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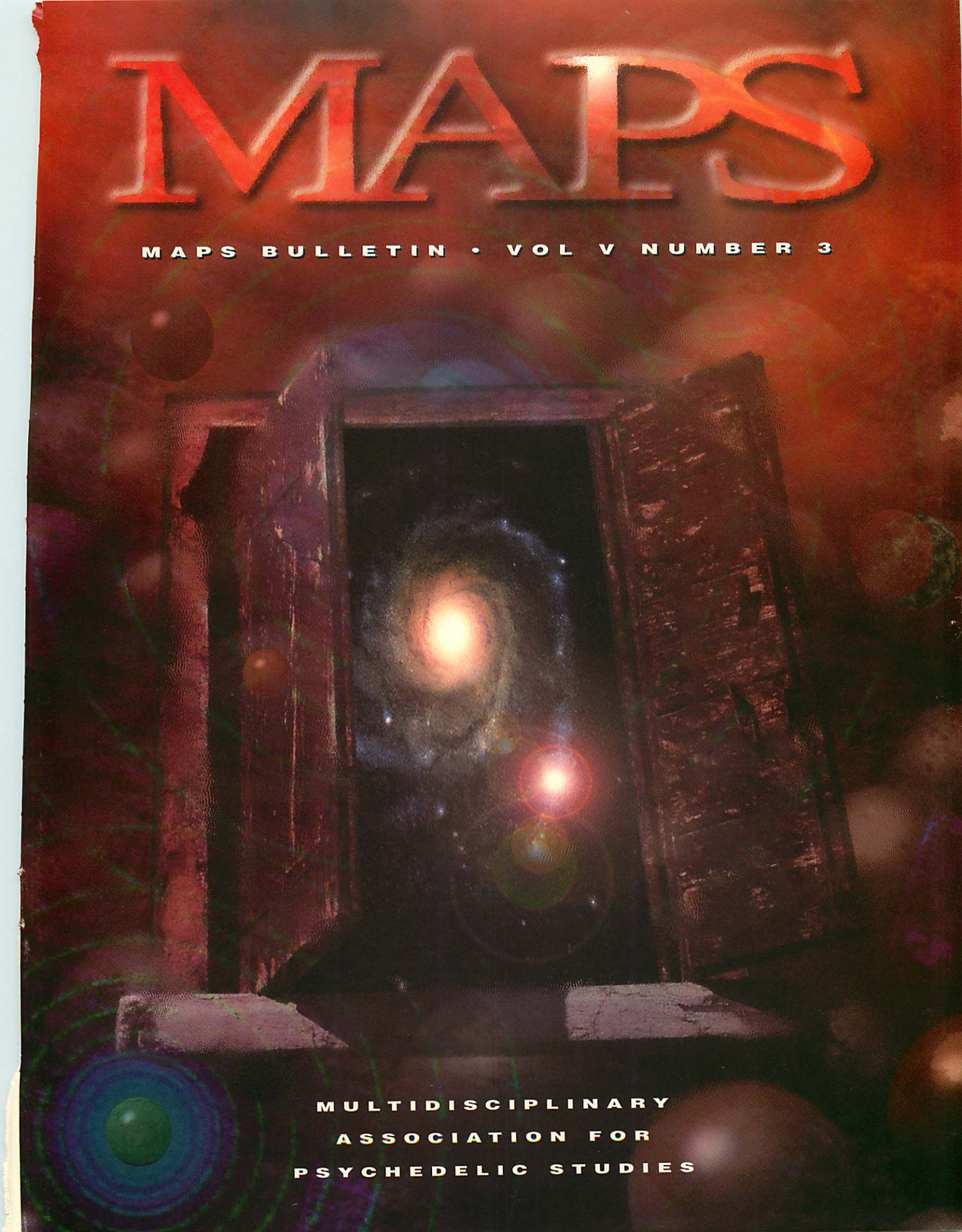
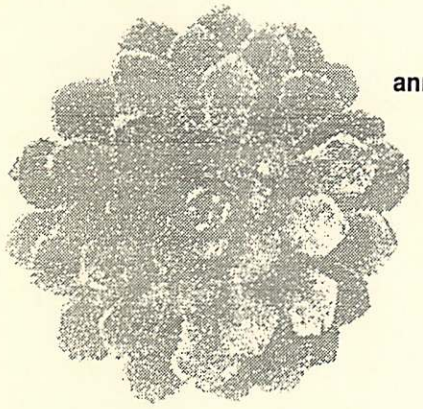


MULTIDISCIPLINARY
ASSOCIATION FOR
PSYCHEDELIC STUDIES

IN THIS ISSUE



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* *Incidental photos of botanical specimens from "Urformen der Kunst" by Karl Blossfeldt (1865-1932)*

MAPS

BULLETIN OF THE MULTIDISCIPLINARY ASSOCIATION FOR PSYCHEDELIC STUDIES

clinical trials and tribulations

THE SCENT of promise is in the air. Dr. Grob's Phase 1 MDMA research *(p.2)* is moving forward at a steady pace, laying the groundwork for future studies using MDMA in the treatment of end-stage cancer patients. Dr. Gasser's crucial follow-up study of Swiss patients treated with MDMA and LSD *(p.3)* demonstrates that psychedelic drugs can indeed be used to catalyze profoundly healing experiences. The MDMA neurotoxicity debate, outlined in articles by Dr. Ricaurte and Dr. McCann *(p.8)* and Lamont Granquist *(p.10)*, indicates to me that the potential neurotoxic risk to subjects who volunteer for human studies using therapeutic amounts of pure MDMA is substantially outweighed by the potential benefits of the research. Dr. Strassman's Phase 1 DMT and psilocybin research *(p.14)* is also moving forward, and a study of the use of psilocybin in the treatment of AIDS and cancer patients is being planned. Howard Lotsof's comprehensive review of ibogaine research *(p.16)* presents a compelling case for further studies into the use of ibogaine to treat substance abusers. With MAPS' support, Dr. Evgeny Krupitsky, the Russian scientist who conducted research into the use of ketamine to treat alcoholics, is currently traveling throughout the United States, discussing the possibility of having his pioneering work replicated. ■ Several important conferences have also built support for the continuation of psychedelic research. The 2nd International Congress for the Study of Modified States of Consciousness was held in October, 1994 in Lerida, Spain *(p.28)*. A January, 1995 meeting at Esalen Institute brought together all United States scientists with FDA approval to conduct human studies with psychedelic drugs. Also in attendance were National Institutes of Health scientists, drug policy experts, drug abuse treatment providers, and authorities in the field of psychedelic research. The consensus of the meeting was that psychedelic research should be protected and carefully expanded. An audiotape of the public session of that meeting is available *(p.52)*. ■ This issue of the newsletter also contains a report on the 1994 Telluride Mushroom conference *(p.33)* and the Lollapalooza tour *(p.39)*. A fascinating new book by Myron Stoloroff is discussed by Ann and Sasha Shulgin (p.41). This newsletter also contains the MAPS Forum *(p.43)*, announcements *(p. 51)*, and membership information *(p.52)*. ■ Throughout history, psychedelics have been used for spiritual purposes. Czech President Václav Havel gave a stirring speech at Stanford University in September 1994, focusing on the need for people all over the world to have transcendent spiritual experiences *(p.44)*. In my view, President Havel's talk underscores the importance of the establishment of legal contexts for the spiritual uses of psychedelics, one of MAPS' long-term goals. ■ Despite progress with psychedelic research, Dr. Abrams' MAPS-assisted struggle to obtain legal permission to conduct medical research into the use of smoked marijuana to treat the AIDS Wasting Syndrome is still underway. The efforts of those MAPS members who wrote letters and contacted their elected officials have been quite fruitful and have resulted in letters of support from several senators and representatives *(p.45)*. A governmental decision about Dr. Abrams' research is expected soon. ■ For the first time, MAPS has received a bequest (back cover). It was my privilege to meet Eric Bass shortly before he died, and to learn that we shared common goals. MAPS has also received a $25,000 donation from an anonymous philanthropist who gave an additional $25,000 to Drs. Mash and Sanchez-Ramos at the U. of Miami, Florida to support their human studies with ibogaine. To ensure that these one-time gifts can be directed toward research, your membership donations are needed to support MAPS' educational and advocacy work. I hope that this special edition of the MAPS Bulletin inspires you to continue supporting MAPS and to mention MAPS to potential new members. With your participation, we can continue to work together to make a major contribution to the field of psychedelic research. *Rick Doblin, MAPS President. March, 1995.*

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MDMA UPDATE

CHARLES S. GROB, M.D.

AS OF FEBRUARY 1995, our FDA approved, Phase I research protocol of MDMA has completed full study of six subjects. Following further FDA approval, we have initiated studies with our second group of six subjects. Several additional subjects with long personal histories of MDMA use have received evaluations of various aspects of brain function, but have not been enrolled in the MDMA administration arm of the study.

harbor-ucla **mdma** project update: february, 1995

Our basic protocol includes psychiatric interviews and neuropsychological testing prior to the first experimental MDMA session. Each subject participates in three experimental sessions, during two of which he/she will receive one of two different dosages of MDMA, and during the third, an inactive placebo. Both the subject as well as the medical research team will be blind as to what substance will be administered during each particular session. During each of the three experimental sessions, which last a full six hours, subjects will have an indwelling intravenous catheter from which blood samples will be drawn every twenty minutes, for pharmacokinetics and neuroendocrine parameters. Frequent blood pressure, heart rate, respiratory rate and temperature recordings will also be obtained. At set intervals, psychological rating scales will be filled out by the subjects. Two weeks after the final MDMA administration session, repeat neuropsychological testing will again be performed.

Additional neuropsychiatric research procedures conducted on several subjects enrolled in the MDMA administration study, as well as others who have not received MDMA in the experimental setting but have had a history of extensive past use of MDMA, include sleep electroencephalography, fenfluramine challenge testing, brain SPECT (single photon emission computed tomography) scans and brain spectroscopy.

We have completed studies with our first group of six subjects. Doses administered (orally) ranged from 0.25 mg/kg to 1.0 mg/kg. Vital signs were not significantly affected by MDMA administration although heart rate and blood rate were increased modestly by the drug. All six subjects who completed the protocol tolerated the MDMA administration well without evident difficulty. One additional subject who had been recruited in the study dropped out after one experimental drug session, complaining of anxiety during the session. After the subject had withdrawn from the protocol, the blind was broken, revealing that he had been administered an inactive placebo during his only session.

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Additional data on measures of brain function are beginning to show evidence of very interesting trends which should greatly improve our understanding of MDMA's effects on the central nervous system, particularly serotonergic neurotransmission. Our SPECT scans, thus far consisting of six subjects with histories of MDMA use and several "normal" controls, are particularly intriguing. We are currently preparing to submit our findings for publication in the neuropsychiatric and pharmacologic literatures, following which we will provide an extensive review for the MAPS Bulletin.

We are currently planning to conduct extensive evaluations of twelve additional subjects, according to the protocol described. Following completion of the Phase I study of all eighteen normal volunteer subjects, we will submit our data to the FDA for review. At that time, we will also apply for permission to conduct Phase II studies of MDMA's potential efficacy in the treatment of specific clinical disorders, including refractory depression and pain in individuals suffering from end-stage cancer.

We are currently still in the process of recruiting subjects who have a history of prior use of MDMA. Because of the sensitivity to travel and time zone changes of the neuroendocrine parameters we are measuring, we are restricting our subjects for the MDMA administration arm of the study to those who live in the Southern California area. We are also interested in interviewing adolescents who have had past experiences with MDMA, although minors cannot be included in the MDMA administration phase of the study. Anyone interested in volunteering should call Gayle Nakasaki at (310) 222-4266. Potential subjects should keep in mind that an extensive time committment is required from participants in the study. Of final note is that we are particularly interested in evaluating individuals with an extensive *history of* past MDMA use (at least 100 times) for our SPECT scan protocol. These subjects will not necessarily be enrolled in the MDMA administration arm of the study, and need not live in Southern California.

Donations in support of our continued research are necessary and would be greatly appreciated. •

psycholytic therapy with **mdma** and **lsd** in switzerland

PETER GASSER, M.D.

AFTER THE DISCOVERY OF LSD in Basel, Switzerland in 1943, important research into the use of psychedelic drugs in psychotherapy took place all over the world. Research in this field was very active until the late sixties, resulting in over a thousand scientific publications. In the early years, research was focused on the so-called "model psychosis" produced by psychedelics. Drug effects were investigated in healthy volunteers, mentally ill persons, or during self-administration by the researchers themselves. In Switzerland, important work was done by Stoll and Condrau. In a later phase, research interest was concentrated on enhancing the psychotherapeutic process with psychedelic drugs. Therapeutic models were established by Leuner in Germany and Grof in the USA. Leuner developed psycholytic therapy, which is the administration of relatively low doses and is practiced mostly in Europe. Grof developed psychedelic therapy, which is the administration of relatively high doses and is practiced mostly in the USA.

In 1966, as a reaction to widespread use of drugs within the hippie culture, LSD and psilocybin were declared Schedule 1 narcotics. Today, psychedelic substances are considered worldwide to be narcotics and their therapeutic use is no longer permitted. Psychotherapeutic research into psycholytic or psychedelic therapy has been almost completely forbidden since the early 1970's, though a few basic psychedelic research projects were permitted to resume within the United States and Germany in the early 1990's.

This follow-up study reports on the results of Swiss research conducted during 1988-1993

In 1986, within a different cultural background, MDMA was scheduled throughout the world. Psychotherapeutic use of MDMA and all research with the drug were forbidden worldwide until 1988, when the Swiss Federal Office for Public Health granted special permission to several specialists in psychiatry and psychotherapy working in private practice to conduct psychotherapy with MDMA. Permission was also granted for the use of LSD. The Swiss researchers were all members of the Swiss Medical Society for Psycholytic Therapy, a society founded in 1985 with the goals of promoting psycholytic psychotherapy as a psychotherapeutic method and training qualified therapists.

Dr. Peter Gasser, Kantonale Psychiatrische Klinik, 4503 Solothurn, Switzerland

Permission to work with MDMA,and LSD lasted until the end of 1993, when all psychedelic research in Switzerland was once again forbidden. Three of the initial five therapists, Dr. Marianne Bloch, Dr. Jurai Styk and Dr. Samuel Widmer, worked all five and a half years with drug-assisted therapy.

This follow-up study has been prepared for the Swiss Federal Office for Public Health. It reports on the results of the Swiss research conducted during the 1988-1993 period of special permission for psychotherapy with psychedelic substances. This follow-up study is meant to contribute to the discussion concerning whether psycholytic psychotherapy and research should continue in Switzerland in the future. Hopefully, this data will inform negotiations with the Swiss authorities and their scientific consultants.

On average, patients participated in a drug session with MDMA or LSD every 5 months after attending 10 non-drug psychotherapy sessions.

Research design

Patients sampled were those who had been in psychotherapeutic treatment with one of the three therapists mentioned above. The patients had to have participated in at least one psycholytic session and finished their treatment by July, 1993. One hundred seventy one ex-patients fit this criteria. Each of these was mailed a standardized questionnaire created by the author. The questionnaire asked the patients to describe their social situation before and after psycholytic treatment, other psychiatric or psychotherapeutic treatments before and after psycholytic treatment, reasons for treatment, self-evaluation of improvement during and after treatment, summary of influence and content of the psycholytical session(s), and their life situation after treatment. Space was left in the questionnaire for individual remarks. Four weeks after mailing, those who had not initially responded were requested once more to answer the questionnaire.

In addition to the questionnaire, the patients' medical records written by their therapists were reviewed for diagnosis, duration of therapy, number of non-drug and drug sessions, and duration of the follow-up period.

Results

A total of 171 ex-patients received the questionnaire. One could not be reached because of travel. Of the remaining 170 patients, 135 (79%) responded. Fourteen (8%) were sent back blank. One hundred twenty one (71%) questionnaires were thus evaluated.

Demographic data

Of the 121 patients, 53% were female and 47% were male. The mean age was 41 years (s= 8.7 y).

Treatment history

Prior to psycholytic treatment, 45% of the patients had sought out psychotherapeutic or psychiatric treatment. These subjects participated in one to five periods of treatment with an average duration of 2.5 years. Seven percent of the 121 ex-patients had undergone inpatient treatment in a psychiatric hospital. The mean duration of this inpatient time was 8.2 months.

After psycholytic therapy, 13% *continued* with psychotherapeutic treatment (this includes those who were in psychotherapeutic treatment for self-exploration in the course of professional training). While none of the patients were hospitalized in a psychiatric hospital during the course of their psycholytic treatment, 1.6% were hospitalized in a psychiatric hospital after their psycholytic treatment was concluded.

Psycholytic therapy

The procedure common to all three therapists was the creation of a group therapy setting. Group therapy enables the patients to interact with the therapists and with other patients. During drug experiences, therapists played specially chosen music to support the patients' process and to give guidance and structure. Music was alternated with long periods of silence to bring about a meditative experience. Elements of psycholytic therapy developed by Leuner (low to medium dosage, group setting, continuous verbal therapy) were integrated with elements of psychedelic therapy as developed by Grof (high dosage, use of music and silence as a therapeutic method).

Dr. Bloch worked with administrations of 125 mg of MDMA alone. The other therapists, Styk and Widmer, used 125 mg of MDMA for the first three or four sessions; after that they gave LSD in dosages ranging from 100 mcg to 400 mcg. Duration of therapy ranged from participation in only one drug session (in one case) to nine years and three months. On average, therapy lasted three years and one month (s = 23 m). The follow-up period amounted to one year and eleven months on average (s = 19 m), ranging from one month to fifty-nine months. Simplifying slightly, the average duration of therapy was three years and the average follow-up period was two years.

The patients took part in an average of 70.3 non-drug sessions of verbal psychotherapy (s = 55.2 sessions). This means that patients generally saw their therapist once every two weeks during their three year period of therapy. The psycholytic sessions took place during this time. Patients varied from experiencing 1 to 16 drug sessions, with an average of 6.8 sessions (s = 4.3 sessions). On average, patients participated in a drug session with MDMA or LSD every 5 months after attending 10 non-drug psychotherapy sessions.

Reason for beginning Psycholytic therapy

Patients were asked to list all the reasons that led them to begin psycholytic therapy, both major as well as minor. Social and interpersonal problems were reported by 66.9% of the patients. Psychological symptoms were also reported by 66.9% of the patients. Self-exploration was a reason for therapy given by 57%, somatic symptoms were reported by 28.9%.

Addiction was mentioned by 21.5% of the patients as one of the reasons they began therapy. However, this word was used in the every day meaning of the word rather than the scientific. Patients' descriptions of their addictive behaviors included "a need to be used" (co-dependency) and "excessive sexual or workaholic behavior".

Other reasons for initiating therapy were given by 18.2% of the patients. Under "other reasons", patients mentioned "partner is in therapy", "family undergoing therapy", "therapy ordered by law", "problems in military service" or "HIV-infection".

Diagnosis

In determining the diagnosis of the patient, only the main problem or symptom that brought the patient to seek therapy was considered. These diagnoses follow the guidelines of the World Health Organization's International Classification of Diseases (10th revision). The most common diagnosis was Personality Disorder, given to 38% of the patients. Adjustment disorders was the diagnosis given to 25.6% of the patients. Affective Disorders was experienced by 24.8%. Just 6.6% of the patients experienced Eating Disorders. Addiction, Psychosis and Sexual Deviation each affected only 1.7% of the patients.

Subjective changes resulting from Psycholytic treatment

Patients were asked if they experienced any changes both during and after treatment and, if so, what the quality of those changes were. During their course of therapy, "good improvement" was reported by 46.3%, "slight improvement" was reported by 38.8%, "no change" was reported by 5.8%, and "slight deterioration" was reported by 4.2%. Five percent said they experienced fluctuating changes, with both improvement and deterioration. After their period of treatment, "good improvement" was reported by 65%, "slight improvement" was reported by 25.6%, "no change" was reported by 4.1%, and "slight deterioration" was reported by 2.5%. Two and a half percent said they experienced fluctuating changes, with both improvement and deterioration.

To summarize, the percentage of patients who considered themselves to have experienced "good improvement" or "slight improvement" during their psycholytic treatment was 85.1%. After treatment, that percentage climbed to 90.9%. As a point of comparison, in a follow-up study undertaken by Mascher (1967) in Germany, 62% of the 82 patients treated by Leuner et al. considered themselves to have experienced "good improvement" or "slight improvement".

Influence on the levels of experience

Patients were asked to rate the impact of their psycholytic sessions on their emotions, their interpersonal relationships, their biographical insights, and on any important decisions they made during or after the course of treatment.

The impact of their psycholytic sessions was greatest on the patients' emotional lives. The percentage of patients who said the sessions were very important emotionally was 64.5%. The percentage of patients who said the sessions were very important for their interpersonal relations was 56.2%. The percentage of patients who said the sessions produced very important biographical insights was 48.8%.

The percentage of patients who said the sessions were very important in helping them make life decisions was 36.4%; 12.4% decided to pursue professional training, 10.7% separated from a relationship, and 8.3% of the ex-patients decided to begin or to deepen a relationship with a partner.

"Other experiences" that were very important were reported by 28.9% of the patients; 4.9% mentioned "spiritual and religious experience", 6.6% mentioned "better self-esteem and self-confidence", and 2.5% reported "more creativity and awareness."

85.1% of patients considered themselves to have experienced "good improvement" or "slight improvement" during their psycholytic treatment.

it seems that so called "bad-trips" were not detrimental when experienced within a therapeutic setting.

Content of the experience

The questionnaire also asked patients to say something about any of their therapeutic experiences that had long-lasting consequences or were of great importance.

The experience that was very important to most people was one of unity and complete love, reported by 71.1% of the respondents. Religious and spiritual experiences were very important to 44.6%, and visions were important to 39.7%.

Experiences of intense and unfamiliar sense perceptions were very important to more than half the subjects (54.5%). This category does not refer to hallucinations but instead to a previously unknown intensity in all modalities of sense perception.

Although experiences of anxiety, panic and horror, emptiness and absurdity were all of significant importance for about one third of respondents, only one of them wrote that he felt persisting disadvantages as a result of those experiences. For all the others it seems that so called "bad-trips" were not detrimental when experienced within a therapeutic setting.

Lifestyle

One long section in the questionnaire asked about the respondents' consumption of stimulants, quality of life, social behavior and spiritual life. Words like "autonomy", "quality of life", "religion" or "spirituality" were not explained in the questionnaire, so that each respondent understood them in his or her own way.

Drug Use

Virtually no patients reported an increased use of drugs after their therapy. Nicotine was used more frequently by 3.3% of patients, cannabis by 1.7%, alcohol by 1.7%. On the other hand, a substantial number of patients reported a decreased use of drugs. Nicotine was used less frequently by 20.7%, alcohol by 19.8% and cannabis by 7.4%.

About half of the patients considered themselves to be nonsmokers of tobacco (57.8%). Marijuana was not used by 84.3% and 49.5% were non-consumers of alcohol. The number of non-consumers of alcohol may be a test artifact, in that some of the non-consumers of alcohol may have meant to say that they had no problem with alcohol.

Quality of Life

Fully 84.3% of the patients reported an improved quality of life; 3.3% reported a worsened quality of life. Better self-acceptance was reported by 81.8%; 2.5% reported decreased self-acceptance. More autonomy was reported by 67.8% of the respondents; 2.5% reported less autonomy. Since demographic data such as family status, livelihood and housing generally remained stable, the increased degree of autonomy probably refers to the patients' estimates of their inner independence.

Social Behavior

Improved relationships with family were reported by 81% of respondents, worsened relationships were reported by 3.3%. Involvement with work was improved in 57% of respondents, worsened in 2.5%.

Spiritual Life

About seven of ten patients (73.6%) said that they had a better approach to the Divine; .08% felt their approach was worse. About six of ten (57.9%) felt less fear of death; 1.7% felt more fear. The impact of the treatment on the spiritual lives of the subjects is based mainly on the content of the psycholytic experiences themselves. All of the three therapists consider themselves to be psychotherapists and not spiritual teachers. A dissertation by Benz (1989) discusses the personalities and techniques of the Swiss psycholytic therapists.

Discussion and Outlook

The aim of this follow-up study was to gather information from and about the patients treated with psycholytic therapy in Switzerland from 1988 to 1993. Psycholytic therapy is a controversial method of therapy in which patients are treated with psychedelic drugs in a specialized setting. Nine out of ten patients declared themselves to have experienced "good improvement" or "slight improvement" concerning the problems that brought them to therapy.

The feedback of the ex-patients permits us to say that psycholytic psychotherapy is a safe treatment. In the personal notes, only one patient complained of persistent depression that appeared three months after his last psycholytic session. During psycholytic therapy, none of the patients committed suicide, were hospitalized in a psychiatric hospital, or had a psychotic episode for more than 48 hours.

This result is consistent with other studies. In a 1960 paper by Cohen, the complication rate from 44 therapists with about 5,000 patients and 25,000 applications of LSD or Mescaline was 0.04% for suicide and 0.18% for the risk of a psychosis longer lasting than 48 hours. In a 1971 study by Malleson, the complication rate for 4,300 patients and 49,500 applications of LSD was 0.07% for suicide and 0.9% for a longer psychotic crisis.

The results of this questionnaire follow-up study do not offer objective proof for the efficacy of psycholytic therapy. A different study design would be needed to obtain more persuasive evidence of efficacy. Such a design would require testing subjects before and after treatment, and randomly assigning subjects to treatment and control groups. Personally, I am convinced that the efficacy of psycholytic therapy could be demonstrated if it were possible to obtain the necessary permission for research from responsible officials, along with the funding and expertise required to conduct the studies. Unfortunately, in Switzerland we have no university-based support for psychotherapeutic research into psycholytic therapy.

From 1988 to 1993, a significant number of patients with narcissistic personality disorders sought therapy with psychedelic drugs. The borderline personality disorder was also diagnosed rather often, as were depressed mood disorders and adjustment disorders. We can presume that the treatment is well suited for these disorders. To prove this would require a different study design.

In 1993, a valuable psychotherapeutic experiment in Switzerland was interrupted. The Swiss Medical Society for Psycholytic Therapy doesn't know at the moment if its research will continue and, if so, under what circumstances. Negotiations are currently underway with the Swiss Federal Office for Public Health to start a new project to work under psychotherapeutic conditions with psychedelic drugs. The project is still in the planning stages because of very high demands concerning the scientific design.

Without work and research into psycholytic therapy, we cannot increase our knowledge of this method. I am convinced that it is a valid method that can be helpful for a certain selection of patients. If conducted by well-trained therapists who create a protective setting, it is a safe treatment.

Besides the claims about their benefits in psychotherapy, there is an additional reason to deepen our knowledge about psychedelic drugs. Today, these drugs are very popular, despite their illegality. MDMA especially is taken in large amounts under uncontrolled, sometimes dangerous conditions. I think that it would be very important to learn about the reaction of people to this substance under controlled, protected circumstances. The existence of these substances is a reality, so it seems to me more helpful to investigate their potential benefits and risks than to prevent research. Continued ignorance will not prevent prohibited substances from being used destructively in the underground. •

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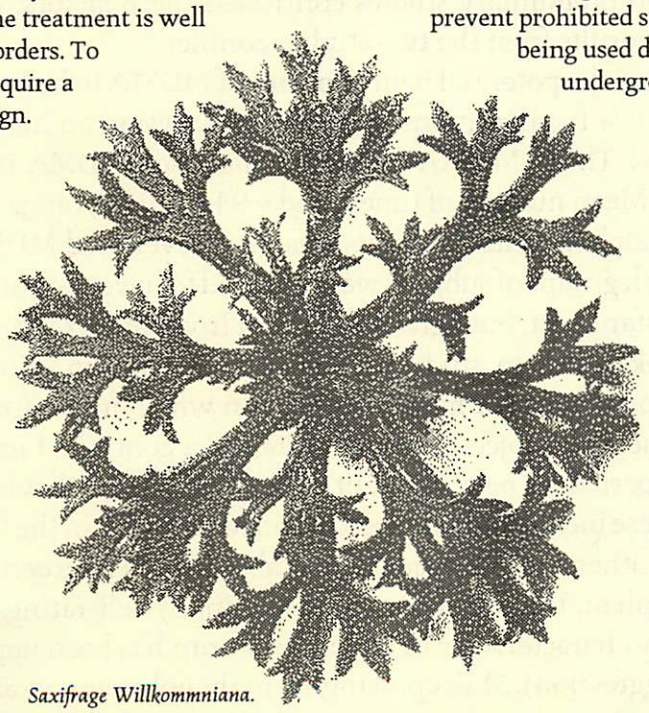

Saxifrage Willkommniana.
Willkomm's Saxifrage leaf-rosette.

national institutes of health **mdma** research controlled study of mdma's neurotoxic potential in humans

DR. GEORGE RICAURTE
AND DR. UNA MCCANN

IN ANIMALS, MDMA is known to damage brain serotonin (5-HT) neurons, and in non-human primates (monkeys), neurotoxic changes persist for greater than 12 months after the last dose of MDMA. Whether or not MDMA is also neurotoxic in humans has not been established. Since direct measurement of brain serotonin levels is not currently possible in living humans, "indirect" measures, thought to reflect brain serotonin activity, must be utilized to answer this question. One such indirect "biological" measure is the concentration of the major serotonin metabolite, 5-hydroxyindoleacetic acid (5-HIAA) in the cerebrospinal fluid (CSF). Alternatively, since serotonin is thought to be involved in the regulation of a number of normal behavioral functions, such as mood, anxiety, sleep, appetite, personality, pain, sexual behavior, and neuroendocrine regulation, measurements of these "behavioral" functions can also be used to determine whether brain serotonin systems are intact.

Two preliminary studies used measures of CSF 5-HIAA to test possible MDMA-induced serotonin injury in MDMA users[1,2]. One study found no changes in CSF 5-HIAA[1], while the second found an approximate 30% decrease of CSF 5-HIAA concentrations in MDMA users compared to control subjects[2]. Since a number of factors are know to influence CSF 5-HIAA (e.g., activity, diet, age, sex), and since neither of the two preliminary studies controlled these factors, it is perhaps not surprising that results from the two studies conflict.

In an effort to better define the potential neurotoxicity of MDMA to humans, the first controlled study to test for alterations in serotonin function on human MDMA users was conducted. Thirty MDMA users who had used MDMA in at least 25 separate occasions (Mean number of times used = 94.4 + 90.6; range 25-300) and 28 age- and sex-matched control subjects who had never used MDMA participated in the study. Both groups of subjects were allowed to have used other recreational drugs in the distant past, but agreed to refrain from all recreational drugs for at least two weeks prior to study participation. Exclusion criteria included any known neuropsychiatric or medical condition which might influence serotonin measurements. All subjects were admitted to a controlled inpatient setting over a five day period for measurement of biological and behavioral indices of brain function. These included: 1) concentrations of 5-HIAA in the CSF (as well as concentrations of other neurotransmitter metabolites); 2) neuroendocrine responses to L-tryptophan, the precursor to serotonin; 3) self-ratings of ischemic pain; 4) personality characteristics in which serotonin has been implicated (i.e., impulsivity and aggression); 5) sleep, using all-night polysomnograms.

MDMA subjects, as a group, were found to have lower levels of CSF 5-HIAA than controls (32% less). Female MDMA users, who, as a group had used more MDMA than their male counterparts (115 times versus 85 times), and who weighed less, yet generally took the same dose as males (100 to 150 mg), had greater reductions in CSF 5-HIAA than males. In addition, female MDMA users had reductions in CSF HVA, the major metabolite of the neurotransmitter, dopamine. Although not different from controls in their prolactin response to L-tryptophan or their response to ischemic pain, MDMA users had lower scores on personality measures of impulsivity and hostility (i.e., were less impulsive and hostile). MDMA users were also found to have less total sleep, with decreases due primarily to reductions in Stage 2 sleep [the most abundant sleep stage that occurs during the transition from "light" sleep (stage 1) to slow wave sleep (stages 3 and 4)]. (For further details, refer to the published manuscript in *Neuropsychopharmacology* 1994, 10(2):129-138).

The CSF findings suggest that 5-HT neurotoxicity may be a potential complication of recreational MDMA use, although converging lines of evidence and additional studies in greater numbers of MDMA users are needed before definitive conclusions can be reached. Differences in personality also support the notion that MDMA leads to long term alterations in brain serotonin function, although the direction of the personality changes (i.e., decreased impulsivity and hostility) are in the opposite direction than what would have been predicted from studies in impulsive and hostile patient populations. The absence of differences in pain and neuroendocrine measures could indicate that no differences exist, or could be an indication that the type of testing used was not specific or sensitive enough. Alternatively, it is possible that serotonin neurons involved in pain and neuroendocrine function are less susceptible to MDMA injury, or are capable of recovery. Additional controlled studies of MDMA-exposed individuals are planned to confirm and extend the present findings.

Individuals who have taken MDMA on 25 or more occasions and who are in general good health are being recruited. Studies will take place at the Johns Hopkins Bayview Medical Center in Baltimore, Maryland during a 5-day inpatient admission. Travel fees will be provided, and participants will receive financial compensation for time spent in the study. If you are interested in participating or learning more details about these studies, please contact Dr. George Ricaurte at (410) 550-0993 or Dr. Una D. McCann at (301) 402-2947, or e-mail gricaurt@welchlink.welch.jhu.edu. Some individuals who do not meet the criteria for study participation, but who have experienced neuropsychiatric changes following MDMA use will also be studied. Please contact the same investigators if you are interested in this option. •

1 Peroutka SJ, Pascoe N, Faull KF (1987): Monoamine metabolite in the cerebrospinal fluid of recreational users of 3,4-methelenedioxymethamphetamine (MDMA; "Ecstasy"). Res Commun Substance Abuse 8:125-138.

2 Ricaurte GA, Finnegan KT, Irwin I, Langston JW (1990): Aminergic metabolites in cerebrospinal fluid of humans previously exposed to MDMA: Preliminary observations. Ann NY Acad Sci 600:699-710.

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Additional controlled studies of MDMA-exposed individuals are planned to confirm and extend the present findings.

MDMA in somewhat high doses has been shown to be a neurotoxin in experimental animals. The applicability of these results to human use, however, still remains unclear. The data from animal studies does not provide conclusive evidence either way, although it is sufficient to raise legitimate concerns. The human studies, while raising other concerns, appear to not provide much support to the notion that serotonin systems of MDMA users are not structurally intact. Of crucial consideration are the validity of some of the markers used to determine neurotoxicity, and how the results from those tests are interpreted.

neurochemical markers and **mdma** neurotoxicity

LAMONT GRANQUIST

There are several different methods of examining changes in brain state following MDMA. The most direct methods include 1) observing silver-impregnated, degenerating neurons via silver staining techniques 2) observing structural abnormalities in serotonin-immunoreactive neurons indicative of grossly deformed and degenerating neurons 3) observing elevations in GFAP (glial fibrillary acidic protein) which are presumed to occur as a reaction to neural damage. Needless to say, these methods are invasive, but they provide the best evidence.

There are several different methods of examining changes in brain state following MDMA.

Rather more indirect methods assay the levels of "neurochemical markers." These methods include assaying levels of central 5-HT (serotonin) and central 5-HIAA (5-hydroxyindoleacetic acid), and measuring [^{3}H]paroxetine binding — thought to be a marker of 5-HT nerve terminal integrity. Again, these methods are invasive. The most indirect route is via assaying changes in the level of 5-HIAA in the CSF (cerebrospinal fluid). Levels of CSF 5-HIAA have been found to correlate well to levels of central 5-HT and 5-HIAA[1], and it is on this basis that CSF 5-HIAA has been used as an indicator of 5-HT structural integrity in humans. Unlike the direct methods, it is not at all certain that these methods produce good evidence of structural injury to the 5-HT system, and it is this point which will be investigated further.

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Dosage Regimens

The route and frequency of dosage is also of crucial consideration. Many animal models use a "subchronic" regimen of MDMA, where a particular dose (usually 5 - 20 mg/kg) is given twice a day for four days (8 doses given approximately every 12 hours). MDMA has been shown to have increasing toxicity on repeated exposure, therefore these regimens probably do not entirely accurately model most human use. Humans also tend to take MDMA orally (p.o.), while animals are generally administered MDMA subcutaneously (s.c.) or intramuscularly (i.m.). It has been shown in primates that s.c. administration tends to increase toxicity 2-3 times over p.o.[2] MDMA is also administered in humans at levels of 1.7-2.7mg/kg while animal experiments generally use 5mg/kg of MDMA or higher.

Non-Human Primate Data

In general extrapolating from animal studies to humans is difficult. One study has found that 2.5mg/kg of MDMA given p.o. once every two weeks for a total of eight doses over 4 months did not produce any neurotoxic response in 5-HT and 5-HIAA assays of eight

brain regions.[3] If human and animal doses were identically equivalent this would seem to provide a "no effect" level for any possible MDMA neurotoxicity which was close to human levels. Extrapolating from animal studies directly, however, is a difficult task at best. First, it isn't known exactly how much the toxicity is increased from the usual subchronic dosing route. It has also, however, been pointed out that non-human primates are more sensitive to MDMA than non-primates[4], and therefore humans may be even more sensitive. Also, based on the increased sensitivity of humans vs. non-human primates to neurotoxins like MPTP[5,6], the "safety margin" between doses used in the laboratory animals and doses used in humans might be closed considerably. In general, the extrapolations from animals will be used in this paper to simply show that there is room for doubt. The firmer rationale for doubt will come from the human studies.

Several studies have examined p.o. administration of MDMA.[1,7,8] Only one published study so far has examined the effects of a single oral dose of MDMA of 5mg/kg in nonhuman primates (thereby roughly approximating cautious human use).[1] That study only assayed levels of central 5-HT and found that they were decreased to 83% of controls in the hypothalamus and 79% of controls in the thalamus with levels in the frontal cortex, hippocampus, putamen and caudate remaining unchanged. There is no published report of [^{3}H]paroxetine binding assays, or any other assays done using the p.o. route in nonhuman primates.

The remaining studies of MDMA in the primate have relied on subchronic i.m. or s.c. administration. Three studies are particularly notable. Two of these used subchronic 5mg/kg s.c. MDMA in non-human primates and found fairly good direct evidence of neurotoxicity using immunohistochemical techniques.[9,10] This strongly suggests that there is a level beyond which MDMA is neurotoxic. It should, however, be emphasized that these studies used the s.c. and not p.o. route, and followed a subchronic regimen. Cumulatively, the monkeys were dosed with an amount 32-72 times the human dose. Adding an arbitrary factor of 5 to account for increased sensitivity and other extrapolation difficulties brings this range down to 6-14 doses. At this level, it would be of concern perhaps in the same way that the neurotoxicity of alcohol is of concern mostly to those who use to excess. Using an arbitrary factor of 10 would reduce it to 3-7, which begins to be more of a concern for most users. The risk does appear to be contingent on how one massages the data, which leaves room for doubt (although raising valid concerns).

Another study of MDMA used subchronic 2.5mg/kg i.m. MDMA in non-human primates.[11] This study is notable since it produced decreases of approximately 50-70% of control levels of central 5-HT and 5-HIAA, while [^{3}H]paroxetine binding was not changed, and in some areas showed statistically insignificant increases. The lack of reduction in [^{3}H]paroxetine binding strongly suggests that 5-HT presynaptic terminals were intact in these animals, although 5-HT and 5-HIAA were dramatically reduced. This study would seem to indicate a lower boundary on MDMA neurotoxicity using doses which were 2-6 times as large as a single human dose, with a cumulative dose of 16-54 human doses. At a higher subchronic dose of 10mg/kg i.m., it was found that 5-HT and 5-HIAA levels did not return to control. This is not surprising, given the finding that 5 mg/kg s.c. levels almost certainly damaged neurons. Recovery of 5-HT and 5-HIAA was not investigated at the lower level of 2.5mg/kg.

Human Data

It must be concluded from this study that levels of central 5-HT and 5-HIAA (and therefore levels of 5-HIAA in CSF) are not useful markers for the structural integrity of serotonin neurons. Without [^{3}H]paroxetine binding data on the study examining single oral doses of MDMA in nonhuman primates, the mild decreases in 5-HT and 5-HIAA tend to suggest, by comparison with the above study, that those animals had structually intact serotonin neurons. Similarly, the results of the recent studies in humans showing decreases to approximately 55-80% of controls (20-45% reductions) in CSF 5-HIAA do not convey any useful information about structural integrity of the 5-HT neurons of those subjects.

Furthermore, the utility of [^{3}H]paroxetine binding as a measurement of neurotoxicity itself can be called into question. It has been observed that subchronic administration of antidepressants reduces binding to the serotonin transporter[12,13], and reduces expression of 5-HT transporter mRNA.[13,14] Based on the similarities between MDMA and SSRIs, it would be reasonable to assume that MDMA might cause the same alterations. Since

extrapolating from animal studies to humans is difficult

it is not believed that antidepressants are serotonergic neurotoxins, the decreases in [^{3}H]paroxetine binding of 80-90% of controls observed after antidepressant treatment should be considered to be indicative of neurocompensatory or neuroregulatory changes and not neurotoxicity. It would appear that reductions of greater than 80-90% of control levels of [^{3}H]paroxetine binding would be necessary to positively conclude that serotonin neurons have been damaged.

Given that the animal studies are inconclusive, the human studies of MDMA users should be considered. As previously noted, the lower CSF 5-HIAA levels do not appear to be useful proof of neurotoxicity, and the other results from the human studies should be considered. First, it should probably be noted that there are some methodological concerns in the *Neuropsychopharmacology* study of human users.[15] One of those is that it is difficult to establish that psychological and biological factors do not predispose one to using MDMA (mixing up correlation and causality). Another is that the MDMA group was substantially more experienced with non-MDMA amphetamines than controls (43% vs. 14%). It is therefore not totally clear that the controls were appropriate without more information. Given those problems, however, the results that MDMA users had decreased impulsivity and hostility, as well as increased harm avoidance and constraint, would tend to be the opposite of what would be expected from damage to the 5-HT system.

The admissible human data shows no evidence of damage in psychological and physiological tests.

Sleep Data

The other published human study examined the sleep EEGs of human users[16] because of the function of serotonin in sleep. MDMA was found to not cause gross abnormalities in the quality of sleep in human users — suggesting that the systems responsible for sleep were intact. MDMA also did not change REM (rapid eye movement) or stage 3 and 4 SWS (slow-wave sleep) periods. As mentioned in the *Sleep* article, this is not what would be expected from experience with chemical or anatomical lesioning of the serotonergic systems in animals. Also, the fact that MDMA does not reduce REM and SWS, while reducing the lighter stage 2 sleep, may indicate that MDMA users experience better quality sleep. REM and SWS are considered important states in sleep (being linked to memory and psychiatric health), while stage 1 and stage 2 sleep are not generally regarded as being important.

Therefore, it does not appear that there is evidence to support the thesis that MDMA causes gross irreversible structural damage of the 5-HT system in "ordinary" human use. The animal studies do not show convincing evidence of damage in doses which extrapolate well to human use. The admissible human data shows no evidence of damage in psychological and physiological tests. In fact, the human data are entirely consistent and support the thesis that 5-HT systems in human users are structurally intact.

Neurochemical Effects

There is, however, some cause for concern over neurochemical changes, even if there are no gross structural abnormalities produced by the normal human use of MDMA. The neurochemical changes induced by MDMA would presumably result from a decrease in TPH (tryptophan hydroxylase) activity[17] occuring in otherwise intact 5-HT neurons. Since there is evidence that 5-HIAA levels are depressed in MDMA users, this should be of concern. One possibility might be that disruptions in 5-HT synthesis might produce psychological side effects ranging from the post-MDMA "burnout," to the psychiatric effects which have been observed in some (presumably ideosyncratically sensitive) MDMA users.[18,19] It also, however, might be possible that reductions in TPH activity in structurally intact 5-HT systems could be psychologically beneficial. The degree to which this effect of MDMA is qualitatively "bad" or "good" needs to be determined. In general, the question must always be raised as to whether the changes induced in the brain by MDMA are "toxic" or "therapeutic."

One important consideration is whether the reduction in TPH activity is preventable and reversible. Permanent changes in brain function have been found at levels of MDMA known to be neurotoxic to monkeys.[20] If TPH levels were found to similarly not recover at lower doses, then an argument could be made that this should be considered "damage." Should studies show that lower levels of MDMA produce permanent decreases in 5-HT and 5-HIAA levels, it is still not entirely clear what to interpret. One possible objection is that the long-term changes might reflect an MDMA-precipitated adaptive alteration in the brains of these animals to their environment. The extent to which the changes are permanent, irregardless of external variables, would have to be examined. Similarly, the possibility that the environment affects re-innervation of destroyed

axons at neurotoxic doses should be examined.

Effects of Prozac

Fluoxetine (Prozac) and other SSRIs have been shown to prevent the reduction in TPH activity caused by MDMA.[21] Should the reductions in TPH activity caused by MDMA become of concern, there may be a role for SSRIs in preventing or reversing these effects. It has been reported that fluoxetine administered concurrently with MDMA may prevent the "burnout" in human users, without dimin-ishing the entactogenic effects of MDMA.[22] Fluoxetine may also be useful in treating those users who experience adverse psychiatric side effects — perhaps making up for an inability on the part of the user's neurochemistry to handle temporary alterations in 5-HT function. It should be carefully pointed out that prevention of MDMA "burnout" by fluoxetine and the MDMA "burnout" phenomenon itself are not good indications of structural changes in nerve cells.

Summary

In summary, evidence does not suggest that neurochemical markers are good indicators of neurotoxicity. 5-HT and 5-HIAA appear not to be useful, and [^{3}H]paroxetine binding appears problematic, as indicators of 5-HT system integrity. In light of these considerations, MDMA has only been shown to be neurotoxic at somewhat high levels in experimental animals, and the evidence in humans suggests a lack of neurotoxicity. There do appear to be at least some temporary changes in brain function caused by MDMA, but the exact nature of the changes remains to be determined, and the possible role of SSRIs in preventing or reversing the changes merits further examination. The possibility that the changes are permanent in humans needs to be addressed. To what extent the neurochemical changes induced by MDMA are responsible for therapeutic or pathological changes in psychology also needs to be determined. The frequency and severity of post-MDMA psychiatric effects (including "burnout") should also be assessed. And in light of the somewhat narrow safety margin, the effects of MDMA in higher doses needs to be investigated to the extent possible. Hopefully, the clinical studies using MDMA in human volunteers will help to answer some of these questions.•

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Hopefully, the clinical studies using MDMA in human volunteers will help to answer some of these questions.

university of new mexico **dmt** and **psilocybin** studies

RICK STRASSMAN, M.D.

WE ARE NEARLY ONE-FOURTH through the last of three DMT studies which our current National Institute on Drug Abuse (NIDA) grant is supporting. This study assesses the effects of pretreatment with cyproheptadine (Periactin) on DMT's biological and psychological responses. Cyproheptadine, in addition to its anti-histamine effects, is a potent serotonin (5-HT)-2 receptor antagonist (blocker). Most animal data support a primary role of the 5-HT-2 site in mediating hallucinogen effects. Thus, a study which attempts to block this site, and then compare DMT responses without cyproheptadine, will elucidate the role of this receptor in humans. We are using our high dose of DMT (0.4 mg/kg intravenously [IV]) in combination with cyproheptadine or placebo-cyproheptadine. The other cells in this four-cell study are placebo-DMT in combination with cyproheptadine or placebo-cyproheptadine. We are measuring psychological responses using the HRS; adrenocorticotrophic hormone (ACTH), prolactin and DMT blood levels; core temperature; and blood pressure and heart rate.

In a dose-finding study, we began using 0.15 mg/kg of oral psilocybin.

We began our psilocybin study in the summer of 1994. In a dose-finding study, we began using 0.15 mg/kg of oral psilocybin (free base). One volunteer received this dose, and it seemed relatively low. Three volunteers then received 0.3 mg/kg psilocybin, and a final three volunteers received 0.45 mg/kg psilocybin. The previous data on what a "psychedelic" dose of oral psilocybin is were quite wide-ranging, from 15-90 mg. Hofmann described substantial effects in himself at 15 mg; Hofmann gave Maria Sabina 30 mg, eliciting a "full-blown" psychedelic response; Malitz's group at Columbia University gave over 30 mg; Leary/Alpert/Metzner gave 60 mg at Harvard; and I believe a German group some years ago administered 90 mg, and were still able to obtain psychological test responses from their volunteers!

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We have found that 0.45 mg/kg (about 32 mg in a 70 kg person) elicits a robust response in our volunteers, and this will be our high dose. In fact, one volunteer found it too intense, and requested Valium to "come down." However, this volunteer had had difficulty with high dose DMT sessions in the past, finding the surrender and relaxation into drug effects frightening. Thus, we will be using serious and prolonged difficult or unpleasant responses to a high dose of DMT as an exclusionary criterion for participation in psilocybin sessions.

This is a convenient high dose for the additional reason that an eighth of this dose, about 0.056 mg/kg, or 4-5 mg in a 70 kg person) is traditionally believed to be a subactive dose. This will be helpful in using a low dose that people have difficulty distinguishing from placebo. This is the identical model we used in our first DMT dose-response study, using 0.05 mg/kg and 0.4 mg/kg as our polar doses; 0.05 mg/kg was often not distinguished from placebo.

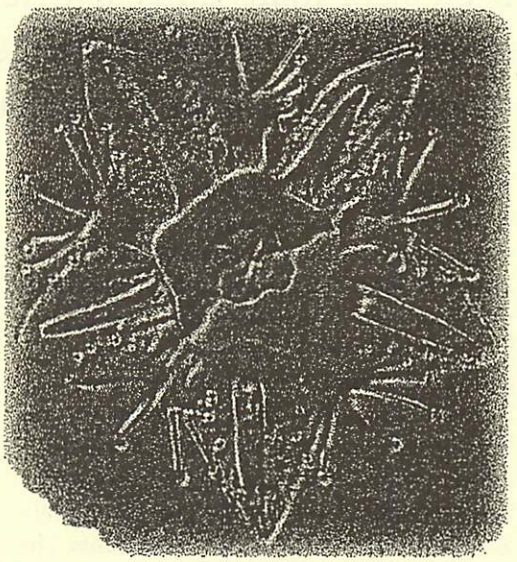
with psilocybin, we anticipate our resources will be stretched in different ways than has been the case

We will now begin our full psilocybin study, with 12 volunteers. People will come in for non-blind low and high doses, to get used to the hospital setting for an eight hour day, and to drop out if it is too intense for them, before we have collected much data. Then, four doses of psilocybin (high, low, and two intermediate doses) and placebo will be administered, each, at 1-2 week intervals for men, and 1 month intervals for women. We will be drawing blood samples hourly for ACTH, prolactin, cortisol, psilocybin, psilocin (the presumably active de-phosphorylated metabolite of psilocybin); assess heart rate and blood pressure; measure temperature (using skin or ear temperature); administer the Hallucinogen Rating Scale (HRS) several times during the day; and provide the opportunity to produce art for interpretation and scoring by our art therapy graduate student, Tamara Allen. We anticipate this protocol will take nearly a year.

Sitting for an eight hour session requires more patience and stamina on the part of our research nurse, Laura Berg, and myself. We attempt to orchestrate silence, music, interviewing and collecting data without too much of a strain on our volunteers, who are in an unusual environment. We anticipate our resources will be stretched in different ways than has been the case with our DMT work. With DMT, no matter how rough a ride it is, effects resolve within 30 minutes. With an all-day session, dealing with anxiety, fear, and other temporarily difficult emotions will provide new opportunities for our psychiatric skills.

The next cycle of grants requires submission to NIDA of a new grant application by February 1, 1995, to hopefully continue this work, whose funding is completed March 1, 1996. We have in mind several additional DMT and psilocybin studies.

Readers may be interested in looking up a chapter I wrote on the human psychopharmacology of psychedelics, which appears in the proceedings of the Swiss Academy of Medical Science's October, 1993, meeting: entitled *50 Years of LSD: Current Status and Perspectives of Hallucinogens* (Parthenon Publishing, New York and London, 1994, pp 145-174). This is a good source of current research here and in Europe, and provides perspectives from some of the original researchers in the field. •



Parnassia palustris. Common Grass-of-Parnassus flower.

with our DMT work.

With DMT,

no matter how rough

a ride it is,

effects

resolve within

30 minutes.

A PRELIMINARY REVIEW

ibogaine in the treatment of chemical dependence disorders: clinical perspectives

H. S. LOTSOF

THE PRIMARY PURPOSE OF this paper is to provide general information to the clinician who will be using the Lotsof Procedure[sm] (Goutarel, 1993) developed by NDA International, Inc. in which Ibogaine is administered to treat chemical dependence disorders. This is a preliminary report. The patient base upon which my conclusions have been made totals thirty-five treatment episodes. All clinical observations conducted after 1963 have been made on patients treated outside of the United States.

Ibogaine is not a substitute for narcotics or stimulants, is not addicting and is given in a single administration modality (SAM). It is a chemical dependence interrupter. Retreatment may occasionally be needed until the people being treated with Ibogaine are able to extinguish certain conditioned responses related to drugs they abuse. Early data suggests that for many patients, a period of approximately two years of intermittent treatments may be required to attain the goal of long-term abstinence from narcotics and stimulants. The majority of patients treated with Ibogaine remain free from chemical dependence for a period of three to six months after a single dose. Approximately ten percent of patients remain free of chemical dependence for two or more years from a single Ibogaine treatment. An equal percentage return to drug use within two weeks after treatment. Multiple administrations of Ibogaine over a period of time are generally more effective in extending periods of abstinence. It is noteworthy that twenty-nine of the thirty-five patients successfully treated with Ibogaine had numerous unsuccessful experiences with other treatment modalities.

Dedicated to the work of
J. Bastiaans
and N. Adriaans,
in memory of N. Kribus

A BRIEF HISTORY

Ibogaine is a naturally occurring alkaloid found in Tabernanthe iboga and other plant species of Central West Africa. It was first reported to be effective in interrupting opiate narcotic dependence disorders in U.S. patent 4,499,096 (Lotsof, 1985), cocaine dependence disorders, U.S. patent 4,587,243 (Lotsof, 1986) and poly-drug dependence disorders, U.S. patent 5,152,994 (Lotsof, 1992). The initial studies demonstrating Ibogaine's effects on cocaine and heroin dependence were conducted in a series of focus group experiments by H. S. Lotsof in 1962 and 1963. Additional data on the clinical aspects of Ibogaine in the treatment of chemical dependence were reported by Kaplan (1993), Sisko (1993), Sanchez-Ramos & Mash (1994), and Sheppard (1994).

Prior to Ibogaine's evaluation for the interruption of various chemical dependencies, the use of Ibogaine was reported in psychotherapy by Naranjo (1969, 1973) and at the First International Ibogaine Conference held in Paris (Zeff, 1987). The use of Ibogaine-containing plants has been reported for centuries in West Africa in both religious practice and in traditional medicine (Fernandez, 1982; Gollnhofer & Sillans 1983, 1985). An overview of the history of Ibogaine research and use was published by Goutarel et al. (1993).

Claims of efficacy in treating dependence to opiates, cocaine, and alcohol in human subjects were supported in preclinical studies by researchers in the United States, the Netherlands and Canada. Dzoljic et al. (1988) were the first researchers to publish Ibogaine's ability to attenuate narcotic withdrawal. Stanley D. Glick et al. (1992) at Albany Medical College published original research and a review of the field concerning the attenuation of narcotic withdrawal. Maisonneuve et al. (1991) determined the pharmacological interactions between Ibogaine and morphine, and Glick et al. (1992) reported Ibogaine's ability to reduce or interrupt morphine self-administration in the rat. Woods et al. (1990) found that Ibogaine did not act as an opiate, and Aceto et al. (1991) established that Ibogaine did not precipitate withdrawal signs or cause dependence.

Cappendijk and Dzoljic (1993) published Ibogaine's effect in reducing cocaine self-administration in the rat. Broderick et al. (1992) first published Ibogaine's ability to reverse cocaine-induced dopamine increases and later reported on Ibogaine's reduction of cocaine-induced motor activity and other effects (1994). Broderick et al.'s research supported the find-ings of Sershen et al. (1992), that Ibogaine reduced cocaine-induced motor stimulation in the mouse. Sershen (1993) also demonstrated that Ibogaine reduced the consumption of cocaine in mice. Glick (1992) and Cappendijk (1993) discovered in the animal model that multiple administrations of Ibogaine over time were more effective than a single dose in interrupting or attenuating the self-administration of morphine and cocaine, supporting Lotsof's findings in human subjects (1985).

Popik et al. (1994) determined Ibogaine to be a competitive inhibitor of MK-801 binding to the NMDA receptor complex. MK-801 has been shown to attenuate tolerance to opiates (Trujillo & Akil 1991) and alcohol (Khanna et al. 1993). MK-801 has also shown to blockade "reverse tolerance" of stimulants (Karler et al. 1989). Ibogaine's effects on dopamine and the dopamine system (dopamine is a substance hypothesized to be responsible for reinforcing pleasurable effects of drugs of abuse) were found by Maisonneuve et al. (1991), Broderick et al. (1992) and Sershen et al. (1992). Ibogaine binding to the kappa opiate receptor was reported by Deecher et al. (1992). Thus we begin to see a broad spectrum of mechanisms by which Ibogaine may moderate use of substances as diverse as opiate narcotics, stimulants and alcohol.

CLINICAL PRACTICE

The effects of Ibogaine treatment are viewed in three categories: acute, intermediate and long-term. The acute and intermediate effects have sometimes been referred to as the effects and aftereffects. The two major effects of Ibogaine are the ability to interrupt narcotic and stimulant withdrawal, and the attenuation or elimination of the craving to continue to seek and use opiates, stimulants and alcohol (Lotsof 1985, 1986, 1989). Knowledge concerning the use of Ibogaine in treating alcohol dependence is limited to: 1) a single alcohol-only dependent patient, 2) the attenuation and, in some cases, cessation of alcohol use in persons treated for poly-drug dependence disorders. Ibogaine's ability to treat nicotine dependence (Lotsof, 1991) has been

Ibogaine is a naturally occurring alkaloid found in *Tabernanthe iboga* and other plant species of Central West Africa.

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observed in poly-drug dependent subjects treated primarily for opiate and/or cocaine use.

There are some general considerations in reviewing the use of Ibogaine. The primary obligations of the treatment team are four-fold: 1) to earn the trust of the patient, 2) to maintain the comfort of the patient, 3) to assist the patient in interrupting their chemical dependence and 4) to supply the psychosocial support network needed by the majority of patients to enable them to develop a sense of personal accomplishment and the ability to function as productive members of society. This is a process the Dutch treatment community refers to as normalization.

In the Lotsof Procedures℠, for which a manual is now being prepared, the sense of conflict seen in most treatment modalities between the doctor and patient over the immediate cessation of drug use does not exist. The patients have been allowed, if narcotic-dependent, to continue their use of narcotics until a certain time prior to treatment with Ibogaine. There is no conflict over opiate use before treatment, as our position has been that Ibogaine will either work to interrupt chemical dependence or it will not. Patients dependent on stimulants are not maintained on stimulants and this has not created a problem for the patients or the medical staff.

Prior to our conducting Ibogaine treatments in hospitals, addicted patients were allowed to use their personal supply of narcotics until the evening before treatment. However, during hospital-administered Ibogaine sessions, the narcotic-dependent patient is maintained on medications prescribed by the principal investigator during the three to five day intake process preceding their treatment with Ibogaine. Even under these circumstances, patient distrust of the medical establishment and extreme fear of going into withdrawal has resulted in the smuggling of narcotics into hospital environments. In order to protect the patient from possible overdose due to narcotics, stimulants or other drugs, a thorough physical examination is performed on all patients upon their admission to hospital environments. The examination and a search of the patient's possessions prior to treatment with Ibogaine serve two important functions. The first, is to limit the possibility of accidental overdose from hidden drugs. The second is to provide a complete understanding of the patient's physical health, since many of the people seeking treatment for chemical dependence have masked various and often numerous medical problems for years or even decades by self-medicating with illicit drugs.

One of Ibogaine's principal effects during its first phase of action is to produce a state that emulates dreaming...

ACUTE EFFECTS REGIMEN

The acute effects of Ibogaine are dramatic. The initial reaction is usually noted within forty-five minutes after the oral administration. Full effects are generally evident within two to two and a half hours. The earliest subjective indication by patients of Ibogaine's effects is the report of a pervasive oscillating sound. The patient tends to lie down and, if asked to stand or walk, shows signs of ataxia.

The protocol for the Lotsof Procedures℠ stipulates that the patient remain in bed with as little movement as possible from the time of Ibogaine administration. This is because nausea associated with Ibogaine use has proven to be motion-related and/or, in later stages (those longer than four hours after administration), possibly to be a psychosomatic reaction to previously repressed traumatic experiences. In addition to keeping the patient as still as possible, we use a non-phenothiazine anti-nauseant, since phenothiazines may interfere with the psychoactive properties of Ibogaine. If the patient vomits in less than two and a half hours after the administration of Ibogaine, an examination of the regurgitated material should be made to determine how much Ibogaine may have already been absorbed by the patient. A rectal infusion of Ibogaine to supplement the lost portion of the dose may be provided if it is not possible for this dose to be administered orally. The rectal administration should occur only if the patient has previously consented to this mode of dosing.

VISUALIZATION

One of Ibogaine's principal effects during its first phase of action is to produce a state which emulates dreaming, except that the subject is fully awake and has the ability to respond to the treatment staff's questions. In most cases, people under the influence of a therapeutic dose of Ibogaine do not wish to speak. They prefer instead to pay close attention to the visual presentation of memories or phenomena that they are experiencing. These phenomena have been noted to have both Freudian and Jungian connotations.

The presentation of visual material is rapid. Some patients have described it as a movie run at high speed. Others describe it as a slide show, each slide containing a motion picture of a specific event or circumstance in

the viewer's life. In either case, the presentation of visual material is so compressed and fast moving that distracting the patient for even a moment may interfere with the process of abreaction. Therefore, during the primary phase of Ibogaine treatment, the intrusion of the medical staff should be kept to a minimum.

AUTONOMIC RESPONSES

During the first through the fifth hour there is a moderate rise in blood pressure of ten to fifteen percent and, in some cases, an associated decline in the pulse rate. The most significant autonomic changes occur between one and a half and two and a half hours after administration of therapeutic doses of Ibogaine. In many cases pulse rates are elevated due to pre-administration anxiety.

On two occasions, persons with transient hypertension were treated. In one of those instances the patient's blood pressure dropped to normal levels during the primary and secondary stages of treatment. The second hypertensive exhibited little change at a 23mg/kg therapeutic dose, but showed significant changes on two occasions when provided with only a 1.6mg/kg test dose. The two 1.6mg/kg doses were supplied due to our concern over the patient's hypertension. He had been previously treated with an 18 mg/kg dose by Dutch Addict Self-Help (DASH) with no apparent negative results. This alleviated some of our concern for the patient's safety. Variation in individual patient reactions should be anticipated.

FEMALE PATIENT SAFETY

One 24-year-old female patient treated with Ibogaine for chemical dependence died from undiagnosed causes in the Netherlands. Although her autopsy did not determine the cause of death, it reported Ibogaine levels of 0.75mg/liter in blood. This level has not been seen to be toxic in animal research or in our prior human experience. Subsequent to this death and to the previously reported death of a Swiss woman who received Ibogaine during a psychotherapy session in Europe (totally unrelated to NDA's research program), the FDA excluded women from the present clinical trials taking place at the University of Miami. However, the FDA decision is contrary to the gender guidelines of the National Institutes of Health. The guidelines with regard to women call for the inclusion of women at the earliest stages of clinical trials, as this would provide the greatest determination of drug safety for women. Thirty percent of NDA International's patients have been women who have shown no negative effects from taking Ibogaine either during or after treatment. However, considering all of the circumstances, the Procedure should be administered only in a hospital or clinic with the patient under continuous staff observation and electronic monitoring.

An ongoing international research program is developing evidence to determine a hypothesis for the cause of death of the woman in the Netherlands. We are additionally seeking Swiss government cooperation concerning the death of the Swiss woman. The results of this research may facilitate either an exclusion criteria or an antidote allowing Ibogaine safely to treat chemical dependence in women.

COGNITIVE EVALUATION

During the second phase of Ibogaine's action in the Lotsof Procedures℠, the patient experiences the intellectual evaluation of his or her previous life experiences and decisions. This occurs after the visualization phase, which generally ends abruptly in three to five hours. However, individual reactions and variations are the norm and not the exception within the parameters of the Procedure.

When various decisions were made by the patient in the past, those decisions appeared to be the only options available at the time. However, due to Ibogaine's ability to catalyse the reevaluation of one's life, actions and behavior, it is possible for patients to understand that alternatives to their original decisions were available. This knowledge appears to allow the patient to modify their current behavior and cease their drug dependence.

BEHAVIORAL IMMOBILITY

During the periods of visualization, and extending into the stage of cognitive evaluation, patients will demonstrate a state of behavioral immobility (Depoortere, 1987). Brain wave patterns associated with dreaming and sleep, but distinct from those states, are represented by rhythmic slow activity of 4-6 Hz. These EEG patterns are associated with a state characterized by a lack of movement. Some early observers of the Lotsof Proceduressm (Kaplan, personal communication, 1990) initially believed that the condition represented paralysis, but when patients were asked to stand and move around, the patients were able to do so, albeit with difficulty.

...due to Ibogaine's ability to catalyze the reevaluation of one's life, actions and behavior, it is possible for patients to understand that alternatives to their original decisions were available.

The patient had been using approximately 1/4 gram of heroin a day, but had increased his daily intake to two grams while in the Netherlands.

ATTENUATION OF NARCOTIC WITHDRAWAL

One of the major acute effects experienced with Ibogaine treatment is the attenuation or elimination of narcotic withdrawal in opiate-dependent patients. This is extremely important to the narcotic-dependent patients who live in fear of going into withdrawal.

The treatment team's experience in the field is of the utmost importance in dealing with this aspect of the Procedure. Withdrawal symptoms are a combination of physical and, in many cases, psychosomatic manifestations that are anxiety-driven. Therefore, it is imperative for the medical and paramedical staff to have experience in identifying and distinguishing between these varieties of symptoms. Provided below are examples of psychosomatic withdrawal manifestations demonstrated by two of the patients treated outside the United States.

Example One

On one occasion I was called into the room by a colleague about twenty hours after Ibogaine had been administered to a twenty-five year old male heroin-dependent patient. The patient had been using approximately 1/4 gram of heroin a day, but had increased his daily intake to two grams while in the Netherlands.

I was informed that the patient was complaining of muscle spasms. I asked the patient if this was true, and he responded in the affirmative. I asked if I might see these spasms. The patient agreed, showing me the calf of his leg. He was exhibiting what appeared to be involuntary movements. I checked his pupils and observed that they were not dilated, nor was he exhibiting any other form or manifestation of withdrawal. When I turned to my colleague for discussion I noticed the patient's spasms had ceased. Upon reexamination of his calf, the spasms returned. I turned away once again, but continued to watch him and the spasms ceased again. I informed the patient that I believed the spasms to be psychosomatic in origin. I placed a pillow under the patient's calf to give it support and covered the patient with a blanket. The spasms did not occur again.

Example Two

On another occasion I received a call from a person involved with Dutch Addict Self-Help (DASH) groups who had been observing a number of treatments. She informed me that a Yugoslavian woman in her mid to late twenties had been complaining of narcotic withdrawal during Ibogaine treatment. However, the DASH observer did not believe this to be the case, as there were no observable signs of withdrawal.

When I arrived, the patient was sitting on a couch. I checked her pupils and observed they were not dilated, and asked her if she was in withdrawal. The patient said she was.

"How are you in withdrawal? What are its manifestations?" I asked.

"I'm sick," she said.

I asked her if her eyes were tearing.

"Yes," she said, but her eyes were not tearing.

"Is your nose running?"

"Yes," she said, but her nose was dry.

"Do you have goose bumps?" I asked.

"Yes," she said, but I pointed out to her that she did not have goose bumps, and finally I said, "Do you have diarrhea?"

"Yes," she said, but I had no way to determine the validity of her statement.

The patient requested that I provide her with funds to return home. I told her I did not think it wise for her to leave at this time, but would give her carfare in the morning. The following day the DASH observer told me that the patient had left about four hours after I did, informing the observer as she left that she had not been sick, but had only said she was. This example should further demonstrate the importance of hospital administered treatments with a full medical staff of psychiatrists, neurologists, internists, therapists, nurses, peer counselors and patient advocates capable of evaluating and responding to any aspect of the patient's condition at all times.

The complaint of experiencing narcotic withdrawal after leaving the treatment environment has been reported in three cases. We have provided additional treatments six months to a year after the initial treatment to patients who were re-addicted and stated they had experienced some form of withdrawal within a week of their first Ibogaine treatment. Our working group decided to keep patients making such complaints under observation for periods equal to the number of post treatment days during which the patients stated they previously experienced withdrawal symptoms.

Our findings have been that, under the above conditions of monitoring, the reported withdrawal signs are usually symptoms of anxiety or anxiety related conditions that the patients characterized as withdrawal. These symptoms included nausea, diarrhea or increases in blood pressure in one hypertensive patient.

There have been two incidents which did not appear anxiety related, in which diarrhea occurred five to seven days after treatment in patients who had previously used one gram of heroin a day. These episodes were easily controlled with a single administration of an appropriate medication and did not occur again.

AFTEREFFECTS: INTERRUPTION OF CRAVING

The acute interruption of craving to seek and use drugs of abuse is unique to the Lotsof Proceduressm as a treatment modality for chemical dependence disorders. This effect is generally not noticed by the patient until the principal actions of Ibogaine (visualization, cognitive evaluation, behavioral immobility and significant residual stimulation) are no longer evident and the patient has had the opportunity to sleep. The initial recognition of lack of craving is usually noticed forty-eight to seventy-two hours after Ibogaine administration. In a minority of treatments, recovery and the absence of craving may be evident to the person being treated in as little as twenty-four hours. The medical staff, on the other hand, usually notes the absence of craving in the patient in forty-five minutes to one and a half hours after Ibogaine administration.

Our experience gained in recent years through the treatment of twenty persons outside the United States has shown that the majority of patients may need a series of treatments before the conditioned responses (craving) to a long history of chemical dependence can be extinguished. However, for three of these patients, a single treatment interrupted chemical dependence for a minimum of two years. The advantage of Ibogaine is that it allows patients time periods free of craving during which the psychiatrist, social worker, therapist, paraclinician and the patient often bond into a cohesive working group to accomplish a state of long-term non-dependence by the patient to the drug(s) of abuse for which the patient is under treatment.

PSYCHOSOCIAL SUPPORT

All aspects of treatment for chemical dependence disorders common to other treatment modalities are common to the use of Ibogaine. The patient's characteristics in terms of psychopathology and behavior, societal accomplishments, as well as the skills of the treatment team are significant to treatment outcome.

In rare cases, when the patient already has the occupational, educational, and professional skills needed to succeed in society, the task may be somewhat easier. In cases where the patient does not have those societal skills, or lacks medical care for disorders other than chemical dependence, care and training must be provided through psychosocial support structures.

Trauma suffered by the patient during childhood appears to play an important part in the drive for love and the fear of abandonment that are common to many of the patients we have treated (Bastiaans, 1991).

All psychosocial support paradigms should be available for the patient after the completion of an Ibogaine treatment. Their use should be contingent upon the evaluation of the patient's needs and progress.

One of the primary differences that social workers, counselors or therapists offering psychosocial support notice in post-Ibogaine treated patients as compared to untreated subjects, is the rapidity with which the support can and must be provided to aid the patient in accomplishing goals and making decisions. Ibogaine presents a symptom-free window of opportunity, of which the patient and therapist must take advantage. One patient put it this way: "Ibogaine and 12-Step (groups) both help you to get in touch with your soul. Ibogaine is like rocket fuel for that process." (*Village Beat*, 1990) This means moving quickly and dramatically to assist the patient to establish goals while the patient has the ability and desire to do so.

Ibogaine generally produces a receptive psychological state in the patient. This produces a relationship between the patient and the therapist which is mutually rewarding and beneficial, but requires the person providing psychosocial support to work both harder and faster than is the norm for other treatment modalities. Prior to the use of Ibogaine in the treatment of chemical dependence, it may have taken the therapist three to twenty-four months (Judd, personal communication, 1993) using traditional methods to assist the patient in reaching a state of well-being free of drug craving (Kaplan et al., 1993). This advantage that Ibogaine treatment provides enables the psychosocial support staff to assist patients in making decisions which facilitate their normalization and integration into society as self-fulfilled and productive human beings.

Many of the accepted parameters of distance between the therapist and the patient are not effective in Ibogaine treatment. Patients require closer and more intensive

"Ibogaine and 12-Step (groups) both help you to get in touch with your soul. Ibogaine is like rocket fuel for that process."

guidance, and are generally more open to it. They require faster intervention to learn societal skills and to overcome and objectively understand various traumas experienced during their lives. Therefore, Ibogaine is not a treatment modality for clinicians whose pre-ference is to simply administer a pill or tablet and then distance themselves from their patients.

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REDUCTION OF THE NEED FOR SLEEP

In all cases, Ibogaine temporally reduces the patient's need for sleep to as few as three or four hours a night. This effect may last a month or more, gradually returning to normal. Two theories have been put forth concerning the cause of this effect. One theory suggests the reduction in the need for sleep is due to the long-lasting bioavailability of Ibogaine or one of its metabolites. This is in keeping with the parmacokinetic studies conducted at the University of Miami (Mash, 1995). The second theory suggests the cause is due to the decrease in the psychological requirements for sleep associated with the necessity to dream. Evidence supporting this theory is that Ibogaine promotes an intense emulation of dreaming that lasts for many hours during its acute stage of activity.

The reduction in the need for sleep is viewed by the majority of patients as a discomfort, since they have used drugs and sleep as an escape mechanism. These patients may require some mild form of sedation during the first days after treatment with Ibogaine. Normal precautions should be taken in providing sedatives to persons with a history of chemical dependence. In a minority of cases, patients have used this newly available time to advantage in their busy work schedules.

LONG-TERM EFFECTS

Long-term effects are those which may be noticed from one to twenty-four months after treatment, and in some cases even longer. The following three examples illustrate this point.

Example One

A heroin-dependent couple was treated. The woman of 26 was a relatively new addict of three months while her 27-year-old husband had a history of over ten years of heroin use. At the time of their treatment, a protocol of treating one patient at a time was followed. These were early treatments and the medical and paramedical support staff were familiarizing themselves with what might be expected during such treatments.

Portions of the treatments were observed by Dr. Carlo Contoreggi, Deputy Medical Director of the Addiction Research Center of the National Institute on Drug Abuse in Baltimore and Dr. Lester Grinspoon of the Harvard School of Medicine.

The husband was treated first, and his wife was completely cooperative and helpful during his treatment. The following day, when the wife was administered her dose of Ibogaine, her husband demanded that he be allowed to leave his room and remain in bed with her. He informed the medical and paramedical staff present that unless he got his way he would create a disturbance to interfere with his wife's treatment. Rather than deal with a belligerent and angry patient, we decided it would be less harmful to let him have his way. He continuously disturbed his wife during her treatment. This resulted in a policy of treating couples simultaneously in separate rooms.

He recovered before his wife, as she had been administered Ibogaine twenty-four hours after his treatment. He complained that he was getting bedsore, was no longer able to stay in bed and asked for permission to go for a bicycle ride. Upon his leaving, his wife broke down and cried in the arms of a female paraclinician, stating she did not know if she could remain with her husband, but she was afraid he would die if she left him. This was a concept he continuously stressed to her during their treatment.

After treatment, he followed a pattern of controlling his wife's contacts with other persons, including the treatment team, which was denied access to either of them. We later learned that they both returned to heroin use. However, three months later, the wife determined that her husband was incapable of loving himself or her and this was not the life she wanted. She stopped using heroin, enrolled in nursing school, filed divorce proceedings against her husband, and is now specializing in psychiatric nursing.

While initially she did not recognize that her decision to stop heroin use was due to her Ibogaine treatment, as the months went by, she realized that her determination to change her life was catalyzed by her experience with Ibogaine.

Example Two

A cocaine/cocaine-base dependent patient was treated with the Lotsof Procedure and experienced an acute interruption of his drug use. During his Ibogaine treatment, he had a strong impression that if he continued drug use God would punish him. He remained drug-free

for about thirty days, after which he increased his drug use over the next months. He was then retreated. The dose he received proved to be inadequate due to his vomiting of the oral dose, and to a bowel movement immediately after the rectal administration of Ibogaine, which he requested to compensate for the loss of his oral dose. His drug use continued, but far below his original pretreatment levels.

About six months after his retreatment, the first Ibogaine therapy group sponsored by the International Coalition for Addict Self-Help, directed by psychotherapist Barbara Judd, CSW, was established in New York. The patient attended these sessions until fifteen months after his original treatment, when he recognized that he had to move away from his drug-infested neighborhood. Thereupon he moved to Florida.

In Florida, he has remained drug-free, even though he has access to cocaine. He is employed in the construction industry by a business with strict non-drug use guidelines that is owned and run by former drug users.

Example Three

One of the most important concepts learned by persons treated with Ibogaine is that addiction can be reversed. Persons dependent on drugs such as opiates or cocaine are not able to recognize that chemical dependence is a reversible phenomenon.

This third example is of the only chemically-dependent person from the 1962-1963 study to receive a series of Ibogaine treatments at therapeutic levels. The individual remained free of addiction for approximately three and a half years as a result of his series of treatments.

During that period he moved to California, married, and worked in pharmaceutical sales. He later lost his job and, when offered a ride back to New York, accepted it and returned to a life of minor drug dealing and use that resulted in his arrest and imprisonment.

After his release, he worked for a while as a machinist, then slowly fell back into heroin use and addiction in 1969. Luckily, this was a period when methadone programs were expanding, and he was able to enter one of the better programs run by Beth Israel Hospital. At that time, the programs were well-staffed with doctors, nurses and adequate counselors, and the patient reached a point in his life when he recognized that the life of a heroin addict was not what he wanted. It was not just the heroin, but the scene itself, wherein a human life was without value, where sometimes a human being would be murdered for two cents worth of an innocuous powder in a glassine envelope. The patient was ready to quit heroin, but was a slave to the craving to use opiates for the anxiolytic relief they provided.

Over a period of more than two years, the patient stabilized himself on methadone. He tried heroin once, two weeks after starting methadone, was satisfied with the level of blockage that methadone offered, and never used heroin again.

During the next few years the methadone programs changed. Many of the competent counselors were unable to continue in their positions due to the stress and sense of frustration in their work, a condition common in the treatment community. The Federal government placed more and more restrictions on methadone patients' freedom of movement and, though methadone is anticipated to maintain the methadone client for a period of twenty-four hours, in many cases it does not. For this patient, withdrawal signs were setting in at eighteen hours and not twenty-four. The patient began a slow detoxification process from 100mg of methadone per day that took approximately eighteen months.

The final stage of detoxification was followed by the patient's entry into University-level training, for which he had obtained a scholarship to a prominent university. At the time of the detoxification, the philosophy among methadone patients was that you could not get off methadone. However, having previously had the Ibogaine experience, the patient stated that he knew addiction was reversible. That knowledge allowed him to successfully leave addiction behind.

CURRENT TREATMENTS: A SELF REPORT

The following report is from the type of patient we had been seeking for years: a medical doctor who needed to be treated with Ibogaine. The subject was chemically dependent on 600mg of Demerol a day, and had attempted to stop his drug use a number of times, without any lasting success. Our particular interest in this subject was the hope that, as a medical doctor, he might provide us with some professional insight into the results of his treatment. He kept notes and prepared a report on the four different doses he received. His report is presented below in its entirety.

This subject proved to be more sensitive to Ibogaine than any other individual in our studies conducted outside the United States,

One of the most important concepts learned by persons treated with Ibogaine is that addiction can be reversed.

The following report is from the type of patient we had been seeking for years: a medical doctor who needed to be treated with Ibogaine.

and had a full-blown experience from a 10mg/kg dose. The patient participated in a research protocol which called for an intermediate dose of 10mg/kg of Ibogaine. This dose was administered as part of a pharmacokinetic study, and was not expected to have a therapeutic effect, but it did. As part of the protocol, he was also administered a known therapeutic dose of 20mg/kg.

1st day - 100mg (test dose #1)

"I've taken my Ibogaine dose and went to bed, and stayed laying down. I felt nothing, until the medical staff arrived to do the 1 hour tests. I was surprised because in my mental measurements, I thought I had taken Ibogaine about 20 minutes earlier. When I stood up, I felt a little drowsiness, and it was difficult to walk in a straight line. I was feeling photophobia and every little noise seemed to be much louder than in reality. The sounds were very disturbing to me.

During the two hour testing, symptoms were worse. It was very difficult to walk in a straight line, and the room seemed to beat, like a heart. I felt very tired, and the only thing I wanted was to rest in bed. Each head movement seemed to make things worse.

When I stood up for the 3 hour test I felt that the symptoms were disappearing. I was very hungry and ate. After eating, I was a little nauseated. For the following hours I felt nothing, except for sensation that my mind images were richer in details than before, like a 3-D movie.

I ate with no nausea, slept very well, and awakened in very good condition."

2nd day - 25mg (test dose #2)

"After this dose of Ibogaine I felt nothing different from my normal state."

3rd Day - 10mg/kg (experimental dose)

"For the first two hours I felt a little different, like I had smoked marijuana. I was very calm and relaxed and all the tension of the beginning of the procedure was gone. The room seemed to be a little different and the colors around me sharper than normal. The lights and sounds were disturbing to me, like the first time. Suddenly, with my eyes closed I began to see images that appeared in screens, exactly like TV or cinema screens. These screens were appearing in small sizes and then they would get bigger as I focused my attention on them. Sometimes they appeared small and would then begin to grow, like I was walking in their direction, and sometimes they were going from left to right, in a continuous way.

The images on the screens were moving in slow motion and were very sharp and well defined. I saw trees moving with the wind, a man with bells in his hands, various landscapes with mountains and the sunset. At this time I was a little nauseated, and when the doctors asked me to stand up for some tests, I vomited. From all of the hundreds of images I saw this day, I recognized only two: the first, an image of myself as a child, static like a photo. This image began to approach me and get bigger, but something in the room happened and I opened my eyes, losing the image. The second image I recognized was one of some horses dancing in a circus. It was a TV show that I had seen two days before. The time seemed to go very quickly, because after about four hours (in my mind), they told me I had taken Ibogaine nine hours earlier! It was very difficult for me to speak in English or in Spanish. I was only able to speak in my native language. At this time the images started to appear at a slower rate and for another two hours I saw only screens with no images on them. About 10-11 hours after the beginning of the experiment they disappeared.

I ate very well and stayed awake all night long, falling asleep only about 7 AM, almost 24 hours after the medication had been administered. During the night I had some insights about my life and about the things I realized I was doing wrong. I stayed all the following day very tired, sleepy, but very happy and relaxed, in a way I never was before."

5th day - 20mg/kg (therapeutic dose)

"The first 3 hours were similar to the last time; photophobia and a bad sensation with little noises. After that the images began to appear, in a slower rate than the other time. There were less images, but I was recognizing all of them as part of my childhood. I saw myself playing in my father's farm, riding a motorcycle, playing with a cousin, feeding a fish and other things. I saw some recent images, like one of my father, laughing in the living room of my house. This happened about a year ago. I understood that I had a happy childhood, and there was no one to blame for my addiction, only myself. I felt their love coming from my parents and relatives. I was feeling the same time distortion that I felt the other day, and after many hours I suddenly had an insight. It was that my mind and the universe were the same thing, and that all the people in the universe and all things in the

universe are only one. I saw many mistakes I was doing in my life, so many attitudes I could not have, and this helped me to decide very strongly that I will never use Demerol again. Now I can see very clearly that I don't need Demerol to live my life. And I feel better if I don't use it. During the first 8 hours after taking the Ibogaine I vomited 4 or 5 times, always when I tried to move. I was able to sleep about 4 AM, and to eat only about 9 AM the following day. I awakened feeling weak, tired and drowsy. As the hours were going, I slept a lot and began to feel better and in the morning of the following day I was normal."

Differences in day-by-day life after the experience

"I returned to my normal life with absolutely no cravings, with better appetite than before, and highly self-confident. Now I can see differences in some aspects of my personality, things are changed. For example, I used to avoid driving at night, because it reminded me of a car accident I had years ago. Now I can drive anytime, day or night, without anxiety. I'm sure that this is caused by Ibogaine, because now I'm not the same very anxious person I was. I'm not as shy as I used to be, too. It's easier now to contradict people when I think they are wrong, and to make them know what I want and what I think. I used to accept all that other people said only to avoid a discussion, even when I was sure that my point of view was the correct one.

These are the main happenings in my Ibogaine experience and the main differences I can perceive in these few days."

Some Months Later

"The most important thing I learned with all that happened is that I can never underestimate the power of the addictive personality I have inside. I can never say I'm cured because if I do this, I will forget to protect myself from drug using thoughts. I must know I have a chronic disease that will be quiet in its place until I decide to give it a chance to grow. This decision, and that's the point, is a conscious decision. If I give in, the disease will be out of control in a few days. But, if I could be strong to take real and honest control of my Demerol using thoughts, I will be free forever.

A few days ago, because of professional needs, I had to keep two Demerol doses with me, in my house, all night long. To protect myself, I gave them to my wife. But, it was amazing to see how I was not anxious to use them but, to give them to the patients that needed them. I clearly felt that Demerol was a strange thing in my environment. I wasn't curious about the place my wife had put them, I wasn't feeling any craving. I was only looking forward to the moment I could give them to the patient and say: I've done it. And I did it, because of all of you from NDA.

I don't want to be boring, but I have no words to say how grateful we, my family and I, are. I will remember you for a lifetime."

Needless to say, this patient provided particular advantages in terms of his treatment outcome. He had a career, was highly motivated, and did not require the significant psychosocial support needed by so many others who do not have his background.

SUMMARY

We have only been able to track a significant minority of patients for follow-up observations, about twenty-five percent. In many cases we have maintained direct contact with the patients for only two months after treatment. In a single case, for five years. The difficulty concerning patient contact has been one of geographic distances, both national and international, as our patients have come from diverse cities and countries. This factor, as well as the normal problems in tracking a chemically dependent population, must be taken into consideration when evaluating the findings of this paper.

General conclusions based on study observations are that a single administration of Ibogaine is an interrupter for chemical dependence disorders. A series of treatments given over a period of time will produce more significant results. It may allow some of the persons treated to free themselves completely, (or for a period of years) from dependence to, or the use of, opiates and stimulants, including cocaine and nicotine. Data on alcohol dependence treatment in human subjects is minimal.

A single treatment of Ibogaine has the ability to significantly attenuate opiate withdrawal in all patients. In ninety percent of cases treated, a single treatment can interrupt an individual's craving to continue drug use for periods of time ranging from as short as two days to as long as two and a half years. Concurrently, Ibogaine has demonstrated the ability to precipitate the release of repressed memories and to foster a process of abreaction. I believe these are important aspects of Ibogaine's ability to interrupt chemical dependence.

In order to obtain the greatest benefit for those treated with Ibogaine, a psychosocial support structure should be in place. Providers

...after many hours

I suddenly had

an insight.

It was that my mind

and the universe

were the same thing,

and that all the people

in the universe

and all things

in the universe are

only one.

In order to obtain the greatest benefit for those treated with Ibogaine, a psychosocial support structure should be in place.

of the Procedure should be knowledgeable in the field of chemical dependence treatment, and patients should be shown kindness and respect. In many cases, such an approach will be the first attentions of this kind the patient may have experienced in decades.

Patients are deserving of kindness and respect, and such care is an important part of the healing process. Ultimately, physicians and support staff should be specifically trained in the Lotsof Procedures[sm] to fully understand the physical and psychological transformation of the patient, the advantages of the Procedure, and the providers' responsibilities in administering Ibogaine to treat chemical dependence disorders. Eventually, the understanding of Ibogaine's actions may yield important data about memory, learning, dreams and sleep, as well as chemical dependence, tolerance and abuse. •

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Healing Cocaine Addiction with MDMA

Dear MAPS,

In 1984 I was a regular cocaine user (at least 3 times per week) and had experienced paranoid spells, tremors and continual craving during use. My first MDMA experience was in August of that year and continued on a semi-regular basis for years, meaning at least once every two months.

The motivation to do deep introspective work while on MDMA became greater as time went on, especially around religious/spiritual themes. I prayed deeply during my trips for "deliverance" from my dependence/lack of control relative to cocaine. I noticed after the second year that my coke use had dropped markedly. By 1988-89 (January) I had stopped completely and have been clean for five years. From 1986-89 my MDMA use was sporadic as compared to 1984-85. I believe that a sincere desire to stop using coke was imperative, but also know that MDMA allowed me to source inner places of both unhappiness and power which were necessary in my recovery.

(The writer goes on to describe a uniquely spiritual moment that surfaced during a later MDMA session...)

During October 1992, I experienced a mystical vision while using MDMA. I had taken approximately 125 mg initially at about 7 p.m. and another 50-70 mg at around 9 p.m. I was on an open deck looking south on a moonlit night, about two hours after sunset, and saw cloud formations moving in a seemingly deliberate way - one from the east (a dark one) and the other from the west. In between I saw another cloud with a figure emerging from behind it. As I stared at this arrangement for about 5 minutes, the central formation took the form of my mother-in-law's face. She looked concerned and scared as she looked at the dark formation. My mother-in-law was in a hospital in Charleston, SC dying of cancer. As the outside clouds moved closer together a large white arm reached from the westerly formation to envelope the cloud containing my mother-in-law's image. My inner sense was that she was relieved of the tension and pain, that I sensed earlier. Within ten minutes the combined clouds created an aura around the moon. I learned several hours later that she had died at 6:00 p.m. I know that her spirit came before me that night.

Sincerely, S.J.

CONFERENCE

2nd international congress for the study of **modified states** of consciousness: spain, october 1994

DR. STACY B. SCHAEFER

Dr. Stacy B. Schaefer, University of Texas-Pan American, Edinburg, Texas 78539

a network of international investigators from the arts and sciences

The Second International Congress for the Study of Modified States of Consciousness was held in Lerida, Spain from October 3rd to the 7th, 1994. The first Congress, organized by Dr. Manuel and Donna Torres from the United States and Dr. Joaquín Muñoz Mendoza and Nicola Kuehne from Mexico, sponsored by INAH (Instituto Nacional de Antroplogía e Historia) was celebrated in November of 1992 in San Luis Potosí, Mexico. The conference was the beginning of the creation of a network of international investigators from the arts and sciences whose research is dedicated to these areas of inquiry. It was a stimulating environment for personal interchange across disciplines, borders, and continents.

The Second Congress, sponsored by the Instituto Prospectiva Antropológica and the Institut d' Estudis Ilerdencs, proved to carry on the legacy, bringing together botanists, psychiatrists, chemists, pharmacologists, anthropologists, philosophers, lawyers, art historians and artists. As in the first Congress, Spanish and English were the official languages of the conference. The President of the Organization Committee from the hosting country of Spain, Dr. Josep Ma Fericgla, anthropologist and director of the Institut de Prospectiva Antropolóogica who has spent extensive time among the Shuar of Ecuador, along with the help of Dr. Jace Callaway, Chemist and Neuropharmacologist from the University of Kuopio in Finland, involved in an ayahuasca study in Brazil, spent countless hours organizing the Congress. Their efforts were key to the overriding success of the conference, and were greatly appreciated by all the participants.

Keynote Address

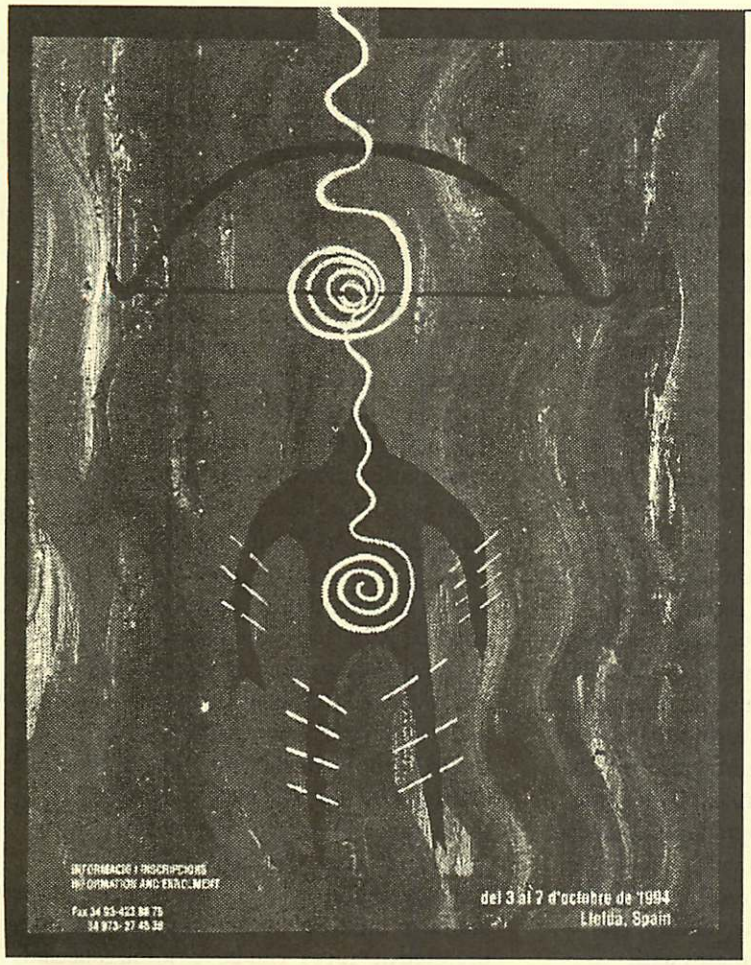
The opening keynote lecture was presented by chemist and ethnobotanist Dr. Jonathan Ott, who resides in Mexico and is a researcher for the company Natural Products. Dr. Ott provided a diachronic view from prehistoric to present times of entheogenic plants found and used by humans in the Old World and the New World. Numerous papers were presented during the five days of the conference. The interpretation of modified states of consciousness was very broad. What follows is a summary of the majority of papers which addressed modified states of consciousness facilitated by entheogenic substances.

Dr. Alexander Shulgin, Chemist from the University of California, Berkeley, provided a background of the molecular biochemistry of entheogens, with special emphasis on beta-carbolines and dimethyltryptamines. This set the stage for the following papers on the ayahuasca research project in Brazil conducted by Dr. Jace Callaway, Dr. Charles Grob M.D., from the Department of Psychiatry at Harbor-UCLA Medical Center, and Dr. Dennis McKenna from Botanical Dimensions. An overview of the project was presented in slide, video, and a talk by a member of the União Do Vegetal (UDV) who helped facilitate the study. The research project set out to scientifically study the long term and acute effects of dedicated ayahuasca use among members of the UDV in Manaus, Brazil.

Ayahuasca Project

Dr. Callaway discussed the main chemical components of the ayahuasca "tea", harmala alkaloids from the vine *Banisteriopsis caapi* and dimethyltryptamine (DMT) from the shrub *Psychotria viridis.* Of special interest, as pointed out by Callaway, is that the compounds in ayahuasca have an indole structure in common, which through several mechanisms influence the actions of the central nervous system, and in fact are chemically similar to the neurotransmitter serotonin (5-HT).

Dr. Charles Grob presented the findings of his ethnomedical research in the project. Both experimental subjects and controls were administered a psychiatric diagnostic interview, open-ended life story interviews, neuropsychological testing, personality testing, and receptor binding studies. The experimental subjects were administered a standardized dosage of ayahuasca and were monitored



Congress poster image
M. Modic

closely over the following six hours for acute medical parameters, neuroendocrine challenge test and phenomenological assessment. The most interesting of the preliminary results from the data, Dr. Grob explained, were statistically significant differences between the experimental and control groups, where the experimental group showed a higher rating of short term memory than the control group. His preliminary interpretation of the data indicates that long term ingestion of ayahuasca within a religious context does not cause behavioral or neuropsychological deterioration.

Members from two different religious ayahuasca-using groups from Brazil, the UDV and the Santo Daime, gave various presentations about the history and philosophy of their prospective religions, as well as social, political, and economic aspects of each constituent religious group.

Shuar Study

In addition, Dr. Josep Ma Fericgla presented the findings of a psychological study he conducted among members of the indigenous Shuar culture of Ecuadorian Amazon who had consumed ayahuasca. One test instrument, the SRQ (Self Report Questionnaire), detected over half the population suffered from probable cases of emotional distress, which frequently manifested in psychosomatic symptoms of gastrointestinal discomfort, nervousness, fatigue and migraines. The PERI test (Psychiatric Epidemiologic Research Instrument) detected that nearly all of the people interviewed probably suffered from psychotic disturbances. Clinical psychiatric interviews with these individuals, however, did not demonstrate symptoms that would suggest schizophrenia. Dr. Fericgla concluded that the PERI is neither a valid nor appropriate instrument for this population. Shuar who consume ayahuasca on a more frequent level are men, and they consume ayahuasca in a strict ritual shamanic context which provides meaning and purpose in their lives. In respect to the SRQ results, those who suffer from emotional distress probably do so because of the incredibly rapid changes affecting these people, the pressures from outsiders and from within to acculturate and adapt the ways of the Western world.

Reports on other substances

Another paper related to ayahuasca research was presented by Dr. Francesco Festi, from the Museo Civico de Rovereto, Italy, who addressed aspects and perspectives on the role

Shuar men consume ayahuasca in a strict ritual shamanic context which provides meaning and purpose in their lives.

The participant is fed small doses of Iboga numerous times for an 8-20 hour period, putting the participant into a near-death state.

of European *Phalaris* in the reproduction of the "ayahuasca effect". His colleague, Dr. Giorgio Samorini, from the Museo Civico de Rovereto, Italy, who collaborated with him on the paper, presented an enthralling account of his own Iboga initiation experience among the Buiti of Gabon in Africa. This particular initiation rite *(tove si)* is one that is central to Buiti who want to become priests. Preparation for this ritual requires days of fasting, meditation with nature, and sexual abstinence, followed by the rite itself. The participant is fed small doses of Iboga numerous times for an 8-20 hour period, putting the participant into a near-death state. The participant remains in this coma-like state for more than 60 hours and is constantly monitored by a crew of native Iboga specialists. The visionary experience ends with the novice gaining consciousness and a series of complex rites to help the participant regain the normal functions of his body and reintegrate into the everyday world. Dr. Samorini explained that although the Buiti have adopted the ritual use of Iboga in their religious practices, the entire religious complex is a more recent syncretic religion which embraces Christianity. The traditional use of Iboga originates with members of the pygmy culture, and he plans to conduct research with them in the future.

Papers on other substances that induce modified states of consciousness included discussions of: *Kava and its use in Melanesia*, by Dr. Kirk Huffman from the Vanuatu Ethnological Museum in Melanesia; *Cannabis: the chemistry of its ecology and evolution*, by David Pate from the International Hemp Association in Amsterdam; *Salvia Divinorum*, discussed by Dale Pendell of Kuksu Herbarium in the U.S.; and *MDMA: an analysis of 3,4-Methylenedioxymethamphetamine from a psychopharmacologist's perspective*, by Geri Dharma Rose Defrese, M.S. from the College of Osteopathic Medicine of the Pacific in Pomona, California. Ms. Defrese's presentation discussed MDMA as a promising clinical tool for the uncovering of repressed memories secondary to abuse, for the treatment of amenable chemical dependency, and for the treatment of severe emotional and physical pain that coincide with debilitating physical diseases such as arthritis and cancer. She reviewed the chemical make up of MDMA and its pharmacological effects, stating that Dr. David Nichols considers MDMA to be in a class of drug which produces "a touch within (entactogenic)" effects. She cautioned that MDA analogues of MDMA, PCP (phencyclidine or "angel dust"), methamphetamine or mixtures of these with MDMA, often ingested at "raves" can be harmful, especially if the users do not realize the correct dosage of the drug or the precise dose of the capsule or tablet. She concluded by stressing the importance of the collaboration of scientists and physicians in creating human studies for the introduction of MDMA into psychiatric use.

Left to right: Jonathan Ott (seated,) Rob Montgomery, Jace Callaway, Bob Wallace and Gary Bravo, Charles Grob (standing) and Alex Bravo (Gary's father), Sasha Shulgin, and Jerry Patchen.

Shamanism Discussed

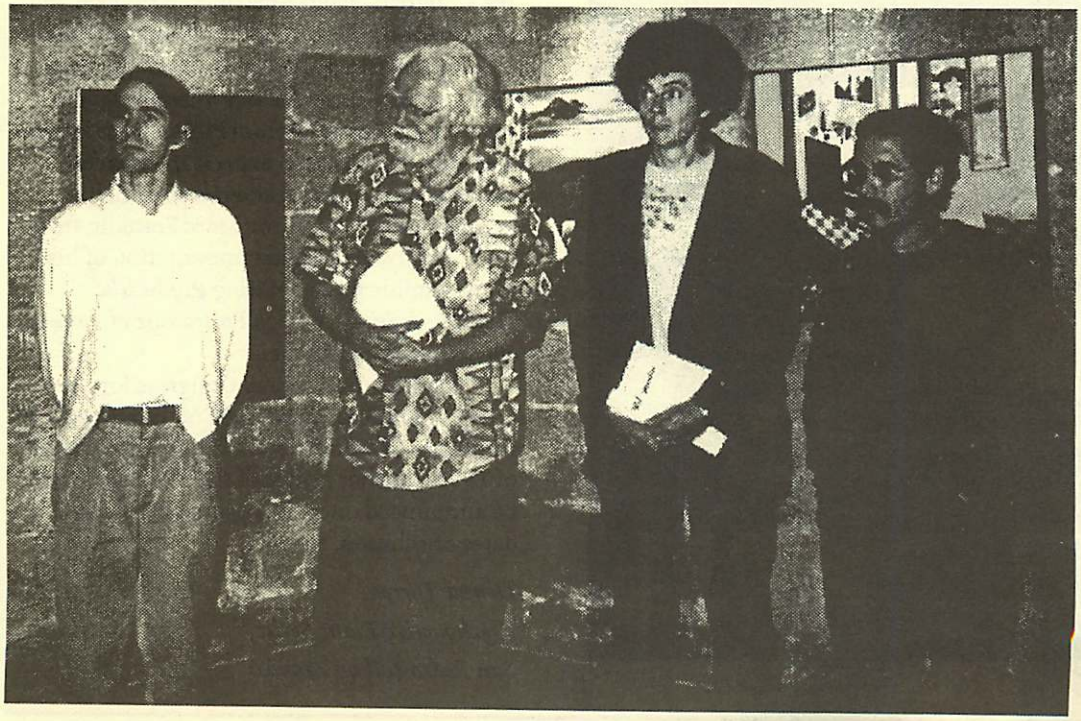
The theme of the keynote lecture by Dr. Jonathan Ott divided entheogenic plants into Old and New World species. This lay the foundation for speakers later on during the week to address the use of these plants in conjunction with shamanism. Dr. Christian Rätsch presented a paper and slide presentation of the history of psychedelics and Old European shamanism. New World use of entheogenic plants and shamanism was discussed by Dr. Constantino Manuel Torres from Florida International University in Miami, Dr. Bonnie Glass-Coffin from Utah State University, and Dr. Stacy Schaefer at the University of Texas-Pan American. Dr. Torres presented a paper on his most recent research in the archeological zone of San Pedro de Atacama in northern Chile, which focused on the symbolism of cameloids, particularly llamas, and their significance to snuff tablets in which they are inconographically depicted. These snuff tablets, which have been found

with numerous San Pedro de Atacaman mummies dating to approximately 600 to 780 A.D., appear to have been associated with shamanism and shamanic powers. A chemical analysis of the powdery remains on the tablets shows the presence of dimethyltryptamine, 5-methoxydimethyltryptamine, and 5-hidroxy-dimethyltryptamine (bufotenine). The traces of bufotenine in the samples suggest that they came from the plant species *Anadenanthera.*

Dr. Bonnie Glass-Coffin presented an ethnographic study of female shamans in Peru who utilize the hallucinogenic San Pedro *(Trichocereus pachanoi)* cactus. Much is known about male shamans in Peru who use San Pedro in their curing ceremonies, but relatively little is known about the female healers. Dr. Glass-Coffin, who has attended more than 80 healing ceremonies where San Pedro is an essential ingredient to the ritual, explained that women healers emphasized that San Pedro is essential for their entry into and manipulation of modified states of consciousness and this was a key component of their healing abilities. The female shamans with whom she worked were described, followed by a discussion of the way each woman constructed her *mesa* (altar) and officiated over healing ceremonies.

One of the other few papers which discussed women's roles in shamanism and the use of entheogenic plants was presented by Dr. Stacy Schaefer, who works among the Huichol Indians of Mexico. The focus of her paper: *Huichol Women, Pregnancy and Peyote*, examined the biochemical aspects of peyote consumption during pregnancy, as well as the cultural beliefs and traditions Huichols have regarding this activity. Very little research has been conducted in this field of inquiry. The only scientific articles she was able to locate were published in the 60's and early 70's, involving laboratory tests where pregnant mice, hamsters, and monkeys were injected with mild to extremely large doses of mescaline, which is also the active hallucinogenic ingredient in peyote *(Lophophora williamsii)*. Afterwards, the animals were sacrificed and examined. Dr. Schaefer argued that this kind of research was not representative of peyote consumption among pregnant humans. She discussed the beliefs and personal experiences with which Huichol women provided her. The women consume peyote at various stages of their pregnancy, at anywhere from 3 months all the way to 9 months. Those women who are shamans or are training to be shamans must, like their male counterparts, consume large quantities of peyote, even when pregnant. Some women intentionally consume peyote to induce labor, which, according to Schaefer's consultants, quickened the delivery and made for relatively little pain or discomfort. In conclusion, she emphasized the need for further research that addresses women, children and the use of entheogenic plants.

Those women who are shamans or are training to be shamans must, like their male counterparts, consume large quantities of peyote, even when pregnant.

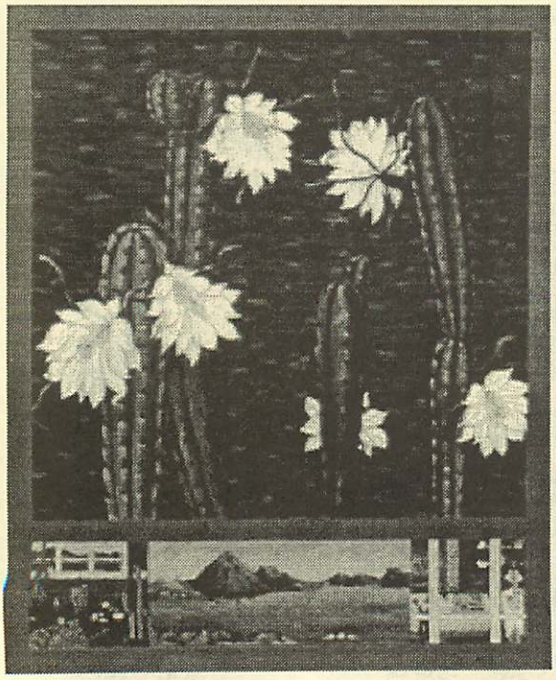


Jace Callaway, Sasha Shulgin, Jonathan Ott, and Manuel Torres stand before the conference art exhibit, Alteridades, Alternations.

The 3rd International Congress for the Study of Modified States of Consciousness will be held in San Francisco, California in the fall of 1996.

Entheogens and the law

The final sessions of the Congress were devoted to entheogens and the law. Jerry Patchen, a lawyer based in Houston who, along with his wife, Linda, has been involved with the Native American Church for over 20 years, represents members of the Church in the court of Law. Mr Patchen provided a historical overview of the use and jurisprudence of peyote in North America and how this has affected the Native American Church. In bringing the audience up to date, he was extremely pleased to announce that a few days earlier, President Clinton had signed into federal law H.R. 4230, which amends the American Indian Religious Freedom Act to provide for the traditional use of peyote by Indians for religious purposes and for other purposes. This amendment is an important victory for Native American Church members, because previous interpretation of the American Indian Religious Freedom Act did not specifically address the ritual use of peyote. The legal status of this was left up to the discretion of the states, some of which were not sympathetic to Native American peyote traditions. Now, the federal ruling regarding peyote supersedes any state laws to the contrary. Other papers which addressed legal policies and mind-altering substances were presented by: Dr. Miquel Prats from the Institut de Criminología in Spain on the evolution and penal regulation of drug trafficking; J. Tarinas Fabregas from Spain on the prohibition of entheogenic substances in history; and Dr. Prieto Rodriquez, affiliated with the Universidad Nacional de Educación a Distancia in Spain, who spoke on the evolution of the penal legislation of drugs and the unjustified criminalization of cannabis.



Donna Torres
Psychoactive Plant Series,
San Pedro (oil on canvas)

Art exhibition rounds out week

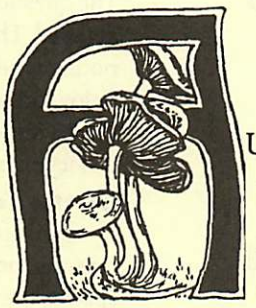
To round out the humanistic side of the conference, the art exhibition *Alteridades, Alternations* was open all week. Fourteen artists from 11 countries expressed through the visual arts the meaning and significance of entheogenic substances in their personal lives. The exhibition was coordinated by Dr. Luis Eduardo Luna from the Swedish School of Economics in Finland, who gave an introductory talk followed by an opening reception. Four artists represented were Donna Torres, Mark Modic, Pablo Amaringo, and Anita Hemmila. The large oil paintings of Donna Torres combine elements of growth and vegetation, desert and wilderness, technology, and domestic elements; depicting in utmost detail aspects of her life working with her husband, Manuel Torres, in the Chilean desert community of San Pedro de Atacama, and in Miami, Florida, where they reside 9 months out of the year. Mark Modic from Slovenia, who has published many books of his artwork, had one painting of a human figure with an archery bow directed towards the sky, above which was the chosen theme and logo for the official stationary and announcements about the Congress. Pablo Amaringo, a shaman and director of the Usko-Ayar Amazonian School of Painting established by Dr. Luna in Pucallpa, Peru, depicts his ayahuasca visions in paintings. Anita Hemmila from Finland, uses yarn and wire on canvas to express movement, dance and inspiration she has personally experienced. In addition, Marc Franklin from the U.S. provided a slide presentation of his photographic project: *Living Psychedelic Pioneers: A Study through Portraiture of Twentieth Century Consciousness.*

The III International Congress for the Study of Modified States of Consciousness will be held in San Francisco, California in the fall of 1996. Further notice of the conference will be announced once the organizers, place, and dates are chosen. •

CONFERENCE

tellluride **mushroom** conference, colorado – august 26-29, 1994

WILLIAM HURST



AUGUST 1994 saw the passing of the 14th Telluride Mushroom Conference/Festival. It was the scene of open forums, slide shows, political voice and pure science. The objective of this conference is to cultivate the knowledge of psychoactive fungi as well as all aspects of edible, poisonous and wild mushrooms. Although this objective is the primary motive for this annual event, at times the "mushroom conference" serves as an information trading post for any and all ideas on psychoactive themes. Indeed, this year's conference offered little new information on psychoactive mushrooms. Instead, we were treated to lectures on a variety of subjects ranging from psychedelic research, organic chemistry, history and religion, to gourmet mushroom preparation.

It is here where once a year we feel the *esprit de corps* of researchers embracing a field of study and philosophy sometimes regarded as criminal.

History

The first International Conference on Hallucinogenic Mushrooms was held in Washington in 1976, when a growing number of people, stimulated by the work of R. Gordon Wasson and others, organized to discuss hallucinogenic mushrooms in North America. That conference has long since disappeared, as have three other annual conferences addressing psychoactive fungi. The first Telluride conference was held in 1981 and has taken over as the only annual conference addressing issues concerning the taxonomy, pharmacology, ingestion and safety issues surrounding psychoactive fungi.

At 8,725 ft., nestled in an alpine valley approximately 323 miles southwest of Denver, Telluride (pop. 1,400) is known for its extreme skiing as well as its small-town family atmosphere. It is here where once a year we feel the *esprit de corps* of researchers embracing a field of study and philosophy sometimes regarded as criminal. For three days, a rustic theater on main street serves as a lecture hall, playing host to some of the icons in psychedelic history. There have been times when standing-room-only lectures overflowed the 213 seat provincial theater.

The notable "guest faculty" at this year's conference included Gary Lincoff, mycologist of the New York Botanical Gardens, author of the *Audubon Field Guide to North American Mushrooms;* Jonathan Ott, chemist, author of *Hallucinogenic Plants of North America* and *Pharmacotheon;* Andrew Weil, M.D., author of *The Natural Mind, Chocolate To Morphine,* and *The Marriage of the Sun And Moon;* and Paul Stamets, mycologist, author of *Psilocybe Mushrooms and their Allies* and *The Mushroom Cultivator.*

Presentation Highlights Not Limited To...

Dangerous Entheogens

In an address on the *Psilocybe* mushrooms of North America, Paul Stamets stated that the deficiency of reliable and accessible information, combined with the abundance of misinformation concerning psychoactive substances is extremely dangerous, frequently proving to be deadly. As with every Telluride conference, the issue of poisonous fungi was paramount. To paraphrase Stamets: Most of the scientific and legislative communities still hold the irresponsible position that risking an occasional death is better than educating the public about responsible entheogen use. It would

seem that, to many, the occasional experimentation traditionally associated with individual decision-making is far worse than death itself.

While admitting that the dangers of entheogenic mushrooms extend beyond the mere misidentification of a specimen, conference organizers are committed to minimizing the risks associated with entheogenic mycology. It is at conferences such as this where we learn that the deadly Galerina autumnalis is often encountered when looking for Psilocybe baeocystis and P. stuntzii. In fact Galerina autumnalis can grow so close to Psilocybe stuntzii that they appear clustered in the same flush. On Christmas day in 1981, a woman in Washington died after she ingested poisonous mushrooms mistakenly identified as psilocybian (belonging to the psilocybin-containing mushroom complex; not necessarily of the genus Psilocybe). The woman and her two companions had become sick the day after eating the mushrooms, but declined to report their condition fearing arrest. Having waited until the symptoms worsened, the three reluctantly went to the hospital, where one woman soon perished.

Perhaps the most dangerous aspect of entheogenic substances is the media's efforts to sensationalize their use. Entheogens are most dangerous when used with the recklessness to which most western consumers are accustomed. Andy Weil spoke of the increasing popularity of entheogenic toads and the extreme caution one must exercise when handling the unassuming and poisonous amphibians. Recently, I saw a popular cartoon series on MTV in which the protagonists "lick" toads, in search of a psychedelic experience. The toads that are capable of providing this type of experience are extremely toxic, and caustic to mucous membranes. If this practice were ever imitated, the individual would experience severe poisoning!

Psilocybe: No Dose, Low Dose or High Dose

The key forum two years ago was titled: "*Psilocybe* Mushrooms: No Dose, Low Dose or High Dose", and featured panelists Peter Furst, Emanuel Salzman and Andrew Weil. The results of a detailed *Psilocybe* questionnaire, distributed to conference attendees in 1993, are included here with the 1994 review, because few written reports exist relating dosage and other variables with eating *psilocybe* mushrooms.

The results of a detailed *Psilocybe* questionnaire, distributed to the 1993 conference attendees, are included here

In discussing the results of the questionnaire in 1993, Dr. Salzman offered three general categories of mushroom experimenters: those who do not partake, those who take only small doses, and those who take high doses, counting 5 grams of dried *Psilocybe cubensis* as a high dose. The questionnaire responses were then detailed. The survey segregated questions, noting whether the experience was with a high or low dose. Results were compiled from 67 of the 78 respondents who had ingested psilocybian mushrooms.

Of the low dosage users:

Most used the mushrooms for social reasons such as concerts, etc., not knowing the species they were using. Ninety-five percent experienced euphoria, 85% reported an increased visual acuity, 60% saw kaleidoscopic hallucinations, 75% experienced personal insight, 50% had creative as well as religious experiences, and 9% had telepathic experiences. Most users did not rate "Set and Setting" as a very important factor for their experiences.

Of the high dosage users:

Ninety percent were seeking magical or mystical experiences, 90% experienced euphoria, 60% reported increased visual acuity, 90% saw kaleidoscopic hallucinations, 90% experienced personal insight, 80% had religious experiences, and 28% had telepathic experiences. A significant 90% of this group felt that "set and the setting" were of great importance.

The more exotic experiences such as communication with aliens, divine radiance, etc. doubled with the high dosage users. A few individuals expressed triumphs over chemical addiction and some expressed life-changing experiences. Speaking from experience and observation, Dr. Weil commented that it is possibly more likely to have uncomfortable experiences with lower doses, as higher doses may propel you beyond your inimical impulses.

To participate in a similar survey please send a S.A.S.E to: P.O. Box 91416, Santa Barbara, CA 91390-1416 to receive a questionnaire.

Paradigms in Drug Research

Interest in entheogenic drug research is steadily growing and funding is being progressively solicited, with success, from the private sector. Most of the guest faculty had comments on the past failures of researchers to generate meaningful data in most aspects of entheogenic research.

The Heffter Technique

One of the faculty buzz phrases of this conference was "the Heffter technique," in reference to Dr. Arthur Heffter, a German pharmacologist. Heffter, on November 23, 1897, deftly identified the psychoactive component of peyote, *Lophophora williamsii*, by methodically ingesting extractions made from dried specimens. This was the planet's first "trip" with a purified chemical compound (mescaline). The discovery was most notable, in retrospect, because Heffter had expedited the process of identification through a unique series of ingestion assays.

Although Dr. Louis Lewin, Heffter's colleague and rival, had previously published the chemistry of the mescaline-containing cacti in 1888, he was unable to identify the active component. Lewin, who pursued the query with enthusiasm, was stymied because he waged an inconclusive regime of animal experiments. Entheogenic effects in animals are impossible to quantify due to the enduring pharmacological noise. Heffter's decision to pursue a regime of self-experimentation proved an unexpected and powerful tool, transcending the limitations of accepted scientific paradigms.

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A similar drama would unfold again in the late 1950's, as the CIA raced to identify the unknown active component in entheogenic *Psilocybe* species. The CIA had hoped to be the first to identify the drug and amass a secret arsenal. Not using the "Heffter technique," the CIA relied fruitlessly on animal experiments. Dr. Albert Hofmann in Basel, Switzerland, would later successfully use the Heffter technique, and in 1958 identified the active components psilocin and psilocybin, exposing to the world their identity.

The philosophy of science continues to be used to disqualify self-experimentation or "the Heffter technique" because it violates the principal of "absolute objectivity." This general dismissal of otherwise impeccable work, based on the rejection of self-experimentation, prompted Jonathan Ott to reiterate an old byword of R. Gordon Wasson's when he described a growing rift in the philosophy of science, stating "there are two groups [in the world of science]: those who are disqualified by their experience and those who are qualified by their ignorance."

Mushroom specimens from the group forays are brought back to camp to be identified.

Set and Setting

Another well-known problem with current scientific paradigms in the study of entheogens was addressed by Andy Weil, when he reminded us that the psychiatric community still denies the value of " Set and Setting." To quote from Weil's *The Natural Mind*, "... without them, [Set and Setting] we are unable to explain simply why the drug [entheogen] varies so unpredictably in its psychic effects from person to person and from time to time in the same person."

The Heffter Research Institute may be an encouraging sign of new paradigms in entheogen research. Among the goals of this recently formed institute in New Mexico are: "To develop knowledge regarding, and standards of practice for, the appropriate and safe use of psychedelic agents in a medical context." The institute was founded to promote research on psychedelic drugs and to "counter the social and medical superstition that has held psychedelic drug research in limbo for over thirty years." Contact the non-profit institute at (505)-820-6557.

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Eleusinian Mysteries

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celebrated

annual entheogenic

initiation into the

sacred mysteries

The Pharmacratic Inquisition

In a lecture entitled "Psilocybe Mushrooms: Ancient and Modern Use", Jonathan Ott gave an impassioned address on what he described as the Christian crusade to eliminate entheogenic religious sacraments. This "pharmacratic inquisition" began in 396 A.D. with the Christian destruction of the Eleusinian sanctuary and the disappearance of the Greek rites of passage known as the Eleusinian Mysteries. Documented by Wasson et al. in The Road to Eleusis: Unveiling the Secret of the Mysteries (1978), the Eleusinian Mysteries were a celebrated annual entheogenic initiation into the sacred mysteries of Eleusis at a temple near Athens. The rite was performed from the time of the Rig Veda (circa 1500 B.C.) to the end of the fourth century. In his autobiography, Albert Hofmann states, "The cultural-historical meaning of the Eleusinian Mysteries, their influence on European intellectual history, can scarcely be overestimated. Here suffering mankind found a cure for its rational, objective, cleft intellect, in a mystical totality experience, that let it believe in immortality, in an ever-lasting existence." Among those initiated were Aristotle, Sophocles and Plato, as well as many Roman emperors.

The 14th annual Telluride mushroom parade begins.

Ott articulated a systematic Christian campaign to eliminate the use of shamanistic practices around the world, stamping out all "... midwives and herbalists..." Christianity, Ott believes, is encumbered by "faith in an absurd doctrine of transubstantiation," one in which individuals must have faith in imaginary sacraments. By eliminating indigenous people's access to entheogenic substances, the Christian establishment has eliminated "sacraments that obviate the necessity of faith itself." Thus, the real power of faith ultimately lies in the relinquishment of the individuals' personal convictions to the whims of terrestrial religious leaders. The Christian elite may then enjoy the luxuries of having exclusive rights to interpreting the relationship of the individual to the divine.

The Ubiquity of Entheogens in Our Environment

Most of the speakers at this year's conference seemed intent on conveying the fact that naturally occurring entheogens permeate the world with a ubiquity only dreamed of twenty years ago. As the literature accumulates, we are discovering a plethora of entheogens throughout North America, with an abundance that will eventually bewilder the authorities. To put it in Weil's words, "...Nature is showering us with psychoactive substances... there is no end to these substances..."

To put it in Weil's words, "...Nature is showering us with psychoactive substances..."

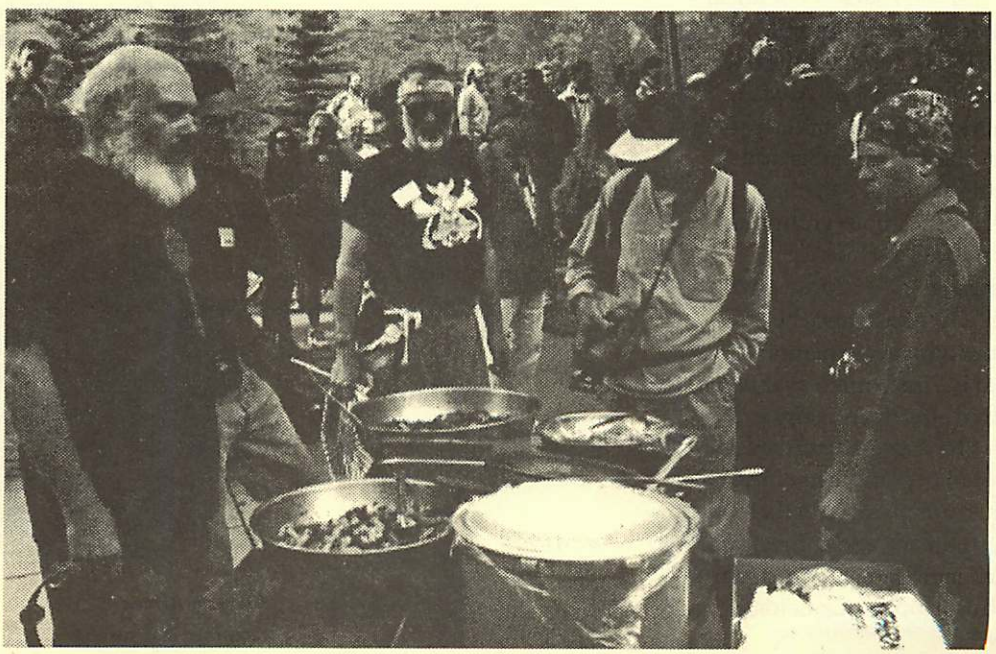
Although most widely distributed in the plant and fungi kingdom, we are finding a number of entheogenic substances appearing in the animal kingdom as well. For example, human beings produce endogenous amounts of DMT which may "be involved in naturally occurring 'psychedelic' states" (Strassman, 1994).

Animals

Recently, flocks of journalists, including the BBC, have journeyed to the Arizona desert to observe the North American desert toad, *Bufo alvarius*, in all its natural splendor. This naughty amphibian manufactures entheogen 5-methoxy-N,N-dimethyltryptamine in its skin glands (Erspamer (et al.) 1967; Daly and Witkop, 1971). Many, including Weil, have experimented with this substance by smoking the dried venom. Some report desirable effects while others speak of disturbing reactions. For an interesting discussion on toads, see Peter Furst's *Hallucinogens and Culture,* (1976).

Speculating on the legal implications of toad ranching, Weil noted that an enthusiastic Tucson district attorney has recently contacted him for information, in hopes that he may be able to prosecute an individual who was caught with several of the amphibians.

Author and mycophile, Andrew Weil (left) contemplates the wild mushroom pasta after the mushroom parade.



Fungi

Jonathan Ott touched on the fact that the shamanistic use of mushrooms has been discovered on every continent! The most recent count gave 95 species of psychoactive mushrooms and at least 54 more species listed as possibly psychoactive. It is curious to note that psilocybin is the most widely distributed fungal toxin known.

Plants

On the second day of the festival, Ott gave a graphic discourse paralleling his recent publication, *Ayahuasca Analogues: Pangæan Entheogens*. The book is the first to explore in detail the human pharmacology of ayahuasca. The aim of this work is to eliminate the decade-long phenomenon of "ayahuasca tourism" by providing a list of easily attainable ingredients throughout North America that will furnish thousands of possible combinations of extracts yielding ayahuasca-like potions. Ott calls these new possibilities *ayahuasca borealis*, or "northern ayahuasca," distinguishing them from the Amazonian ayahuasca, which he calls *ayahuasca australis*.

Ayahuasca is an ingenious amalgam of two plant infusions, usually administered orally. The typical mixture will combine harmine and related enzyme-inhibitors from one plant infusion, *Banisteriopsis caapi* (or a related species), with another possessing N,N-dimethyltryptamine (DMT), which is orally inactive without the aid of MAO-inhibitors such as harmine, harmaline and leptaflorine.

In his talk, Ott showed slides of botanical specimens while he detailed the natural history of ayahuasca. The immense range of indigenous use of this Pan-Amazonian entheogenic potion spans from the east in Brazil, to the west in coastal Colombia and Ecuador, to the north in coastal Panama. Seventy two different indigenous groups have been reported to have used ayahuasca.

Calling ayahuasca an "all-purpose pharmacological vehicle," Ott elucidated the purpose of the various admixture plants frequently employed in Amazonian ayahuasca to enhance the desired effects. As many as 97 species in 39 families have been described as additives in this "queen of plant medicines." Ott divides the admixture plants into three categories: therapeutic, stimulant, and entheogenic. He breaks the entheogenic category into four subcategories: nicotine, tropane alkaloids, scopoletine and DMT.

Those interested in attending this year's conference should contact Fungophile at: (303) 296-9359.

At the time of printing (1994), Ott claims only 25 data points exist on the chemistry of ayahuasca lianas; only 15 on ayahuasca leaf admixtures, and only 16 analyses of ayahuasca potions. Thus, extreme caution is advised to those considering psychonautic exploration. •

The author, a B.S. microbiologist/chemist, is currently seeking employment and/or volunteer opportunities in the field of entheogenic research. Send information to: W. Hurst, P.O. Box 91416, Santa Barbara, CA 93190-1416.

Those interested in attending this year's conference should contact Fungophile at: (303) 296-9359.

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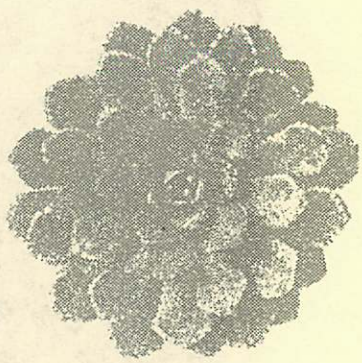


Saxifrage Aizoon.
Saxifrage leaf-rosette.

Lollapalooza 1994: reaching out to a younger generation

SYLVIA THYSSEN

THE Lollapalooza tour is an alternative music festival with many top bands which travels across the United States during the summer, drawing 20-40,000 mostly high school and college-age kids to each venue. Although music is the main attraction, a tent city is erected at each site. Fans can enjoy visiting a poet's stage, a computer technology exhibit, activists' tables, and a host of vendors. It may seem like a curious thing for MAPS to be involved with, but for good reason, I spent some time preparing for the festival and travelling with it on four dates. I joined up with the road crew of Cannabis Action Network (CAN) and travelled with its "Planting Seeds" project. Also sharing the booth was a representative of Families Against Mandatory Minimums (FAMM).

Objective

What was MAPS seeking by travelling with an alternative music festival? Mostly, we sought to educate young people. So many people have no idea that psychedelics have been used for therapeutic reasons, or they've seen the spiritual dimensions of recreational drugs, without seeing the bridge from there to healing.

Initial hopes

I hoped to give out information about psychedelic and marijuana research, and MAPS. I also hoped to sign up some new subscribers and ask for donations, which we wanted to at least cover our costs, and maybe more. Two booklets in a small format that could be given out for a two or three dollar donation had been prepared, entitled "Medical Marijuana Research Update" and "Psychedelic Drug Research Update". They contained edited versions of articles from past issues of the MAPS newsletter, geared towards a younger crowd's (anticipated) interests. I also brought along a few books which I hoped to sell, and planned to draw interest with a MAPS scrapbook and a colorful banner which was created by a volunteer, Carla Higdon.

A fortunate alliance

CAN's wildly popular relegalization platform drew the most people of any booth on the tour, (as reported by CNN and Nightline). A constant stream of people came up to the CAN table asking what they could sign, or whether there was "free stuff" to take along. CAN collected postcards signed by concert-goers to send to the White House. These postcards implored the President to make marijuana immediately available for medicinal uses, authorize and commission research to study maximizing the effectiveness of marijuana as medicine, and to stop arresting people who use cannabis as medicine. Most of the people who came to CAN's table signed a petition (for medicinal marijuana), and signed a postcard, maybe dropping a quarter in the donation box and grabbing an information flyer before taking off to the next table, or the next band's performance. Sometimes they lingered over the hemp products and bought something.

One benefit of participating in large arena concert events is the potential for media coverage. CAN received such attention on

CNN and Nightline. People around the world were told on these news programs that the most popular booth at Lollapalooza was for marijuana legalization.

A disappointing reality

Because MAPS shared a booth with CAN, we got the attention of their crowd. Unfortunately, interest in the MAPS information was less than impressive, and donations were few and far between. The reason the MAPS table languished may have been the state of the audience at the festival. The young crowd (high school and early college) had a very short attention span. After all, they were there primarily to enjoy the bands playing onstage.

MAPS information is not immediately accessible. It takes a few moments to explain or to draw interest. Once I started talking about research, eyes glazed over. I would have gotten much more attention if I had spoken about how to trip on mushrooms. Sometimes I tried to build a discussion on the marijuana agenda and explained that a water pipe/vaporizer study was about to begin. Other times I asked curious youngsters if they knew that psilocybin had been used in a study with prisoners in the 60's. Few felt like sticking around to listen.

Two successful models

I had the opportunity to observe two effective booths. The models for action were right there with me, FAMM and CAN. Very few people have an understanding of mandatory minimums, so the FAMM representatives primarily spoke to people and gave out information, asking for small donations and selling stickers, buttons, and information booklets as an aside. This effort to educate Lollapalooza fans was made possible by a grant especially for that purpose. CAN had an easily understandable, uncomplicated and powerful mission statement (to relegalize marijuana), and subsidized its road crew's expenses by selling hemp products and memberships. Promoting products goes hand in hand with CAN's campaign to educate about the many uses of the marijuana plant.

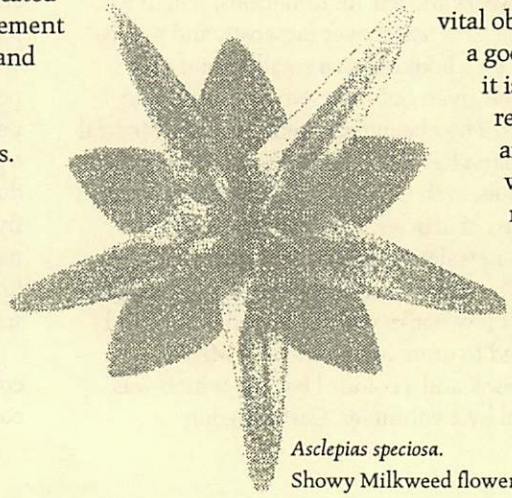
MAPS had neither a grant to cover expenses to distribute information nor products to sell, *so this was an experiment.*

Lessons Learned

The lessons about how to run a successful tabling and education campaign for young people are three-fold. First, you must have clear goals - is giving out information enough, or do you want membership donations? Second, a proper context is important. People are more likely to have an engaged attention if they are seeking out information, and less likely if they are in a "partying" situation. (The amount of times I was told that a donation couldn't be made because the person had to buy beer was stunning). For MAPS, a better context than Loolapalooza might be a tour of college campuses. Third, I think that young people feel more involved when they can sign petitions. The feeling of sharing in a community effort appeals to them. And when they can buy a product to further support an effort, they sometimes have more attention for what information you're telling them or giving them to read.

This brings us to an interesting point. The "disadvantage" for psychedelic studies and this kind of approach to fund-raising is that we don't have one useful plant around which to rally like the cannabis advocates do, or a simple message like relegalization. On the other hand, I wouldn't want to detract from the issue of research by having products cancel out information. This can be avoided, though. A very sharp pro hemp t-shirt exists, which features a list of uses for hemp. A similar concept could help educate people about the little known facts, common myths, and risks of psychedelics.

I believe that education is a vital objective for MAPS. Given a good opportunity to do so, it is possible to continue replacing fear with facts among the generation who has been told to say no but who can't quite believe it. The question remains – How should we try to do it in the future? •



Asclepias speciosa.
Showy Milkweed flower.

BOOK REVIEW

thanatos to eros by myron stolaroff

REVIEWED BY
A.T. SHULGIN &
A. SHULGIN

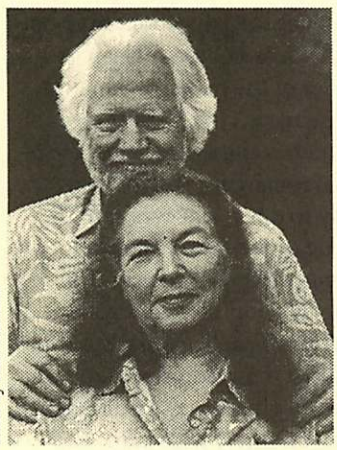


Photo by Marc Franklin

"Sasha" & Ann Shulgin

THE SEARCH for a relationship with the universal reality about us is one of the most important goals in human life. It has to be conducted by two entirely distinct processes which, while concurrent, are totally different. The passage through your lifetime of eighty to a hundred years (give or take a few decades) involves learning relationships — giving and taking — with those who share your journey on this planet. And, at the same time, you play a role at this moment of human history. Living your own personal life in the immediate present, you are also, to an often unknowable extent, a contributor to the structure of the world about you.

Myron Stolaroff has given us an autobiography, a tale of psychological and spiritual evolution that subtly brings together these two threads, these two roles; he is both the struggling seeker for wholeness in himself, and a discoverer of new paths to wholeness for others.

He is trying to, in the words of Carl Jung, "make the unconscious conscious"

THE story of THANATOS TO EROS takes us through two marriages, over the course of the author's growth from a successful engineer to an independent businessman, and eventually, we see his first steps and subsequent strides as a researcher and explorer of human consciousness. We move with him through the often intense and difficult changes that take place as he learns to use his chosen tools, the psychedelic drugs, beginning with LSD in 1956, and progressing to other powerful visionary plants and drugs over the subsequent years. He is trying to, in the words of Carl Jung, "make the unconscious conscious," as the way to attain realization of his ultimate self. We discover, along with him, that this is a hard goal to attain, and that it must be sought with complete inner integrity and fearless self-examination.

Spun into the narrative are reports of some extraordinary experiences, brought about by the use of appropriate psychedelic drugs. As Stolaroff learns himself, he gains in understanding of others who are suffering pain and self-rejection, and begins to guide friends who come to him in trouble, through carefully controlled and monitored psychedelic sessions. Needless to say, since the imposition of draconian laws in recent years, this kind of deep spiritual work, done with the aid of psychedelic materials, is no longer possible, and will remain forbidden until the public is better informed and directs its lawmakers to change such restrictions on these kinds of drugs.

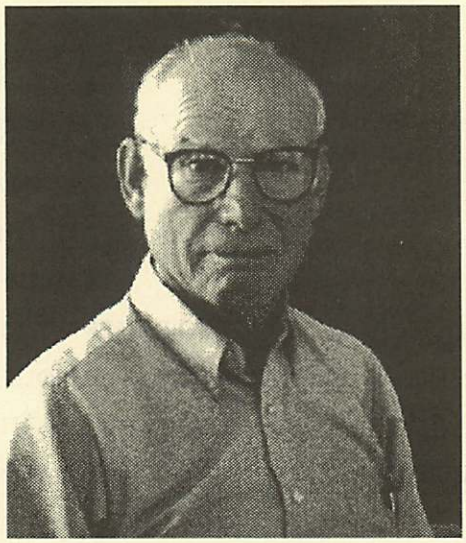
THANATOS TO EROS, in the meantime, will serve the general reader and would-be researcher by defining the guidelines for the proper and safe use of psychedelic drugs in

therapy and in spiritual growth. It gives us not only many beautifully presented glimpses of psychedelic experiences as they are undergone by family members and friends, but also allows us to follow the further development of many of these people in the months and years following their life-changing sessions.

Psychedelic experiences are not uniformly positive, as serious researchers know only too well. The psyche has its own agenda, and it includes exposure to places in the soul where sorrow and hopelessness reign supreme, where death stares implacably into the inner eyes, and only immense courage will bring the person through the dark tunnel and return him to light and livingness. Myron Stolaroff describes several of these difficult sessions, helping us understand that they can be of immense value in someone's spiritual progress, especially if they are shared with a guide who "knows the territory," and can help in the emotional working through of the fear and sadness that have come to the surface.

BUT THE TRUE treasure of this writing is the subtle message it offers the reader, as to the process of becoming a man of wisdom. All cultures through human history have respected the teacher, the shaman, the priest, and the curendero who has been available to his community, his extended family. Every society has its elders, its mavens, the wise, experienced and intuitive men and women who can offer answers to problems, counsel to the troubled, and medicine to the sick. They have lived long enough to have achieved certain levels of comprehension, to have seen connections between cause and effect, to have perceived the changes wrought by time. They have a form of knowing called wisdom.

However, it's a simple fact that the wise man, in his heart, doesn't know that he is a wise man; he is aware only of what he does not understand, cannot do, and does not yet know. He will often acknowledge having come to be more and more at peace with his immediate world, and perhaps having caught a glimpse of another world, an extended reality. His answers to anxious questions have become increasingly direct and to the point. He no longer wastes time — his own or others'— as he used to in the past, and his life is increasingly involved with a continuing process of integrating information, both consciously and subconsciously.



Myron Stolaroff

In Myron Stolaroff, we have a gentle, giving person who has become a helper, and guide and rescuer to many about him

In Myron Stolaroff, we have a gentle, giving person who has become a helper, and guide and rescuer to many about him, but who does not see himself as an elder of the tribe, a shaman, a wise man. This is the metaphor which is the second message of this remarkable book. Enjoy the day to day narratives, and the drug experiences (mostly joyful, some difficult) that contribute to the developing relationship between participants. But also follow the gradual evolution of an imaginative and intelligent person into a wise man who begins coming to peace with himself. It is a beautiful story.

This process of personal growth and understanding could just as well have involved Buddhist practices of meditation, or training in shamanic plant medicines, or any one of innumerable other methods of achieving wholeness. It so happens that, for this good man, psychedelic drugs have been the vehicle, and it is clear that they have served him well.

It was said by Lao Tse some 25 centuries ago: *"Understanding others is wisdom. Understanding yourself is enlightenment."* This book is a unique illustration of what was meant by that great sage, and will enrich the inner world of the reader. •

To order your copy of *Thanatos to Eros* from Thaneros Press @ $17.95 per copy, add $3.00 per copy S&H, (California residents add $1.39 sales tax) for each book: Thaneros Press, PO Box 773 (M), Lone Pine, CA 93545

Dear MAPS,

I have recognized the importance of psychedelics in my life since my first exposure to LSD on June 14th, 1962 at the International Foundation for Advance Studies in Menlo Park, California. I was required to produce a detailed history of my life and was examined by a medical doctor and by a psychiatrist for any problems. After these I had 10 weeks of Carbogen [a psychoactive mixture of gases] inhalation experiences before my day with 300 micrograms of LSD. I was a stubborn, know-it-all, college-educated, mid-westerner, ex-Catholic, that had this whole world figured out. What a shock to learn that there is more! Both my wife and I had profound experiences and with them came positive changes in our lives. We offered our services as "baby-sitters" — we stayed with and supported others during the evening and overnight the day of their sessions. We personally witnessed some dramatic changes in individuals — nearly all positive. We also opened our home to those who wished to meet and share their experiences.

We have to thank Myron Stolaroff for having the courage to forge ahead against some of society's most rigid pre-conceived beliefs and social fears and start a Foundation. I was an engineering manager at Ampex, the same company that Myron left to start the Foundation. Management, and especially the Personnel Manager at Ampex, were tracking those of us who experienced LSD at the Foundation. I'm unsure what they believed was happening to us but I knew the "big" boys were quite afraid to have an experience themselves. I now know that some with big egos protect themselves from change.

In November of 1965, I had the opportunity to participate in a problem solving session at the Foundation. It involved 27 individuals of various disciplines. The first day we completed one-half of a battery of the standard creativity tests — without LSD. The second day we ingested 100 micrograms of LSD, then completed the remaining portions of the tests. We also worked on a specific "technical" problem that we had brought with us. I was very pleased with my test results without LSD, as I felt I was a very creative, problem solving engineer. I was utterly amazed that with the use of 100 micrograms of LSD my horizons were broadened considerably. I've never forgotten that experience.

During my 35 year career I managed teams of engineers in high-tech development projects, mainly in the recording field — including the first instant replay equipment. I've been fascinated with the process of creativity and its output in engineering efforts as inventions. I have 15 or so inventions, but only in one can I clearly identify the creative process taking place. Other experiences in my life, including one or two with MDMA, have made me recognize that there is a "source" for really outstanding inventions, concepts, and solutions to all sorts of problems.

I intend to complete a book about creativity. A key premise in my book on creativity is based on the need to contact the "source" — to learn how to call on support from these higher powers of creativity when one has exhausted one's own creativity powers. My work speaks to this method of becoming creative. I also discuss different levels of creativity and believe we can learn to activate the highest level that is quite different than normal consciousness.

I believe under specific circumstances, set and setting, that MDMA is one of the few materials that allows an individual to focus on a particular "request." MDMA doesn't always carry me into realms of psychological problems and offers possibilities for exceptional creative results. Most others using psychedelics that I read about seem to focus on personal and/or interpersonal relationships and I believe there has been little investigation on using MDMA specifically for creative purposes. I don't mean to belittle the benefits of using material for these purposes I am speaking of a different emphasis.

I would like to know of others who have used MDMA specifically for creative purposes or are possibly considering getting a study approved.

The reason I target MDMA as vehicle is that I believe it is a substance that does not overwhelm the individual, like LSD or other materials, allowing one to direct or focus for specific results.

Walter J. Cheney
5443 Stag Mt. Rd. Weed, CA 96094
(916) 938-3163 Fax: 938-3850

We have to thank Myron Stolaroff for having the courage to forge ahead against some of society's most rigid pre-conceived beliefs and social fears

MDMA Psychotherapy: A Therapist's Perspective

(The following excerpt was written by a therapist who worked with MDMA in his practice, prior to its scheduling in 1985. In a six-year private study, he used MDMA as an adjunct to psychotherapy with eighty subjects.)

...Because the unconscious psyche is seldom accessible to our normal, everyday waking consciousness, we need to alter our consciousness to access this realm experientially. Therapists use dreams and altered state-inducing techniques such as free association, hypnosis, special breathing and body work to access the unconscious. None of these non-drug modalities can reach the unconscious as deeply, directly and profoundly as the use of drugs like MDMA in controlled therapeutic settings.

Deep emotional healing is an excruciatingly slow process, typically requiring many years of expensive weekly sessions that are well out of the financial reach of masses of suffering people. Since most people do not even begin serious therapy until mid-life, timeliness is invaluable. Drug-accelerated therapy offers the promise of genuine metamorphosis and healing in a fraction of the time and cost required by current mainstream therapies.

I routinely work with neurotics who have been in cognitive psychotherapy for up to twenty years and are still chronically depressed or anxious, stuck in patterns of dysfunctional relationships and unhealthy addictions. In a yearlong program of therapy incorporating four to twelve separate six-hour MDMA-assisted sessions, these people make significant life changes and quantum leaps in personal growth, healing and recovery.

The miracle of MDMA-assisted therapy begins as the drug melts defenses and "opens" the client's heart. Comfort with the therapist develops rapidly, and soon the subject is talking candidly about painful, embarrassing issues they may never have felt safe to disclose before. Layers of emotional armor continue to soften as the client floats into the soul-satisfying state of well-being that characterizes the MDMA "high". This relaxed, euphoric experience is imprinted and learned during the session, enabling the client to reproduce it later, without drugs. Once the heart "opening" occurs, it is common for clients who have been emotionally blocked to notice a permanent increase in the richness of their emotional response to everyday events and situations.

MDMA is not a "quick fix". Nor is it an appropriate medicine for everyone. However, with the guidance of a sensitive, experienced therapist, MDMA has proven to be a miraculous tool to enhance and accelerate the deepest alchemy of the psyche.

Sincerely,
Randy Coleman

The spiritual use of MDMA at a rave...

Dear MAPS,

Thanks for sending the latest issue of MAPS and congratulations on the breakthroughs in the research. "Perseverance furthers" - *I Ching*.

Well, I not only had a ball in England at the rave, but got an education and personal liberation. I had not been to a dance since I became a monk yet I used to love to dance and was part of the scene in the 60's.

What blew my mind was the fact that I'll be 70 this year (In late November - I will be in Bangkok on that day at a Buddhist conference). I was so *taken* by the MDMA and the music that I danced from 11 p.m. to 7 a.m. It had a very strong impact on me, since I could totally give myself to the rhythm and was in a sort of trance, which reminded me very much of the Native American dances which I witnessed in New Mexico. It also occurred to me that the DJ was a kind of shaman. Having gotten over the initial 'shock' of the rave, I have had time to muse over the whole experience. I've come to the conclusion that rave dancing could be a very important aspect of the spiritual path. It is not only fun and relaxing but is also creative, that is, liberating. The other night I went to a nightclub to dance with three visiting monks from Mt. Baldy!

As to the use of MDMA, of course, I'm all in favor IF it is done in the proper way under the right circumstances— whatever that is. I would have to give it much more thought and experimenting to have the answer to that.

The effect MDMA has on me is like a magnifying glass. I use it only once or twice a year (my supply is very limited) for meditation. I can focus more sharply and the content becomes more magnified and I see more with my mind's eye. The only thing I don't like is that I become rather intent with a strong feeling of urgency. I gave a talk about a year ago while under the influence of MDMA and that didn't go over too well, saying things that were beyond the listener's grasp.

Hope you are happy & well.
H. K.

Members of Congress Voice Support for Marijuana/AIDS Research

Through the efforts of concerned MAPS readers and dedicated activists, members of Congress are learning of Dr. Donald Abrams' proposed pilot study comparing smoked marijuana and the oral THC capsule in improving appetite and weight gain in patients suffering from the AIDS Wasting Syndrome. The National Institute on Drug Abuse (NIDA) has not yet decided if it will supply the marijuana necessary for the study, although, for the last several decades, NIDA has provided marijuana to every FDA-approved research project requesting it.

Dr. Abrams' research project has been supported by the Physicians Association for AIDS Care, the nation's oldest and largest association of physicians involved with AIDS research and treatment. The Federation of American Scientists has also issued a statement supporting his study.

It is the hope of all who follow this issue; patients, caregivers, family members, scientists, and friends alike; that permission will soon be granted to begin this research. Thanks go to those who have concentrated their efforts on urging its swift implementation.

Here are excerpts of some of the letters from members of Congress who support marijuana/AIDS research:

"I am writing to urge speedy approval of his [Dr. Abrams'] still pending request."

— U.S. Rep. Barney Frank (D–MA), to HHS Secretary Donna Shalala on November 1, 1994

"I agree with you that the federal government has no business usurping from doctors the authority to determine whether marijuana's medicinal properties can be beneficial to certain patients."

— U.S. Rep. Martin Hoke (R–OH), to a constituent on December 1, 1994

"Given that the Food and Drug Administration has already approved this project and knowing of the beneficial effects that marijuana has for many patients of deadly diseases, I actively urge that this project be carried out as was originally planned."

— U.S. Rep. Harry Johnston (D–FL), to Dr. Philip Lee on December 12, 1994

"Research could provide data the medical community needs to determine the effectiveness of smoked marijuana as a treatment for a variety of significant problems, including appetite enhancement for the AIDS wasting syndrome. ... I, therefore, encourage your agency to support the continuation of such research."

— U.S. Rep. Melvin Watt (D–NC), to Dr. Philip Lee on January 4, 1995

"I contacted the organizations involved [HHS and NIDA] regarding the study of medical uses of marijuana. ...I continue to believe that those who can benefit from the medical use of marijuana should be able to get the drug when prescribed."

— U.S. Rep. Gary Ackerman (D–NY), to a constituent on January 5, 1995

"I am writing to express my support for Dr. Donald Abrams' request to NIDA for the marijuana necessary to begin his AIDS research."

— U.S. Sen. Paul Simon (D–IL), to Dr. Alan Leshner, director of NIDA, on January 6, 1995

"I share your support for the medical use of government-supplied marijuana and understand marijuana's potential to ease the side effects of many diseases and illnesses, including AIDS."

— U.S. Sen. John Glenn (D–OH), to a constituent on January 6, 1995

Marijuana has harmful side-effects... Nonetheless, I am a strong supporter of medical research and an advocate of the National Institutes of Health. In addition, I trust that the National Institute on Drug Abuse will continue to approve government sponsored research projects according to the established criteria. Should you find that a proposed project is unjustly rejected, I would be interested to see the documentation.

— Rep. John Porter (R-IL) to a constituent on January 18, 1995

NIDA is the only legal source of marijuana for clinical research purposes. Given the institute's past support for FDA-approved research, I am at a loss to understand the present delay. Dr. Abrams' research proposal has been approved by the FDA, the University of California Institutional Review Board and the California Research Advisory Panel and has been endorsed by the Physicians Association for AIDS Care. Surely we can all agree by now that such decisions should be based on scientific merit and not held hostage to political considerations. Officials of NIDA have apparently expressed some concern that the institutes' supplies would not be sufficient to enable Dr. Abrams to proceed to more extensive trials should his results so warrant. Yet such a hypothetical concern is hardly a sufficient reason to refuse to supply the modest quantity which would allow research to go forward. The effective management of HIV-associated wasting syndrome could prolong the lives of many who are living with HIV/AIDS. I urge that this request be speedily approved.

—Gerry Studds (D-MA), to HHS Secretary Donna Shalala on January 23, 1995

I am writing to encourage you to remove administrative barriers to scientific research on the therapeutic effects of marijuana. Last year, The Public Health Service (PHS) refused to reopen the single patient investigational new drug program for therapeutic marijuana because of insufficient scientific evidence to establish safety and efficacy. Now researchers at the University of California, San Francisco are experiencing resistance from the PHS in beginning the necessary clinical trials to answer the scientific questions outlined in last year's decision. As you know, there is strong support for the medical use of marijuana among AIDS and cancer patients. If objective scientific studies are needed in order to assess the safety and efficacy of this drug, then the PHS should be of assistance in facilitating such research.

— U.S. Rep. Nancy Pelosi (D-CA), to Dr. Philip Lee on February 14, 1995

a speech by **václav havel**, president of the czech republic

EDITOR'S NOTE: Czech President Václav Havel's speech, transcribed below, deeply inspired me. The speech focuses on peoples' need for experiences that promote a fundamental sense of unity which transcends cultural differences. In the beginning of his talk, President Havel refers to a book by Dr. Stanislav Grof which describes the psychological theories Grof developed out of his twenty years of research into the psychotherapeutic use of LSD. President Havel's talk underscores for me the critical importance of developing legal access to psychedelic experiences, and helps place MAPS' work in the context of the global struggles for peace and democracy. (Special thanks to John McKenzie for sending MAPS this speech on disk.) — *R.D.*

VÁCLAV HAVEL

Speech delivered at Stanford University, Palo Alto, California September 29, 1994

THE HONOR I RECEIVE TODAY FROM your university, this important intellectual center, presents me with an opportunity to set aside the political cares of the day and attempt to make several observations on a very general theme — the theme of civilization as a context for contemporary politics.

Recently I read a remarkable book from the pen of a Czech-American psychotherapist. In it, the author describes in great detail and veracity methods that have enabled him, over the years, to recover from the human unconscious experiences which, until recently, very few were aware of at all: The prenatal experiences of the human embryo from conception until the moment of birth. The author then demonstrates that the wealth of these experiences corresponds remarkably with all the basic archetypes and archetypal visions or stories we find —in thousands of specific forms —in all ancient myths, legends and fairy tales, and above all in all religions. Cultures formed many thousands of years ago, cultures that developed their myths and ritual practices quite independently of one another, operate with the same basic archetypes, the prefigurations of which modern science is now discovering in the depths of the human unconscious as prenatal experiences.

Naturally, there is no claim that this is the only source of those archetypes or of all the tidings contained in the different religions. It is probably only an incidental, secondary source of inspiration, one that helps us fill in the broader picture. Still, I was unusually taken with this finding. It shows that there exist

deep and fundamental experiences shared by the entire human race, and that traces of such experiences can be found in all cultures, regardless of how distant or how different they are from one another.

This, of course, is only a single example, taken from my recent holiday reading. From many other modern studies — and even from comparisons every unprejudiced layman can make for himself —it follows that all human cultures and religions have infinitely more in common than that, infinitely more hidden somewhere deep in their sources and foundations. There are principles, experiences, and what we might call pre-scientific knowledge that are more essential and mysterious than our prenatal experiences. At the same time — somewhat paradoxically —it often happens that the leading discoveries of contemporary science themselves provide confirmation of this and so, by a circular route, bring human understanding back to something that all cultures have known intuitively since the dawn of time, something that until recently modern science has treated as no more than a set of illusions or mere metaphors.

It turns out, for example, that many other experiences, far more difficult to explain, slumber in our collective unconscious. In various forms, these experiences surface again and again in the cultural achievements of humanity and often in individual human experiences. In a way that we scarcely understand, they transcend what a person could know himself or inherit from his ancestors. It seems rather as if something like an antenna were picking up signals from a physically indeterminable transmitter that contains the experience of the entire human race.

Or another thing, it would appear that the whole history of the cosmos, and especially of life, is mysteriously recorded in the inner workings of all human beings. This history is projected into man's creations and is, again, something that joins us together far more than we think.

But something else seems to be the most essential of all: It cannot be an accident, or a mere concord of countless misperceptions if, after thousands of years, people of different epochs and cultures feel that they are somehow parts and partakers of the same integral Being, carrying within themselves a piece of the infinity of that Being, whose very relative aspects are not just categories of space and time, but of matter and consciousness as well.

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or, more precisely,

could unite —

all of humanity,

is the experience

of transcendence

I do not believe it is merely by chance or with no good reason that all cultures assume the existence of something that might be called the "Memory of Being," in which everything is constantly recorded, and that they assume the related existence of supra-personal authorities or principles that not only transcend man but to which he constantly relates, and which are the sole, final explanation of a phenomenon as particular as human responsibility. Nor do I believe that so many modern scientists who in their work have touched on matters difficult to understand, such as the mysteries of the origin and history of the cosmos, the secrets of matter, and of space-time, and the mystery of life, have taken leave of their senses when they speak of transcendence. On the contrary: It seems to me that such philosophical speculations are an inseparable part of their findings.

I KNOW that by saying all this here, I am running the risk that whole armies of scientists and journalists will label me a mystic who is abusing this renowned university forum to spread his obscure opinions. I will not hold it against them, because I am well aware that in the eyes of modern man thoughts of this nature inevitably carry with them a hint of obscureness, and many times this attitude brings complications into my own life: I know that to my own detriment I am too suspicious of many things. The risk of ridicule, however, is insufficient reason for me to remain silent about something I am constantly persuaded is true.

But to sum up: It seems to me that one of the most basic human experiences, one that is genuinely universal and unites — or, more precisely, could unite — all of humanity, is the experience of transcendence in the broadest sense of the word. In the United States, but elsewhere too, discussions are beginning to take place about the conflict of civilizations being the most probable future course of humanity.

I am not sure that "civilization" is the correct term to use in this context. What we usually mean by civilization is historically and geographically defined and distinguished by high degrees of autonomy. In the traditional sense of the word, civilizations tended to have very limited mutual contact and, if they did influence one another, it happened only very slowly and indirectly. Many civilizations had no idea that others existed. Today the situation is radically different. Practically the entire

world is now connected by thousands of political, economic and communication networks and bonds. We are all aware of one another, and we have thousands of common habits, technologies, modes of behavior, civilization forms and aims. It seems to me more appropriate, therefore, to understand the world of today as a single global civilization, and I would call the conflicts that loom in the future merely conflicts of individual cultures or spheres of civilization.

In any case, one of the countless sources of growing tension between these spheres clearly is the fact that they are being forced to live closer and closer together within a single civilization, and thus they are more and more clearly aware of their mutual differences or of their own particular "otherness." I myself have compared this to life in a prison cell, in which the inmates get on each other's nerves far more than if they saw each other only occasionally.

Let me give you an example. In Europe today, thanks to the recent liberation of a large number of its nations, the border between the world of Orthodox Christianity and the world with Catholic or Protestant traditions is suddenly becoming more obvious than before. When I travel around Greece, for instance, I clearly feel that I am surrounded by different historical, cultural and political traditions than those I know from my own country. Yet I would never dare to say that Greece belongs to a different civilization than the Czech Republic.

This modification in terminology, however, does not change the fact that the differences between individual cultures or spheres of civilization in the modern world are playing an ever-greater role and are even beginning to show up in international politics. This process was extraordinarily accelerated by the fall of communism and the end of the bipolar division of the world. The unnatural, bipolar system imposed upon the world, which concealed or directly suppressed historical and cultural differences, has collapsed. And these differences are now manifesting themselves with sudden and nearly explosive force, not just in the post-communist world but also in the West and many other areas of the globe. I fully agree with those who see in this reality the seeds of one of the most serious threats to humanity in the coming era.

The role of the intellectual is, among other things, to foresee like Cassandra various threats, horrors, and catastrophes. The role of the politician is to listen to all the warning voices, take stock of the dangers, and at the same time think intensively about ways to confront or avert them. I cannot imagine that a politician could simply live with the knowledge that everything will turn out badly and still go on being a politician. That is why I too often think about ways to avert the threat that has been called the "conflict of civilizations."

I too often think about ways to avert the threat that has been called the "conflict of civilizations."

AT FIRST GLANCE, the solution is so simple and so obvious that it appears banal: The only salvation of the world today, now that the two biggest and most monstrous totalitarian utopias humanity has ever known — Nazism and Communism — fortunately have collapsed, is the rapid dissemination of the basic values of the West, that is, the ideas of democracy, human rights, the civil society and the free market. The most dynamic civilization of the last millennium, evolved from a blending of classical, Christian and Jewish elements, has spread and has imprinted its character on the entire global civilization. It has created and developed these values and demonstrated that respect for them will guarantee the greatest degree of human freedom, justice, and prosperity. Yet even if this blueprint appears to Western man as the best and perhaps the only one possible, it has left much of the world unsatisfied. To hope in such a situation that democracy will be easily expanded and that this in itself will avert a conflict of cultures would be worse than foolish.

It may, for instance, be observed that many politicians or regimes espouse these ideas in words but do not apply them in practice. Or they give them an entirely different content than the West gives them. Very often we hear it said that these concepts are so closely bound to the Euro-American cultural tradition, that they are simply not transferable to other milieu, or that they are only a lofty-sounding disguise for the demoralizing and destructive spirit of the West. The main source of objections would seem to be what many cultural societies see as the inevitable product or by-product of these values: moral relativism, materialism, the denial of any kind of spirituality, a proud disdain for everything supra-personal, a profound crisis of authority and the resulting general decay, a frenzied consumerism, a lack of solidarity, the selfish cult of material success, the absence of faith in a higher order of things

or simply in eternity, an expansionist mentality that holds in contempt everything that in any way resists the dreary standardization and rationalism of technical civilization. At the same time, people in many parts of the world are of two minds. On the one hand they long for the prosperity they see in the West; on the other they reject the importation of Western values and life-styles as the work of the devil. And if some distant culture does adapt to contemporary technical civilization and prospers, it frequently happens in a way that gives Western democrats goose pimples. In short, democracy in its present Western form arouses skepticism and mistrust in many parts of the world.

I ADMIT that I too am not entirely satisfied with this recipe for saving the world, at least not in the form offered today. Not because it is bad, or because I would give preference to other values. It does not satisfy me because it is hopelessly half-baked. In fact, it is really only half a recipe. I am convinced that if this were not the case, it would not evoke the great mistrust that it does. The reason for this mistrust does not, I think, lie in some kind of fundamental opposition in most of the world to democracy as such and to the values it has made possible. It lies in something else: the limited ability of today's democratic world to step beyond its own shadow, or rather the limits of its own present spiritual and intellectual condition and direction, and thus its limited ability to address humanity in a genuinely universal way. As a consequence, democracy is seen less and less as an open system, that is best able to respond to people's basic needs, that is, as a set of possibilities that continually must be sought, redefined and brought into being. Instead, democracy is seen as something given, finished, and complete as is, something that can be exported like cars or television sets, something that the more enlightened purchase and the less enlightened do not.

In other words, it seems to me that the mistake lies not only in the backward receivers of exported democratic values, but in the present form or understanding of those values itself, in the climate of the civilization with which they are directly connected, or seem to be connected in the eyes of a large part of the world. And that means of course that the mistake also lies in the way those values are exported, which often betrays an attitude of superiority and contempt for all those who hesitate to automatically accept the offered goods. What then is that other, missing side of the democratic solution? What is lacking in the only meaningful way of dealing with future conflict of cultures? Wherein lies that forgotten dimension of democracy that could give it universal resonance? I am deeply convinced that it lies in what I have already tried to suggest — in that spiritual dimension that connects all cultures and in fact all humanity. If democracy is not only to survive but to expand successfully and resolve those conflicts of cultures, then, in my opinion, it must rediscover and renew its own transcendental origins. It must renew its respect for that non-material order which is not only above us but also in us and among us, and which is the only possible and reliable source of man's respect for himself, for others, for the order of nature, for the order of humanity, and thus for secular authority as well. The loss of this respect always leads to loss of respect for everything else — from the laws people have made for themselves, to the life of their neighbors and of our living planet. The relativization of all moral norms, the crisis of authority, reduction of life to the pursuit of immediate material gain without regard for its general consequences — the very things Western democracy is most criticized for does not originate in democracy but in that which modern man has lost: his transcendental anchor, and along with it the only genuine source of his responsibility and self-respect. It is because of this loss that democracy is losing much of its credibility.

If democracy is not only to survive but to expand successfully and resolve those conflicts of cultures, then, in my opinion, it must rediscover and renew its own transcendental origins.

The separation of executive, legislative and judicial powers, the universal right to vote, the rule of law, freedom of expression, the inviolability of private ownership and all the other aspects of democracy as a system that ought to be the least unjust and the least capable of violence — these are merely technical instruments that enable man to live in dignity, freedom, and responsibility. But in and of themselves, they cannot guarantee human dignity, freedom and responsibility. The source of these basic human potentials lies elsewhere: in man's relationship to that which transcends him. I think the fathers of American democracy knew this very well. Were I to compare democracy to life-giving radiation, I would say that while from the political point of view it is the only hope for humanity, it can only have a beneficial impact on us if it

resonates with our deepest inner nature. And if part of that nature is the experience of transcendence in the broadest sense of the word, that is, the respect of man for that which transcends him, without which he would not be and of which he is an integral part, then democracy must be imbued with the spirit of that respect if it is to have a chance of success.

IN OTHER WORDS, if democracy is to spread successfully throughout the world and if civic coexistence and peace are to spread with it, then it must happen as part of an endeavor to find a new and genuinely universal articulation of that global human experience, which even we, Western intellectuals, are once more beginning to recollect, one that connects us with the mythologies and religions of all cultures and opens for us a way to understand their values. It must expand simply as an environment in which we may all engage in a common quest for the general good.

That of course presupposes that first, our own democracies will once more become a place for quest and creation, for creative dialogue, for realizing the common will, and for responsibility, and that they will cease to be mere battlegrounds of particular interests. Planetary democracy does not yet exist, but our global civilization is already preparing a place for it: It is the very Earth we inhabit, linked with Heaven above us. Only in this setting can the mutuality and the communality of the human race be newly created, with reverence and gratitude for that which transcends each of us, and all of us together. The authority of a world democratic order simply cannot be built on anything else but the revitalized authority of the universe. The effective expansion of democracy therefore presupposes a critical self-examination, a process that will lead to its internalization. More than that, this seems to be the key to saving today's global civilization as a whole, not only from the danger of a conflict of cultures but from the many other dangers that threaten it. Obviously, this is easy to say but hard to bring about. Unlike many ideological utopians, fanatics and dogmatists, and a thousand more or less suspect prophets and messiahs who wander about this world as a sad symptom of its helplessness, I do not possess any special recipe to awaken the mind of man to his responsibility to the world and for the world.

The effective expansion of democracy therefore presupposes a critical self-examination

Two things, however, appear to me to be certain:

In the first place: This internalization of democracy today can scarcely take the form of some new doctrine, that is a collection of dogmas and rituals. This probably would have exactly the opposite effect: To all the mutually distrustful cultural currents there would only be added others, ones that would be very artificial because they would not have grown out of the nourishing soil of myth-making eras. If a renaissance of spirituality does occur, it will far more likely be multi-leveled and multi-cultural, with a new political ethos, spirit or style, and ultimately will give rise to a new civil behavior. And secondly: Given its fatal incorrigibility, humanity probably will have to go through many more Rwandas and Chernobyls before it understands how unbelievably shortsighted a human being can be who has forgotten that he is not God. •

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9. COMPLETE SET OF MAPS NEWSLETTER BACK ISSUES, 1988–1p., 1989–4p., 1990–10p., 1991–12p., 1991–4p., 1991–12p., 1992–16p., 1992–24p., 1992–36p., 1993–48p, 1993–56p; 1994–12p, 1994–60p, 1994–4p,.....$40.
10. 1995 ESALEN CONFERENCE AUDIO TAPE, *Presentations by Charlie Grob, Rick Strassman, Richard Yensen, Rick Doblin, Jerry Beck, Mark Kleiman, Kit Bonson, Louis Seiden*.....$10.

** NATIONAL MEDICAL MARIJUANA DAY COMMEMORATIVE FLYING DISCS available! One size: 11 inch, 175 gms.....$12.50.

ANNOUNCEMENTS

PlantWise is back!

PlantWise is an occasional newsletter published as an educational project of Botanical Dimensions, a non-profit organization dedicated to collecting living plants and surviving plant lore from cultures practicing folk medicine in the tropics worldwide. You may subscribe to receive 4 issues by sending $20 ($25 for foreign airmail) to: Botanical Dimensions, PO BOX 807, Occidental CA 95465. Current issue (#6) includes an update on the Hoasca Project. Make checks payable to Botanical Dimensions

The shamanic tradition of plant medicine is as fragile as the rainforest itself.

Smart Drug News

Smart Drug News is published 10 times annually by the Cognitive Enhancement Research Institute (CERI). Subscriptions are $44/year (US), $46/year (Canada) ore $55/year (overseas). Single issue: $6. Send checks (payable to CERI) to: CERI, PO BOX 4029, Menlo Park, CA 94026. Many questions sent to "CERI Q&A" are published and answered in the newsletter. You may also fax them to: CERI Q&A at 415-323-3864, or phone 415-321-CERI and leave a message. Smart Drug News also publishes updates on political decisions, sources, dosage, or research findings affecting the availability or status of dietary supplements.

The Entheogen Review: A Quarterly Ethnobotanical Update

TER is a clearinghouse for current data about the use of psychotropic plants - a community of subscribers seeking and sharing information on the cultivation, extraction and ritual usage of entheogens. Readers who act on any information found in this publication do so of their own free choice and volition and must accept full responsibility for such decisions. Information presented comes from many different sources and represents the opinions and beliefs of a highly diverse group of individuals. Year's subscription $20.00 ($25.00 outside USA). Back issues available. TER • P.O. BOX 778 • El Rito, NM 87530.

ROSETTA

Providing materials that heighten awareness of vanishing traditions, comtemporary culture, and scientific research, ROSETTA is a small mail order company which offers books, art and out of print research relating to ethnobotany and pharmacology. Folios of popular reprints and monographs treating single subjects, as well as a broad array of books and periodicals are available. Send $2 for extensive catalog to: ROSETTA, PO Box 4611, Dept. MP, Berkeley CA 94704-0611.

New book available on Panther Press:

The Essential Psychedelic Guide

by D.M. Turner • Provides clear, detailed descriptions on the effects, material, history, dosage levels, methods of administration, combinations, and safety issues of all major psychedelics, including DMT, Mescaline, Ketamine, and 2-CB. Other chapters give information on understanding set and setting, and novel theories on the philosophy behind these extraordinary dimensions. Write to Panther Press, 1032 Irving #514, San Francisco, CA 94122 • call 415-753-6481 for Visa-Mastercard orders only • $14.95 postage paid for U.S. orders, $16.95 for Canada orders, $18.95 for European orders. Credit processing $1.00 extra.

Holy Smoke

A seasonal magazine for people who use marijuana as a sacrament and medicine • Single copies $5 • 1-year Subscription ($20) Includes a free copy of *The Marijuana Mystery* • paid ads are appreciated • inquire for distributor prices. HOLY SMOKE is dedicated to the legalization of cannabis as a sacramental medicine and fiber resource, with a taxation program for the subsidy of health and earth recovery programs. Holy Smoke is printed on Tree-Free EcoPaper© 50% hemp, 50% straw • make check payable to Sweetlight Books • 16625 Heitman Road • Cottonwood, CA 96022 • phone: (800) 775-0225.

The Journal of Optimal Nutrition (JON)

JON is the quarterly, peer-reviewed journal of The Institute for the Study of Optimal Nutrition, Inc., a public-benefit, non-profit charitable corporation. Annual subscription rates for individuals and institutions are $75 for U.S. and $90 for all other countries (students rates are $50 and $60, respectively). JON publishes original reports, literature reviews, editorials, book reviews, abstracts, and correspondence. For information on submission, sponsorship, or subscription, please contact: Jennifer Mueller • Managing Editor • JON • 2552 Regis Dr. • Davis, CA 95616 • (916) 756-3311 • FAX 758-7444. The focus of JON is on supplements of micronutrients (vitamins, minerals, non-vitamin nutrients, etc.) and macronutrients (carbohydrates, lipids, proteins, etc.) in the prevention and treatment of disease, as well as in the maintenance of optimal health.

The Entheogen Law Reporter

Statement of Purpose: Since time immemorial, humankind has made use of entheogenic substances as powerful tools for achieving spiritual insight and understanding. In the twentieth century, however, these most powerful of religious and epistemological tools were declared illegal and their users decreed criminals. The Shaman has been outlawed. It is the purpose of this newsletter to provide the latest information and commentary on the intersection of entheogenic substances and the law. For information, send a SASE • sample issue - $5, subscription in the USA - $25, $30 for all other destinations. Richard Glen Boire, Esq., The Entheogen Law Reporter, PO BOX 73481, Davis, CA 95617-3481 Contact can also be made (and is preferred) via Internet e-mail to rgboire@aco.com. TELR is published seasonally. Please make check or money order payable to Richard Glen Boire.

PRAGUE GNOSIS:

a set of two one hour video tapes of Terence McKenna dialogueing with some of the foremost thinkers of the Global Consciousness movement today. Footage was shot on location in Prague, Czechoslovakia during the International Transpersonal Conference in June 1992. Terence engages in mind expanding conversations with Rupert Sheldrake, Angeles Arrien, Ram Dass, Alexander Shulgin, David Whyte, Ken Ring, and Jill Purce. Two tape set $35.00, includes shipping and handling. Make check or M.O. payable to Steven Marshank. Send to Prague Gnosis, 2221 14th St., Boulder, CO 80302 / phone: (303) 449-6999, fax (303) 449-5999 email: marsman@netcom.com

The 2nd International Congress of the ECSC

The 2nd International Congress of the European College for the Study of Consciousness (ECSC), "Worlds of Consciousness" will take place February 22-25, 1996 in Heidelberg, Germany. The first conference was reported in MAPS newsletter Vol. IV No.1. This event will include lectures, symposia, and workshops. For information about the ECSC, contact: M. Schlichting, Jüdenstrasse 33, D-37073 Göttingen, Germany. Phone: 49-551-484463.

THE MULTIDISCIPLINARY ASSOCIATION FOR PSYCHEDELIC STUDIES

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 950 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:

MAPS Membership Information

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 effect 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. In addition, General members will receive Dr. Grob's protocol *MDMA in modification of pain and distress in end-stage cancer patients.*

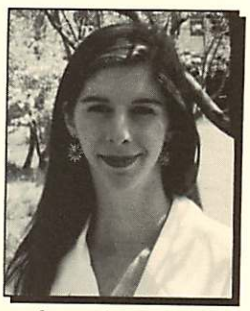
Supporting Members: $100.

(If outside U.S. add $15 postage.)
Supporting members will receive MAPS publications, plus a commemorative flying disc from National Medical Marijuana Day.

Patron: $250 or more.

Patrons will receive all the benefits sent to Supporting Members, plus their choice of any book which is offered on the facing page. Please notify us of your choice when renewing or subscribing. Patrons may also request research updates at any time on matters of personal interest and will receive advance information and discounts to MAPS events.

Rick Doblin, MAPS President



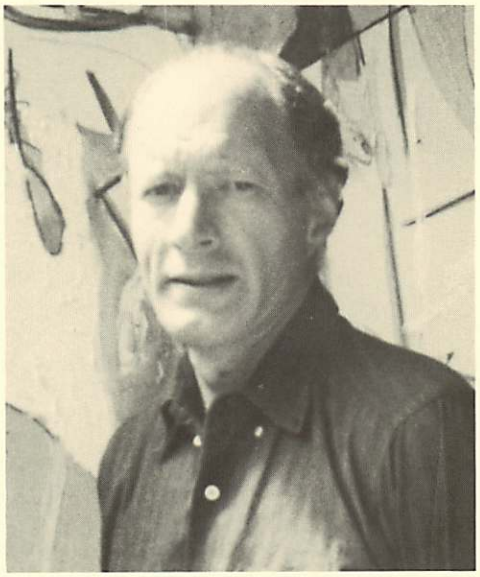
Sylvia Thyssen, Networks Coordinator

"We must free science and medicine from the grasp of politics and give all Americans access to the very latest and best medical treatments."

United States President William J. Clinton, January 22nd, 1993

"I think I might have been stupid in some respects, if it weren't for my psychedelic experiences."

Kary Mullis, Ph.D., MAPS member (and recipient of the 1993 Nobel Prize in Chemistry)



"The person's awakening is what is important.

That is the beginning of creation."

Eric Bass

This issue of the MAPS Bulletin is
dedicated to the memory of Eric Bass,
who died at the age of 73 on January 12, 1995.
Eric was an artist, a meditator, a student of the human spirit and
a philanthropist. Eric made a generous bequest to MAPS in his will.

Eric and Betty Bass, Krishnamurti, Alan Watts, and Mary Jane Watts