of as the wild man of the group, gave an excellent talk about tobacco and its history as a sacred herb, an herb always used in the preparation of ayahuasca. I call Christian a wild man because he will endure any circumstance to obtain ethnopharmacological information. Dr. Raetsch is able to communicate his knowledge beautifully and intelligently. He is the author of over 40 books and many articles on the subject of entheogens and ayahuasca.

One of the most interesting comments about ayahuasca was given by Jace Callaway. Jace is an expert in psychedelic neurochemistry and was one of the researchers, along with Dennis McKenna and Eduardo Luna, who extensively researched members of the União do Vegetal in the '90s. Jace said that he felt now that DMT was not the whole story, perhaps not the main story in ayahuasca. "It is the vine that all the myths are wound around." It is the vine that carries the spirit, he speculated. Some brews have very little DMT, but the *caapi* vine is always the main ingredient. There is still so much to be learned about ayahuasca, he said, the many different forms of *caapi*, the role of each of the additive plants,

how the variance in the metabolites and the potency affect the experience.

Yatra of Friends of the Forest made it clear that she did not agree with the assessment of Jurema as an “ayahuasca analog” but as a brew with a history and tradition that very much parallels ayahuasca. She pointed out that the songs of Jurema were very different than ayahuasca, that the spirits of the plants were very different. Both healers, she felt, but with different personalities, different energies. Her commitment to using Jurema to treat addictions and making the ceremonies friendly to those who need it most is commendable. Those who drank with the Friends of the Forest group during the conference found it a valuable and rewarding experience.

Sharing the role of MC, Claudia Mueller-Ebeling was a very charming and knowledgeable person. She presented on “Synaesthetic Patterns” where colors are heard, sound is felt, music and imagery join in kaleidoscopic flow. This is a process experience during an ayahuasca experience and is found in the patterns of art produced by the indigenous people. Since first hearing Claudia present some years ago I have become increasingly aware of how the inner visions experienced during entheogenic journeys permeate both indigenous and often modern art.

The Shuar shaman, Hilario Chiriap, gave a deeply reverent talk about his apprenticeship and subsequent work with ayahuasca. His relationship with the healing brew spans two decades. He spoke of the wisdom of the plants, of their power to connect one with the earth, with the cosmos, and with the Divine Nature of all living beings. Ayahuasca, he said, could heal anything. During the night he conducted magical ceremony and encouraged each of us to give voice to the

spirit of the vine as we journeyed in its spell. This night I was given my own song to ayahuasca, my own icaro: “Ayahuasca, ayahuasca...Vente me. Ayahuasca, ayahuasca...Vente me. Yo te amo mucha, yo te amo mucha, Espiritu Divine.”

For many of those attending it was a rare opportunity to experience the shamanic ceremonies from three different cultures. Many attendees managed to attend each of the ceremonies and still make their appearance during the lectures in the day—a phenomenal feat. Kujuyali Tsamani, fondly called “William,” led a ceremony marked by gentleness and power. His icaros floated over the participants and guided their journeys. And as the ayahuasca experience mellowed out, he invited members to take yopo, the magical snuff. One man from Germany said the yopo took him in to a space of bliss and cosmic union.

During Don Hilario’s ceremony participants were encouraged to sing and make music as the spirit of the vine came to visit. There was immense energy in the brew and it was no trouble at all to sing and chant throughout the night into dawn. And Yatra’s jurema ceremony was distinctly different also. The cadence and the rhythm of the songs, the visions, and her presence led people into a unique and special experience. For those who participated in the night’s activities, a special “chill room” between the lecture hall and the vendor’s area provided a haven of quietness, an opportunity to rest, and to commune quietly with others. Participants were eager to talk with one another, share experiences, and gain information in animated conversations of many languages. And at night, the hotel hosted psychedelic trance dances for those not immersed in ceremony. There was something for everyone’s taste and style.

After days of learning and nights of powerful experience, the conference ended having expanded the web of connection between the vine and the peoples of Europe and the Americas. ■



Eduardo Luna, Ph.D.

MAPPING OUT THE AYAHUASCA NETHERWORLD: A REVIEW OF BENNY SHANON'S *ANTIPODES OF THE MIND*

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Benny Shanon's *Antipodes of the Mind: Charting the Phenomenology of the Ayahuasca Experience* is one of the most compelling books on altered states I've read, up there with James's "Varieties of Religious Experience", Huxley's "Doors of Perception" (to which Shanon's title alludes) and *PIHKAL* and *TIHKAL* by Ann and Alexander Shulgin. Unlike, say, the psychedelic performance artist Terence McKenna (whose writings I enjoy), Shanon's authorial persona is earnest, serious, straightforward, absolutely trustworthy. He is a true scientist, dedicated to precise reporting and careful analysis rather than to entertainment. Not that his book is dull. Far from it. *Antipodes* is suffused with a sense of genuine adventure, of a kind that has virtually vanished from modern science. Plunging into the depths of his own ayahuasca-intoxicated mind, Shanon resembles one of the great Victorian explorers trekking into uncharted wilds, maintaining his equilibrium and wits even in the face of the most fantastical sights.

“He suggests that ayahuasca
visions are products of the
imagination rather than glimpses of
a supernatural realm existing in
parallel to our own.”

Like Darwin on the voyage of the *Beagle*, Shanon is concerned primarily with collecting and categorizing data rather than theorizing. At the end of his book, however, he ponders his and others' experiences and draws some tentative conclusions. Ayahuasca, he asserts, can be both truth-revealing and "the worst of liars." Shanon remains skeptical of the occult claims often made for the drug that it puts us in touch with spirits, makes us clairvoyant, lets us leave our bodies and travel astrally. He suggests that ayahuasca visions are products of the imagination rather than glimpses of a supernatural realm existing in parallel to our own. This proposal will sound reductionistic to some, but it is actually quite provocative, and raises many questions requiring further consideration. Why does the imagination, when stimulated by ayahuasca, yield visions so much stranger and more powerful than those we encounter in, say, ordinary dreams? Why do ayahuasca-drinkers from widely disparate cultures so often hallucinate similar phenomena, such as jaguars and snakes, or palaces and royalty? Why are the visions of even an atheist like Shanon so often laden with religious significance? *Antipodes* will no doubt be eagerly seized upon by the psychedelic intelligentsia. But it deserves to be read by anyone interested in religion, mysticism, and consciousness—and who is not? It should be required reading for psychologists, psychiatrists, and neuroscientists, because it shows how absurdly simplistic are the biochemical, Darwinian, and genetic models now dominating mind-science. Inner space, Shanon reminds us, truly is the last great frontier of science, and its reaches are vast and wild and strange. ■

Antipodes of the Mind was published in 2002 by Oxford University Press.

John Horgan is the author of *Rational Mysticism* published by Houghton Mifflin in January 2003.

“FIRST, DO NO HARM” :

A REVIEW OF *HARM REDUCTION PSYCHOTHERAPY* BY ANDREW TATARSKY



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John H. Halpern, M.D. (john_halpern@hms.harvard.edu)*



Andrew Tatarsky, an innovative clinical psychologist practicing in Manhattan, has produced a timely and targeted professional document-of-practice. Timely, because the idea of harm reduction (making drug policy not based on punishment, but on the broadest possible assessment of the net-least harm to society) is just beginning to be accepted in policy and practice. Targeted, because it is a document of and for clinical practice, one that cuts across theoretical orientations. Each of the ten chapters is written by a different practitioner, each with a client case study (five dealing with alcohol, one with opiates, one with amphetamines and three with multiple substances) and each with an analysis by Dr. Tatarsky. The net effect is to bring the audience into the authors' process and experience as professionals: This is a book by clinicians and for clinicians (and students), only secondarily for the policy makers and the lay-activist audience, and only indirectly meant to communicate with the scientific community.

One complaint that can be made about the book concerns its application to policy. In practice, an “N of 10” is actually a good-sized data set for case-based clinical research. (As an old methods professor used to intone: “One subject to hypothesize; two to validate; three to publish.”) Yet Tatarsky attempts little policy-directed scientific generalizing from the quite rich database the book presents. Of course, one book can't be all things to all audiences and this volume doesn't try to be, but rather offers an expert and deeply felt clinical manual and roadmap for the dissemination of operational harm reduction practices to the psychotherapeutic community.

Twelve-Step Degrees of Separation

Harm reduction diverges sharply from the currently accepted treatment model for alcohol and drug problems: abstinence and twelve-step treatment. According to Tatarsky (2002a) however, the Big Book of AA is “the original harm reduction text” and abstinence can be the best harm reduction approach. In fact, the 12-step approach pioneered by Alcoholics Anonymous (AA) does not actually require abstinence – only the “desire” to stop. The original idea was that talking with other recovering alcoholics made it easier to not drink, that night. Tatarsky believes that today's AA, with its embarrassing “day counting” (as in, “Hi, I'm Joe, and I've been sober for [only] one day...”) and advice to “stick with the winners” (i.e., avoid those who still drink) reflects a contamination of the original spirit of AA by competitive, shaming trends in the larger culture.

What if the “abuser” is not sure he or she wants to stop? Paradoxically, to tap a 12-step

community for support in making this decision, the user must already have the “desire to stop.” Since most alcoholics and drug addicts are, by definition, not at a point where they can consistently choose to stop, AA’s abstinence requirement in essence skims the cream off the top of the pool seeking to be cured. Alcoholics Anonymous outcome data look better as a result, as does its reputation and funding options. With only five percent of those who come to AA staying with it, is AA successful? It’s hard to say – remember, AA is “anonymous” – but Tatarsky believes that for many, AA has not been a success. And these individuals should not be forgotten; they are just as deserving of a brighter future in which their destructive patterns of drug and/or alcohol abuse are reduced, if not eliminated.

Alcoholics Anonymous is a highly structured program with specific, enforced requirements for thinking and acting. These cult-like qualities can potentially be used for the good, but frequently do enormous damage to those who don’t remain. In the world of AA – and so, in most treatment programs – if you are not abstinent, then “You still must have to hit a lower bottom.”

Alcoholics Anonymous has changed from a community of peer assistance to something much more akin to the “disease concept” of medicine. Once the user has been “in disease” with any substance, then any future use of any intoxicating substance is evidence of “relapse.” The beauty of harm reduction is its “compassionate pragmatism.” Harm reduction psychotherapies take no *a priori* position about drug use; what matters is the way that use may be harmful to users, family, community – a net-least detriment, systems approach.

“Harm reduction psychotherapies take no *a priori* position about drug use; what matters is the way that use may be harmful to users, family, community – a net-least detriment, systems approach.”

Policy Implication: First Do No Harm

One of the more profound conclusions frequently raised by the book’s authors is simply that we must return to “good clinical practice” in the treatment of addicts. Why should people having difficulty with their (albeit unprescribed) medications be treated any differently than any other patients? Psychotherapy for drug abuse is no different than other forms of treatment, and a major accomplishment of *Harm Reduction Psychotherapy* is to humanize the face of the drug user, who has been the only patient told: “I’ll only treat you if you come to treatment cured.”

That harm reduction practice has grown so rapidly is all the more impressive when one considers that essentially all government funding and program licensing require user abstinence. There is now a multi-billion dollar drug and alcohol treatment industry, paid for by the government, that sets up failure with its high hurdle of absolute abstinence. When they can’t – or don’t choose to – comply, many end up feeling even worse – like failures – resulting in further escalation in their substance abuse. Such lapses are then viewed as moral failures, with the implicit message from the authorities to go even lower, to hit bottom, in order to be allowed treatment. Even when this policy ends in long-term abstinence as claimed, it makes treatment more volatile, eliciting more harmful, costly behavior on the road to success than the more moderate harm reduction approach.

Strengths and Weaknesses

This is a book whose weaknesses are truly

also its strengths. Chapter One overview of harm reduction reviews the literature, but the reference list at the end of the chapter doesn't in-

clude many of the studies cited. There is little effort to draw generalizations across the ten cases or to integrate the book's findings with the literature review in Chapter One. The book comes with theoretical foundations, but does not attempt to extend that theoretical scaffolding. *Harm Reduction Psychotherapy* never purports to be a college text, yet in foregoing the potential to contribute to the policy research literature, it limits its utility in all but clinical training courses.

As William James famously said, "The cure for dipsomania is religiomania," that is, alcoholism can be cured by peak spiritual experience. Yet while the authors frequently discuss "dual diagnosis" (substance abuse in addition to another psychological or physical ailment) and the implications of multiple substance use, the book doesn't discuss the extensive literature on the use of psychedelics to treat substance abuse, for example, Dr. Evgeny Krupitsky's 2002 research with Ketamine at the Leningrad Regional Center for Alcoholism and Drug Addiction Therapy. Similarly, while the "self-medica-

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tion" concept is discussed at length, the book does not take up the possibility of "benefit enhancement" coming from psychedelic psychotherapy, as shown in the research on the use of peyote in the Native American Church to assist alcoholics, most recently by an author of this review, Dr. John Halpern (2001, 1996).

Yet in part by focusing on practice rather than research, *Harm Reduction Psychotherapy* emerges as a groundbreaking, heartfelt and ultimately successful book. It takes as its formidable task the promulgation of a new treatment paradigm for therapy *with substance users* – not necessarily *for substance abuse*. This is a field manual for psychotherapists and trainees which, if followed, has the potential to make "good clinical practice" the normative experience for substance abusers and users.

Tatarsky's Path

Harm reduction is a new and controversial movement and most government agencies and HMOs still view it with hostility or suspicion. It is not surprising then that earlier in his career as a practitioner, Tatarsky experienced great anxiety and uncertainty about how to navigate this issue.

His outpatient practice was fully caught up in the requirement for abstinence. Tatarsky "felt like an imposter," unable to discuss the things he was noticing and feeling with his clinic supervisor. He was alienated, uncertain – conceptually, "in the closet" – and in conflict. After starting a private practice, Tatarsky felt more freedom to ex-

“That harm reduction practice has grown so rapidly is all the more impressive when one considers that essentially all government funding and program licensing require user abstinence.”

periment with the unconventional treatments he was increasingly drawn to for his drug and alcohol using patients. It was only later, during a conversation with a mentor, Alan Marlatt (who co-wrote the fledgling field’s more data-oriented book) that Tatarsky was informed, “You are doing harm reduction,” and found a community to support him. Reassured and empowered, Tatarsky came into his own as a practitioner, with this important book one result. We can only hope that the policy-making community will follow Tatarsky’s path and arrive at the same outcome. ■

Neal M. Goldsmith, Ph.D. is an applied social psychologist and President of Tribeca Research, Inc., a strategic planning consulting firm specializing in innovation, change and the process of research utilization in policy making.

John H. Halpern, M.D. is an Instructor in Psychiatry conducting research on the correlates of cocaine abuse at the Harvard Medical School – McLean Hospital Alcohol and Drug Abuse Research Center. He is currently completing field research on the behavioral and physiological correlates of peyote use in the Native American Church.

References

Halpern, J.H. “Research at Harvard Medical School.” *Bulletin of the Multidisciplinary Association for Psyche-*

delic Studies. Vol. XI, No. 2, Fall, 2001. (Sarasota, FL: MAPS, <http://www.maps.org>)

Halpern, J.H. “The Use of Hallucinogens in the Treatment of Addiction.” *Addiction Research* Vol. 4, No. 2, 1996, pp. 177-189.

Krupitsky, E. “Ketamine Psychedelic Therapy (KPT): Review of the Results of a 10-Year Study.” *Bulletin of the Multidisciplinary Association for Psychedelic Studies*. (Sarasota, FL: MAPS, <http://www.maps.org>, October 4, 2002.)

Marlatt, G.A. and Tapert., S.F. *Harm Reduction: Pragmatic Strategies for Managing High Risk Behaviors*. (NY: Guilford Press, 1998).

Tatarsky, A. *Personal Communication*. October 19, 2002. (a)

Tatarsky, A. (ed.) *Harm Reduction Psychotherapy: A New Treatment for Drug and Alcohol Problems*. (Northvale, NJ: Jason Aronson, 2002.) (b)

Life After Ibogaine Treatment

If you have been treated with Ibogaine, we need your help! The research team from the Free University of Amsterdam, The Netherlands, is looking for who have been treated with ibogaine in relation to narcotic addiction. A successful outcome of the treatment is not a requirement for participation. The goal of our research is to determine the long-term stable effects of Ibogaine treatment. Participation in our study is quite simple. We would need each participant to fill out a questionnaire in order to provide us with details of their drug history and Ibogaine treatment. All the information obtained is confidential. Participants who are willing to take part anonymously are welcome as well. It is hoped this research project will provide validation for the original work of Prof. dr. Jan Bastiaans, who was the first medical doctor to treat heroin and other opioid users with ibogaine. Your support is appreciated. If you would like to participate, please contact Udi Bastiaans at +31-20-6423820 or e-mail e.bastiaans@stu.med.vu.nl.

LANGUAGE AND REALITY — OUR CHOICES OF WORDS AFFECT HOW PSYCHOACTIVE SUBSTANCES ARE PERCEIVED

David L. Lenderts, M.D. (luz_do_sol@amigo.net)



The persistence of the terms “hallucinogen,” “hallucinogenic,” and “hallucination(s)” in our attempts to describe the effects of consciousness-enhancing substances, whether natural or synthetic, is puzzling and frustrating. While appropriate to describe one of the possible effects of LSD use, these terms rarely or never apply to most of the other chemical entities which, unfortunately, have become widely known as “hallucinogens.” Most readers of MAPS are well aware of the real beneficial effects which can be realized from the appropriate use of substances like ayahuasca, peyote, psilocybin mushrooms, MDMA, cannabis, etc. They are also aware of the uninformed, fearful, and organized resistance to the use of these sub-

stances that comes from much of the government, academia, and the public. This attitude applies even to scientific experimentation with consciousness-enhancing substances (most often referred to by the pejorative term “drugs”), even if the purpose of such research is to determine their indications, mechanism of action, safety, and efficacy.

In strong contrast to this, other categories of consciousness-altering or mood- and affect-altering substances are generally accepted, and even powerfully promoted. Drugs such as ethyl alcohol, nicotine in various tobacco products, and caffeine in coffee have nearly achieved the status of social icons, though tobacco has recently lost some of its luster. This exalted status exists despite the fact that alcohol and tobacco, combined, are directly responsible for the premature deaths of approximately 600,000 people per year in the United States. Other consciousness-altering substances have earned the term “medications,” though even the term “drug,” in the context of medical use, carries the authority of the medical and pharmaceutical establishment (“drugstore” for example). These medications include four categories of anti-depressants, anti-

“My substantial experience with at least one combination of these sacred plants, hoasca, is that these substances can give us a clearer vision of reality, and thus are not hallucinogenic, despite their capacity to produce profound visual alterations in what we may normally perceive.”

manic (bimodal) agents, four categories of anti-psychotics, three categories of anxiolytics/hypnotics, and the sympathomimetics/stimulants/anorexiant.

While not impugning the efficacy and benefit of many of these medications, it can be argued that many if not most of them serve the purpose of covering up or assuaging a psychic disequilibrium rather than aiding the search for the source of the dis-

equilibrium. Once recognized, the issues can be resolved, creating a more conscious, healthier, and more equilibrated human being. And this, in fact, is the real potential offered by the currently vilified consciousness-enhancing or “psychedelic” drugs. But, in the ultimate irony, even some of the people who best understand these drugs, who wish to promote greater freedom for their investigation and use, continue to use pejorative terms such as “hallucinogen” to describe them!

In contrast, and to its credit, the orthodox (allopathic) medical establishment has had outstanding success in promoting its own accepted forms of substance use in nearly every area of life. This success is due in large part to deliberate attention to language. When careful, acceptable terms are chosen to describe a credible mechanism of action or effect of a substance proposed for use, whether correct or incorrect, this use is accepted.

A hallucination is defined as “the perception of something which does not exist in objective reality.” How, then, do “hallucinogens” fit into science, the method by which we come to understand reality? Indeed, how do we gain knowledge through the experience of unreality? Yet, with all due respect, this seems to be what is being advocated, and even by the most esteemed pioneers and scientists in our field. An example only slightly removed from the present is the seminal book *Plants of the Gods, Their Sacred, Healing, and Hallucinogenic Powers*, by Richard Evans Schultes and Albert Hofmann (1992). On the back cover our friend Dr. Mark Plotkin endorses it as “the best book ever written on hallucinogenic plants.” Michael R. Aldrich, Ph.D. also uses the term “hallucinogenic plants” in his endorsement, which includes the opinion “carefully researched.” The subsequent back-

“Our unfortunate choice of descriptive language is one reason why research into and use of these substances are being so strongly resisted.”

cover description by the publisher states: “The most powerful of those plants, which are known to transport the human mind into other states of consciousness, have always been regarded as sacred.” That statement I do accept. However,

the prior language is then used over and over again by the distinguished authors, including the term “sacred hallucinogens” in describing the phytochemicals written about in the text.

Without question, *Plants of the Gods* is a brilliant work. But, at the substantial risk of sounding condescending, I offer that not only is “hallucination” an inaccurate term to describe one of the key effects of using these substances, but that the term “sacred hallucinogen” is an oxymoron. Sacred, as I understand it, refers to The Reality. A hallucinogen, as previously defined, produces “a perception which does NOT exist in reality.” Thus, we have: “the unreality producer of The Ultimate Reality.”

My substantial experience with at least one combination of these sacred plants, hoasca, is that these substances can give us a *clearer* vision of reality, and thus are not hallucinogenic, despite their capacity to produce profound visual alterations in what we may normally perceive. Isn’t the appropriate term for what is happening not “hallucinations,” but “visions?” I like the terms “visions” and “vision-inducing” because they open one to contemplate a large range of possibilities within the powers of the human visual apparatus, including not only the eyes, and the optic nerves and tracts, but also the visual cortex in the occipital lobes, its interconnections, and the human visual experience. Moreover, the term “vision” has a much more positive connotation within human thought than “hallucination.”

As a practicing physician in Emergency Medicine, I have certainly seen many people hal-

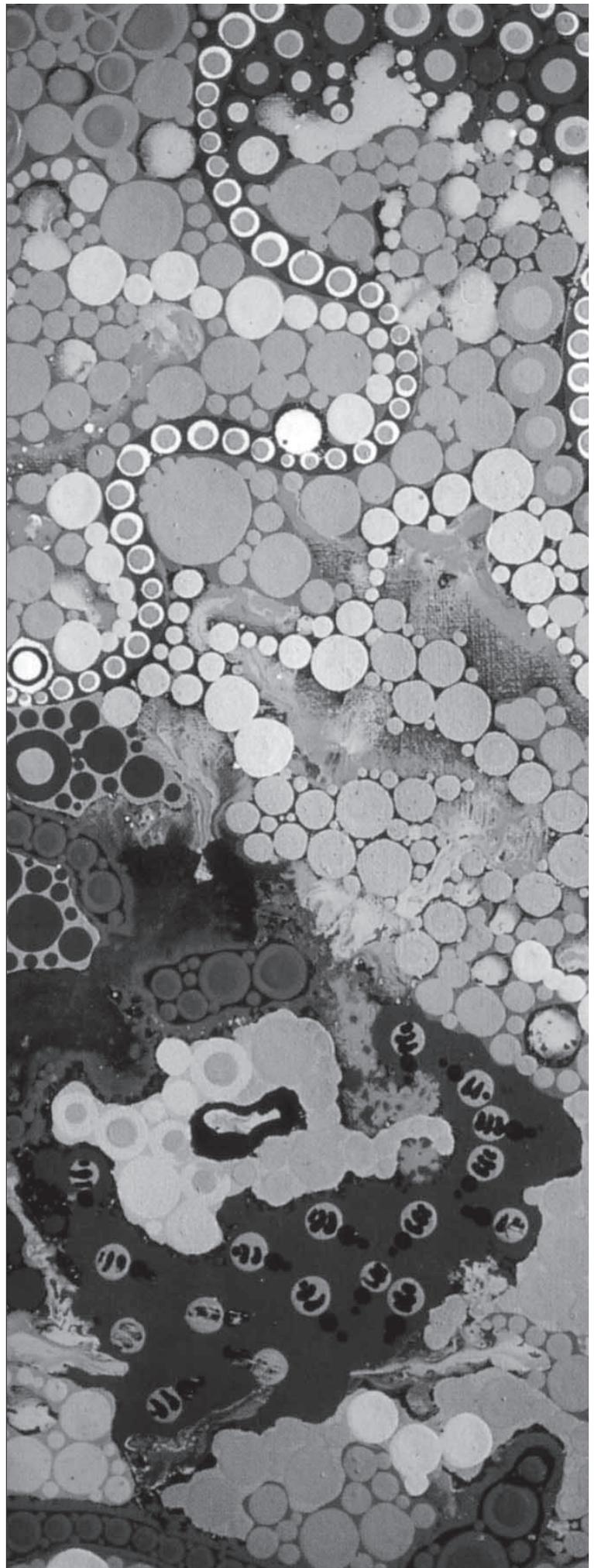
lucinating. Hallucinations are caused by some induced disturbance of the normal function of the brain such as dehydration, metabolic disturbances, exhaustion, alcohol and certain prescription, over-the-counter or street drugs, fever, mental illness, etc.

This medical association makes it a daunting task to explain to a grand jury of common citizens, to federal prosecutors, or to a federal judge the logic behind granting legal protection for a religious practice which uses a consciousness-enhancing substance commonly called a "hallucinogen." Indeed, from September 1999 to November 2001, I argued in each of the above forums, as a plaintiff and scientific expert in the *UDV v. Ashcroft, et al.* case, that hoasca is not a hallucinogen. My belief is that the UDV's determined effort in this case to clarify and defend what we feel are the real effects of hoasca was an important factor in the favorable decision we recently received in federal district court. This decision compelled the U.S. government to allow us to resume our religious practice, which is based on the sacramental ingestion of hoasca.

Gaining permission from the Food and Drug Administration to perform research into the use of "hallucinogenic" drugs is equally difficult. Our unfortunate choice of descriptive language is one reason why research into and use of these substances are being so strongly resisted.

Clearly, there is a far deeper discussion behind all of this. It relates to how we each understand and can describe this "invisible landscape" which has been so courageously explored by so many people. A better sense of how we understand and present ourselves will help us regain more extensive social license to investigate this realm. It will also help us apply the knowledge we gain to solving real problems of human existence, and to enhance our ability to perceive the peace, the beauty, the joy, and the love which are inherent in life. ■

Pituri Bushes
Walangari Karntawarra Jakamarra
from Plants of the Gods



HALLUCINOGENS – WHAT’S IN A NAME?

OR DEFENDING THE INDEFENSIBLE

Gary L. Bravo, M.D. (glbravo@aol.com) and
Charles S. Grob, M.D. (csgrob@aol.com)

Dr. Lenderts raises important and thought-provoking points in the ongoing dialogue over the proper nomenclature for these plants and chemicals which are the subject of scientific inquiry in the pharmacological, medical, psychological, anthropological and sociological literatures. We have no issue with his thesis that the term “hallucinogen” is in some ways reductionistic and misleading as to the myriad and profound effects these substances may potentially manifest in the brains, minds and souls of users. However, the issue as we see it is to identify a useful terminology which can be agreed upon by all who care to communicate about these protean substances and be recognized by those receiving these communications.

“Our argument is basically a practical one – the key is context.”

The term “hallucinogens,” whether rightly or wrongly, and much to the chagrin of many who would prefer terms such as “entheogens,” “psychedelics,” or “visionary plants and drugs,” has become the accepted nomenclature in the scientific and anthropological literature. For example, an Internet search of the biomedical literature using the words “entheogenic,” or even “psychedelic,” would probably not generate the desired results for the inquirer, whereas the term “hallucinogenic” most likely would.

In their classic text *Plants Of The Gods: Their Sacred, Healing and Hallucinogenic Powers*, Richard Evans Schultes and Albert Hofmann do not equivocate in their use of what they consider to be the appropriate term. Over the last hundred years various investigators have alternatively proposed a bewildering nomenclature, including, though not limited to, “deliriant,” “delusionegens,” “eidetics,” “entheogens,” “misperceptinogens,” “mysticomimetics,” “phanerothymes,” “phantasticants,” “psychedelics,” “psychodysleptics,” “psychogens,” “psychointegrators,” “psychosomimetics,” “psychotaraxics,” “psychotocants,” “psychotogens,” “psychotomimetics,” and “schizogens.” Each of these terms has its particular advantages, yet all fall short of encompassing the entire range of reactions these substances are known to induce.



Gary Bravo and Charles Grob on the Amazon, 1996

Acknowledging that no individual appellation is entirely acceptable, it may be instructive to explore the etymological root of the

“We would wish that by using another term for ‘hallucinogenic’ or ‘psychedelic’ or ‘entheogenic’ plants and chemicals, if we could all agree on one, that we will challenge or even change the preconceived notions and prejudices of others, but we’re not necessarily convinced that this would be the case.”

contested term “hallucinogen.” As clarified by Ralph Metzner, prolific writer, scholar and early explorer of altered states phenomenology, the Latin root of “hallucinogen” is *hallucinari*, or *elucinari*, which translates as “mind wandering” or “mind traveling.” By moving beyond the obvious association to hallucination, which itself is defined as a false perception or false idea, and examining “hallucinogen” from the perspective of the induction of mind voyaging, the term is no longer constrained within the fixed, pathological framework Dr. Lenderts suggests.

There are many words in the English language which no longer are referent to their original meaning. We would wish that by using another term for “hallucinogenic” or “psychedelic” or “entheogenic” plants and chemicals — if we could all agree on one — that we will challenge or even change the preconceived notions and prejudices of others, but we’re not necessarily convinced that this would be the case.

Our argument is basically a practical one — the key is context. Pioneer pharmacological

researcher Sasha Shulgin once told us, when asked about the debate between usage of the term “entheogen” versus “psychedelic,” that if you talk to most people “on the street” and refer to entheogens, they won’t know what you’re talking about, but if you refer to psychedelic drugs, they probably would.

Most likely there will be no resolution to the dilemma of what to call these substances, and they will continue to harbor differing labels depending on the set and setting of the speaker. The term “entheogen” may even become the accepted referent in the religious and spiritual literature. But in the meantime, can’t we all just get along? ■



Tatewari, Shaman and Peyoteros
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from *Plants of the Gods*



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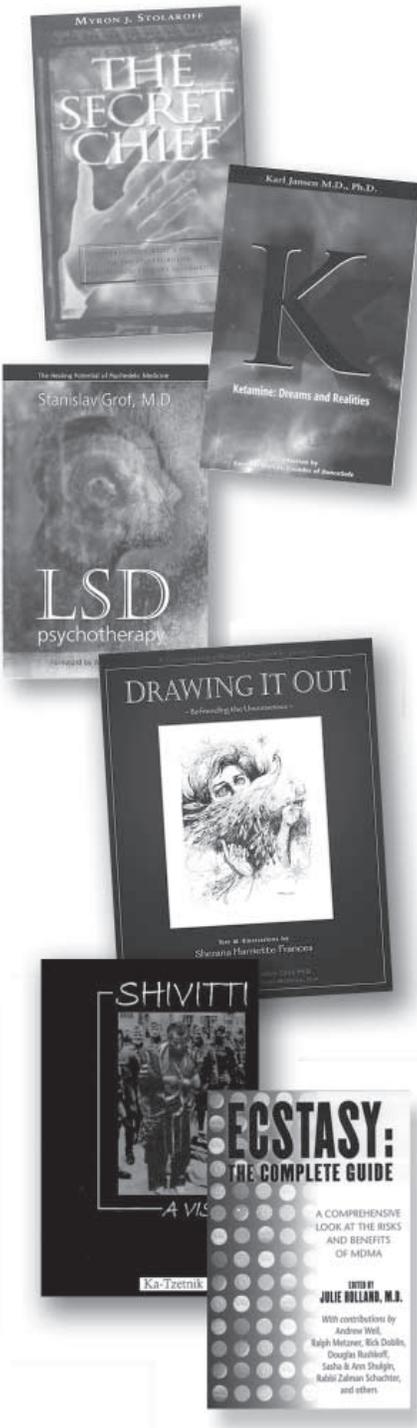
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M A P S M E M B E R S H I P I N F O R M A T I O N

MAPS IS A MEMBERSHIP-BASED organization working to assist psychedelic researchers around the world design, obtain governmental approval, fund, conduct and report on psychedelic research in humans.

Founded in 1986, MAPS is an IRS approved 501 (c)(3) non-profit corporation funded by tax-deductible donations from 1,800 members.

MAPS has previously funded basic scientific research in both humans and animals into the safety of MDMA (3,4-methylenedioxyamphetamine, Ecstasy) and has opened a Drug Master File for MDMA at the U.S. Food and Drug Administration. MAPS is now focused primarily on assisting scientists to conduct human studies to generate essential information about the risks and psychotherapeutic benefits of MDMA, other psychedelics, and marijuana, with the goal of eventually gaining governmental approval for their medical uses.

ALBERT EINSTEIN WROTE: **"Imagination is more important than knowledge."** 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 possible with the support of individuals who care enough to take individual and collective action.

The MAPS Bulletin

Each Bulletin will report on MAPS research in progress. In addition to reporting on research both in the United States and abroad, the Bulletin can include feature articles, reports on conferences, book reviews, Heffter Research Institute updates, and the Hofmann Report. Issues raised in letters, calls and e-mail from MAPS members may also be addressed, as may political developments that affect psychedelic research and usage.



MAPS' founder and President Rick Doblin earned his Ph.D. in Public Policy from the Kennedy School of Government at Harvard University. Doblin was also in Stan and Christina Grof's first training group to receive certification as a Holotropic Breathwork practitioner.

Nicole Tavernier, Director of Operations, has a background in various fields of business and is currently working on her degree in Business Administration.



Mercedes Paulino, Director of Electronic Media, an electro-anthro-bricolier, has become a connoisseur of Deceased Culture, weird hieroglyphs, a frequenter of forgotten systems of Mysterious Statue Chambers and Pyramids, sole witness to Polyhedral Phenomenon of alarming scale in the night sky and Sudden Unexplained Stellar Reconfiguration.



Brandy Doyle, Director of Special Projects, edits the quarterly bulletin and corresponds with MAPS members. Her work gives her the opportunity to learn about public policy, science, communication, and healing. She enjoys the way MAPS is situated at the intersection of research and action, changing the world through understanding the mind.



Vanessa Vaudo, Membership and Sales Coordinator, lives in the peaceful MAPS house in Sarasota and is delighted by the lush sanctuary. Plants are her mentors for survival. She is a monkey for tree-houses, enamored with saunas, and has recently been seduced by Italian culture.

Maggie Hall, Director of Development, is interested in broadening the scope of MAPS' research and educational activities by developing more financial resources for the organization. She sees the incredible benefits available to the global community by providing the full range of therapies that every person has a right to have access to when necessary, believing strongly in personal freedom and choice.

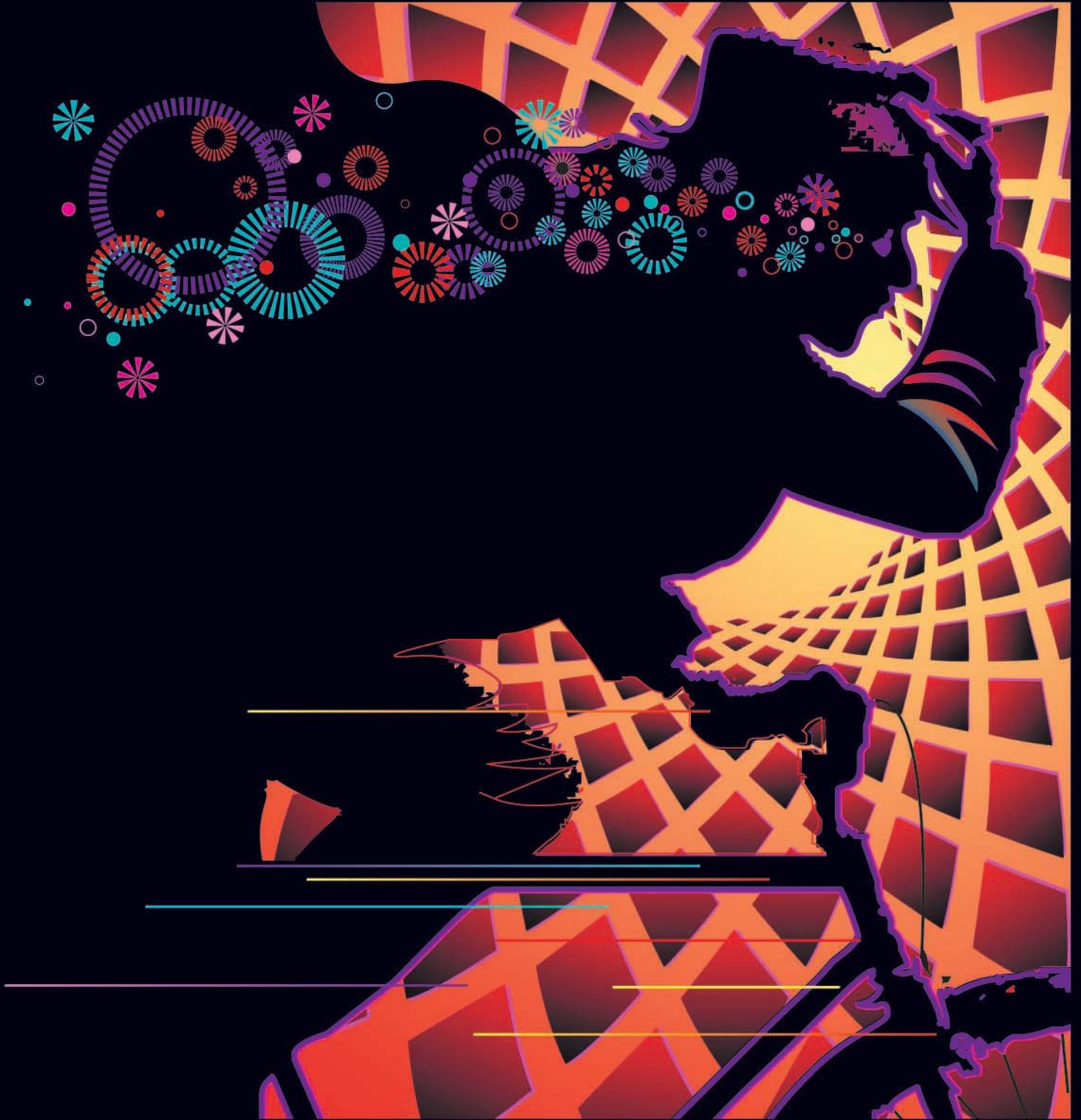


"The best political, social, and spiritual work we can do is to withdraw the projection of our shadow onto others."

– Carl Jung

4/19/43 16:20: 0.25mg TARTRATE, TAKEN DILUTED WITH ABOUT 10cc WATER. 17:00: BEGINNING DIZZINESS, FEELING OF ANXIETY, VISUAL DISTORTIONS, SYMPTOMS OF PARALYSIS, DESIRE TO LAUGH. I ASKED MY

THAT WE HAD TRAVELLED VERY RAPIDLY. FINALLY, WE ARRIVED AT HOME SAFE AND SOUND, AND I WAS JUST BARELY CAPABLE OF ASKING MY COMPANION TO TALK FOR FAMILY DOCTOR AND REQUEST MILK FROM THE NEIGHBOR. -LTD, MY PROBLEM CHILD BY ALBERT HOFMANN



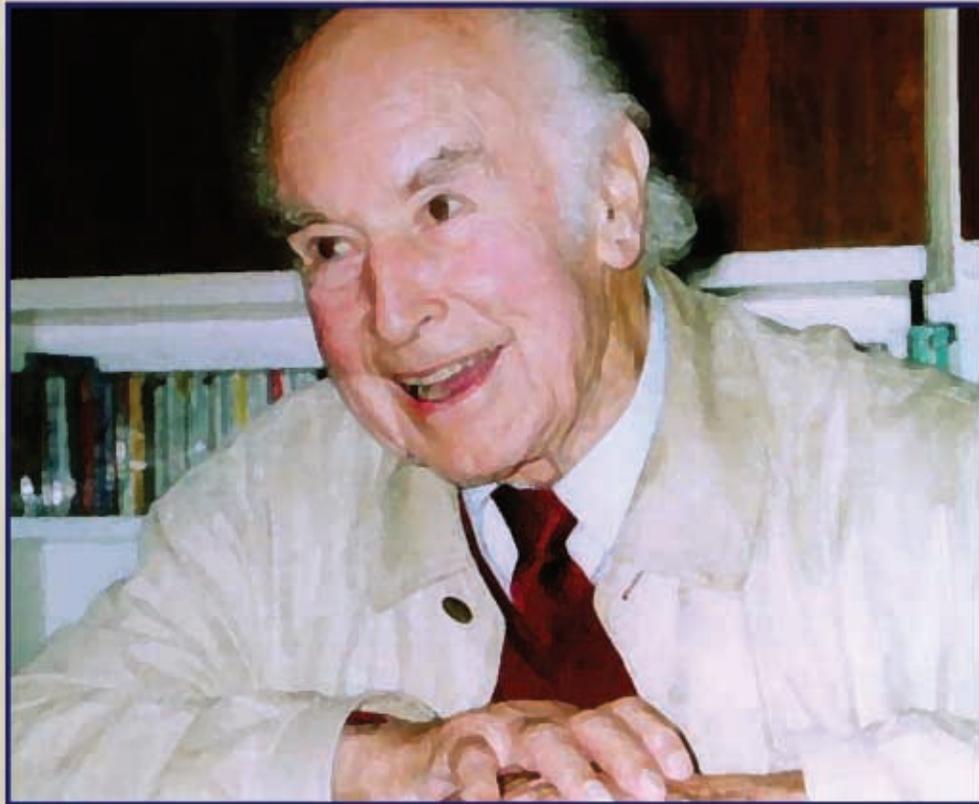
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The Albert Hofmann Collection, a bibliography containing PDFs of 4200+ LSD and psilocybin research papers from the mid-1940s to mid-1980s, is now available on the MAPS and Erowid websites (see p. 23). This project was completed just in time to honor Dr. Hofmann for his 97th birthday, on January 11, 2003.