

MAAPS

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Sacred Symbol of Wirikuta

sacred place at the center of the earth

where the gods dwell.

When Shamans teach the initiates

they tell them to find the nierica, the mirror

through which they can see the other world,

where one can speak with the gods.

There they ask to be granted powers.

For this request to be granted,

they must return for five years

with help from the sun

and from the water

without food

until they reach Wirikuta.

—Cristobal Gonzales, Huichol artist

Simbolo Sagrado de Wirikuta

que quiere decir lugar sagrado

donde viven los dioses aqui viene

siendo el mero centro de la tierra cuando

los chaman se estan cuseñando ha

maracames los mara comes dicen que tienen

que encantrar el nierica que es el espejo

donde los chaman ven otro mundo en

donde se comunican con sus dioses hi ahi

le piden poder para que les conceda

tienen que visitarte cinco años

ayunando de sol

y de agua y sin comer, nada asta

llegar asta wirikuta

—Cristobal Gonzalez, artesano Huichol

FRONT COVER: Huichol yarn painting, a gift to MAPS from Tom Mayers. Thank you!

The text above is the explanation of the image given by Cristobal Gonzales, the artist. Photo by Kelly Martin.

BACK COVER: Digital painting on a similar theme by pixel wrangler and friend of MAPS, Yumi Uno Mundo.

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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 has previously funded basic scientific research into the safety of MDMA (3,4, methylenedioxymethamphetamine, *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 government approval for their medical uses. Interested parties wishing to copy any portion of this newsletter are encouraged to do so and are kindly requested to credit MAPS including name and address. The MAPS newsletter is produced by a small group of dedicated staff and volunteers. Your participation, financial or otherwise, is welcome. © 1996 Multidisciplinary Association for Psychedelic Studies, Inc. (MAPS) 1801 Tippah Avenue, Charlotte, NC 28205. Phone: (704) 358-9830. Fax: (704) 358-1650. Internet: info@maps.org, and <http://www.maps.org>

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MAPS

Bulletin of the Multidisciplinary Association for Psychedelic Studies

Letter from...

Rick Doblin, MAPS President

December 1996

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Schedule 1 Research Protocol: An Investigation of Psychedelic Plants and Compounds for Activity in Serotonin Receptor Assays for Headache Treatment and Prophylaxis

Ethan B. Russo, M.D.

With partial support from MAPS, a group of researchers is pursuing the study of plants and substances with reported psychedelic properties for activity in serotonin receptor assays that may indicate therapeutic utility in acute or prophylactic treatment of migraine headache syndromes.

Ketamine Study at Yale: an Update

Evgeny Krupitsky, M.D., Ph.D.

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Psilocybin's effects on cognition: Discussion of recent research

Matthew J. Baggott

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September 1996 marked the beginning of HRI's fourth year. This small organization continues to grow in several ways. Manuscripts are now in the editing process for the first Heffter Review of Psychedelic Research, due to be published in Spring 1997.

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Myron Stolaroff, M.A.

The AHF is pleased to announce that Sandoz Corporation has agreed to turn over to the AHF Dr. Albert Hofmann's research papers on his work with LSD and psilocybin. This issue also features the well-known and admired chemist, Alexander T. Shulgin.

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The Literature of Psychedelics

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Sometimes, a good-faith effort that results in failure can still have positive consequences. Such was the case regarding the unsuccessful four-year struggle of MAPS and Dr. Donald Abrams, UC San Francisco, to obtain permission to conduct FDA-approved research into the use of smoked marijuana in the treatment of patients suffering from the AIDS wasting syndrome.

On November 5, 1996, over 4.8 million people in California, 56% of the electorate, voted to pass Proposition 215, an initiative which legalized the use of marijuana by patients whose physicians recommend marijuana for their medical conditions. In the final weeks of the campaign, several reporters contacted MAPS requesting a response to one of the main arguments against Proposition 215—that there is insufficient scientific evidence to justify the medical use of marijuana. These inquiries gave me the opportunity to summarize the evidence that did exist and relate in detail the saga of our ill-fated attempt to gather additional evidence. News stories on the political suppression of medical marijuana research appeared on Page 1 of the *LA Times*, in prominent places in several San Francisco papers, and on radio talk shows.

Letter from Rick Doblin, MAPS President

MAPS members can take some satisfaction in knowing that our work on behalf of medical marijuana research, though thwarted, may have helped convince some undecided voters to support Proposition 215. Our efforts demonstrated that the government's duplicitous rhetoric about the lack of research was linked to a policy designed to prevent research. Perhaps the Clinton Administration will have learned from voters in California and also in Arizona, where Proposition 200 legalized the medical use of marijuana, that it is the suppression of research that "*sends the wrong message*" and destroys the credibility of government officials.

MAPS and Dr. Abrams will continue to try to obtain permission for medical marijuana research. MAPS has committed to making another \$5,000 contribution to the San Francisco Community Consortium to cover staff time and expenses involved in redesigning the protocol for the third time. The revised protocol will be submitted for review in the National Institutes of Health (NIH) grant cycle that begins May 1, 1997. This will leave sufficient time to have the protocol redesigned, evaluated and approved by the FDA prior to resubmitting it to NIH.

MAPS will also seek clarification from the Drug Enforcement Administration (DEA) concerning the criteria which it will use to evaluate an application for a DEA license to establish a non-profit marijuana production facility to provide marijuana to FDA-approved research projects. MAPS has received a \$5,000 grant from the Drug Policy Foundation to aid in this effort.

Progress is also being made on the long-awaited MDMA study by Dr. Charles Grob and Russell Poland, Ph.D., Harbor-UCLA Medical Center. This study will investigate the use of MDMA in the treatment of pain and distress in end-stage cancer patients. Dr. Poland has received a \$12,500 grant from MAPS to supervise and complete the protocol design and approval process before Summer 1997.

Now that I live within a household filled with the laughter and tears of two small children, I've come to appreciate the difficulties involved in the process of responsible education. This issue's drug education articles are offered as a contribution to the struggles faced by many parents who are uncomfortable with the drug education provided in schools, don't want to leave it to their children's peers and are uncertain how to approach the issue themselves.

I hope that this holiday season finds you happy, healthy and with enough time to read the articles of interest at your leisure. •

Rick Doblin, MAPS President,
December 1996

With partial support from MAPS, this group of researchers is pursuing the study of plants

and substances with reported psychedelic properties for activity in serotonin receptor assays

that may indicate therapeutic

utility in acute or prophylactic

treatment of migraine headache

Ethan B. Russo, M.D. Clinical Neurologist, Western Montana Clinic, Ethnobotanical Researcher; Principal Investigator

Rustem Medora, Ph.D. Professor, Department of Pharmacy, University of Montana, Pharmacognosist; Plant Preparation

Keith Parker, Ph.D. Assoc. Professor, Department of Pharmacy, University of Montana, Neuropharmacologist; Serotonin Receptor Assays

Charles Thompson, Ph.D. Assoc. Professor, Department of Chemistry, University of Montana; Analysis, Synthesis, Structure-Activity Relationships

syndromes. This will lead to investigation of structure-activity relationships with

an eye toward development of new therapeutic substances for drug development.

Schedule 1 Research Protocol:

An Investigation of Psychedelic Plants and Compounds for Activity in Serotonin Receptor Assays for Headache Treatment and Prophylaxis

Plant analgesics

FOR THOUSANDS of years, medicine and plants were synonymous. The first analgesics, willow bark and the opium poppy, yielded pharmaceutical derivatives we now recognize as aspirin and morphine. In the 1930's, research on *Claviceps purpurea*, the fungus of rye grain by Sandoz Laboratories, led to the development of the ergot alkaloids, the first truly effective pharmaceuticals for the treatment of migraine headache. This research led as well to an unexpected by-product, Albert Hofmann's "Problem Child," lysergic acid diethylamide, a psychedelic with profound implications for neurochemical investigation. As a practitioner of allopathic medicine and neurologist, the principal investigator has continued a long-standing personal interest in herbal medicine and ethnobotany, and feels that additional mysteries in the treatment of neurochemical disorders may be solved through a renewal of investigation of "nature's chemists," the plants.

Embarking on new research

In 1990, recognizing the continued need for new symptomatic and preventive drugs for treating migraine, this research group embarked on a survey of available ethnobotanical information from around the world with reference to headache treatment. Very quickly, it became apparent that the area of greatest plant biodiversity, the Northwest Amazon, was also the site of the most numerous ethnobotanical treatments for headache. Also in that year, publications outlining the neurochemical basis of migraine treatment in serotonin receptor pharmacology suggested the plausibility of employing these laboratory techniques as an *in vitro* method of screening plant extracts for possible development as new therapeutic medicinals. In 1992, an article was published by the principal investigator in *Journal of Ethnopharmacology*, outlining these theories, and how they might be applied to 24 plants used for headache treatment by indigenous peoples of

the Ecuadorian Amazon. A field study of these plants with collection and subsequent laboratory analysis was proposed. Subsequently, two University of Montana Research Grants, totaling \$5000 in awards, were assigned to these investigations. In 1994, Drs. Russo and Medora traveled briefly to the Amazon, but plans to do preliminary plant collection in Peru were not approved by that government.

Plant collection in Peru

In 1995, in association with Glenn Shepard, a doctoral degree candidate in anthropology at the University of California, Berkeley, the principal investigator accomplished this goal in two months of ethnobotanical field study of the Machiguenga people of the village of Yomuibato in the midst of the remote Parque Nacional del Manz, in southeastern Peru's Madre de Dmos department. During this sojourn, in excess of 400 medicinal plant species were collected for botanical identification. Of these, fully 25% had indications suggesting neuropharmacological activity, including migraine. Of approximately 25 species on a "wish list" for plants employed for headache, all but two were identified in Manz, but in addition, many novel specimens were collected. These were preserved in ethanol, and in some instances, live specimens were exported in accordance with Peruvian and U.S. statutes, and have survived the difficult outward journey to be cultivated in Montana. We believe that there are several species new to science, and preliminary investigation through NAPRALERT searches confirms that very few have undergone any biochemical analysis. Further details of this work are available on the net: "Plants of the Machiguenga," www.montana.com/manu. Initial studies to date, undertaken by Drs. Keith Parker and Rustem Medora of the University of Montana Department of Pharmacy, and Dr. Chuck Thompson of the Department of Chemistry, have revealed very encouraging results in demonstrating the activity of several plant extracts on serotonin receptor activity. Approximately ten Machiguenga samples are *ibenkikis*, *Cyperus* species infested congenitally with *Balansia* fungus that have demonstrated the presence, in prior study, of novel ergot

alkaloid structures. These hold obvious promise for additional study in migraine treatment and the search for other psychoactive agents.

It is of interest that numerous plants used ethnobotanically for headache are psychedelic at higher doses.

Migraine medications

As late as 1915, Sir William Osler, an acknowledged father of modern medicine, touted *Cannabis* as the most effective treatment available for migraine. The same seems to be true of synthetic medications for migraine. After all, sumatriptan (Imitrex) is merely dimethyltryptamine (DMT) with a methanesulfonamide in the 5-position. Similarly, if the methoxy group on methysergide (Sansert) is changed to an ethyl, one has produced lysergic acid diethylamide (LSD). In fact, methysergide and ergonovine, prescription medications for migraine, are themselves psychedelic at high

doses. The Machiguenga tribe employs intra-ocular administration of fresh *Psychotria* leaf juice as a treatment for migraine. It is apparently quite effective, and free from bothersome side effects. Another species, *Psychotria viridis*, is well known as a DMT-donor in the ayahuasca admixture employed by many Amazonian tribes as a preparation for psychedelic divination. As an estimate, the Machiguenga utilize 15-20 *Psychotria* species for one psychoactive purpose or another. There is good potential for discovery of novel tryptamine analogues with clinical application from these plants. The Machiguenga employ or have employed several plants beyond these with reported psychedelic activity that have not previously been reported, let alone characterized pharmacologically. We have ethanol samples of these, and a few are in cultivation in an "Amazonian Jungle in Exile."

Serotonin receptor assays

In short, the investigators believe there is high potential among existing plant samples and live plants to identify additional good candidates for the serotonin receptor assays. As time and funding allow, we *hope to continue* and complete the surveys on those agents.

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Ethan Russo, M.D. holding a specimen of *katrigitobenki*, a *Cyperus* sp., congenitally infected with *Balansia cyperi* fungus. This one is employed by the Machiguenga tribe to treat headache. Novel ergot alkaloids to treat migraine and yield new psychedelic agents are certainly possible from this and other specimens.



Glenn Shepard, Jr. performing taste and smell experiments with Oscar, one of our most accomplished guides and plant advisors among the Machiguenga.

However, for the reasons described above, the researchers do not feel that our search should end there. We recently received \$1,500 from the American Gloxinia and Gesneriad Society for study of psychoactive and headache plants from that family (which includes African violets). A generous \$2500 grant has been received from MAPS, and will be utilized to purchase reagents and necessary laboratory assistance. We have arranged for the subsequent forwarding of marijuana samples from the University of Mississippi, pending receipt of a Schedule I Drug Permit (application submitted). Ideally, we would like to study all three species, *Cannabis sativa*, *indica*, and *ruderalis*. It is suspected that THC itself will have generous serotonin receptor activity, in keeping with *Cannabis*' long history as a migraine remedy. Perhaps these plants contain other active analogues that are not Schedule I substances. Since the discovery of anandamide as the endogenous ligand for the cannabinoid receptor in the human brain, some semi-synthetic efforts in that area may be similarly fruitful in treating migraine and other painful conditions. A permit is similarly sought for the study of *Psilocybe* mushrooms, to be provided by Paul Stamets of Fungi Perfecti in Washington state. It is likewise sensible to study peyote, should a source of supply be identified, and other mescaline-producing cacti, such as *Trichocereus (Echinopsis) pachanoi*. Similarly, the investigators propose to obtain small amounts of 5-methoxydimethyltryptamine (5-MeO-DMT), dimethyltryptamine (DMT), diethyltryptamine (DET), and dipropyltryptamine (DPT). These compounds will likely be strong ligands in the serotonin receptor assays, and thus may be active against headache at doses sub-threshold for psychedelic effects (say 1 mg. or less), much as the raw leaf juice prepared from the Machiguenga's *Psychotria* suggests.

Logical next steps

One obvious issue in this research project is how potentially psychedelic drugs could putatively be safely marketed for patient use. It would be practical to package a commercial product (eye drops or nasal spray) in single or few-dose packaging that would avoid the risk of abuse. Likely, these might necessarily be Schedule 2 drugs, requiring non-refillable, written prescriptions, much as is the case for methadone or dronabinol (Marinol, synthetic THC). They would have the advantage of rapid parenteral absorption, without injection, but obviating the oral route with its slow onset and

unreliable absorption rate due to attendant gastroparesis in migraine. However, it bears repeating that methysergide and ergonovine are psychedelic at high doses, but are not subject to these more rigid controls. **Although the current study is not designed to include either animal or human clinical studies, should the biochemical assay results support continuing investigation, we would then apply for permission to pursue the logical next steps.** Dr. Russo will be the principal investigator, but all the actual research will take place in the research laboratories of the Pharmacy and Chemistry Departments of the University of Montana, Missoula, Montana. In addition to the Machiguenga samples collected in Peru, planned study items include, but may not be limited to:

Marijuana: Arrangements will be made with the University of Mississippi, to obtain small amounts (circa 100 g.) of *Cannabis sativa*, and additionally as available, *Cannabis indica*, and *Cannabis ruderalis*, for analysis, serotonin receptor assays, and the possible discovery of new compounds in the plants with serotonin receptor activity.

- THC (tetrahydrocannabinol): small amounts (circa 1 g.) for baseline chromatographic and NMR standards.

- DET (diethyltryptamine): 5 mg. or less, for structure-activity studies, and new compound synthesis.

- DMT (dimethyltryptamine): 5 mg. or less, for reference standards, structure-activity studies, and new compound synthesis.

- 5-MeO-DMT (5-methoxy-dimethyltryptamine): 5 mg. or less, for reference standards, and new compound synthesis.

- DPT (dipropyltryptamine): 5 mg. or less, for structure activity studies, and new compound synthesis.

- Mescaline (3,4,5-trimethoxy-beta-phenethylamine): 5 g. or less, for reference standards, and new compound synthesis.

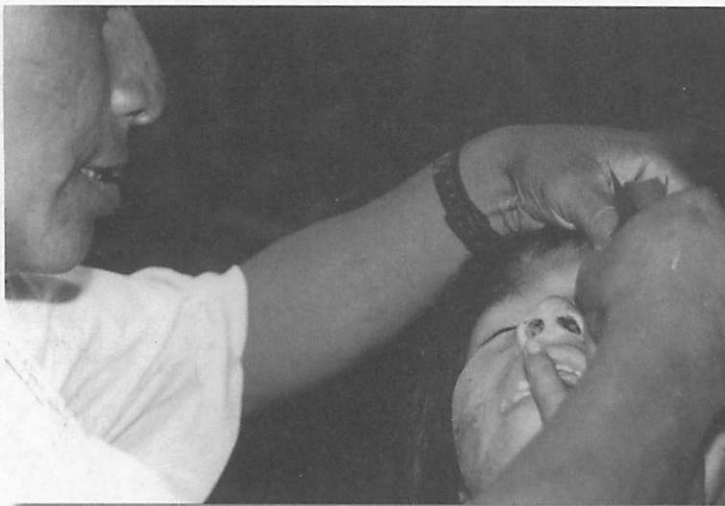
- Peyote: small amount, 500 g., if supply can be procured, for analysis, serotonin receptor assays, and possible discovery of new compounds.



César holds two *tuiruibanto* flowers, *Voyria* sp., that serve triple duty for the tribe. Squeezing the juice into the eye is said to treat headache, or improve aim in hunting. Additionally, the plant was formerly a favored ingredient in the *kamarampi* (ayahuasca) psychedelic admixture.



César pounds sections of *kamarampi* vine (*Banisteriopsis caapi*) that provide the MAOI that are combined with *urubambashi* leaves (*Psychotria* sp.), donors of DMT, or other yet to be determined psychedelic agents.



Mateo applies juice expressed from *Psychotria* sp. leaves to improve a young man's hunting prowess. The same treatment alleviates headache.



Mateo offers the scent of a plant for Mariano's opinion.



Close-up of *mamperikipini*, *Fittonia albivenis*, whose leaves are employed as the ingredient of a tea among the Kofán and Siona-Secoya tribes in Ecuador to treat headache. The Machiguenga, however, have traditionally used it in the *kamarampi* admixture as a presumptive psychedelic agent.

- Psilocin (4-hydroxy-dimethyltryptamine), Psilocybin (O-phosphoryl-4-hydroxy-dimethyltryptamine): 1 g. or less of each, for reference standards, and new compound synthesis.

- Psilocybian mushroom species: 1 kg. or less, to be supplied by Paul Stamets, of Fungi Perfecti, for analysis, serotonin receptor activity, and possible discovery of new compounds.

Hopes for human studies

Although the grant money to date will allow preliminary work to commence, hopefully during the 1996-97 academic year, carrying the project to its desired end-point will likely incur costs many orders of magnitude greater. The researchers are dedicated to the ethnobotanical and chemical search for better clinical pharmaceuticals for migraine, depression, and treatment of pain. Listing of drugs as "Schedule 1" presupposes that they have no clinical utility, and has road blocked necessary research until 1990 when the FDA began approving human studies with psychedelics. The lingering controversy over such research has effectively cut off this project from any likelihood of public funding. The difference will need to be raised from interested private sources. Tax-deductible donations from interested parties will be gratefully received by MAPS (please specify that you want 100% of your donation to go to Dr. Russo's migraine project), or can be sent directly to: Ethan Russo, M.D., Department of Neurosciences, Western Montana Clinic, 515 West Front Street, Missoula, MT, 59807-7609. •

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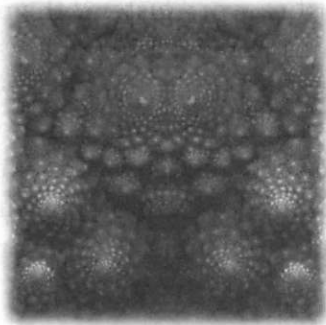
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KETAMINE STUDY AT YALE: AN UPDATE

Evgeny Krupitsky, M.D., Ph.D.

AS I WROTE in the Spring/Summer issue of MAPS, I have left my laboratory in St. Petersburg, Russia for a year to carry out studies of ketamine psychopharmacology in alcoholic patients at Yale with Dr. John Krystal. I have been working with Dr. Krystal at the Yale/West Haven VA Medical Center for about six months. I am thankful to Dr. Krystal and to all his colleagues who helped me and my family to get settled and adjusted in West Haven and feel ourselves comfortable here.

A protocol which I submitted has recently been approved. The protocol is focused on the study of



interactions of ketamine and nimodipine in alcoholic patients. The major underlying mechanism of ketamine action is a blockade of the calcium channel of the NMDA receptor. Nimodipine blocks another type of calcium channels, dihydropyridine-sensitive calcium channels. All these calcium channels are involved in the processes of thought, memory, emotions, seizures, and the development of alcohol withdrawal syndrome and alcohol dependence. Thus, our study could perhaps further clarify the subtle underlying mechanisms of ketamine-induced altered states of consciousness and shed light on the pathogenesis of alcoholism. It has been previously shown in rodents that nimodipine reverses memory disturbances and ambulatory activity induced by ketamine. Also, studies carried out in our laboratory in St. Petersburg have demonstrated that nimodipine significantly improved the patient's memory of the content of the ketamine psychotherapy session (about the psychedelic peak experiences and the psychotherapist's influence). Thus, we already have some positive preliminary data.

The protocol design is double-blind placebo-controlled and focused on the study of the broad range of effects of ketamine-nimodipine interactions such as behavioral and cognitive effects, long-term psychological consequences, and influence on the event-related potentials (ERP). I hope that the combination of behavioral, psychological and neurophysiological data will allow us to better discern some of the subtle underlying mechanisms of drug interaction and action on the brain. This can contribute to a better understanding of the treatment of alcohol dependence and other mental illnesses.

We hope to gather preliminary data with two to four patients before I return to Russia in March 1997. This data will lay a foundation for future joint research. •

MAPS has awarded \$24,000 to Dr. Krupitsky to study the use of ketamine in the treatment of heroin addiction. This study will begin upon Dr. Krupitsky's return to St. Petersburg, Russia in Spring 1997.

Dr. Krupitsky can be reached at
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Psilocybin's effects on cognition: Recent research and its implications for **enhancing creativity**

Matthew J. Baggott



THE "FIRST WAVE" of psychedelic research in the 1960's saw many attempts to understand the

mechanisms and effects of psychedelics. Looking back on this past research, one gets the idea that psychedelic substances were perhaps too complex for the scientific tools of the time. The current wave of psychedelic research therefore holds much promise. Since the 1960's, we have gained many sophisticated research tools. These tools include neuropsychological tests—simple, repetitive, game-like tasks—which can give valuable insight into how psychedelics affect the mind. Manfred Spitzer, M.D., Ph.D., and his colleagues (1996) recently published a fascinating report on the effects of psilocybin on one such neuropsychological test.

Spitzer's group orally administered 0.2 mg/kg body weight of psilocybin to eight male volunteers in a double-blind, placebo-controlled experiment. They then studied the effects of psilocybin in a word-recognition task. In this task, subjects identify whether a string of characters is a word or not. Past research has found that subjects can identify a word faster if the previous string of characters is a closely related word. For example, subjects can recognize the word "black" more quickly if it has been immediately preceded by the word "white." This effect is known as semantic priming. In normal subjects, semantic priming occurs only with closely related words. However, indirectly related words ("sweet" and "lemon," for example) produce semantic priming in thought-disordered schizophrenic subjects (Spitzer et al 1993a, 1993b).

Semantic priming

The researchers found that psilocybin slowed the subjects' reaction times while at the same time producing a semantic priming effect for indirectly related words ("sweet" and "lemon"), similar to that seen in the schizophrenia research. The finding that psilocybin slowed reaction times was not unexpected; past

research with psychedelics has found the same effect. However, the finding that psilocybin produced indirect semantic priming is more interesting. In their discussion, the researchers point out that their findings are relevant to claims that psychedelics "enhance creativity" or "broaden consciousness."

Although most objective measures have failed to support these claims, our data suggest that the [hallucinogenic] agent in fact leads to an increased availability of remote associations and thereby may bring cognitive contents to mind that under normal circumstances remain

Discussion of the article:
Spitzer M, Thimm M,
Hermle L, Holzmann P,
Kovar KA, Heimann H,
Gouzoulis-Mayfrank E,
Kischka U, Schneider F,
(1996); Increased activation
of indirect semantic associa-
tions under psilocybin.
Biol Psychiatry 39:1055-1057.

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nonactivated; however, the generally decreased psychological performance under hallucinogenic agents suggest that the increased indirect priming effect is due to a decreased capacity to use contextual information for the focusing of semantic processing. Hence, subjectively experienced increases in creativity as well as the broadening of consciousness have been found to parallel decreases in objective performance measures (p. 1056-1057).

Thus, the researchers suggest that psychedelics may in fact "broaden consciousness" by making remote mental associations more available. However, this involves a trade-off. Although remote mental associations are more available, subjects are less able to focus, which slows their reaction times.

Semantic neural networks

The researchers interpret their findings using a model which states that the brain contains semantic neural networks which can become activated by semantic information. The spread of this activation through the networks determines the amount of semantic priming that occurs in the word-recognition task. Activation spreads further and faster in thought-disordered schizophrenics and psilocybin users than in normal volunteers. One explanation for this unusual amount of activation is decreased efficiency in the cortex where semantic information is processed (Servan-Schreiber et al 1990, Cohen and Servan-Schreiber 1992, 1993). There is evidence that this inefficient processing is related to the decreased dopaminergic modulation. In support of this theory, the researchers have found that L-dopa, a precursor to dopamine, reduces the spread of activation and therefore reduces indirect semantic priming (Kischka et al 1995). In the context of this theory, psilocybin (which acts on the serotonin system) can be seen as increasing activation of semantic networks. Essentially, dopamine seems to have a focusing effect on activation of semantic networks while psilocybin has a defocusing effect.

Word-recognition task

The word-recognition task used by Spitzer's group is particularly interesting for a number of reasons. First, it allows researchers to test automatic rather than voluntary access to memory. Even when subjects cannot consciously recall previously viewed words (whether because of a drug or neurological disorder), the word-recognition task can demonstrate whether subjects can still automatically access that memory. In addition, the

task allows researchers to see how the focus of subjects' mental associations is changed by different pharmacological or psychological states. This aspect seems potentially promising for distinguishing between different types of memories. For example, in some situations, emotional words ("happy" and "sad") might be activated to a greater extent than words with little emotional content ("black" and "white").

Spitzer and his colleagues have come closer to understanding the effects of psychedelics. As they point out in the conclusion of their paper, they have succeeded in using the results of a simple task to theorize connections between the subjective reports of psychedelic users, objective measures of psilocybin's effects, and underlying brain physiology. In the process they raised a number of productive leads for further research.

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Listening for the Logos: a study of reports of audible voices at high doses of **psilocybin**

Horace Beach, Ph.D.

THERE ARE REPORTS that psilocybin mushrooms can engender a dialogue between the one who ingests them and a voice of unknown origin. The objective of the present study was to search for such reports, to look for differences between those who reported having heard a voice with psilocybin use and those who had not, and to characterize the voice.

An anonymous questionnaire

was distributed among the

members of several organiza-

tions resulting in a sample

of 128 participants. The

phenomenon of a perceived

voice during psilocybin

mushroom use was reported

in better than a third

of participants:

There are a number of verbal and literary reports that psilocybin (or "psilocybian") mushrooms speak to human beings—that is, they can engender or catalyze an auditory dialogue between the one who ingests them and a voice of unknown origin. T. McKenna terms this "interiorized linguistic phenomenon" an experience of the Logos. The Logos is to be understood as a sort of intermediary between what one might consider to be God, the Truth, or the "Suchness" of reality, and human beings. While it is possible to experience directly the Absolute, or noumenon of phenomena, or the Nondual, much of recorded historic experience of what has come to be known as divine inspiration or revelation comes through one of the various manifestations or intermediaries of the Absolute in the form of gods, spirits, angels, or ancestors. The daimon of Socrates is a good case in point; for example, Angeles states that in Plato's Symposium "the daimon communicates to the gods the prayers of humans and reveals to humans the commands of the gods." At times these intermediaries of the Absolute appear to humans, but they also reportedly can be experienced as disembodied voices.

The Other

While it can be argued that the voice, or voices, may ultimately be "some previously hidden and suddenly autonomous part[s] of one's own psyche" (T. McKenna, 1991b), such

discussion can lead one into the philosophical abyss of what is ultimately meant by "one's own psyche" and the concept of self and other. Nonetheless, the voices many times present themselves as quite alien.

Persinger's findings

Persinger and his colleagues at Laurentian University are looking at "Other," "ego-alien intrusions," or a "sensed presence" phenomena from a neurophysiological perspective. In the search for brain correlates to the experience of "presences," their studies have focused primarily on the deep temporal lobe structures of the brain, the amygdala and hippocampus, which Persinger characterizes as the most electrically unstable structures in the human brain.

There are three major points to be gleaned from Persinger's work relevant to the auditory voice phenomena reported by individuals taking high doses of psilocybin. First, the numerous reports studied by Persinger that involve an ego-alien experience or a sensed presence are similar to reports of the otherness or alienness of the experience of the Logos. Second, that the temporal lobes are implicated in Persinger's correlational studies is highly suggestive, as the role of the temporal lobes in normal and so-called hallucinatory audition is well known. Third, Persinger's focus on melatonin is interesting because melatonin production in the pineal gland is accomplished through the conversion of serotonin by the enzyme HIOMT. Thus, any compound that affects the serotonergic system (as psychedelics do), and is reported to elicit a sense of an alien other with auditory voice phenomena, must be explored with an eye toward Persinger's findings. Psilocybin fits the bill on both points. However, while the investigation of neurochemical correlates is a vital

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piece in the understanding of Logos-like phenomena, it is not true that by describing the neurochemical correlates of any mental activity one has found its explanation. Perhaps the relationship between the brain and its neurochemical correlates to the experience of mind should best be thought of as an interface with, or receiver of, mind (Sheldrake, 1989). Wilber views the brain as an exterior aspect or manifestation of the mind and consciousness. In any case, trying to understand the mental effects of the psilocybin experience solely in terms of physio-chemical factors entirely misses other levels of comprehension.

Potency and Dosage

Due to species variation, psilocybin mushrooms differ in potency. For example, concentrations of psilocybin in *Psilocybe cubensis* is about 2 mg/gm, whereas the quite potent *Psilocybe semilanceata* averages around 12.8 mg/gm in fresh specimens. Potency can also vary between strains of the same species, or even between various mushroom "flushings," or fruitings of the same mycelial organism (mushrooms are the sexual organs, so to speak, of the underground living web organism known as a mycelium). One therefore has to estimate average amounts and percentage concentrations when dealing with mushroom psilocybin and psilocin. Fortunately, there are some general agreements. Most sources cite psilocybin's entheogenic or psychedelic effects in humans as occurring between 5 and 50 milligrams, with the highest reported human dose at 120 milligrams and the "maximum safe dose" around 150 milligrams (Ott, 1993). A consensus of opinion favors a "high" dose of psilocybin to be at least 12 milligrams, or five or more dried grams of well-preserved *Psilocybe cubensis* mushrooms for a 154-160 pound person. There is some discussion, however, concerning whether mushrooms containing psilocybin differ in their effects from pure synthetic psilocybin, aside from the effects of the synthetic generally lasting a shorter time. In any case, it was understood by the researcher that the amount of psilocybin and psilocin varies between mushroom species, making sheer comparisons of number or weight crude at best, and it was hoped that the species-based psilocybin/psilocin content variation would be randomly distributed throughout the study's sample and therefore not a source of bias.

Voices

T. McKenna conducted a survey that was highly influential in the development of this

study, in that its results suggested that the audible voice phenomenon was dosage-related. He has also stated that for some individuals, as much as 9.5 grams of dried mushrooms are required to elicit a voice, and also that other conditions and techniques may be necessary to hear a voice. Though there are a number of different types of voice experiences, the common thread running through them all is the imparting of information to the listener. This is the crucial importance of voices. In traditional usage, the mushroom voices give healing information. While there are many reports of experiences with psilocybin that do not include the phenomenon of voices, it should be noted that "the Indians recognize that it is not to everyone that they speak" (Munn, 1976). Perhaps they do not speak to one for a number of reasons: poor mental set, the lack of a technique to elicit a voice, poor environmental setting, old or improperly stored mushroom material weakening the psychoactive effects, insufficient dosage, psilocybin mushrooms versus synthetic psilocybin, poor absorption in the stomach, idiosyncratic body chemistry, mental experience, a person's sensory input style, or not enough experiences with psilocybin (use over time may deepen the experience, as with LSD in psychotherapy) (Grof, 1985, 1988).

Strange Sounds

While not a voice, another reported auditory experience with tryptamine compounds, especially psilocybin, is what has been described as a "buzzing" sensation or sound. Discussion of this peculiar audile phenomenon may not be so far afield from the focus of the present study. Gordon (1993) has suggested that tinnitus (a condition of ringing, buzzing, hissing, or humming in the ears) from any cause can trigger auditory hallucinations of music, or even speech.

Biochemical Correlates?

There are a few provocative and suggestive findings in the literature. However, these should be examined with the admonition, as previously discussed, that to the detriment of understanding, "it is so easy to replace the word 'mind,' in our inquiries, with the word 'brain'" (Alexander Shulgin & Ann Shulgin, 1992). A common denominator in the biochemical research with psychedelics in general, and with tryptamines in particular (psilocybin/psilocin), is that, somehow, the neurotransmitter serotonin is specially involved in the psychedelic experience. Of particular interest to this study is research suggesting that serotonin may have a special role in the perception of inner (subjec-



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tive) auditory experience (Andorn, Vittorio, & Bellflower, 1989; Hegerl & Juckel, 1993).

Psilocybin is an "agonist [] or partial agonist [] at several subtypes of the serotonin (5HT) receptor: 5HT-2, 5HT-1c, and 5HT-1a" (Strassman, 1992, p. 241), and the chemical structure of psilocybin's metabolite, psilocin, is close in structure to serotonin. While this may suggest a reason for the general psychoactive effects of psilocybin and psilocin, it cannot solely account for the tryptamine, psilocybin-specific auditory voice phenomenon. The reasons for this are many. As already stated, serotonergic neurotransmitters and receptors are strongly involved in the psychoactive effects of many of the psychedelics, including, for example, the phenethylamines; yet reports of voices are absent in one major work on phenethylamine compounds (Alexander Shulgin & Ann Shulgin, 1992). It is also not enough to say that the auditory effects of tryptamines are the result of their having a unique structure in comparison with other psychedelics: for example, it can be pointed out that LSD and other of the ergolines "can [also] be viewed as rigid tetracyclic tryptamines" (Nichols, 1986, p. 338).

If tryptamines, particularly psilocybin, are shown to have specific and somewhat unique abilities to stimulate auditory voice phenomena in human beings, their mere similarity to serotonin is not sufficient explanation. However, the serotonergic system is somehow specially involved in auditory experience, as is Brodmann areas 41-42 in the temporal cortex and Broca's area (P. McGuire, Shah, & Murray, 1993).

Demographics of the Sample

There were several sources of participants for the study: subscribers to the MAPS Newsletter, the membership of The Fane of the Psilocybe Mushroom Association, the subscribership of The Entheogen Review, and the Internet. The final sample consisted of 128 participants who had returned useable questionnaires. Ninety-nine males and 29 females ranging in age from 18 to 75 ($M = 40.72$, $SD = 12.86$) made up the study. Judging by postal marks, participants hailed from at least 31 states and 8 foreign countries. Of these individuals, 106 designated Caucasian as their primary ethnicity, followed by Jewish, with six, and one of each for 13 other ethnicities. The average years of education for the group was just over 16, or the equivalent of a Bachelor's degree ($M = 16.48$, $SD = 2.52$). Based on the responses to the question of the number of times psilocybin was taken, the study examined approxi-

mately 3,427 reported psilocybin experiences ($n = 118$). Of the total questionnaire responses ($N = 128$), 35.9% ($n = 46$) of the participants reported having heard a voice(s) with psilocybin use, while 64.0% ($n = 82$) of the participants stated that they had not. Based on the responses to the question of the number of times [they] experienced a voice(s) with psilocybin, the study examined approximately 394 experiences of psilocybin-induced voices ($n = 40$). Each item on the questionnaire was designed to be treated as a separate variable to be compared between groups or correlated within a group. Because of the skewness of some of the distributions, and in some cases due to the type of data collected, all comparative and correlational data for the study were analyzed using nonparametric statistics. Also, exploratory and confirmatory subgroups were utilized.

Differences Between the "Yes" and "No" Voice(s) Groups

True to T. McKenna's suggestions for how to increase the possibility of voice experiences with psilocybin, the group that reported having heard a voice(s) with psilocybin use (the Yes group), on average, took the mushroom more times, took a larger amount of dried grams of mushrooms per use, and took the mushroom more often in darkness than the No group. In fact, the average reported dried grams of psilocybin mushrooms taken per experience for the No group is less than the average minimum amount of dried grams of psilocybin mushrooms needed to hear a voice(s), as reported by the Yes group. The Yes group also used psilocybin and then tried or intended to hear (evoke) a voice(s) more times than did the No group. Curiously, and not predicted by T. McKenna, the Yes group reported using psilocybin mushrooms grown themselves more often than the No group. One may speculate that the care and attention required by mushroom cultivation might contribute to a greater intention to hear a voice(s), thus leading to a more successful evocation. There were two findings of statistically significant differences between the Yes voice(s) and No voice(s) groups. First, the Yes group reported taking psilocybin more often while alone than the No group. This could have also been predicted by T. McKenna's suggestions of technique. By being alone, talking is eliminated as a distraction. It must be that the phenomenon of a voice(s) is subtle enough, at least initially, as to be missed due to exterior (talking, light) or interior (lack of intention) distractions. Namely, the voice(s) does not

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present itself to the “bemushroomed” person simply because he or she ingested a certain amount of psilocybin. Although, as many participants suspected (according to comments written on the questionnaires), larger average doses may be one of a number of factors to account for the presence or absence of the voice(s) experience. The second statistically significant difference between the groups was the finding that those in the Yes group endorsed having heard a voice(s), at least once, when using drugs other than psilocybin significantly more often than did the No group. In other words, those participants who heard voices with psilocybin also tended to hear voices while using other drugs. It is interesting to note that the descriptions of these voices were not so different from the descriptions of voices heard while using psilocybin. These results tend not to uphold the theory that psilocybin is somehow unique in its ability to catalyze or elicit voice phenomena, and yet a majority of the participants who reported hearing a voice(s) through psilocybin and other drugs or means indicated that they first heard a voice(s) with psilocybin. Perhaps for those individuals, psilocybin acted as a catalyst that opened a door to the subtle experience of the voices, which then allowed them to experience the voices by other means. Also it should be noted that, by far, the most popular answer as to which drugs other than psilocybin also catalyzed voices was LSD, followed by DMT and mescaline. LSD and DMT are similar to psilocybin in that they can be classified as serotonin-like—and even though mescaline can be classified as catecholamine-like, its psychedelic effects can probably be represented in terms of changes in serotonergic neurotransmission. Thus, the suggestive connection between drug-catalyzed voice(s) phenomena and serotonergic neurotransmission, discussed earlier in this article, appears again.

Of T. McKenna’s technical suggestions for eliciting a voice(s), only two were not supported: First, the admonition not to eat a full meal within the six hours before taking psilocybin (in fact, the No group, on average, did this less often). The second is his suggestion that cannabis may aid the hearing of voices. In only 17.4% of total voice(s) experiences with psilocybin ($n = 34$) was it reported that it was helpful to take any other drug(s) with psilocybin to hear a voice(s)—but, in agreement with T. McKenna, of the few who responded in the affirmative, cannabis was the most popular choice.

A number of crude measurements of

personality were attempted in this study. An examination was made of introverted and extraverted attitudes, remembering dreams, having lucid dreams, meditating, “Type A personality,” and “repressive coping style.” However, the groups were not found to differ significantly on any of these facts. Also, a number of personal beliefs were examined: religious belief, belief in spirits, belief in precognition, belief in life after death, and personal health assessment. On none of these beliefs was this study able to show a repeatable, statistically significant, difference between the Yes and No groups.

A number of possible sex differences were also examined and none were discovered. It seems that men were not experiencing significantly more male voices than women, and women were not experiencing significantly more female voices than the men.

Overall, the results of this study suggest that what made the difference between hearing a voice or not with psilocybin was more about what people did, than who they were. Better than one third of participants’ reported experiences with a voice(s) and psilocybin involved some form of evocation. That evocation was not reported to occur 100% of the time prior to hearing a voice(s) may indicate that evocation was not always necessary, or that perhaps after a participant evoked the voice(s) in some way in his/her early experiences, it was no longer always necessary to do so with later voice(s) experiences.

Voice(s) Characteristics

It was not reported very often that there was more than a single voice heard during an experience. Additionally, it was found that the voice experience cannot be maintained for long periods of time (average reported length of time was about 19 minutes).

A look at those characteristics endorsed as occurring, on average, in more than 50% of reported total experiences with a voice(s) and psilocybin, may also help to describe trends that characterize the voice(s). The experience of the voice(s) is generally reported as positive, insightful, and useful. Though evidently a subtle phenomenon, the voice(s) is reported most of the time as clear-sounding and sensible. The experiences of being able to communicate with the voice(s), and gain information, were also reported to occur in over half of the episodes. These facts tend to lend credence to the theory that the voice(s) may be experiences of a Logos-like phenomenon.

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Concerning the more specific characteristic tendencies of the voice(s), those who have experienced the phenomenon describe the following features as occurring in most of their experiences: First, the voice(s) usually sounded old. This is consistent with the findings of at least one other source (Oss & Oeric, 1991). Second, the voice(s) usually sounded male. Third, the voice(s) was usually described as low-pitched (bass-like), slow paced, and of low volume. It is interesting to note that at least one other tryptamine compound has been found to alter (lower) the perceived pitch of externally-generated voices and music, DIPT, or, N, N-Diisopropyltryptamine (Alexander Shulgin, personal communication, January 25, 1996). One additional point: in a little less than half of reported experiences, participants stated that the voice(s) expressed emotion; compassion, anger, love, calm, humor, fear, and sadness were most often reported.

Other features of the voice(s)

Emphasis of the "otherness" of the voice(s) pervades the phenomenological descriptions given by many of the participants, and is also borne out by some of the statistical data. In just under half of reported experiences, participants had the sensation that the voice(s) came from outside of their heads. A majority of participants also stated that the voice(s) was not familiar when they first heard it with psilocybin. A few participants even commented that although it was their own voice they heard, the "information" was not from them. Finally, in just under half of reported experiences, participants said that the voice spoke in first person. Interestingly, this occurrence was highly correlated with the participants receiving insight from the voice(s). It may be that the experience with an other who is an I (who witnesses, reflects, communicates, shares) facilitates insight, much as in psychotherapy (Frank, 1989). One of the most interesting findings of this study is that in over 45% of participants' total experiences with a voice(s) and psilocybin, sounds other than voices were present. Notice should be given to the words used by a number of the participants: high pitch, high tone, humming, buzzing, whirring, ringing, rustling, rushing water, howling, vibrations, whooshing, crinkling, insect-like, drumming, whirling-circular. These reports are similar to observations made by T. McKenna and D. McKenna (1993), Strassman, Qualls, Uhlenhuth, & Kellner (1994) and Weil (1980). It may very well be that, as Gordon

(1993) concluded, a condition of ringing, buzzing, hissing, or humming in the ears, from any cause, can trigger auditory hallucinations of music, or even speech. For example, one participant reported that he heard voices when a motor (lawn mower) was running. An interesting side note: use of *Heimia salicifolia* (*sinicuiche*), a plant that contains the alkaloid cryogenine or vertine (Ott, 1993), has been reported to cause a ringing in the ears that then turns into orchestrated music. The many reports of the Yes voice(s) group hearing other sounds are consistent with a theory that these sounds may be involved in the hearing of a voice(s).

It may be that the Logos (as Mind) superimposes itself on, and utilizes, the formless white-noise of internal (tinnitus, for example) or external (drumming, rattles, motors, running water, glossolalia) stimuli, to create a voice(s), and then, entering the individual's faculty of audition, speaks. Meaning (form) is superimposed on the formless.

So what does it mean?

My study lends credence to the theory that psilocybin inspired voices are expressions of the Logos. Beyond that, what the Logos is, well, that depends on how "Eastern" your world view is. That is, when people ask me what I think these voices may be, whether part of us or not, I have to first ask them what they mean by "us." The question of what is self and what is other then takes prominence. Is there anything that we can say is truly alien? Though in our experiences we may encounter a "Wholly Other," from an Eastern perspective (or in the ancient West, a Plato-Plotinian one) all of the Cosmos is interior to us. Can it be said that there are boundaries to the human psyche? Psilocybin voice experiences force us to confront our notions of a personal self and a universal Self.

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Reports on the 1996 International Transpersonal Association Conference, **Technologies of the Sacred**

Introduction by Stan Grof THE MANAUS CONFERENCE was a truly extraordinary event. As somebody who was deeply involved in creating the program, I am obviously biased, but I have by now received enough enthusiastic feedback from all over the world to know that many others share that opinion. It was without any doubt energetically the most powerful ITA conference yet. I know that some people might feel that therapeutic and ritual use of psychedelics received too much attention and was over-represented in the program. However, there is no doubt in my mind that properly and responsibly used, psychedelic substances represent a technology of the sacred par excellence. I would like to thank MAPS for its major contribution to this meeting that helped the ITA enormously to create a rich and exciting program. — With warm regards, Stan Grof

Six Days in **Manaus** in May

Charles S. Grob

FROM MAY 16 TO MAY 21, 1996 the International Transpersonal Association held its 15th annual meeting in Manaus, Brazil. Along with the expected array of inveterate transpersonal speakers, this year's ITA also presented numerous lectures and discussions on psychedelic use and research. Together with a variety of stimulating presentations on Brazilian spiritual traditions, the psychedelic "track" offered a fascinating perspective on an area given very little attention in recent years. Indeed, it was heartening to observe the world of transpersonal politics openly acknowledging, if not embracing, this long-neglected field of psychedelic studies, particularly given its critical role during the genesis of the trans-personal field. Special recognition should be accorded the organizers of the conference, and in particular Dr. Stanislav Grof, for their vision and courage in welcoming back into the transpersonal fold open discussion of the science and cultural context of psychedelics.

A particular highlight of this year's program were the numerous presentations on the subject of ayahuasca, the psychedelic plant concoction indigenous to the Amazon Basin, the setting for the conference. Given its relevance to the local region and Brazilian culture, lectures and discussions of ayahuasca were well-attended and enthusiastically received. One of the more exciting and noteworthy of these events was the Psychedelics and Religion panel, chaired by veteran

researcher and theoretician Ralph Metzner, which for the first time brought together under the same roof for open discussion senior representatives of the three major Brazilian syncretic ayahuasca churches, the União do Vegetal, Santo Daime, and Barquiña. Ayahuasca has had legal sanction in Brazil for use within religious contexts since 1987 (an historical precedent of enormous import world-wide).

Because of differences in organizational structure and political sophistication, however, the churches have had significant disagreements among themselves in recent years. The opportunity to jointly participate in the ITA panel was endorsed by these senior church representatives, Glacus de Souza Brito of the União do Vegetal, Alex Polari of the Santo Daime, and Philippe Barroso Bandeira de Mello of the Barquiña, as an essential step in establishing rapprochement and solidarity between the diverse religious organizations.

In addition to providing North American and European conference attendees an opportunity to learn about these fascinating and unique religious structures, the ITA panel has hopefully facilitated a strengthening of the Brazilian ayahuasca movement.

Mention should also be made of the valuable contribution made by MAPS in sponsoring the lectures and discussions on cultural and scientific dimensions of psychedelics. Beyond adding to the substance and depth of the ITA conference, a valuable opportunity was also provided researchers and scholars from North America and Europe to interact with colleagues from South America. The interchange of ideas, research strategies and political perspectives from around the world created a stimulating and refreshing context for discussion and consideration of future directions. Such gatherings as the recent ITA meetings in Manaus are of vital importance in furthering the development of this nascent and only recently revived field of psychedelic studies. Through the ongoing support of MAPS and other generous donors, the necessary foundation for future progress and growth is beginning to be established. •

Roasting the Cartesian-Newtonian Paradigm in the **Brazilian Rainforest**

Richard Yensen and Donna Dryer

MANY DOMESTIC FLIGHTS IN Brazil take place at odd hours, late at night and very early in the morning. In the wee hours our plane descended to an airport surrounded by an amazing number of city lights in the midst of the earth's largest rain forest. We didn't know that Manaus is a city of two million people. We touched down at two a.m. By the time we found the bus that was coming to meet us, loaded our luggage aboard and registered at the Hotel Tropical it was nearly sunrise. At dawn we walked with a bellhop down endless corridors of darkly stained hand-carved hardwood floors, walls and ceilings. Our room was about 10 minutes' walk from the registration desk, the immensity of the hotel boggled our tired minds.

Much about Brazil was startling, beautiful and remarkable. The people are lovely blends of the races that prejudice keeps distinct in other parts of the world. The attitude toward life is that love of family, joy and celebration of life itself are the central values that unite communities despite economic barriers.

I (Richard) had dreamed of visiting this savage and beautiful country ever since I enjoyed my first Carnival in Panama as an eight year old boy. As I grew, I heard increasingly tantalizing stories of Amazonian explorers encountering bird eating spiders and drinking jungle brews that temporarily gave them telepathic powers. Whenever Brazil was mentioned a flood of vivid scenes would flash, from the films *Black Orpheus*, *That Man From Rio* and *The Emerald Forest* along with imagined scenes of *The Wizard of the Upper Amazon*, Manuel Cordoba Rios' account of being kidnapped by an Indian tribe.

Talk of Brazil in later years was also associated with the tragic death of Walter Pahnke who, after completing his "Good Friday Experiment" at Harvard University, headed the psychedelic research team at the Maryland Psychiatric Research Center. He died, in a tragic scuba diving accident, the day that I first visited the MPRC. During the years that I worked there I came to know that around the time of his death he had been planning an expedition to a small town in Brazil to visit a phenomenal healer, Ze Arigo, the surgeon of the rusty knife.

All this and more flooded my consciousness when Stan Grof first told me he was planning to hold an International Transpersonal Association meeting in the heart of the Amazon.

Psychedelics highlighted

The highlights of this extraordinary conference included more cross cultural discussion of psychedelic substances than has ever occurred at an ITA. This is especially

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overdue because Stan Grof is both a luminary psychedelic theoretician and one of the founders of the ITA. Brazil offered an extraordinary forum for such a presentation because there is a long history of psychedelic use among Amazonians and because of more recent political developments in which the government recognized ayahuasca as a sacrament in many religious groups. This ground-breaking religious freedom establishes a more open context for discussions of matters transpersonal and psychedelic than exists anywhere else in the world today.

Gary Bravo gave a warm and self-revealing presentation about psychedelics and their relationship to transpersonal psychology. He went into depth about therapeutic orientation in psychedelic therapy. The powerful, innovative techniques of our friend Salvador Roquet of Mexico, who died last year, was covered in a lively discussion of psychedelic therapies. The

Other conference topics

David Sonnenschein, a North American film maker who now lives in Brazil, presented a startling nine minute film preview, *Dr. Fritz: Healing the Body and Spirit*. David is finishing this 45 minute documentary on Rubens Farias, a Brazilian computer engineer, who has been channeling the spirit of Dr. Adolph Fritz, a German doctor who died in World War I. Dr. Fritz claims to be the same spirit that originally possessed Ze Arigo in the 1960's. The preview showed amazing shots of Dr. Fritz/Rubens Farias performing surgery without anesthesia using instruments that were not sterile. David reported that no patient has ever become infected through these mind-blowing operations and many have been healed from cancer and other serious ailments. By the time you read this David's film should be finished and available in English. He can be reached by email at: crystal@ax.apc.org. The tape is available for

Brazil offered an extraordinary forum for such a presentation because there is a long history of psychedelic use among Amazonians and

presentation compared and contrasted the elements of psychedelic, psycholytic, shamanic and other models of psychedelic use for therapy and research.

We gave a presentation entitled *Psychedelic Awareness and the Conquest Mentality*. We explored the conquest mentality as a pervasive belief about human relationships, interactions with nature, knowledge and spirit that is fundamentally paranoid and focuses on the dynamic of power and domination. This cognitive stance, deeply embedded in modern thought, has colored scientific research and spiritual conceptions of psychedelic substances and their use since the time of Christopher Columbus.

\$60 from David Sonnenschein, 18212 Kingsport Drive, Malibu, California 90265. We highly recommend viewing this film as a treatment for the conquest mentality that infects us all with the idea that we have or are about to explain everything with currently accepted scientific paradigms.

Linda Rosa Corazon gave a beautiful cross-cultural survey of sacred medicines and their value in the treatment of addictions, from the Native American Church to ayahuasca, ibogaine and LSD. She gave a heartfelt presentation that included detailed case studies and appropriately framed it with a ritual opening and closing.

The famous actor Jon Voight (*Midnight Cowboy* and many other films) was making a film in Brazil and he addressed the conference as a whole. He eloquently shared with us his concern for the rainforest and the traditions of its peoples threatened by colonization.

There was a Psychedelic Research Panel that included Charles Grob, Rick Strassman, Stanislav Grof and ourselves. Ram Dass served as moderator and did a magnificent job of creating a warm and wise context for our discussion of psychedelic history, present research and future prospects.

Ayahuasca churches and centers

The Santo Daime Community is among many religious groups using ayahuasca in its ceremonies. They invited congress participants to participate in a charismatic ceremony with ayahuasca at a church in the jungle just outside of Manaus. Their visionary songs were performed as a central feature of the ceremony and later, in a rare public performance, one evening at the conference. These songs are directly inspired by transmissions received during ayahuasca experiences. The unusual performance took the audience on an uplifting journey from the earliest songs received by the founder in the 1930's to the very latest hymns.

Some of the most intrepid conference attendees joined Steve and Robin Larsen and their son Merlin for a swashbuckling post-congress adventure in the headwaters of the Amazon where the Santo Daime Community has its headquarters in Mapia.

Along the lines of addiction treatment in a ritual frame Takiwasi comes to mind. Takiwasi is a treatment center in the Amazon region of Peru near Tarapoto that has been partially funded by the French government and the European Union. Dionisio Santos and Michel Mabit are both Frenchmen who have learned shamanic techniques for healing with psychedelic plants and diet that they use in their center along with the shamans who teach them. They shared beautiful slides of the rustic accommodations and described a long-term treatment where patients are isolated in the jungle, given purging diets and psychedelics combined with Holotropic Breathwork and other new age therapies to cure their addiction to cocaine base.

Rick Strassman reviewed his DMT and psilocybin research, Charles Grob spoke of his Hoasca project and Ralph Metzner gave a panel on ritual use of psychedelics. Unfortunately the

because of more recent political developments in which the government recognized ayahuasca as a sacrament in many religious groups.

It was a great pleasure to meet Glacus S. Brito, a physician and master maestre in the União do Vegetal church. Charles Grob and Glacus collaborated with Dennis McKenna and Jace Callaway on psychological and physiological studies of long-term ayahuasca use by church members. His church is much more reserved and discriminating about welcoming the curious than the Santo Daime group. Our impression, despite the initial reserve, was that of great warmth and responsibility in the conduct of their ceremonies.

Phillippe Bandera de Melo represented a third alternative amongst the psychedelic religions of Brazil, the Barquiña Church of Rio de Janeiro. This church has blended elements from the Santo Daime group with Candomblé influences which are more oriented towards spirit possession. Phillippe is also a Jungian analyst and director of the Casa das Palmeiras Clinic, a revolutionary psychiatric clinic with a Jungian orientation that specializes in the treatment of psychotic individuals.

All of these groups have many members who were addicted to drugs of abuse and have since become useful members of society as a result of their continuing involvement with ayahuasca in a ritual setting.

duties of parenthood took precedence and we were not able to attend to these presentations as fully as we would have liked.

Women's circle

Susan Seitz led a council circle of over 40 women who discussed their personal experiences with psychedelics. I (Donna) found this an inspiring and heart opening sharing of deep experiences. It is unusual for women to find a forum with sufficient safety and community to allow a deep sharing of experiences that are usually so repressed in our own culture.

This conference was so spectacular in its complexity and variety that we certainly fail to do it justice here. We hope that any friends whose presentations were overlooked will forgive us and that others will share their experiences to broaden the perspective you can gain on a truly significant event in psychedelic history. •

Issues in Psychedelic Research Introductory Comments: **Psychedelic Research Panel, 1996 ITA Conference**

Rick Strassman

The first stage
 in the resumption
 of human research
 with psychedelics
 is complete.

THE MANAUS, Brazil ITA meeting provided much more time to discuss psychedelic plants and drugs than the previous ITA I attended, in Prague in 1992. This may be due to the setting, where religious use of DMT-containing ayahuasca is legally protected. It also may have to do with the gradually increasing attention being given to hallucinogens in our culture. I really enjoyed the meeting at the Hotel Tropical, and missed Rick Doblin. Without Sylvia Thyssen's and his organizing skills and MAPS support, the North American contingent would not have been as well-represented as it was. Sylvia did well in representing MAPS in Rick's absence. The open and frank presentation of information and opinions about current use of hallucinogenic plants using many different models was a highlight of the ITA meeting. Formal and informal groups brought together an enormous range of views: religious, policy, therapeutic, pharmaceutical, abductionist, anthropological, body-oriented, art, feminist, environmental, media, literary, educational and others. I am happy ITA and MAPS made such an opportunity possible. The following is a summary of my introductory comments on the last psychedelic research panel at conference.

THE FIRST STAGE in the resumption of human research with psychedelics is complete. This work, taking place in the United States, Europe and Russia, has established the safety of administering these highly restricted medications to humans. Mechanisms of action also are being clarified. The safety of hallucinogens used under medical supervision was accepted during the early phases of clinical research in the late 1950's and early 1960's. However, explicit in their placement into Schedule I of the Controlled Substances Act in 1970 is their lack of safety even under medical supervision. Since the late 1980's, reassuring clinical safety data have been obtained with acute administration of DMT, MDMA, ketamine, and ibogaine in the US; psilocybin, LSD, MDMA, mescaline, ketamine, and MDE in

Western Europe; and ketamine in Russia. These studies have been primarily concerned with dose-response data, using a large number of biological measures, in addition to new psychological instruments. Confirmation and elaboration of recent hallucinogen-assisted psychotherapy studies will strengthen our ability to evaluate their efficacy.

Next stage

The next stage in resuming human work with hallucinogens will begin to see some expansion of the context placed upon it by the strictly psychopharmacological descriptive model that has supported the initiation of new research. Pharmacological studies, by characterizing how well-known hallucinogens work, could lead to the development of novel agents with a greater selectivity of effects, and fewer side effects. Brain imaging and physiology studies can locate where and how hallucinogen effects are mediated in the brain. The overlap-

ping symptoms between hallucinogen intoxication and naturally-occurring psychoses may benefit from biological research. Drugs that blockade hallucinogen effects in normal volunteers might be effective for some of the symptoms of disorders such as schizophrenia and mania. This is particularly relevant considering the presence of naturally-occurring DMT in human body fluids. Both pharmacology and physiology studies rely heavily upon animal experimentation to both generate and validate hypotheses. However, those concerned with animal-based research consider how these data are produced to be problematic.

Endogenous DMT

The existence of endogenous DMT in humans raises the possibility not only of its role in psychiatric disorders. Particularly robust synthesis of DMT in the brain or pineal are theoretically possible during periods of extreme stress. Conditions like the near-death experience (NDE) and intensive meditation may also be pharmacologically characterized. In the field of psychotherapy, new studies will be most likely approved and/or funded if they suggest new treatments for conditions with a poor prognosis. Early research with alcoholism, heroin abuse, and terminal illness could be re-examined using current psychotherapy methodologies. Post-traumatic stress disorders, not well-defined during early psychotherapy studies, also may benefit from hallucinogen-assisted psychotherapy research.

Question of control

The nature of the appropriate placebo or control condition in psychotherapy studies continues to plague investigators. Data regarding the relative merits, and potential for combining, of "psychedelic" and "psycholytic" approaches need strengthening. Insights into normal and above-normal psychological processes might build upon previous ones showing enhancement of creativity.

Training of those allowed to administer hallucinogens needs to be a priority, and the issue of self-experimentation made explicit. Involvement in self-analytic and/or religious practice will help in making clear one's own motivations to administer these powerful drugs. Transference and counter-transference issues are greatly magnified, and can result in difficult sessions if not properly addressed. More subtle adverse effects of increasing denial and psychological rigidity might result from improper working through of material raised in psychedelic sessions. In addition, the nature of the

setting for longer-acting drugs needs to be outside of the hospital environment, to reduce negative reactions.

If DMT or other psychoactive materials were found to be released at the time of death or near-death, a rationale would exist for administering such an agent in anticipation of death, and to study the near-death experience. It might be possible to provide a "dry-run" and practice for those with inordinate fear of dying. Those who have had a naturally-occurring NDE also could be administered DMT, and comparisons made, so as to understand better its biological underpinnings. The use of hallucinogens in this way borders on religious, and will be a controversial topic.

Researching religious use

Models for religious use are being reformulated in attempts to operationally define "religious." Once some standardization occurs, research could be turned towards religious use, in ways that overlap with clinical research. For example, the nature and frequency of adverse effects in different settings (religious or clinical), as well as better indicators of who is prone to particularly intense or prolonged negative responses. Non-drug means of managing adverse effects might be better developed by comparing models of helping manage these effects. Religious use also could investigate issues not usually addressed by the mainstream medical tradition. For example, this could include the use of hallucinogens to enhance meditation practice, prayer, or other spiritual technologies. Such use has a long history in certain non-Western societies. Certain similarities exist between descriptions of high dose DMT states and those of individuals claiming to have been "abducted by aliens." Administering DMT to those individuals, and comparing the DMT- to the "abducted"- state might provide additional information regarding how this phenomenon takes place. •

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Impressions of Technologies of the Sacred, Manaus 1996

Dionisio Santos
Translation by
Sylvia Thyssen

LAST MAY, the fifteenth International Transpersonal Association Conference was held in Manaus, Brazil.

In an idyllic setting, shaded from the mosquitoes and downpours by lush jungle foliage, eight hundred people of a dozen different nationalities gathered together at the heart of the Amazon to explore the paths of sacred technologies.

With Stanislav Grof as gracious host, the predominantly American crowd sampled an expertly assembled array of spiritual traditions from the East and West, shamanic practices and transpersonal therapies, and ritual uses of psychotropic substances, which were presented as windows through which a more holistic approach to consciousness could peek out onto the future evolution of our planet and humankind.

It was a remarkable undertaking to try and integrate the knowledge and objectives of such a wide range of participants. As Pierre Weil wisely observed, as one attempts to explore the mysteries of the psyche—with pure intent and with no strings attached—it is important to discern the

pure intent and with no strings attached—it is important to discern the difference between parapsychological phenomena and transpersonal states. One must take care not to mistake the map for the territory! The journey of the seeker, though often difficult, is always personally rewarding. Placebos cannot replace the time it takes to delve deeply into the interior realms of the psyche—escape only delays the process. They also cannot prevent the seeker's inevitable confrontation with the Shadow.

A main topic: ayahuasca

The modified states of consciousness and shamanic healing rituals which are facilitated by ayahuasca were one of the principal topics of the conference. A number of specialists contributed their knowledge of the subject: Michael Harner, Ralph Metzner, Luis Eduardo Luna, Charles Grob, *padrinhos* of the Santo Daime, União do Vegetal and Barquiña of Brazil, as well as representatives of Takiwasi, a healing center in Peru.

From the discussions among the many experts arose differing approaches as well as points of commonality on the use of the plant. In summary, we can observe from the conference two well-defined paths: the one of the various Brazilian churches, and the one of Takiwasi in Peru. There is a rich spectrum of other approaches, as well.

Differing approaches

The Brazilian churches which imbibe ayahuasca in a ritual setting are relatively open, urban and expansionist. A number of churches in these traditions have been established in other parts of the world. Their rituals are marked by religious syncretism, and liturgical songs and dances which are performed in a brightly lit setting. It is not unusual for one hundred worshippers at a time to take the Daime (tea). The church leaders are admired and respected as spiritual guides. The creation of these churches is a relatively recent phenomenon. Their founder, Raimundo Irineo Serra, was probably introduced to ayahuasca by mestizo Peruvian healers. He had visions which revealed to him the healing rituals and the religious doctrine which thousands of adherents now follow.

The second path is more reserved. The rituals at Takiwasi are inspired by direct experience with mestizo Peruvian *curanderos* (healers). Sessions take place at night in darkness, with no dancing and under the supervision of the *curandero*. The *curandero* utilizes a rich palette of *icaros*, inspired mantras and songs which he has acquired during his own initiation which included periods of isolation, fasting, the ingestion of ritual plants, and dreams. The *curanderos* believe that the spirits of the plants teach them how to heal with songs and with plant-based remedies. They do not espouse religious credos and demonstrate a profound respect for the sacred outside of an organized religious structure. They are integrated in their communities and people seek them out for healing advice.

Here are thus two fundamentally different approaches: on the one hand, the use of a sacrament within a context of ancient origin, and on the other hand the modern use of the tea, accessible to the public and outside the context of the plant itself. It is undeniable that the increasingly public use of the healing plants poses challenges and possible risks for a population not yet primed for the respect and great care required when approaching the sacred realms. Quantity and quality are not always compatible.

In summary

During the conference, occasional attitudes towards psychotropic substances that were simplistic or idealistic gave a glimpse of the eventual frustrating or dangerous misconceptions that can emerge on the personal journey. No substance, no matter how therapeutic, should be represented as the panacea for all our ills. Furthermore, a reductionist scientific attitude cannot explain the actual effects of these substances, even if it is endorsing officially sanctioned use in a controlled ritual context meant to protect the physical and psychic well-being of the individual. •

The Ritual Use of **Hoasca**: Comments and Advice

Francisco Assis de Souza Lima, M.D.

THE LEGALIZATION of hoasca (Ayahuasca) for use in religious rituals in Brazil represents a decisive step towards the attainment of religious freedom by the communities which make use of the tea. Brazilian authorities had questioned the tea's psychedelic properties some years ago. This resulted in a temporary prohibition of the use of the tea.

There has been a revitalization of religious values, a trend which can be observed through the world with the revival of mystic, healing traditions. Within the new scientific paradigm, there is a growing interest in consciousness-expanding vehicles and their undeniable contribution to the development of humankind's spiritual healing.

As a member of the UDV for seven years and a regular user of the tea at the Samaúma Nucleous in São Paulo, I have observed that the tea can penetrate critical inner spaces and trigger off what Stanislav Grof and his school calls "spiritual emergencies." I also observed that even crises with psychotic symptomology can be resolved with a wider process of healing or spiritual evolution, depending on the individual's personality structure, as well as the context in which they appear.

It's important to be aware of the nuances with which a clinical picture is organized. The integration process is hard work and no one escapes from suffering at times. Genetic factors, socio-economic status, family structure levels, personal history and individual vulnerability are decisive elements for the emergence of crises, as well as for the opportunity to make them beneficial. In general, crises lead to resolutions, and they involve efforts, sometimes extreme, to overcome multi-layered difficulties. The human development process is not linear. It holds, in the psychic point of view, the overlapping of missing, conflicting or even split aspects. One should keep in mind the fact that each case is unique, hence generalization should be avoided.

Francisco Assis de Souza Lima, M.D. is a psychiatrist and psychotherapist, M.A. in Social Psychology from the University of São Paulo (USP), member of the UDV Instructive Body and Monitor of the CEM at the Samaúma Nucleous, São Paulo.

On the other hand, the importance of the community and the ritual context are remarkable. Because the tea is a consciousness-expanding vehicle, during the "burracheira," one might engage oneself in a work of contention and balance with the mobilization of inner resources in strong interaction with what occurs in the tea session. This requires a firm orientation, experience and responsibility from the conducting Master. The ritual structure is of inestimable value, the UDV chants of force and light, the music, the teachings of the Master and the "oratory," where the oral transmission of knowledge takes place in a participatory, directed way are all valuable elements of great import for the use of Hoasca's spiritual dimension. By means of mental concentration, the tea enables users to carry out the work of equilibrium, contention and expansion, according to each person's need and understanding.

However, due to the sensibility caused by the tea in its users, the social responsibility from the institutions which administer the tea becomes larger in terms of prevention and follow-up of possible psychiatric cases. The incidence of such clinical (and spiritual) emergencies are not outstanding in the routine of the UDV nucleous, which I directly know. Although there are no formal statistical figures yet, empirical observation points to a low incidence of such emergencies, not meaningful in terms of quantity. In this matter, however, qualitative data is especially relevant and the mere occurrence of one crisis requires some concern.

"Spiritual emergencies" in its strict sense occur when the search for spiritual development is closer to consciousness and favors the integration of adverse aspects. These require, due to their characteristics and implication, a careful approach not always provided by the present psychiatry. In the field of psychopathology and clinical-psychiatric emergencies, is there anything which is not "spiritual emergency" of some kind? What do affective disorders, chronic deliriums and schizophrenia represent for the spirit? Be it a genetic predisposition, grief, symbolic fault or even a radical, disruptive action of archaic sorrows, deep inside we suffer from a demand, not always manifest,

for love and a willingness for a higher level of consciousness. The problem is how to deal with all that.

The limitations of psychiatry, traditional psychology and even psychoanalysis are clear enough to legitimate the search for new resources (i.e. holistic and transpersonal approaches) and the revival of ancient values and practices such as shamanic traditions and the ritual use of entheogenic plants to induce expanded states of consciousness. The goal to be achieved does not imply exclusion, prejudice or random syncretism, but the synthesis, the possible balance between mainstream and alternative approaches for Western and Eastern "art of healing," each with its own resources.

I believe the transcendental perspective, within which the use of the tea more fully applies, can be enriched with the medical practices open to spiritual questions, the key point in this new paradigm. Therefore, it is of fundamental importance that the communities which make use of the tea be conscious of their duties, as well as their limits and responsibilities.

Practical measures

The Center of Medical Studies (CEM) of the União do Vegetal (UDV), under the direction of Dr. Glacus de Souza Brito, through its Mental Health Commission, under the coordination of Dr. Mauro Bilharino Naves, has developed a project aimed at establishing regulations for the safe use of the tea in cooperation with representative master and the other UDV leaderships.

For this purpose, the CEM organized the first Mental Health Conference during the third CEM Health Congress in November 1996 in Rio de Janeiro. At the event, besides the exchange of experiences among mental health professionals, CEM gathered elderly masters in order to discuss, based on their experiences with related situations, the concept of mental health from the medical and spiritual of view and to study the direction left by Master Gabriel, the founder of the UDV, in relation to this issue.

The projects in development by the above-mentioned Commission include the registration of UDV mental health professionals, the introduction of an Occurrence Notification, as well as the development and follow-up of mental health research within the UDV. Also important was the establishment of medical-psychological support for those who drink the

tea for the first time, together with a detailed guide for situations which suggest closer investigation. This applies not only to newcomers but also to regular users of the tea once an emergency occurs.

The idea is to prevent adverse situations from happening, and to ensure that more attention is paid to people with psychiatric records, under medication or presenting symptoms which call for closer investigation. Such concerns meet recent CONFEN's (Federal Council of Narcotics) recommendations, which restrain people with psychiatric records from drinking the tea.

For us to have a balanced judgment in this matter, it's important to bear in mind each person's traits and nature so as to avoid misunderstandings which might trigger a witch-hunt: generalizations and radical prohibition of the tea to those who have had some kind of crisis with a psychiatric hue. On the other hand, considering the knowledge we now have of the pharmacological characteristics of the tea, preventive measures are necessary so as to avoid the interaction of the tea and some other medicine.

Concerning this aspect, the precaution and recommendations apply basically to the following cases: to the occurrence of the so-called "serotonergic syndrome" from the combination of the tea and SSRI antidepressants, which makes the consumption of the tea together with such substances inadvisable; high blood pressure (depending on dosage) due to association with tricyclics and MAO inhibitors; possibilities of unpredictable alterations due the combination of several compounds used in diet formulas; possibility of crisis occurrence in epileptics. Depending on the case, a smaller amount of the tea may be indicated.

Nevertheless, it will be through the continuity of the hoasca use in a ritual context, together with the development of bio-medical, pharmacological research, as well as therapeutic ones (i.e. with drug addicts and alcoholics) that new light will be brought to questions which have been only generically mentioned here. •

Acknowledgments

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which call for
closer investigation.

In addition to reports on current developments in psychedelic and marijuana research, the MAPS news letter occasionally includes articles that address some of the important social issues raised by psychedelic and marijuana research. In this way, MAPS offers its readers the opportunity to reflect on the forest as well as the trees. One such social issue is this: what do we tell the kids if psychedelic and marijuana research actually succeed in generating data that convinces the FDA to make these drugs into prescription medicines for certain clinical indications? This question is complicated by two facts, 1) the primary justification for the War on Drugs is the need to protect our children from drug abuse and 2) current drug education materials almost always assert that all drug use is abuse and that the use of psychedelics and marijuana is invariably harmful to some degree.

The following four articles are intended to help readers of the newsletter in thinking about the long-term implications of the potential success of MAPS' research agenda. The first article describes research into effective drug abuse prevention programs in schools. Following it is an interview in which high school students give their thoughts on drug education. Finally, stories from two families' experiences with rites of passage involving drugs.

drug education and democracy [in]action

Joel H. Brown, Ph.D., M.S.W.

THE LETTERS LSD are derived from the German Lysergsäure Diäthylamid, the English translation yields the chemical name, Lysergic Acid Diethylamide. It was synthesized in 1938 at the Sandoz Research Laboratories in Switzerland, and its profound mental effects were first noted in 1943...

People who use LSD say that it has a number of effects. The first effects are likely to be sudden changes in their physical senses. Walls may appear to move, colors seem stronger and more brilliant. Users are likely to "see" unusual patterns unfolding before them. Flat objects seem to stand out in three dimensions. Taste, smell, hearing and touch seem more acute. One sensory impression may be translated or merged into another...

One of the most confusing yet common reactions among users is the feeling of two opposite and strong emotions at the same time — they can feel happy and sad at the same time and many other combinations...

DO YOU THINK this excerpt is from an experienced writer? If you believed this to be the case, think again. It was written in 1972 as part of a school project by a 7th grade girl; she received an "A" for her "Narcotics" report. In response to the "LSD" section of her report, her teacher commented, "a very, very interesting report on this drug." As you will see, this excerpt from Carol is important; it is part of the past and helps us understand the present state of affairs in school-based drug education and possibly in the larger society. In this brief article I make some connections between past and present drug educational perceptions, practices and societal contexts.

Because all sorts of substances (licit and illicit) are used in this society with a variety of costs and benefits by a majority of our citizens, the quality of drug education is one of our most prescient barometers of our democracy and social well being. It is important to explore school-based drug education for two reasons. First, because there are few who really under-

stand what children experience in such programs. Second, because most policy discussions of U.S. substance abuse tie youth and drug education together.

Initiating drug education in the 1970's: Some successful programs with misguided goals?

I examined Carol's report from an educator's perspective after recently receiving it. Some brief observations are in order. Carol's natural curiosity and the educator's guided exploration of that curiosity represent several unique domains that together form an educational confluence. The explicit integration of the following unique domains can play a key role in education: the cognitive (rational orientation), the affective (emotional orientation) and the psychomotor (behavioral domain). Although there is an obvious difference between a report of an experience and being in an experience itself, each of these domains can be seen in Carol's excerpt. First, by describing where LSD came from and certain facts about it, Carol displays cognition regarding LSD. Second, by

This research was supported by the California State Department of Education, Contract No. 3279. The views expressed herein are those of the authors and do not necessarily represent those of the California State Department of Education.

describing the “feeling of two opposite and strong emotions at the same time,” Carol is evoking potential affective elements regarding LSD. Third, by describing “sudden changes in their physical senses,” Carol is integrating some potential psychomotor experiences related to LSD. It appears that in her report from 1972 Carol integrated these elements to form her own understanding of “narcotics” which was facilitated by the educator.

The NIDA factor

This process was likely facilitated in the public schools by a unique and brief social climate in America at that time. During that period the National Institute for Drug Abuse (NIDA) recommended that when teachers provide a drug education, they should be able to “assist students in learning how to weigh the consequences of possible decisions they could make on drug issues” (1975, p.18). In describing how school-based drug education should be delivered, these assertions were made:

1. The “drug problem” (however it may be defined) is not inherent in the mere existence of pharmacological substances. The problem lies in the way people decide to use those substances. Education programs which focus only on drug information are not sufficient to help solve the “people problems.”

2. Problem drug use — the pattern and frequency of drug use which interferes with the user’s social, psychological, or vocational functioning — is a way of dealing with the environment. It is a behavior pattern and is usually directed toward avoiding the user’s personal problems.

3. The teacher has not only the ability but the responsibility to help students learn how to use drugs responsibly and learn how to find alternative solutions to personal problems that might otherwise lead to drug abuse.

4. The teacher should serve more as a facilitator of learning than as an imparter of knowledge. This assumption implies a process-oriented or problem-solving approach to drug education.

The guiding objective for our task was to meet the drug education needs of students, rather than the needs of school administrators of teachers, or of the people responsible for preparing future teachers. Too often, drug educational programs are designed and teachers are trained to satisfy the perceptions and biases of different adult groups. Consequently, the programs are likely to be irrelevant to the real world of peer pressure, value confusion, and “growing up” in which young people live (NIDA, 1975, p.2).

The above drug education approach suggested by NIDA includes elements that educators now recognize as essential for an

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effective education: the facilitation of students’ self awareness, personal responsibility for learning, and self directedness strictly in relation to the topic under study (Brown, 1996). This “Confluent Education” is facilitated by teachers when they help students incorporate cognitive, affective, and psychomotor domains so that their education can be personally relevant and meaningful.

Confluent Education

When assessing the effectiveness of Carol’s drug education, I would like to make two points. First, from my examination of her report, there is no evidence that this is part of an unstructured education. The structure of the report relative to the educator’s comments makes it eminently clear that Carol is constructing her own learning, but that the

educator is facilitating it. Facilitated properly, a Confluent Education is as strict and rigorous as traditional education in which information is imparted to the student with the goal of the student to transmitting information back to the educator. The key differences between Confluent and traditional educational strategies are twofold: the educational orientation is toward what the student constructs as being meaningful within the given context of the subject under study, and the role of the educator is one of facilitator, not merely an imparter of information. Thus in a confluent education, deep learning is likely to be engendered, while in a traditional education, learning is likely to be rote and of short duration. We cannot deeply educate if much of the educational process is one that teaches children to ignore their natural proclivities toward learning, especially about substances.

IN EVALUATING the quality of her drug education there is a second point worth considering. Nowhere in Carol’s report is there evidence that the educator advocates substance use. Indeed, I do not believe that it is the role of the public school educator to so. When discussing health issues (such as substance use) the role of the educator is to facilitate a learning process and offer comprehensive information which allows each individual to consider the costs and benefits of his/her own behaviors. As children evolve into adolescents and then adults, teachers can facilitate an increasing participation level by helping them gain self-awareness and self-directedness, and by allowing them to take personal responsibility for their learning. A confluent education will best serve their interests, as well as society’s, because youth will have adequate information, share an enhanced desire to learn, and have an understanding of how to become informed on salient issues.

From a no substance use perspective (discussed later), some might perceive the educational methods taking place in Carol's time as failures. Instead, perhaps it is the misguided no substance use goal which emerged in the 1970's that is the real failure. From an educational perspective and nearly twenty years of additional knowledge about deep learning, Carol's drug education may have actually been a great success. As you will see in the following sections, the "post Carol" period of drug education reveals a great deal about the consequences of providing a traditional drug education which includes the goal of delivering a "no substance use" and punitive message to our youth.

The context of current drug education

Since Carol's time, drug education has changed radically because the American landscape has changed dramatically. In this section as it relates to the current American landscape, I describe our youth's deeply rooted feelings regarding today's drug education.

The context of current drug education programs is reflected by national drug education policy statements:

School-based prevention programs should be reinforced by tough, but fair policies on use, possession, and distribution of drugs... We cannot teach them that drugs are wrong and harmful if we fail to follow up our teaching with real consequences for those who use them... Policies like these have been criticized for addition to the dropout problem. But experience shows that firm policies fairly enforced actually reduce the numbers of students who must be expelled for drug violations; most students choose to alter their behavior rather than risk expulsion (The White House, 1989, p.50-51).

After California alone spent approximately 1.6 billion dollars over the past four years for drug education, our study of the state's Drug, Alcohol, and Tobacco Education (DATE) Programs found the following. From interviews with 388 educators, administrators and community members and forty student focus groups comprised of nearly 240 (grade 5-12) students, we found that drug education programs were highly implemented as intended. In programs like Drug Abuse Resistance Education (DARE) three primary "educational" strategies were utilized. In harmful consequences strategies, educators attempt to influence students not to use substances through graphic portrayals or presentations of the consequences of substance use. In reward-type strategies, educators attempt to influence students not to use substances by offering a reward in exchange for the commitment not to use substances. In self-esteem strategies, educators attempt to increase students' self-esteem by teaching them how to refuse substances when offered. And what effects did we find?

RANDOM SURVEY RESULTS from over 5,000 adolescents showed that only 15% felt strongly and positively affected by their drug education by the time they reached high school. 97.5% of the 40 student focus group interviews characterized school substance policies by three words: "detention, suspension, or expulsion." Many students wondered aloud why themselves or their peers were not getting help when they perceived that it was necessary:

(S)tudent: Especially at first, if you need help they tell people to go to like [name of institution], get your fix, you know, come back and we'll get you back on your feet, you know?... They are not in this for helping you, they are in for getting rid of the bad kids and just having all good kids in school. *[spoken very emphatically]*...

S: Well, maybe if you could get them to care more then they would do that [a different respondent than the others above].

S: If they suspect you of smoking or having drugs on you or whatever, if they see a kid like that in their school then, instead of suspending them and getting them out of school, why don't they help then? (#531, p.21)

In effect, many students have both heard and understood the absolute "no drug use" message, but they have come to question the veracity and the motives of their educators because of drug education programs:

S: I think it's nothing! It's exaggeration!

S: They lie to you so you won't do it!...

S: Oh, they lie to you so that you won't do the drugs! They think you're dumb!

(I)nterviewer: Do you think that works?

S: No. [laughs] (#508 p.10)

Our findings in the DATE study were revealed precisely because we focused on the students' voices. Few if any large evaluations of such programs have been oriented in this way. Our report to the California State Department of Education concluded that drug education programs were perceived negatively by students because of how they were conceptualized and implemented, not because of a failure to implement. Through further investigation we have found that it is unlikely that the students' negative perceptions were primarily due to adolescent rebellion (Brown, D'Emidio-Caston and Pollard, 1996).

The DATE study stands with a great deal of other research in suggesting that traditional educational methods combined with the absolute no substance use message and punitive policies are responsible for the students' rejection of these programs. In fact,

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there is a great deal of research which provides a deeper understanding of why these programs may be doomed from the outset. In the next section some of this research is examined.

Adolescent experimentation and their capabilities to judge risk

Since about 1978 the guiding principle of "prevention education" has been no substance use. During this time drug education researchers and many others have fought expensive and counterproductive battles over drug education programs that create mere 5-10% cycles of changes in adolescents' behavior directly attributable to these programs. Through our extensive research, we have not found one scientifically sound long-term study showing that drug prevention education produces sustained reductions in adolescent substance use. We have shown that the guiding principle of no substance use is unreachable and perhaps even detrimental to kids. A no-use message forces educators into the unenviable position of lumping all substances together as dangerous, and equating any substance use with substance abuse (Brown and D'Emidio-Caston, 1995). The "no use" principle also taints nearly all the research in this field (Brown and Horowitz, 1993; Horowitz and Brown, 1996). It creates a poor research criterion of success by focusing only on substance use outcomes, and ignoring the (often unpalatable) student experience pertaining to these programs.

The goal of no substance use runs counter to basic educational goals, namely learning as a uniquely individual process and outcome, not just learning a singular particular outcome, such as no substance use. Unlike almost all other education in which deep learning is the goal, in drug education as in sex education, the goal is to change existing or likely behaviors, to sway children and adolescents away from their prurient interests.

NO MATTER how one feels about it, well-founded research has shown that one part of normal adolescent growth is experimental substance use (Jessor and Jessor, 1977; Newcomb and Bentler, 1988; Shedler and Block, 1990). Today, by the time students finish high school, at least 80% of them have used alcohol, tobacco or another drug (Johnston, et al., 1995). As Delone (1972) stated, "there is strong evidence that [drug use]... is part and parcel of coming of age in America." (p.32).

There is a great deal of evidence suggesting that in fact, the substance using experience is part of a healthy evolution into adulthood for many adolescents (Newcomb and Bentler, 1988;

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Shedler and Block, 1990). For example, Shedler and Block (1990) investigated the relationship between psychological characteristics and future substance use, from pre-school to age 18. 101 18-year-olds (49 boys and 52 girls) were included in this study. Psychological profiles of these individuals were performed at ages 3, 4, 5, 7, 11, 14 and 18. On the basis of marijuana use information collected at age 18, participants were divided into categories: frequent users, abstainers, and experimenters. Based on user levels, analysis showed that psychological differences could be traced "to the earliest years of childhood." Those adolescents who used drugs frequently were found to be "maladjusted, with signs of a distinct personality marked by interpersonal alienation, poor

impulse control, and manifest emotional distress." Those adolescents who abstained from marijuana use were found to be "anxious, emotionally constricted, and lacking in social skills." Those adolescents who experimented with substances were psychologically the "best adjusted." Most important to note is that the psychological difficulties of frequent users and abstainers came before substance use. Consequently, frequent substance use (or lack thereof) was seen as part of other long-standing underlying psychological issues. Substance use level was not seen as a cause of these psychological difficulties.

Why drug education fails

To this point, this article implicitly postulates that much of drug education focuses on what is referred to as the "pathologizing" (Shedler and Block, 1990, p.628) of our youth. Students themselves confirm a great deal of research, including Shedler and Block's, that the substance "use versus abuse" distinction is a critical reason that much of drug education fails. Many programs present students with a message that is contrary to society's experience, and eventually to most of the students' experiences.

Another cause of the failure of these programs arises from taking responsibility away from youth, by implying that they are not adroit at making decisions. Contrary to this popular belief, Quandrel (1990) and Fischhoff (1975; 1989; 1992) have shown that when making decisions, adolescents are as good as many adults when assessing risk (e.g. risks of substance use or negative outcomes resulting from sexual practices). Quandrel, Fischhoff, and Davis (1993) found that when compared with adults, adolescents displayed a minimal difference in cognitive decision-making. There are a number of well-founded studies showing that children became increasingly sophisticated in their decision-making about substances as they matured into adolescence

(Jessor, 1976; 1992; 1993; Jessor and Jessor, 1977; Kandel et al., 1978, 1985; Liotts, et al., 1983; Aronson, et al., 1985; Baumrind and Moselle, 1985; Kandel, et al., 1986), taking into account a multiplicity of influences, such as peers, media and family. This is not to say that students are fully mature decision-makers. However, it is to say that as adolescents age, there is substantial evidence that many can be increasingly reasonable judges of risks associated with their own lives.

THE STUDENTS' OWN appreciation of their increasing developmental sophistication may in fact be the reason that they are able to clearly convey to one another the costs and benefits of, for example entheogen use. Their ability to judge risks and to locate their own positions and experiences amid much of today's countervailing adult rhetoric actually constitutes a remarkable demonstration of their capabilities. Clearly, many of our students explicitly understand this educational process. Why don't many adults?

An effective drug education

It will be a surprise to no one who understands our youth to find an alternative drug education emerging from failed aspects of public school drug education. For example, the excellent Foldes et al. MAPS article of August 1995 describes positive experiences arising from entheogen use. The children in this article learn not only what to expect from entheogens, but also how to avoid negative consequences of using them. The culture of entheogen use is shared, moving from generation to generation despite the barriers. This practice constitutes a vital component of drug education, but one which is insufficient because it is not common enough.

If current processes are ineffective and the processes described by Foldes et al. are not common enough, then what might be better for reaching all youth? What should an effective drug education be like? As discussed at the outset of the article, an effective role for an educator could be as follows: facilitate students' process of learning factual information; facilitate students' decision-making process; and contribute in a general way to the development of healthy and productive citizens.

More specific recommendations with regard to future drug education arise from the combination of our research which includes the students' voices, other research, and our analysis of Carol's drug education. The following recommendations, which come directly from the DATE report to the California State Department of Education, would be a good start toward promoting the well-being of all our youth in schools:

1. Provide a developmentally appropriate set of prevention programs at all grade levels.
2. Discontinue primarily harmful consequences educational services.

Even though many students can display the rote knowledge that any substance use is unhealthy, at the same time, students show little or no evidence of understanding harmful consequences information during early grades. Although young children's perceptions are sophisticated, education must be more closely linked with experiences, namely seeing adults using substances reasonably, as well as hearing about or seeing adults with substance abuse problems.

3. Without condoning substance use, shift to a harm reduction approach similar to that used when delivering AIDS Education.

As we have discussed, many students believe that they are being presented with only one correct decision: a decision not to use substances. They often describe this approach as a cornerstone of the failure of drug education because it goes against their own curiosities and experiences. Given the extent of student substance use and the fact that the majority of negative effects of substances are not inherent in the substances themselves, it is prudent to shift toward a harm reduction approach. This approach is meant to deal realistically and credibly with specific issues associated with substance use such as drinking and driving. This shift is the only remaining educational alternative with substantial research support (Newcomb and Bentler 1988; Shedler and Block, 1990; Brown and Horowitz, 1993). Such an approach would include six items, enumerated by O'Hare et al., 1988/1992:

1. Provide young people with factual information about drugs.
2. Help them to examine their own attitudes about drugs and drug users.
3. Help them to understand people who experience drug problems and foster a caring attitude.
4. Help them to avoid the harmful consequences of drug use by explaining secondary prevention strategies.
5. Raise awareness of the legal, health, and social implications of their own drug use.
6. Help them to understand the role of drug use in past and present societies and cultures.
4. Recruit outside drug educators to provide confidential educational services.

Evident throughout our research is the desire of students to speak openly and confidentially with specialists. Most often, students want to discuss their drug experiences with knowledgeable individuals with whom they can be candid. I believe it would be

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fruitful to recruit outside professionals who are competent to answer student questions about substances in an interactive and confidential teaching situation.

5. Do not purge students in need of help from the educational system.

6. Bolster counseling services.

Regardless of their substance use level, students often tied the detention, suspension, and expulsion of their peers to a general lack of drug education efficacy. To positively affect students of all substance use levels, either exclusionary policies should be replaced with policies that support adolescents who truly have abuse problems through the availability of confidential counseling, or personnel should refrain from using the threat of detention, suspension, and expulsion as a substance use deterrent. In addition to traditional one-on-one student counseling, counseling is seen as including support groups led by professional counselors, and student assistance programming.

THESE RECOMMENDATIONS for a quality drug education can be realized by utilizing Confluent Education goals and practices — by engaging the cognitive, affective, and psychomotor domains, and by viewing the educator as a facilitator in helping students to self-construct their own deep learning. Carol's teacher did just that in the 1970's. Again, youth need to share their thoughts and feelings about substances. If they cannot, we are not meeting them at their point of reference, and they will not be reached. In the DATE study alone, students told interviewers over 400 stories about substances. They ranged from basic stories about uncles fishing and drinking to detailed stories about appreciating differences between cultures, different substances, and different levels of use. In addition to writing reports like Carol's, students can participate in exercises where they share their stories regarding substances in small and large groups. Educators could provide information during 'teachable moments.' These educational processes are described in detail in our new book *Advances in Confluent Education, Vol. 1: Integrating Consciousness for Human Change*. As these processes help students make informed substance use decisions, they help them gain awareness and take personal responsibility for their decisions. For many youth these processes are desirous, as reflected in the words of this high school student in the DATE study:

R: I just want to say that I guess the best education would be the education that would allow you to evaluate yourself and allow you to evaluate your own personal beliefs and your morals and your values

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and take a strong look at what you're feeling and how you might have the possibility to be a substance abuser (#530, p.31).

The goals listed above are not radical to many educators. Nearly every recommendation is part and parcel of a quality education. To further develop our ideas of what might work, we can perform archival analysis of data such as Carol's report and the larger educational and human development literature. We then must be able to examine these Confluent processes in schools as applied to drug education.

But given our current societal context, we are unable to do so. Because of the current environment in which the rhetoric of protecting our children is used to perpetuate a full-scale war on drugs, we cannot explore alternatives to ineffective programs. In

practice, researchers and educators lose funding if they discuss anything other than an absolute no substance use message. For example, despite independent blind scientific review from over 30 scientists and two publications in first line journals (Brown and D'Emidio-Caston, 1995), the California State Department of Education did not publish the DATE report. We were told that responsibility of publication lies with the researchers. Through the media, the State Department of Education informed us that the study was methodologically unsound, the recommendations were unsound, and some were perhaps even illegal. Sadly, a great deal of this invaluable data set goes unanalyzed today.

Conclusion:

Drug education and democracy (in)action

The hidden consequences of drug education are pervasive and pernicious. While drug education may take up only a small proportion of the educational curricula, the students tell us that it has a disproportionately negative effect on adult credibility. Inside school, students receive information delivered from a variety of experts (like DARE officers) intended to arouse their fears; such information includes that any substance use is equivalent to substance abuse, and that any use has dangerous consequences. They are also taught how to refuse substances if offered them. At the same time, outside of school, students report seeing a different picture: individuals using a variety of substances, at varying levels, and in different social contexts with different perceived outcomes. The DATE evidence suggests that such cognitive inconsistencies are linked with student descriptions of a state of tension and/or "depression." Often times, students appeared to resolve this dissonance by linking their perception of drug education with the "new cognition" that educators were either lying to them about the information they

provided or were not interested in helping those students they perceived as having a substance use and/or abuse problem ("I think it's nothing! It's exaggeration!; They lie to you so you won't do it!"). The state of dissonance apparently aroused in students by drug education should be of serious concern to those who care about our youth.

BUT THE CONSEQUENCES of current drug education are deeper than a distrust of educators, a state of dissonance among youth, and a lack of complete information regarding substance use decisions. Current drug prevention education practices tell us about democracy (in)action. The deeper the perceived social problem in this country, the less we are willing to maintain truly democratic educational practices. By the time students move into adolescence — the time when they are forming their own values — there is clear evidence that the no use message and punitive practices justified by legalities foment the values of adult mistrust, censorship, and the exclusion of certain children from the school community. Researchers are muzzled, teachers are limited in what they can say, youth are limited in what they are supposed to hear and feel. Decision-making and responsibility-taking are withdrawn from kids as drug education programs tell them they have only one "right" choice, the choice of no substance use. In a democracy, is one choice a choice at all?

It is only when parents and the society at large are concerned

enough to appreciate the gravity of these hidden consequences of drug education that we can discover the seriousness of utilizing the rhetoric of children to promulgate the war on drugs in schools. One wonders why we use the rhetoric of caring to promote children's well being (as demonstrated by the White House statement), yet implement programs which constantly utilize threats of physical harm and punishment as effective and just educational approaches (as demonstrated by the programs and student perceptions of them). At its essence, today's drug education imparts values to children that run counter to those found in a well informed, free and open society. By almost any examination, the evidence suggests that these values do not contribute to a successful, healthy democracy. I look forward to the day when we embrace our children and accept their voices as meaningful and relevant to our drug education discourse. •

Notes

Our new book *Advances in Confluent Education: Integrating Consciousness for Human Change* can be purchased from JAI Press by calling (203) 661-7602. The California DATE report can be obtained free of charge by faxing a note on your professional letterhead to Stephanie Butler, (301) 907-8637. A special thanks to Marianne Apostolides for editing this paper.

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High School Students talk about **Drug Education Programs**

This transcript is from an interview with several high school students that was conducted by Joel Brown, Ph.D. in 1993 as part of the California Drug, Alcohol, and Tobacco Education (DATE) evaluation sponsored by the California State Department of Education.

Interviewer: I have a question. What should the goal of these [drug education] programs be? Should the goal be to get you guys never to drink alcohol, smoke a cigarette or smoke a joint? What should it be?

Respondent : To know what your limitations are, to make yourself aware enough so that you know—personally, I've never felt very worried that I would ever become a substance abuser. When I was like in elementary school it was crammed down my throat, "Just Say No..." it's the most awful thing in the world, and so when it first came, like in ninth grade, I remember this girl was trying to get me to do pot I'm like, "No, that's evil." It was that kind of a thing, but I think the goal of education should be you're going to be in the situation, you're going to see this, that and the other thing, it's not evil if you've got a good enough sense of self worth, if you know what your boundaries are, if you know what you feel comfortable with and if you know what it's going to do to you and you know what the consequences may be.

I: OK, I'm not trying to put you off, but I have a question that comes from that, which I think is very important. You mentioned getting stuff in elementary school and junior high school, have all of you gotten something?

R: [Several voices] Yes.

I: I'm wondering what happens between what you get—we've spoken to elementary school kids and junior high school kids and they all think that what they're getting is hard and what we're trying to figure out is what happens between elementary school and junior high school and then high school.

R: Reality.

R: Yeah. [Yes]

I: [Laugh] What do you mean reality?

R: When you're younger and much more impressionable you look up to your teachers, you take everything that they say, so you respect everything they say, you don't want to disappoint; your teachers, your parents have certain expectations of you, the pressure is not on to do all that stuff when you're in elementary...

R: Actually the pressure is—it's just the opposite. I remember being invited to a party

when I was in sixth grade and some guy lit up a cigarette and my boyfriend threw him into the pool and everybody was like beating him up because he did that and now it's like— [Laugh]

I: So what switched?

R: Well, what happened is that we, first of all, were influenced by other things when we were younger—like we looked up to our superheroes and our cartoon characters and the Sesame Street people—and by the time you get to middle school you don't want to be like elementary school kids anymore, you want to be like the high school kids, so you find out what they do at their parties and what your older brothers and sisters are doing. You also have more of your own mind, the teachers don't think you're as impressionable as you were when you were younger, they're not going to preach to you, so they're just going to tell you what is in the curriculum because really what they tell you is not going to really make an impact. I think what it would be neat to do is bring in recovering substance abusers who abused as teenagers and have them tell the class this is what happened to my life when I was an abuser and show them how it destroyed their life and that way teenagers can relate. When you're talking to somebody twenty years older than you who is going to preach to you Just Say No that kind of thing does not really get home, it doesn't last, you need something that is really, I don't know, kind of like our AIDS program.

R: [Several voices] Yeah. [Yes]

R: I also wanted to say that what I think that part of the problem seems to be is that any subject the teachers or anybody is really uncomfortable talking about it seems to all get pushed to the side and I think that more with drug and alcohol abuse, I think that it is something that people are very uncomfortable talking about.

I: You mean adults?

R: Yes, adults. I think that, especially, I guess, when you're in high school or junior high, also, when somebody says to you don't do this, because it's bad, you know, the automatic

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...when you get into high school it is just such a different world than junior high you want to fit in and explore everything so much and when you find out these things a lot of the old barriers come crashing down...

reaction of a teenager growing up is to say why is it bad? Everybody is curious about what this does, the way they're curious about anything and I think that by just saying that it's bad and just putting things in the curriculum is doing that without saying this is why, this is what can happen, and showing what can happen to you and presenting both sides realistically and when you don't do that then people don't know what the consequences are and are more apt to stray...

I: What's both sides? Sorry.

R: I think at the same time as presenting everything that is bad, you can't just preach one side, you have to somehow, I mean, you can't ignore that sometimes it feels good to be drunk and that sometimes it feels good to—you might want to smoke a joint, you might want to escape, I mean...

I: Yes but then they say well that's promoting you guys using substances.

R: No it is just admitting the fact that...

R: That temptation is there. I mean, just because you're saying, just like when we're talking about AIDS, just because we're saying if you're going to have sex use condoms does not mean I'm going to have sex now because you told me about that. It just means that if it happens I know what's out there because the more you know, the more you're prepared. Nobody ever said anything like that to me and I think when you get into high school it is just such a different world than junior high you want to fit in and explore everything so much and when you find out these things a lot of the old barriers come crashing down that you've had when you were in junior high.

R: I think the problem with education is—this kind of education—is that you're constantly being shoved down your throat it's so wrong, if you do it you're a terrible, evil person, instead of just educating saying I know some of

you people do it, why do you do it, let's try to help you so you don't do it any more. If it is shoved into you that you're a terrible person when you do this, you know, you kind of want to back away from the education process because they've already made a judgement upon you, you're a terrible person if you smoke marijuana, if you do alcohol, if you smoke cigarettes, you're a terrible person, instead of approaching it as, OK, you guys do it, let's help you now.

I: So then the goal should be to get people into not doing it.

R: No I'm not saying that, I'm saying the goal should be to evaluate yourself and figure out why you do it, evaluate your own personal habits and your personal values and morals.

R: I don't think it is realistic to assume that anyone is not going to try some things in their life, I mean, it's ridiculous that presidents—I think that is a part of growing up...

I: Finish that thought.

R: I think it's ridiculous that presidents get judged on their—if Bill Clinton inhaled or not, I think that's stupid. Everybody—we've talked about this in psychology, when you grow up you go through different experiences and you need to make mistakes and you make some things that aren't mistakes and that's how you learn and you don't want anyone to learn the very hard way by making huge mistakes, but it's OK if people make little mistakes and you can forgive them for those, you can forgive them for the big mistakes too, you know. I think it's very tough on a lot of kids thinking, OK, this is the way my parents want me to grow up, I'm supposed to do these kind of grades when I'm in junior high, have these friends and in high school I should be like this or whatever and where is the room for experimenting so that you can expand your mind. I think if you educated students well enough they wouldn't feel the need to make as many mistakes to find these things out because if you educated them well enough they wouldn't need to make the mistakes to learn what they need to learn. •

The following essay vividly describes one family's experience

Alice B.

stumbling on his stash

of a teenage son's first experimentation with marijuana.

■ WON'T DIVULGE the exact stumbling circumstances, for fear you'll call it snooping. But last night, just before bed — and only two weeks before my son's 13th birthday — I found something. First, a very small plastic bag wrapped tightly and filled with compressed greenish leaves. Then, in another location — the tiny pipe. I know this smell! One which... and a flood of distant memories — all good, of course. Lazy, sunny days on college campuses. Laughing with friends (unable to stop). Another reality... new and unknown. Now, a perspective that has been since incorporated into my consciousness — appropriately. This plant helped me through a lot of difficult, and also delightful times. I snap to. This isn't my stash. It's my son's. And, I'm in charge of him! Although, I'm not totally "in charge" anymore, because once he leaves my watchful, protective eyes, he does what he wants. And now he's chosen to try/use marijuana. It was not sold to him by a shady, dangerous character of the streets. It was given to him by some childhood friends in our neighborhood. They all went to preschool together — and now, this rite of passage.

So, I sit him down — awkwardly, to say the least. He can hardly look at me. He's scared and embarrassed. I can hardly look at him.

I'm torn between joy and terror.

Is my tall, gentle, intelligent son

ready for this new reality?

What does he expect from this drug?

Can he regulate this substance

moderately?

Terror sets in. The cops — just like on Saturday night TV — will come into my house with large, well-trained German shepherd and take my son and his stash to jail! Then my mind really takes off — it's probably me they'll arrest! It happens every Saturday night on COPS... The family is seated nicely on the living room couch one minute, and face down on the rug in handcuffs the next.

What do I do?

I stifle my panic to handle the situation. I'm talking to my son in his bedroom at ten o'clock at night on a school night. I tell him that I smelled marijuana (sorry for the lie — but I was doing the best I could). He asks me how I know that smell. I confess to having tried it in the 60's. Everyone did. He tells me he got it from friends, and wants to try it. He tried in once but didn't feel anything. (Poor guy needs instruction on how to inhale. Ah... the memories.) Andrew Weil pops into my mind... "It is natural for

children to want to get high. Even two-year-olds like to spin around until they collapse in joyous giggling," or something like that. Then, the spirit of Timothy Leary comes quickly to my side... "Everything is fine — you'll know what to do."

I search my mind for a balanced presentation of the "goods and bads" of this situation. "This can be dangerous, you know," I say, "You could be arrested — I could be arrested!" I realize I better check my facts before continuing down this line of reasoning. I warn him that the stash cannot be stashed in the house, nor can it be taken to "heaven forbid"... SCHOOL. (Let me digress to the culture of our little community. Small, conservative, upscale, uptight.) So... what do we do with the stash? (The perpetual question.) Well, frankly I think he should turn it over to me and Dad. After all, it's been a very long time since we've gotten stoned. Out to dinner, off to a movie, a little joint in the theater parking lot — just like 'ole times. But, no, no, no — this is not my dope. Okay, get real. Let's turn this into something positive. I explain about how the Indians used pot to enhance spiritual awareness. At this point my son is incredulous that we are even having this conversation, and so am I. "Pot should be used for special occasions... like your 13th birthday that's coming up." Clever me, what a stroke of genius! Good thing I'm well read. I know I read about something like this in a family ritual book (but of course, it wasn't about pot). I commended myself. "Let's save it so you and Dad and I can do this together." He agrees. Of course he agrees. At this point he would have agreed to anything. He was currently being busted by his menopausal mother. Could I be trusted? This is surely a trap! And I'm thinking, "What if he turns me in??" He did formally graduate from DARE, you know.

TRUST SLOWLY SETTLES IN, and a new relationship begins. Can he see past the "partners-in-crime" aspect? Does he understand where I'm coming from? He says his friends wouldn't believe this conversation. I say, "You better not tell them!" God, I hope I'm handling this right. We'll have a ceremony of sorts... a passage from boyhood to manhood. A bar mitzvah for gentle Gentiles. What else can I do? There's no literature review

on the topic. I could call his medical doctor for friendly advice. Right. I have only my basic instincts to guide me. We'll take him through this passage — carefully with love and acceptance — then, he's on his own, asail in the treacherous seas of youthful consciousness, without maps. "I love you, my son. I'm sorry the world and the laws are as they are. Be careful, a drug is not a drug — is not a drug — is not a drug. Navigate slowly and with deliberation." And please God, protect my son on his journey, as you did me. Guide him to be the best that he can be. Show him that alternative states of consciousness are not necessarily better states, just an added perspective from which to view your world.

through some of our old books on archaic revival (thank you, Terence McKenna), neuropolitiques (Timothy — you misunderstood genius), and of course a recent copy of *High Times* (to bring him up-to-date). "Lucky him," I muse, "to have such enlightened parents to ease the transformation."

But he says that this is hard for him. It's confusing, it just doesn't fit his paradigm of puberty. No one else's parents are singing this song. His world is temporarily Upside Down. Well excuse me — "You'll have to accept Dad and me as we are." (Where have I heard this before?) "So what's wrong with the rest of the world?!" he blurts out. Good question. Be aware of what they are doing and saying, but don't let

"Lucky him," I muse, "to have such enlightened parents to ease the transformation."

Epilogue

Two grueling, hand-twisting weeks rolled by. I poured nervously over books on ritual; books on communication with "Adolescents" (as though they were "Aliens" from another world); wholeheartedly searching the literature in my usual frenzy for specific information to improve myself and anyone who ends up in my path in need of help. So I come up with the perfect ritual, with music to accompany it (Indian drumming/flute). Let me suffice to say that there were objects from childhood involved; regrets burned in a bowl of raging mini-flames; aspired values chosen; and 13 well-liked attributes praised. There were 13 kisses goodbye — 13 minutes apart — and 13 kisses to welcome him back. Back from a search for his animal ally. The most amazing part of all was how the voices from the Indian cassette tape chanted "HappaBurdayTuhYou." I know you don't believe this, but neither did we at first — until they kept singing it over and over and over. All three of us heard it as clearly as a bell, and it seemed quite natural for the event. Later, when I looked at the tape, I saw it was called *Peyote Canyon*. No wonder.

So, all went well. Our point was well made. We communicated with our son about a very important and difficult issue. It's been a few days, and we are still pulling him through the porthole of transitional fluid. He's been reading

But he says that this

is hard for him. It's confusing,

it just doesn't fit

his paradigm of puberty.

it drag you down. "Is this freedom??" he shrieks (trying desperately to get the rules straight). "Yes," I answer, "This is it." Don't be thinking the answers are hidden in the weed, because they're not. The freedom and the answers are within YOU." The generation gap narrows... then it widens again as he goes away to process the information. Death and rebirth... death and rebirth... my newly discovered philosophy. "And you, my newly-born infant/adolescent son, are truly amazing!" •

The Rite of Passage: A family's perspective on the use of **MDMA**

Father's story

in

THE MID-1980S, my daughter Eve asked me and her mother Sarah if she could be given a therapeutic dose of MDMA. At the

In the mid-1980s,

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time, she was 16 years old and the drug was still legal. Eve thought it might help her resolve a persistent, growing fear that her parents might suddenly die and leave her orphaned. It seemed to me then that this fear was a manifestation of something else which troubles many adolescents at about her age: awareness that her childhood was coming to an end. What Eve really found so frightening was knowing that soon she would leave her parents' home and face the challenge of living the life of a free individual "out there," in the great world. From her vantage as a pampered only child, this must have seemed daunting indeed. By "pampered" I do not mean spoiled; I mean that Eve had been raised in an environment of demonstrated love, mutual respect and dependable fairness. She was starting to realize that she could not expect to be treated as well by the larger society.

When Eve approached us to ask if we thought it might help her to take MDMA I did not answer "yes" immediately. I had taken psychedelics many times since my first experience in the late 1960s when, at the age of 19, I ingested a very strong dose of LSD. For me that had been a life-changing event which eventually led me to graduate studies at one of the major divinity schools in the United States.

I also knew that psychedelic substances are safe for most people to use if care is taken to ensure proper dosage, set and setting. My own use of psychedelics had not caused me to crave other drugs which I consider far more dangerous, such as heroin and cocaine, or even those which I consider more benign, such as marijuana. But I wanted to review the current literature on MDMA's alleged adverse effects before giving my daughter permission to take it. After several days I agreed, as did her mother. What tipped the scale was our personal conviction that the insights to be gained from a responsibly conducted MDMA session far outweighed any possible risk of lasting harm.

The setting we chose was an island in the Great Lakes where Eve, Sarah and I had often camped on our vacations. We pitched our tent near the shore of an isolated bay which faced the sunset. The season was summer. What happened next is described in the following paragraphs, loosely adapted from a letter I wrote a few weeks later to a friend of mine.

The dose Eve took was about 125 mg—normal for me and Sarah but a little bit strong, it turned out, for a person of Eve's size who had never before experienced a psychedelic substance. The result was that Eve's experience appeared, to myself as an outside observer, to be almost equal in intensity to a full-blown

psychedelic trip. But no harm was done. On the contrary, Eve was able to resolve a lot of problems that were plaguing her, especially a fear that those she loved might die suddenly and be lost to her. She realized that those she loves become a real part of her. It was an obviously liberating thing for her to realize.

When she took it, we were sitting at a picnic table underneath some birch and fir trees. It was about an hour before sunset. Partly cloudy but predominantly clear blue sky. Then, before she felt the effects, we went down to the beach and Sarah started a fire. Eve sat on a huge piece of driftwood near the fire, facing the western horizon of the lake. This area is unspoiled and remote—no pollution or distractions, only seagulls for company most of the time.

Attention! Attention!

Suddenly, Eve began to stare fixedly into the fire and said: "I'm feeling really, really strange." We asked her if the feeling was bad. "No," she said emphatically, "just strange." I then suggested that she take a long walk down the beach, which I had found very enjoyable when I had taken MDMA a few months earlier while camping in the same area. But Eve preferred to stay put. About 20 minutes later, when she tried to stand and walk a bit, she found that her body just wouldn't cooperate. Her legs were rubber. When we finally went for a walk an hour later, she had to lean on me in order to stay upright.

Throughout these experiences, Eve voiced a steady stream of revelations, all positive. Among them: "The world's incredibly beautiful. It's like this all the time but we don't see it and appreciate it." "Old Eve wouldn't let me lose control like this. But all I was doing was keeping myself from experiencing life." "Death's a part of life. It shouldn't be something we worry about all the time. What really matters is to really appreciate being alive." And a quote, among her favorites, from Aldous Huxley's novel *Island*: "Attention! Attention!"

I was somewhat surprised that Eve did not contemplate and marvel at the sunset as much as I had during my MDMA session a few months earlier, or even as much as she normally does in her ordinary state of consciousness. However, nightfall brought an incredibly clear, starry sky, and she loved it. I will always remember how loving and close it felt to stand with her there on the beach, in the darkness a few hundred feet from the fire, looking up together. "Wow," Eve said in a whispery voice, "the stars are raining down on me." Which made them rain down on me, too. Looking back on the experience over the

next few days, Eve said it was very constructive for her and not negative at all. She overcame a few compulsions (for instance, an obstinate refusal to drink from the same glass or bottle that someone else had drunk from), acquired a healthier attitude toward death and in general took a big step toward independence and enlightenment. As you can probably imagine, I was forced by all this to become more independent and enlightened myself, breaking free of my conditioned, conservative father role and acting on convictions I acquired only after leaving my own childhood home.

Eve had been raised in an environment of demonstrated love,

mutual respect and

dependable fairness.

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Eve would no doubt report that I remained a conservative father, for example by enforcing a fairly strict curfew and by warning her against the usual list of bad influences. I needn't have worried; she handled herself just fine, avoiding such temptations as excessive use of alcohol and drugs at school. Apparently the fact that she could openly discuss these things at home made her better informed to make responsible decisions, and one of the decisions that she made was not to get high. By the time she finished high school she was ready to enter the world and explore it with growing self-confidence. Her graduation present from Sarah and me was a week-long workshop with Stan and Christina Grof at Esalen, which required that she make her first cross-country flight alone. Since then her travels have taken her as far as to Delphi in Greece, volcanic islands off the southern coast of Italy and Albert Hofmann's home in Switzerland. And recently, she married a young man who seems an extremely good match for Eve's exceptional courage, creativity and character. I would like to think that she would recognize herself in the following passage from a lecture e.e. cummings gave at Harvard:

As it was my miraculous fortune to have a true father and a true mother, and a home which the truth of their love made joyous, so—in reaching outward from this love and this joy—I was marvelously lucky to touch and seize a rising and striving world; a reckless world, filled with the curiosity of life itself; a vivid and violent world welcoming every challenge; a world worth hating

and adoring and fighting and forgiving; in brief, a world which was a world. This inwardly immortal world of my adolescence recoils to its very roots whenever, nowadays, I see people who've been endowed with legs crawling on their chins after quote security unquote. 'Security?' I marvel to myself 'what is that?' Something negative, undead, suspicious and suspecting; an avarice and an avoidance; a self-surrendering meanness of withdrawal; a numerable complacency and an innumerable cowardice. Who would be 'secure'? Every and any slave. No free spirit ever dreamed of 'security'—or, if he did, he laughed; and lived to shame his dream. No whole sinless sinful sleeping waking breathing human creature ever was (or could be) bought by, and sold for, 'security.' How monstrous and how feeble seems some unworld which would rather have its too than eat its cake!

In my opinion Eve had her cake and ate it too the day that she freely decided to embrace the insecurities of life at age 16. I will never regret having helped her undergo that rite of passage.

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insights to be gained from a responsibly conducted MDMA

session far outweighed any possible risk of lasting harm.

Mother's story (Sarah)

I HAVE BEEN WORKING in the US health care system for over twenty years and have acquired a multifaceted appreciation for drugs, their effects (possible, probable and actual) and their legal and social ramifications. My experience with psychedelics started when I was in my early 20s during the early 70s. I was fortunate to have experienced the effects of psychedelics in a community of people who explored these substances with care and respect. I was also fortunate to have my daughter Eve, who

influenced me to embrace the innocence and wonder in the world. Her influence was especially strengthening when I took psychedelics in her presence. This occurred when she was in her first to fifth year of age. However, she was never given psychedelics. The strong, loving community we were a part of also benefited from Eve's influence, and we enjoyed playing with her and her toys and sharing her perspective on the world.

Without the help of psychedelics and Eve's influence, I sincerely doubt that I would have been able to transcend the dysfunctional behaviors I had acquired from growing up with alcoholic and bipolar disordered family members.

When Eve was five years old it was necessary to move away from our psychedelic community and she entered into the public school system. This, along with the influence of the upscale political/governmental persecution of psychedelic use, forced my husband and I to no longer feel that it was wise or safe to allow Eve to be present when we used psychedelics and we always represented our psychedelic use as a part of past experiences. We did, however, discuss psychedelics openly in our household. Because of our own healing experiences with psychedelics and our interest in psychology, we were involved in the scholarly study and investigation of psychedelics as healing tools.

Our right and duty to teach

Eve started to ask about psychedelics when she was 15 years old. My husband and I felt we were faced with a real dilemma because we believed psychedelics could be beneficial, but we didn't want to expose ourselves or our daughter to possible legal prosecution. After a lot of soul-searching we realized that it was not only our right but also our duty to teach her how to use them appropriately. Because we were no longer part of an actual psychedelic community we decided to consult the virtual psychedelic community embodied in literature to assist us in Eve's educational process. Books given to Eve to read included: *The Doors of Perception*, *Realms of the Human Unconscious*, *Island* and *Psychedelic Drugs Reconsidered*. We then discussed with her what she had read, emphasizing the importance of set and setting and ceremony and the political climate at the time (mid-80s).

At the age of 16, Eve asked to be given the sacrament. Though physically healthy she was clearly having problems adjusting to her role as an adolescent. She had become very introverted and untrusting of her peers. She also had developed a phobia about what she called "backwash" (drinking from a container someone else had drunk from). The decision to use MDMA was based on a number of factors. First, it was not illegal at the time. Second, it offered a mild psychedelic experience that would be relatively short-lived. Most importantly, we hoped that it would help Eve reconnect with the world and give her a perspective on the transition she needed to make. We addressed the legal issue by insisting that Eve not reveal her experience to anyone but friends who were respectful of psychedelics.

THE CEREMONY took place in September, on an island in the Great Lakes from which only other islands can be seen from the western shoreline where we held the ceremony. The day of the ceremony was spent in preparation. I made a firepit on the beach and filled it with wood so Eve could enjoy the warmth and beauty of a campfire during her experience. The sacrament was given to her in a field above the beach as the sun was just beginning to set. Neither my husband nor I took a psychedelic during Eve's session; both of us served as her sitters.

The sacrament proved to be a powerful experience for all of us. Since Eve had never experienced intoxication of any kind in the past, she had no reference to the altered physical function she experienced. She therefore had difficulty walking and moving in a coordinated fashion. She had been warned about jaw tension so she did not react adversely to the sensation of jaw tightness associated with using MDMA. We sat on the beach and watched a beautiful sunset. We were then blessed with a moonless, clear, star-filled sky and the warmth and beauty of the campfire. Eve was especially affected by the stars and proclaimed that she felt part of the universe. She realized that she had been struggling with separation anxiety—not wanting ever to be separated from her mother and father. With the help of the sacrament she was able to understand that she would always be a part of us and that we would always be a part of her no matter the "distance" between us. This experience forged an even stronger bond between us. From that point on, Eve knew that

she could proceed with her development, feeling assured that she would always have her parents for support and guidance and that the universe had the potential to hold and nourish her. The backwash phobia also abated.

Ten years later

Reflecting on the experience ten years later I realize that Eve was given back what she had given me when I was in my twenties, a deep appreciation for the wonder of life and the world. She has grown up to be a spirited, loving and courageous person who has always used psychedelics with care and respect and moderation. I have the strong conviction that Eve's MDMA experience helped her to be the person she is today. It allowed her to find balance and perspective in her life when she was stuck and taught her respect for the healing potential of psychedelics that she has never forgotten. Eve's life could have turned out quite differently, I think, if my husband and I had not accepted our duty to teach her how to use psychedelics in a sacred way. I offer this testimony to help parents who are facing the same dilemma as my

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husband and I did with Eve. I strongly encourage parents who know how to use psychedelics in a sacred way to teach their children how to do so. Despite the threat of legal ramifications taken on by such an undertaking, I think the risk of an adolescent learning how to use them incorrectly from misinformed or reckless peers is far more dangerous. I regret that because of the present political climate this account must be written anonymously. I only hope the day will come when parents can legally give their adolescent children an essential life experience: the rite of passage.

Daughter's story (Eve)

I CANNOT DESCRIBE my first experience with a psychedelic drug, which was provided for me by my parents, without first discussing my general attitude towards drugs. My views were strongly influenced by my parents. I was raised to view all drugs as tools which needed to be treated with great respect. This meant, among other things, educating myself about drugs before taking them. I was also encouraged to take drugs for a purpose, not "just to get off."

When I refer to drugs before the age of fifteen, this is in reference to my exposure to common legal drugs such as antibiotics, wine with dinner, and coffee. All drugs were to be used in moderation. Perhaps the most important feeling I got from home was that the state I preferred to experience most of the time was the wonderful every day world of just being myself. This is all important because it provided me with a very healthy and significant attitude toward drug usage throughout my life. Although I greatly enjoy having a psychedelic experience now and again, I have never had a desire to abuse drugs and hide from my everyday world in them. This brings me back to the moment before I first ingested MDMA, when I was given a friendly parental lecture on the use of psychedelics. They told me, "this is not a magic feather, it may help you get a perspective on your life at times, but drugs alone cannot solve your problems."

When I see the unfortunate way in which many people have
discovered drugs, I realize that I had a real advantage
because my discovery was guided by intelligent
and loving parents.

My parents had been involved in psychedelic research for much of my life but despite their open conversations about it, it never really registered that they used such substances. I was vaguely aware that some of our family friends smoked pot and used LSD, but I was never directly exposed to it. It didn't bother me that some of our friends did this because from what I could tell, they did not use these drugs all the time and they were respectful of their bodies and minds when using them. I remember my parents being concerned about my knowledge of these things getting to my friends, my friends' parents, and eventually someone of legal authority. I remember thinking as a child that it seemed silly people had to be afraid of this, because as far I could tell, I had seen people, such as my grandmother, do far worse damage to their bodies, lives and souls with alcohol, which was legal and socially acceptable.

A realization

Perhaps because of the fear I felt from my parents, I began to think more about the place of illicit drugs in peoples lives. It first began to really register that my parents had taken psychedelics when I took a good look at the book shelf one day. Among the books on philosophy, pharmaceuticals and poetry, were books specifically about psychedelics. Because I had begun to seriously contemplate the meaning of illegal drugs, I began to feel the need to confront my parents on the issue. I approached my dad first. I can imagine this was a conversation my parents anticipated with both joy and reluctance. My father and I had a long talk on the porch; it was a sunny, relaxed afternoon. My father explained to me why he and my mother took psychedelics, and asked for my opinion on drugs in general.

Although I don't remember my exact age, I believe I was fifteen when I had this conversation with my father. I thought about this and many other things throughout the year. Some of my friends had begun to use drugs such as alcohol and marijuana. I had no desire to do these drugs with them because I did not like the context in which they were being used. Because so many things were new to me at that time, I wanted to learn about them in an environment where I could just be myself. I did, however, really want to experience an altered state. I wanted to explore this other world, but I didn't want to do it in the realm of my peers, where I had enough going on as it was. I decided to talk

to my parents about this desire. After they listened to my reasoning, and discussed it among themselves for awhile, we decided as a family to share my first trip. I was sixteen or seventeen at the time. My parents seemed confident about this decision, although it was obvious to me that they had thought about it quite a bit. In retrospect it must have been one of the hardest decisions of their lives.

Preparing for the experience

My parents gave me a great deal of information about MDMA, which we decided would be the best psychedelic for my first adventure. I feel the information that they gave me was relatively unbiased, as it included both favorable and unfavorable things which had been reported about it. Every step of the way it was made clear to me that I was welcome to change my mind at any point. My parents and I went to a beautiful place which was sacred to our family. It was an environment which I found very comfortable and peaceful.

At this point I actually find it difficult to describe my experience because it is so difficult to capture in words. It was indeed a whole new world. The well-developed screens and protocols through which we filter our environment dropped, yet I was still in control. I felt a tremendous sense of awareness about life and a connectedness to all things. This sensation, among other feelings, was very beneficial to me as a young person about to step out into the world. It was also simply fun. It was a wonderful, magical, amazing, feeling and I was grateful to my parents for sharing it with me.

My parents and I both felt that an initiation of some sort had occurred, and I believe it was a positive influence on my psychological and emotional development. In many ways, I had been very afraid of the world. Sensing the world in the way I did made me want to step out and embrace its diversity instead of hide from it. In many ways, I felt that the identity and spirit which was struggling to learn how to be separate from my parents had gained its first own intense and awe-inspiring experience. This is ironic because my parents were responsible for this awakening, and yet it is fitting. In many cultures, young people begin their individual paths in the world with an intense, meaningful, and jarring experience which is provided for them by the community to which they must learn to contribute.

I only used MDMA one other time with my parents before I left for college. I had continued to avoid drug usage with my peers throughout high school, but I began to use psychedelics, as well as some other drugs, about a year into college. I have never chosen to try many drugs, such as cocaine, and what drugs I have chosen to use, I have used with respect. I feel these experiences provide a valuable perspective into my life. The ability to temporarily drop the thick coat of pretense which can weigh so much in our modern, adult world gives me a new and euphoric outlook on my life and actions. I enjoy being in an altered state of mind and feel that the ability to do this has made my life richer. When I see the unfortunate way in which many people have discovered drugs, I realize that I had a real advantage because my discovery was guided by intelligent and loving parents.

I think a lot these days about how I will handle drugs with my own children. I know I will raise my children to have the same respect for drugs as I feel I was given. I don't believe all parents should give their teenagers drugs, but that is because so many things are involved in this decision. It is not a black and white issue. I do know that I am grateful I was able to approach my parents about drugs, and that I was able to share my first psychedelic experience with them. •

I think a lot these days about how

I will handle drugs with my own children...

It is not a black and white issue.

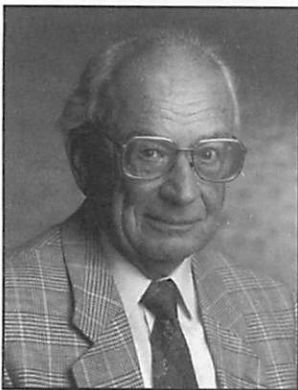
Hanscarl Leuner

Pioneer of Hallucinogen Research and Psycholytic Therapy

Torsten Passie, M.D., M.A.

HANSCARL LEUNER was born in January 1918 in the City of Bautzen in Germany. He was the only child of a leatherware factory owner. His father intended for him to take over the factory, but after going through three years of training as a harness maker there were some doubts about his qualifications as a businessman.

In searching for his own field of interest Leuner became interested in psychotherapy. Upon meeting him, the prominent psychologist Fritz Künkel recommended that he should study medicine—and “forget the half of it afterwards”—and to go through the educational process of a psychotherapeutic institute.



Hanscarl Leuner, 1918-1996

HE STUDIED MEDICINE at Frankfurt University and Marburg University (1939-1946), interrupted by his military service in World War II. In these years he studied the autogenic training methods developed by J.H. Schultz and the medical psychology of Ernst Kretschmer. From these two approaches Leuner set up his special interest in mental imagery and “catathymic influences,” or the interaction of mental contents and emotional processes.

In 1946 he began his educational psychoanalysis with the Jungian psychotherapist Professor Dr. Schmaltz. This humorous and very human teacher facilitated Leuner's interest in the action of dream symbolism and the power of so-called transference in psychotherapy.

His clinical education in psychiatry and neurology was influenced by two major impressions: the assimilation of the subtle psychopathological approach of his teacher, Klaus Conrad (“conditional-genetical and functional psychopathology”), on which he later based his monograph about experimental psychoses; and the curious opposition of most of his psychiatric colleagues against psychotherapy. The latter led him to make attempts to prove the principles and efficacy of psychotherapy in a scientific manner. After a short period of orientation his special interest focused on the symbolization processes in dreams and daydreams. In the periphery of the literature he found a reference about inducing daydreams with imaginative elements in a conventional psychoanalytic couch-setting. Consequently, he conducted a series of experiments about the relationship of emerging symbol-constellations in mental imagery and the basic conflicts of the individual. In this process he discovered the

potent therapeutic effectiveness of psychotherapy with guided daydreams. Later, he facilitated the process by giving the patients standard motifs such as “mountain,” “river,” or “flower” to start their imaginary trip with. In the early fifties, he developed a standardized treatment technique based on this research, and named it “Guided Affective Imagery.”

Leuner's personal capacity to observe sensitively and subtly describe intrapsychic emotional processes made him able to use mental imagery to stimulate emotional catharsis, in contrast to the mostly cognitive verbal psychotherapies.

As a result of his experiments with guided mental imagery, Leuner developed in 1955 the idea of intensifying and facilitating cathartic emotional processes by the use of low doses of LSD-25, which was known at that time to induce daydream-like states of consciousness and nonspecific affective stimulation. Over the next five years, he conducted more than 1,300 individual sessions with different hallucinogens (LSD, mescaline, psilocybin, atropin derivatives, etc.) with neurotic patients and normal volunteers. Through precise observation of these experiments he gained the empirical foundations for his principal model in his monograph, *The Experimental Psychosis* (1962). Leuner used the most advanced psychopathological approach of his time to theorize about the LSD reaction—not because this elaborate theorizing seemed most appropriate to him, but mainly because it seemed to be the only possible way to bring the unusual experiences of his subjects to the attention of the scientific community. His strictly scientific model should also serve to demonstrate that these experiences

have their own specific laws and structures which can be conceptualized by accepted psychopathological theories and could be controlled by educated physicians.

One of the main concepts derived from this comprehensive study was the empirical consideration of three different courses which the LSD reaction can take: the *continuous-scenic course*, the *stagnant-fragmentary course*, and the *extreme psychotic course*.

It is not possible here to go into detail about them, but the main importance of this empirical finding lies in the fact that the type of course is mainly a function of the dose of the substance, provided the setting is safe. This means the principal course of the experience can be controlled by individually adjusted doses. This is especially important in psycholytic therapy where it is necessary to retain an "ego-residue" in the patient to make him able to reflect and partially control the ongoing experience. This is possible only in the "continuous-scenic course." In view of the psycholytic pioneers only this course with its specific attributes is usable for therapeutic processing and allows the patients to explore their unconscious freely and without dangers of (re-traumatizing) overstimulation. A relationship of trust between the doctor and patient and a warm atmosphere of the treatment facilities are also necessary for healing.

Another main concept of Leuner's comprehensive monograph is the "Psychotoxic basic syndrome" which characterizes the basic psychopathological features of the LSD reaction:

1. *Functional regression of psychic functioning* to earlier stages.
2. *Changes in consciousness* from normal waking consciousness to "protopathic" consciousness (Conrad) which implies stronger involvement of emotions in determining perceptions and contents of consciousness and autymbolic visual imagery. Leuner made scientifically evident the similarity of contents and symbolization processes in hypnagogic imagery and the "continuous-scenic" course of low-dose hallucinogenic drugs.
3. *Amplification of endogenous stimuli-production*, especially sensory alterations and nonspecific affective stimulation.

Another intention of Leuner's work was to prove the close relationship between the contents of hallucinogen-induced experiences and the history of the individual. For this purpose, serial sessions with neurotic patients were especially useful and led him to the first publication, *Psychotherapy in Model-Psychoses*, in

1959. The patterns of emergence of events from the patient's personal history seemed to be astonishingly consistent. Leuner conceptualized this coherence in upcoming unconscious conflicts in respect to memories as generated by "transphenomenal dynamic guiding systems." These systems constellate complexes of memory material and emotions and structure the emerging unconscious material in the psycholytic process. This concept is related to the "psychic complexes" of Eugen Bleuler and Sigmund Freud. Later the famous LSD therapist Stanislav Grof hypothesized about "systems of condensed experiences" (COEX-systems) which may try to explain the same thing. This obvious involvement of coherent personal contents in psycholytic experiences strictly differentiated these states from other types of "exogenous psychoses," i.e. psychoses produced by massive biochemical aberrations of organismic functioning.

In 1960 Leuner transferred from Marburg to Göttingen University and established a psychotherapy department there. Impressed by the therapeutic possibilities of hallucinogen-assisted psychotherapy, Leuner initiated in 1960 the *First European Symposium on Psychotherapy under LSD-25* at Göttingen University. Experienced colleagues came from Denmark, the Netherlands, England, Norway, Czechoslovakia, Italy and Germany. At this occasion the leading psycholytic therapist from England Ronald Sandison proposed the name "psycholysis" (i.e. "soul-loosening) or "psycholytic therapy" for the new method which was unanimously accepted by all participants. This term is still in use in Europe today. The next European symposium, *Hallucinogenic Drugs and Their Psychotherapeutic Use*, was initiated by the British Royal Medico-psychological Association in London in 1961. After this meeting, Leuner tried to organize interested psychotherapists in the *European Medical Society of Psycholytic Therapy (EPT)* which was founded in 1964. At this time psycholytic therapy was practiced in 18 European treatment centers and by many outpatient private-practice psychotherapists. It seemed to be a scientifically established effective and safe treatment with an extremely promising future. In many severely disturbed neurotic patient, to which most psycholytic therapists devoted their efforts, the new method proved to be especially effective.

In 1965, when the nonmedical use of psychedelics reached its first height, Leuner was invited by the American National Institute of

- In his late years,
the grandfather of
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method of therapy
and hoped for a
more serious public
assessment in the future.
The future will show
if his hopes
will be fulfilled.
- Mental Health (NIMH) to do expert evaluations on the few remaining American research projects involving hallucinogens. Unfortunately, at the end of the sixties, in the emerging world of drug hysteria and governmental suppression of legitimate research, most researchers world-wide were "voluntarily" leaving their original field of investigation because of negative headlines about LSD and moral recriminations by their colleagues. Out of that reason the EPT was dissolved after its fifth symposium in 1971.
- Nevertheless, Leuner retained his license until his retirement in 1986. Ever since he became a professor at Göttingen University in 1965, his daily routine included psychoalytic therapy at his psychotherapy department. He focused on the treatment of so-called "therapy-resistant" chronic severely neurotic patients and developed the "stationary interval treatment," where the patient is in out-patient psychotherapy and is only briefly hospitalized for the psychoalytic sessions. In this way the patients can be observed long enough after enough session at a lower cost. A similar model was practiced at many British "day hospitals" during the sixties.
- Leuner also conducted basic research on different topics with normal volunteers and patients. There is not enough space here to show the broad scope of research with hallucinogens conducted by Leuner and his colleagues at his department but here is a list of major projects:
- consciousness disorders in experimental psychoses;
 - toxic ecstasy in intercultural perspective;
 - therapeutic mechanisms of psychoalytic therapy;
 - oral regression under the influence of hallucinogens (dissertation by Fernandex-Cerdeno, 1964);
 - the womb and birth motif in experimental psychoses (dissertation by Schmeling, 1965);
 - international review of evaluation studies of psychoalytic therapy (dissertation by Mascher 1966);
 - clinical safety and psychopathological studies of the psilocybin derivatives CZ-74 and CEY-19 (dissertation by Baer, 1967);
 - similarities of low-dose experimental psychoses and beginning schizophrenia (dissertation by Schönfelder, 1967);
 - chromosome studies in psilocybin patients, problems of misuse of LSD;
 - significance of hallucinogenic experiences for
- the psychology of religion (book by Josuttis/Leuner, 1972);
- catamnesis efficacy studies of the psychoalytic patients in his department (dissertations by Mascher, 1966, and Schultz-Wittner, 1989);
 - experiential contents of the anal phase of psychic development in psychoalytic therapy (dissertation by Adler, 1981);
 - dream-like experiences under the effects of ketamine (dissertation by Bolle, 1985); and
 - psychotropic effects and therapeutic use of the phenethylamine DMM-PEA (LE-25) (dissertation project by Schlichting, 1985).
- Most research was published in international journals and Leuner's monograph entitled *Halluzinogene* (1981). Of special significance for the future may be Leuner's meticulous studies into the efficacy of psychoalytic therapy and the introduction of the short-acting substances CZ-74 (a psilocybin derivative) and LE-25 (a phenethylamine). Both are easy to use and produce virtually no side-effects. They seem to be the ideal substances for future applications of psychoalytic therapy. Unfortunately Leuner's attempts to use MDMA in psychotherapy studies were rejected by the German Ministry of Health in 1985.
- Non-drug therapies**
- Beyond his hallucinogen research, especially since this research was internationally restricted, Leuner was very engaged in propagating and establishing his "Guided Affective Imagery" psychotherapy system in the German-speaking countries. He founded a central organization, created standardized education guidelines, held workshops and published steadily on the subject. Today, this system is well established in the German psychotherapeutic community. His books about it are translated into several languages.
- Since the middle of the seventies, he also put much energy into the creation of an electronically-aided respiratory feedback system (RFB). This device was developed to help psychosomatic patients to reach states of deep relaxation similar to those achieved with autogenic training in a minimal time-span. Until now, this "non-pharmacological medicine" proved to be an effective treatment for cases of hypertonia, neurotic anxiety, sleep disturbances, terminal pain and other tension states. In the past ten years he conducted some scientific studies and wrote a new book about this method. *Leunomed* respiration feedback devices are used by approx. 4,000 physicians in Europe and the United States today.



Classic psycholytic setting:
the assistant does not leave
the patient's side; the doctor
visits at regular intervals.
Professor Leuner is in the center.

In 1985, together with other important researchers in the field, Leuner founded the *European College for the Study of Consciousness (ECSC)* and acted as its president. This international organization brought researchers together to share information, organize congresses and educate the general public (see MAPS newsletter, Vol. 4, no. 4, Spring 1994). Since its founding, the ECSC has initiated seven symposia on specific topics and two major international *Worlds of Consciousness* congresses. From 1991-1996, Leuner and Michael Schlichting, MD edited the *Yearbook of the ECSC*.

In his seventies, Leuner was still doing psycholytic work, when I had the opportunity to work with him for some time. It was an elucidating experience, because he knew how to create the the necessary warm and comfortable atmosphere in his treatment rooms and in his handling of patients, who came in a range of characters, professions and ages. Most of them suffered from severe neurotic disturbances and couldn't be treated by conventional methods.

His personal appearance was that of a wise old man. Thanks to his unflinching sense of humor and willingness to approach individual problems with empathy, he helped many patients out of their negative "father transferences." He had a special kind of relaxed attentive seriousness which helped patients to work through their experiences and problems. Interacting with his patients with a youthful and humorous temperament, he organized the

therapeutic processing with playful authority and unconventionality.

He suffered a heart attack in February, and after recovering from it he developed other health problems in June and died after a short time of hospitalization.

In his late years, the grandfather of psycholytic therapy was still sad about the fate of this powerful method of therapy and hoped for a more serious public assessment in the future. The future will show if his hopes, partly embodied in the *European College for the Study of Consciousness*, will be fulfilled. •

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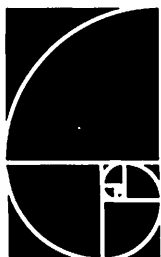
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Heffter Research Institute

Research
at the Frontiers
of the Mind

David E. Nichols, Ph.D.

SEPTEMBER 1996 marked the beginning of the fourth year of formal existence for the Heffter Research Institute. Our small organization continues to grow in several ways. Although we are still searching for the donors that will really allow us to fulfill our mission, we have taken many small steps. First and foremost, we continue to move forward, with no loss of momentum or enthusiasm for the future. As MAPS members already know, we have co-funded the psychedelic bibliography, now accessible on the MAPS and Heffter home pages. This was a joint venture with MAPS and the Albert Hofmann Foundation. We have also provided funding for a scientific conference on ayahuasca in Brazil.

Our home page on the Web, <http://www.heffter.org>, has generated a fairly constant and satisfactory level of interest, and a number of other sites have now linked to us. The site is undergoing several changes that will make it even more attractive and we encourage you to browse there

if you have the opportunity. You will find the text of our printed materials there, interesting molecular graphics, descriptions of research projects, as well as biographical information on the founders and advisors.

Manuscripts are now in the editing process for our first Heffter Review of Psychedelic Research, due to be published in Spring 1997. We have recently participated in a joint fundraising venture with MAPS, and again owe a great debt of gratitude to Rick Doblin for extending the good hand of cooperation and friendship to us.

Although the current climate in the United States remains largely unfavorable to the mission of legitimate research with psychedelic agents, being in some sense "underdogs" has created a spirit of cooperation and camaraderie among the Heffter, MAPS, and Hofmann Foundation folks that continues to inspire us. As you know, underdogs quite often surprise people, and win important contests. Nevertheless, despite the fact that the Heffter founders and scientific advisors represent primarily mainstream science, there are clearly many psychological and societal barriers yet to be overcome before both policy makers and the general public are ready to accept the premise that psychedelic agents are worthy of substantial research effort. We are all grateful for the small but growing numbers of dedicated supporters who believe in the ultimate importance of this work.

There are at least two events, however, that promise to help change occur. The first one is the recognition that the newest generation of antischizophrenic agents potentially interact with the same class of brain receptors as do LSD and related psychedelics. While this does not mean that psychedelics actually model mental illness, it does emphasize the importance of understanding the role of this receptor in the brain, and increases the likelihood that more extensive research resources may be put to bear on its study by government and corporate agencies. The second potential happening that would lead to a dramatic move forward would occur if efficacy can be shown in Dr. Charles Grob's proposed Phase II clinical study with MDMA in the treatment of pain and distress in cancer patients. We believe the latter result would be a signal event leading to much greater interest in clinical research with psychedelic agents by psychiatric medicine.

All in all, these are very exciting times. Stick with us in the coming years. We have the opportunity to make a difference and it is worth the struggle! Or, in the immortal words of Yogi Berra, "when you come to the fork in the road, take it!"•

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THE HOFMANN REPORT

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

UPDATE ON DR. ALBERT HOFMANN

Many people were greatly disappointed when Dr. Hofmann announced he would not be able to attend the Entheobotany Conference in San Francisco, October 18-20. We had learned in mid-September that Dr. Hofmann was having severe pains in his right knee. Examination revealed that he needed a new knee joint. He very much hoped that he could have the surgery done after the conference, and that medical treatment would alleviate the pain sufficiently for him to attend the conference. Unfortunately, the medications given for inflammation and pain relief became ineffective after a time, and it was no longer possible for him to get around.

Surgery was scheduled for October 31, 1996. A stay of three weeks in the clinic where the surgery is done is required for recuperation, followed by another two to three weeks in a rehabilitation facility.

His wife had the same operation several years ago, and was greatly improved. Dr. Hofmann reports that in all other aspects his health is excellent, and because of his wife's success with this operation, he is optimistic that he will be able to travel again after his recovery.

AHF has been coordinating with MAPS to persuade Dr. Hofmann to return to the United States in the late summer of 1997. It is hoped that a successful recovery from his knee surgery will permit this to happen. This will provide an opportunity for Dr. Hofmann's admirers on both the East Coast and West Coast to share his presence. Through joint MAPS/AHF sponsorship, a one-day gathering is planned in New York, followed by a similar meeting in Los Angeles. Future Hofmann Reports will keep you abreast of these developments.

Dr. Albert Hofmann's Research Papers

We are pleased to announce that Sandoz Corporation has agreed to turn over to the Albert Hofmann Foundation Dr. Hofmann's research papers. This will include a wealth of

material on Dr. Hofmann's work with LSD and psilocybin. Altogether, there are approximately 3,500 papers in the collection. The transfer of this material from Switzerland to the United States has been worked out.

The most urgent task facing the Foundation is to extract the pertinent information which will permit us to set up Drug Master Files at the FDA on LSD and psilocybin. Such files will include animal, toxicity, and safety studies which must be provided by any researcher applying for an Investigational New Drug permit before being permitted to conduct clinical studies on humans. Establishing these files will enable AHF to grant permission to use the relevant data for research applications on humans. Thus, the replication of a great deal of required work will be unnecessary, and it will be much simpler and far less costly for researchers to establish new clinical research projects with humans. These file also build the body of data which will aid future efforts to make these drugs available by prescription.

It will be a large and difficult task to sort through the papers, index them, and make them available for the Drug Master File applications as well as arrange the most relevant material to be available to other researchers. Further complicating matters, half the information is in German, requiring helpers conversant in this language, as well as translators to convert important German documents into English.

Your financial assistance is very much required to carry out these important tasks. Any amount you can give will be greatly appreciated. It is only with your help that we can complete this vital work. Please mail your contributions to:

Master File Fund

THE ALBERT HOFMANN FOUNDATION

1278 Glenneyre No. 173

Laguna Beach, CA 92651

Future Hofmann Reports will describe progress, accounting of funds expended, and funds required for completion.

In keeping with our policy of acquainting MAPS readers with our Advisors, we are featuring in this issue the well-known and admired chemist, Alexander T. Shulgin, affectionately known as "Sasha." Dr. Shulgin is undoubtedly the foremost chemist in the compounding and exploration of psychoactive compounds, a love which he has been pursuing for over three decades. One hundred seventy nine active compounds are described in his recent book, co-authored with his wife Ann, *Pihkal*, acronym for Phenethylamines I Have Known and Loved (Berkeley, California: Transform Press, 1991). All the compounds are described in detail in *Pihkal*, including method of synthesis, dose levels, duration, and qualitative results. A number of these compounds, such as MDMA, 2C-B, 2CT-2, -4, and -7, to name but a few, have particularly outstanding characteristics. All of these but MDMA are Shulgin's own creations. Some have been investigated by other researchers, and some have been manufactured in other countries. While the origin of MDMA dates back to 1912, Dr. Shulgin became interested in studying it further in the late 1960's, and is largely responsible for initiating the widespread attraction to this popular substance.

The interval of time spent creating and evaluating these compounds represents a vast amount of experience, both in personal evaluation and observing and/or assessing the experiences of many others. The result is an enormous compilation of data on numerous aspects of psychedelic substances, the effects of various compounds and dose levels, the extent and nature of possible experiences and the factors which influence results. It is probably safe to say that Sasha and Ann Shulgin are among the most informed world authorities on psychedelics and the experiences they provide.

It is therefore no surprise that Sasha Shulgin is in high demand as a teacher and/or lecturer on many aspects of the use of psychedelic chemicals. Because of his depth of knowledge and well-respected integrity, he is often called as an expert witness in drug trials, hired by prosecutors and defenders alike. His considerable knowledge in the field is enhanced by an exceptionally sharp, quick mind, an outstanding sense of humor which can turn a stray phrase or comment into something hilariously funny, and unbridled curiosity and energy. An exceptionally fast learner, he has absorbed a number of fields, including foreign languages.

An example is his interest in computers. Understanding the capabilities and potential of computers, he became thoroughly conversant with their functions, and rapidly designed methods and procedures to best serve his needs. For example, he is a master at exploring the Internet to keep up with a variety of news groups, and to obtain reference material from around the world. Upon writing *Pihkal*, he insisted on laying out the design and graphics of the book himself and furnished the printer camera-ready copy.

An interesting question presents itself. Is his quickness of mind and rapid ability to learn the result of numerous psychedelic experiences, or simply the manifestation of a naturally brilliant mind? No doubt some mixture of both. It cannot be denied that he was born with much gifted talent. This talent no doubt contributed to becoming a master at utilizing the expanded consciousness available from psychedelic experiences to expand awareness, amplify conceptualization, accelerate mental processes, and penetrate more deeply into the unknown. The overall result is a person of many gifts and talents, with whom discourse is a joy on most any subject, and who can contribute much wisdom and creative suggestions to a variety of problems.

While Sasha shares the desire of many of us for a more conscious society, he is convinced that our major impact will be "one on one."

As has happened many times in history, the established powers in society often fail to recognize creative innovators and the significance of their important contributions. The threat to the status quo is often met with repressive actions. In the case of psychedelics, official and public understanding are particularly distorted. Many were not surprised when the Drug Enforcement Administration took action against Dr. Shulgin which resulted in the recall of his license to work with Schedule I compounds and a burdensome fine and legal expenses. Details of this traumatic episode in their life will be described in their forthcoming book, *Tihkal (Tryptamines I have Known and Loved)*.

Sasha and Ann Shulgin are working very hard to finish their second book, *Tihkal*, by December 1996. The

DEA and the Environmental Protection Agency have left them alone, and the laboratory is still in operation, the only change being that Sasha had to relinquish his DEA analytical license last year and cannot work with scheduled drugs. However, the pursuit of answers to new chemical questions continues. Their social life has been curtailed drastically until the book is finished.

They were asked to go to Sydney, Australia, this summer where Sasha appeared as an expert witness in a case involving the drug 2C-B, which he invented years ago. Ann was there as a possible backup witness. Between sessions with the defense attorney, they saw as much as they could of Sydney, most of the time in the rain, and reported that it is a lovely, very friendly city in which a black coffee is called a "long black," and coffee with cream is a "flat white."

Aside from an appearance for a two week conference in Palenque, Mexico last January (which will be repeated next year), and the Sydney visit for the court case, both Sasha and Ann have kept traveling to a minimum because of the book, and that's the way things will continue until publication day.

Many persons throughout the world are deeply indebted to Sasha Shulgin for their introduction to new compounds, for vital and sometimes life-changing new experiences, and for his wise counsel in our efforts to bring compassion and wisdom into the world.

Myron Stolaroff, Editor

Inquiries and communications regarding our organization and activities may be sent to:

The Albert Hofmann Foundation

1278 Glenneyre No. 173

Laguna Beach, CA 92651

Information on items of interest for future issues of the Hofmann Report will be much appreciated. Send to the same address, attention of:

Myron Stolaroff Editor, The Hofmann Report

.....

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THIS TIME we have a truly amazing number of new books on various aspects of the mind modifying materials. More are in the pipeline, too. It's great to see more publishing in this evolving field.

The Literature of Psychedelics

Bob Wallace

NEW BOOKS



One River: Explorations and Discoveries in the Amazon Rain Forest

Wade Davis

Combines a fine biography of Richard Evans Schultes with a fine history of South American ethnobotany. A most compelling story by a long-time student of both, author of *The Serpent and the Rainbow*. Starts in 1936 when young Schultes studies Huichol peyote use and Mazatec mushroom rituals. Continues with great true stories of Schultes' twelve years, and the author's eight years, of travel in the Amazon basin, learning about ayahuasca, coca, other active plants, and the sad rubber scandal. Good reading science and adventure. Notes and index. (1996, Simon & Schuster 0-684-80886-2, 538 page large hardback, \$26.95).

People of the Peyote: Huichol Indian History, Religion, and Survival

Stacy Schaefer & Peter Furst (editors)

Excellent, extensive, many faceted study of Huichol Indian development, culture, art, spirit, mythology, and other topics. These eighteen papers, both scholarly and sensitive, come from experts around the world, with material from many decades of anthropology research as well as direct contributions from Huichol authors. Schaefer relates the meaning of peyote to Huichols, and describes their temple and its solar geometry. Also includes Huichol medicine, minority use of a psychotropic *Solanaceae* plant, the deer-maize-peyote trinity, wolf power, the Land of the Dead, and current political and ecological challenges to Huichol survival. Glossary, bibliography, index. (1996, Univ. of New Mexico Press 0-8263-1684-0, 608 page large hardback, \$59.95)

One Nation Under God: Triumph of the Native American Church

Huston Smith & Reuben Snake (editors)

In the first part of this fine book, the late roadman Reuben Snake and many Church

members speak from the heart about the Native American Church, and Peyote, their Medicine. Describes the injustice and suffering caused by the 1990 Supreme Court ruling against them, and their successful legal battle for the right to use peyote as a sacrament. Nice sections on the Peyote ceremony, the history of the Church, and basic pharmacology of the cactus. Forward by Senator Daniel Inouye. (1996, Clear Light 0-940666-71-5, 176 page hardback, \$24.95).

Plants, People, and Culture: The Science of Ethnobotany

Michael J. Balick & Paul Alan Cox

Overview of the relationship between people and plants, then sections on the healing, eating, building, and visionary plants, ending on conservation. "Entering the Other World" section explains ebena snuff preparation; ayahuasca botany and biochemistry; communal kava experience; Cannabis in world history; coca; opium; and peyote use in the Native American Church. Good photos and graphics, suggested reading, index. Excellent introduction to the field. (1996, Scientific American Library 0-7167-5061-9, 238 page large hardback, \$32.95).

Psilocybin Mushrooms of the World: A Guide to Identification

Paul Stamets

Most comprehensive and best produced field guide ever for mushrooms with psilocybin. Introduces a simple field test for active species, then details nearly 100 species, in various habitats, and shows similar species to avoid. Great color photos! Nice chapter on Great Tips for Good Trips; covers dose in detail, rituals, set and setting. Also useful for mycologists, scholars, and physicians. Bibliography and index. (1996, Ten Speed Press 0-89815-839-7, 256 page paperback, \$24.95).

Magic Mushrooms Around the World: A Scientific Journey Across Cultures and Time

Jochen Gartz

New translation of noted German expert's 1993 book. Ethnomycology of seven species, includes *Psilocybe semilanceata* and *cyanescens*. Notes on identification, bluing reaction, and cultivation. Modern cultural approaches to psilocybin mushrooms in regions worldwide. Also covers psychotropic effects and use in psychotherapy. Color illustrations, bibliography. (1996, LIS Publications 0-9653399-0-4, 129 page large paperback, \$24.95; Mind Books \$17.95).

Salvinorin: The Psychedelic Essence of Salvia Divinorum

D. M. Turner

This Mexican sage plant, and its active compound, affects people in uncommon ways; at times subtle, terrifying, geometric, visionary. Salvinorin is unusual, a terpenoid not active at any known receptor sites. Turner describes his journeys with *Salvia* leaf, extracted salvanorin, and their use with other mind materials such as LSD. Also has a brief history of Mazatec use, modern research, plant care, and bibliography. (1996, Panther Press 0-9642636-2-9, 58 page paperback, \$9.95).

Ayahuasca Analogues and Plant-Based Tryptamines: The Best of the Entheogen Review 1992-1996

Jim DeKorne (editor)

The Review quietly collects and shares reports of first-hand experiments with many visionary plants. This monograph covers reports about ayahuasca analogues using plants such as *Mimosa* bark or *Phalaris* grass. These notes from the field (and kitchen) complement reference works such as *Ayahuasca Analogues* by Jonathan Ott. (1996, *The Entheogen Review*, 74 page paperback, \$19.95).

Wisdom's Maw: The Acid Novel

Todd Brendan Fahey

Historical fiction about LSD, the CIA, Captain Al Hubbard (the man who gave LSD to Timothy Leary), and others, based on extensive personal research. Was the turning-on and turmoil of the 60's part of a CIA plan to introduce the public to LSD? Outrageous and intriguing. (1996, Far Gone Books 0-9651839-0-4, 223 page paperback, \$18.95).



Buddhism & Psychedelics: Tricycle Vol IV no. 1

Helen Tworikov (editor)

Excellent spiritual perspectives on consciousness-altering materials, by many masters of the mind spheres. Terence McKenna and Jack Kornfield, Ram Dass and Richard Baker Roshi, Rick Strassman and Rick Fields; 14 articles on how entheogens help (and hinder) those on the road to enlightenment. (1996, *Tricycle Magazine*, 160 page large paperback, \$7.50; Mind Books \$6.95).

NEW

PERIODICALS

AND

ISSUES

The Peyote Awareness Journal

Patricia Byarlay (editor)

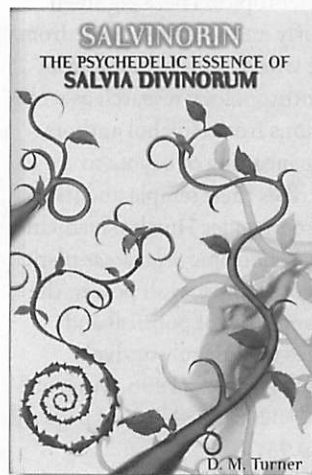
New newsletter devoted to the peyote plant and its sacramental and healing uses, as well as cultivation techniques and legal issues. Well written and useful. Great for anyone interested in this powerful plant and how people relate to it. (The Peyote Foundation, \$25.00 for six issues per year; Mind Books \$4.95 per issue).

Yearbook of Cross-Cultural Medicine and Psychotherapy, 1995:

Sacred Plants, Consciousness, and Healing; Cross-Cultural and Interdisciplinary Perspectives.

Michael Winkelman & Walter Andritzky (editors)

New series from German publisher; most papers here (13 of 17) are in English. These include Stan Grof on psychedelic therapy and breathwork; Naranjo on psychedelics and meditation; Krippner on creative behavior and psychedelics; Yensen on shamanic and psychotherapist paradigms for psychedelics; Grob & Bravo on social reactions to psychedelic use; Schultes on New World hallucinogens; Groisman and Sell on the Santo Daime and ayahuasca; Mabit, Giov, and Vega on Amazonian shamanism for treatment of drug addicts; Sanches-Ramos on ibogaïne; and Anderson on peyote as medicine. Excellent collection. (1996, VWR 3-927408-93-X, 416 page paperback, DM 68.00; Mind Books \$44.95).



**Yearbook for Ethnomedicine,
Issue 4, 1995**

Christian Rättsch & J. Baker (editors)

Latest issue of this German journal; about half the papers are in English. Betty Eisner on a visit with Maria Sabina; Ripinsky-Naxon on psychoactivity and shamans; Callaway on brain DMT; Karl Jansen on ketamine and NDE's; Defrese on brain mechanisms of MDMA; Ralph Metzner visits the Lacandon Mayans; Emboden on *Cannabis*; Hamid on anthropology of drug legalization, other good contributions. (1996, VWR 3-927408-85-9, 344 page paperback, DM 58.00; Mind Books \$39.95).

Psychedelic Resource List

Jon Hanna

(1996, Soma Graphics 0-9654383-0-9, 120 page large paperback, \$19.95).

Psychedelic Sourcebook

Will Beifuss

(1996, Rosetta 0-9647946-2-4, 72 page paperback, \$12.95).

These two are directories of books, periodicals, research organizations, and botanicals (seeds, spores, plants, extracts, and so on). They also list Internet sites of interest, and other resources. Both are updated periodically; both have just published fresh compilations of current sources. The Resource List is larger, with a wider range than the Sourcebook (including *Cannabis*-related sources), but both are valuable for anyone in the field.

NEW EDITIONS

**Ecstasy: Dance, Trance,
and Transformation**

Nicholas Saunders with Rick Doblin

Excellent latest fully updated book on MDMA; what it does, ways to use it, how therapists use it, possible dangers, suggestions for new users. Good book for practical advice; not just the basics, but how people use it to improve relationships, for personal growth, for trance dancing, and more. Every section provides deep, detailed, yet clear coverage of some complex areas, from neurotoxicity to shamanic rave music forms to effects with other materials. Nice color photos. Extensive, annotated bibliography by Shulgin. Internet sites. Index. Sales support MAPS. (1996; Quick American 0-932551-20-3, 296 page paperback, \$19.95; from MAPS \$18.00).

Peyote the Divine Cactus

Edward F. Anderson

Great introduction to the peyote plant itself. Use in Mexico by Huichol; use in the United States; Native American peyote rituals (with Navajo variations); peyote user's experience; some medical uses; pharmacology (with doses and toxicity); chemistry of mescaline and the other alkaloids (with structures of 57); botany and cultivation; legal status; good bibliography and index. (1996, 2nd edition, Univ. of Arizona Press 0-8165-1654-5, 290 pages; paperback \$19.95, hardback \$49.95).

Living With Drugs

Michael Gossop

Effects of recreational drugs on individuals and cultures, and vice versa, how personal expectations and social context affect drug use. Chapters on alcohol, tobacco, *Cannabis*, hallucinogens, and hard drugs. Prohibition histories. An interesting, British view. Bibliography and index. (1996, 4th edition, Arena 1-85742-216-3, 238 page paperback, \$23.95).

Marijuana Law

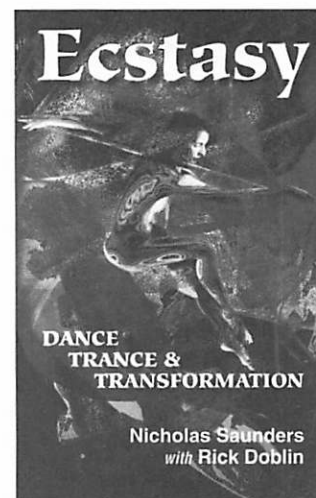
Richard Glen Boire

Practical, accurate information on federal (and some state) drug laws: forfeiture, borders, searches, warrants, houses, cars, gardens, arrest rights, attorneys, sentencing, and drug testing. Covers many fine points, most of which applies to psychedelics as well as marijuana. (1996, 2nd edition, Ronin Publishing 0-914171-86-0, 192 page paperback, \$15.95).

**Plant Drug Analysis: A Thin Layer
Chromatography Atlas**

Hildebert Wagner & Sabine Bladt

Thin layer chromatography is a common way to analyze plant compounds. If you know the technique, this atlas of solvents, developers, Rf values, and color plates will help. Has many essential oils, some alkaloids (Syrian rue, opium, *Yohimbe*, *Rauwolfia*, *Cacao*, ergot, some *Solanaceae*; no tryptamines), *Cannabis*, other drugs. (1996, 2nd edition, Springer 3-540-58676-8, 400 page hardback, \$198; Mind Books \$239.95).



**Biochemical Basis of
Neuropharmacology**

Jack R. Cooper, Floyd E. Bloom, & Robert H. Roth
Well-known graduate level textbook. Very detailed and complete; a scientific review. Chapters on each major neurotransmitter, including metabolism and various receptors; the one on serotonin describes the known workings of LSD. Good book for the serious student or professional. Chapter references and index. (1996, 7th edition, Oxford Univ. Press 0-19-510399-8, 465 page paperback, \$28.95).

The Pathology of Drug Abuse

Steven B. Karch
Hallucinogen chapter covers mescaline, other phenethylamines, tryptamines, ergolines, PCP; some good metabolism and toxicity data. More extensive chapters on cocaine, other stimulants, and narcotics. Large bibliographies and index. (1996, 2nd edition, CRC Press 0-8493-9464-3, 476 page hardback, \$79.95).

Psychedelic Reflections

Lester Grinspoon & James Bakalar (editors)
Not new (1983) but newly available. Excellent collection of essays by Hofmann, Leary, Weil, Grof, Shulgin, Tart, Walter Houston Clark, others. Sections on history, social, personal, and spiritual uses, adverse effects, use in psychiatry and the study of the mind. Index. (1983; was Human Sciences Press 0-89885-129-7, 265 page hardback, Mind Books \$42.95).

Where to get these books

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

Audio tapes are available from the:

**Entheobotany Shamanic Plant Science Conference
held October 18-20, 1996 in San Francisco.**

Please send self-addressed stamped envelope for prices to:
Rob Montgomery
Box 1368
Sebastopol, CA 95473

Speakers at this three day conference included:

Peter Furst,
Bo Holmstedt,
James C. Callaway,
Antonio Escotado,
Josep Mariá Fericgla,
Jochen Gartz,
Luis Eduardo Luna,

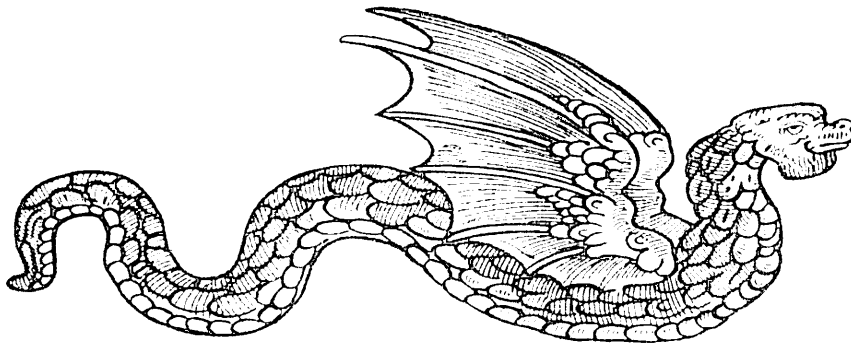
Dennis J. McKenna,
Julie K. Staley,
Alexander T. Shulgin,
Johannes Wilbert,
Kary B. Mullis,
Robert Montgomery,
Jonathan Ott,

Christian Rátsch,
Giorgio Samorini,
Stacy B. Shaefer,
Wade Davis
and
C. Manuel Torres.

An article about this conference will appear in the next issue of the MAPS newsletter.



MAPS READERS' FORUM



Dear MAPS,

I subscribe to Tricycle and I am pleased to see an open discussion of the subject of Psychedelics. "Here there be Dragons" is a good analogy for today's attitude toward psychedelic research and individual experimentation. Another example that may apply is the "Inquisition." During the Middle Ages, men and women who challenged the accepted world view had their property confiscated, were imprisoned, tortured, and/or burned at the stake. To

challenge the accepted world view was heresy. The idea that the sun might be at the center of the known universe rather than the earth brought swift retribution. So little has changed since then. Ideas and concepts that challenge the accepted world view still meet with persecution. When the psychological reality as defined by today's culture is challenged, there can still be an inquisition.

"Here there be Dragons" states that our knowledge of the physical world has grown

beyond belief. The reason for this growth is that the rich are made richer. The New World has been plundered. The ancient culture in the Americas, Africa, India, China, Australia and Polynesia have all but been destroyed, as has been the natural world. Will support of your research eventually lead to similar destruction and exploitation of our souls? Or will this research help humanity to willingly and compassionately consider other world views? Will this research help

humankind redefine the meaning of wealth and draw us to a more benevolent relationship with life?

I will support your research. But I do so with deeply mixed feelings of reservation and expectation. Historically you can see why. I look forward to receiving the MAPS newsletter. As I come to understand your work I will support it as best I can.

Best Wishes,
Bill

Dear MAPS,

After reading the MAPS/California NORML Waterpipe Study, I began wondering about the relative dangers of inhaling anything into your lungs. Calling government agencies and searching the Internet, I found that smoking marijuana isn't as hazardous as breathing the air in, say, the San Fernando Valley. It's safer to inhale pot than the air in the San Fernando Valley.

Or Manhattan. Or most any other urban center.

A recent study by the Natural Resource Defense Council reported that 64,000 people in major American cities may die each year from lung or heart problems aggravated by breathing particulates, the gritty pollution in our air. The Los Angeles-Long Beach area and New York

City have the highest death rates blamed on particulates, about 6,000 people per year...

Marijuana smoking, on the other hand, hasn't killed anybody. Despite 80 million Americans who've tried pot and 11 million using it regularly, the U.S. Department of Human Services, the Centers for Disease Control and the American Cancer Society have no data linking marijuana with any deaths.

Particulates still have a way to go beat alcohol and cigarettes—alcohol kills 100,000 a year, cigarettes 400,000. Illicit drugs account for 20,000 deaths a year.

So if you live in a big city and want to avoid health problems, take Bob Dole's advice and "just don't do it." Breathe, that is.

—Alan



S U B S C R I P T I O N & R E N E W A L

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A V A I L A B L E F R O M M A P S

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2. ECSTASY-DANCE, TRANCE AND TRANSFORMATION, Nicholas Saunders - 281 pages...\$18
3. LSD IN THE TREATMENT OF SUBSTANCE ABUSE PROTOCOL, Kurland, Yensen & Dryer...\$6
4. SMOKED MARIJUANA VS ORAL THC IN THE TREATMENT OF THE AIDS WASTING SYNDROME PROTOCOL, Dr. Donald Abrams...\$4
5. MDMA PSYCHOTHERAPY IN END-STAGE CANCER PATIENTS PROTOCOL - 42 pages...\$10
6. THE GOOD FRIDAY EXPERIMENT FOLLOW-UP, *article on psychedelics and experimental mysticism* by Rick Doblin, originally published in the August 1991 Journal of Transpersonal Psychology...\$8
7. JOURNAL OF NERVOUS & MENTAL DISEASE PAPER: 20 PSYCHIATRISTS ABOUT THEIR OWN MDMA EXPERIENCES & ReVISION MAGAZINE ARTICLE ON MDMA...\$8
8. COMPLETE SET OF MAPS NEWSLETTER BACK ISSUES, 1988-1996...\$50 U.S. [\$70 NON-U.S.]
9. 1996 ITA CONFERENCE AUDIO TAPE, *Panel discussion with: Ram Dass (Moderator), Donna Dryer Charles Grob, Stan Grof, Rick Strassman, Richard Yensen...*\$10
10. THANATOS TO EROS, Myron Stolaroff - 191 pages...\$25.95 for U.S. orders / \$31.95 Non-U.S. (price for THANATOS TO EROS already includes shipping)
11. 1996 DPF CONFERENCE AUDIO TAPE, *panel discussion on The Benefits of Illicit Substances, with: Neal Goldsmith (moderator), Rick Doblin, John Morgan, Ann Shulgin and Sasha Shulgin.....*\$10

Non-U.S. orders: You must include \$6 per item for postage. Please, no checks on foreign banks.



MAPS MEMBERSHIP INFORMATION

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 about 1,100 members.

MAPS' founder and current president, Rick Doblin, is currently in the Ph.D. program in Public Policy at Harvard's Kennedy School of Government and has previously graduated from Stan and Christina Grof's Holotropic Breathwork 3-year training program.

Sylvia Thyssen is responsible for member services and coordinates MAPS' outreach efforts. She is a Phi Beta Kappa graduate of the University of North Carolina at Chapel Hill, where she majored in Art History and French.

MAPS has previously funded basic scientific research in both humans and animals into the safety of MDMA (3,4-methylenedioxymethamphetamine, *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 consider joining

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. In addition to supporting research, your contributions will return to you the following benefits:

The MAPS Publications:

Each publication will report on MAPS research in progress. In addition to reporting on MAPS studies, the publications may focus on psychedelic research both in the U.S. and abroad and on conferences, books and articles of interest. Issues raised in letters and calls from members may be addressed, as may political developments that affect psychedelic research and usage.

General Members: \$35.

(If outside U.S. add \$15 postage.)

General members will receive MAPS publications, which appear on a quarterly basis, plus a current article relating to psychedelic drug research.

Supporting Members: \$100.

(If outside U.S. add \$15 postage.)

Supporting members will receive MAPS publications, plus the audio tape of the Psychedelic Research Panel at the May 1996 ITA Conference held in Manaus, Brazil.

Patron: \$250 or more.

Patrons members will receive MAPS publications, plus a complete set of MAPS back issues or the available MAPS-offered book of their choice. Patrons may also request research updates on matters of personal interest.



Rick Doblin,
MAPS President



Sylvia Thyssen,
Networks Coordinator

"One definition of the tools I seek
is that they should be words in a vocabulary,
a vocabulary that might allow each human being to more consciously
—and more clearly—
communicate with the interior of his own mind and psyche.
This might be called a vocabulary of awareness."

—Alexander T. Shulgin, Ph.D.,
from a talk entitled 'Why I Do What I Do.'

Dr. Shulgin and his wife Ann were the recipients of the
Drug Policy Foundation's
1996 Richard J. Dennis Drugpeace Award
for Outstanding Achievement in the Field of Drug Policy Reform.

THE SPIRIT'S HERE. YOU CAN ALMOST SEE IT, BUT YOU CAN'T TOUCH IT.
REACH OUT AND IT IS THERE FOR THE TAKING. SO DO THAT. REACH OUT.
LAY HOLD OF IT AND APPLY IT TO YOUR LIVES. USE IT, FOREVER AND FOREVER.
FOR IF YOU JUST REACH OUT, IT WILL BE THERE. IT HAS BEEN WITH US—
NOT JUST WITH ME BUT WITH US ALL—ALL THIS TIME,
BUT BECAUSE IT'S INVISIBLE WE DIDN'T REALIZE IT.
BUT IT WAS WITH US ALL THE WHILE.

—REUBEN SNAKE (1920-1993),
BELOVED POLITICAL LEADER AND ELDER OF THE NATIVE AMERICAN CHURCH,
AT A PEYOTE MEETING THE DAY BEFORE HE DIED.

