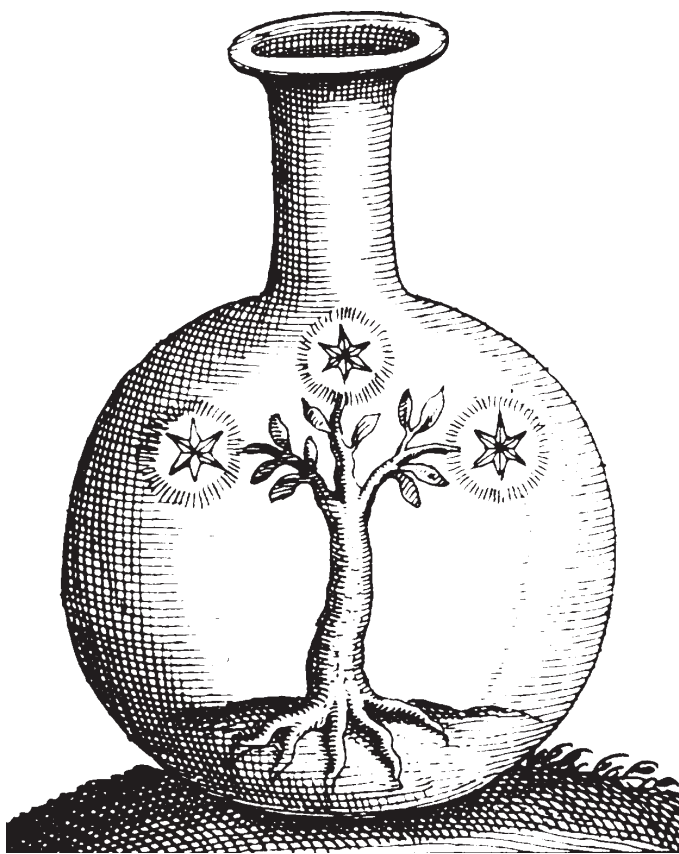


AYAHUASCA ANALOGUES

AND PLANT-BASED TRYPTAMINES

The Best of The Entheogen Review 1992-1999
Second Edition



Edited by Jim DeKorne, David Aardvark & K. Trout

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ANALOGUES
AND
PLANT-BASED TRYPTAMINES**

*The Best of
The Entheogen Review
1992–1999*

SECOND EDITION

ER MONOGRAPH SERIES, No. 1

Edited by
Jim DeKorne, David Aardvark & K. Trout

The Entheogen Review
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Dedicated to the memory of
TERENCE MCKENNA
November 16, 1946 — April 3, 2000

In editing this compilation, I repeatedly came across TERENCE'S name. And it occurred to me that it was largely Mr. MCKENNA'S writings that renewed my own interest in psychonautical exploration in the early '90s. I know that many others feel the same way. Among these is the former editor of *The Entheogen Review*, JIM DEKORNE, who has remarked that his "interest in these matters was rekindled after several years of dormancy solely because of his exposure to MCKENNA'S brilliance."

Through his intelligent, creative, and witty writings and talks, TERENCE threw a stone in the lake of our community's consciousness. The ripples have inspired many, and we're thankful.

DAVID AARDVARK

For Terence

Peculiar and proud.
"Say it!" said the mushrooms
Say it loud and true
Don't withhold the torrent of words
Don't withhold a shred of truth —
If it's good and beautiful
or even ugly and grotesque
Don't withhold the iridescently infinitized arabesque
or the humorously frightening alien burlesque
McKenna McKenna McKenical DMT elves
With pointy ears and electric shears
To cut your ego's grip.
Torrents of terror
when the fabric is rent
A tear rents
The media's mechanical trance
And words flow like lava
with pyroclastic psychedelocution.

Words point like fingers
waving like old friends
From the future.
Pointing — over there!
Right inside you!
To Logos, the Cosmic Loom
Weaving a paisley DNA Milky Way fabric
To re-weave the fabric the
Terror has torn.

He won't withhold a shred of love
Because it re-weaves the fabric
In every dimension. Ultimately. Simply.
Fractally. Creatively.
His Art is to form the instrument of
his mouth in such a shape
That echoes of awakenings outside of time
Arrive and take residence in our hearts
Never to leave us
But to encourage our own weird way —
Buy an artist's work, you feed them for a day
Inspire an artist's creativity
It's the soul's lifetime feast.
Thanks for the banquet!

With love,

ALEX GREY

INTRODUCTION TO THE FIRST EDITION

The Entheogen Review, a quarterly publication devoted to the shamanic use of plant-based entheogens, was first published in the fall of 1992. Since that time a great deal of information has been accumulated—enough to edit and reprint in a series of monographs, of which this is the first.

Ayahwasca is a brew of extremely potent psychoactive plants endemic to the South American rain forest. An “ayahwasca analogue” is a brew made of Temperate Zone plants that contain the same alkaloids found in the Amazonian ayahwasca species. This book is a compendium of contemporary folklore concerning the cultivation and shamanic use of several Temperate Zone plant species, which in proper combination make something resembling rain forest ayahwasca.

In addition to making ayahwasca, the alkaloids found in Temperate Zone tryptamine-containing plants may also be extracted. These extractions are usually smoked for the brief, but extremely intense, psychedelic experiences characteristic of both DMT and/or 5-MeO-DMT. Considerable lore has accumulated over the past four years relating to these matters, and continues to come in almost daily. This book is the only one the editor is aware of in which these up-to-date data are compiled under one cover.

This is an entirely new field of study, which so far seems not to have percolated down to the street-drug scene. This means that, for the moment at least, the plants aren't being abused and have not been scheduled by the DEA. If or when that ever happens is largely up to the sort of reader that this book is written for: you!

Considering the politically incorrect and sensitive nature of its subject matter, *The Entheogen Review* is deliberately edited not to appeal to popular drug-culture expectations. The cultivation and use of these plants is a shamanic discipline and the experiences they invoke are no more “recreational” than getting drunk on sacramental wine is. The data contained herein is slanted towards serious psychonauts, and while the editor has no final control over how this information will be used or abused, it is hoped that the reader will share his concern that we have a good thing going here and should take care that it stays that way.

JIM DEKORNE
August 18, 1996

INTRODUCTION TO THE SECOND EDITION

Why a second edition? In 1998 I took over production of *The Entheogen Review*. In our first year of publication, both the subscription base and the size of the journal doubled. Obviously, there is a growing interest in this field. In his introduction to the first edition, Mr. DEKORNE notes that information about ayahuasca analogues “continues to come in almost daily.” This is still true today, and I feel that enough new information has been unearthed that it is time to update the older material as well as include the newer material that has appeared since 1996.

Throughout this second edition I have made edits to the original text in a few places, for the sake of accuracy, stylistic continuity, and clarity. To allow for easier referencing, I’ve added both a Table of Contents and a Botanical Index, which were unfortunately missing from the first edition. I’ve added a book review section, as well as including quite a bit of information from past issues of *ER* that for some reason didn’t make it into the first edition of the book (most notably, everything that had been published on *Acacia* species, as well as a hodgepodge of reports on combinations of MAOI drugs and various other entheogens, such as LSD, ergine, and *Amanita muscaria*). Throughout this new edition, K. TROUT and myself have made numerous additional editorial remarks. All references have now been compiled into a single bibliography. The material presented in general categories has been arranged chronologically. Each entry’s title has been retained (noting the issue and year that the entry first appeared) for those who wish to reference the original. While some of the earlier writings may now seem a bit dated, they provide a unique perspective on how much has been learned in the area of ayahuasca analogue research.

There are other excellent compilations on the topic, such as JONATHAN OTT’S *Ayahuasca Analogues: Pangæan Entheogens*, K. TROUT’S *Ayahuasca and Ayahuasca Alkaloids*, RALPH METZNER’S *Ayahuasca: Hallucinogens, Consciousness, and the Spirit of Nature*, and LUIS EDUARDO LUNA and STEVEN F. WHITE’S recent *Ayahuasca Reader*, to name but a few. However, I feel that *The Entheogen Review*’s compilation is a bit different. It presents the “nuts and bolts” of growing, brewing, extracting, and experiencing ayahuasca analogues, by sharing first-hand stories from our world-wide family of intrepid psychonauts. What works, and what doesn’t. Numerous questions, and more than a few answers—straight from the “kitchen chemists” and “basement shaman” themselves. I hope that you enjoy our unique take on the topic of ayahuasca analogues.

DAVID AARDVARK
April 20, 2000

AYAHUASCA
AND ITS
ANALOGUES

AN INTRODUCTION TO AYAHUASCA

By JIM DEKORNE
Fall 1992

Ayahuasca, or *yagé*, is a ubiquitous Amazonian brew usually made up of at least two different plant species, *Banisteriopsis caapi* and *Psychotria viridis* (although it has been reported that some shaman use only the former plant, which is itself referred to as the *ayahuasca* vine). While each shaman probably has his own formula for the mixture (with no two exactly alike), it has been established that ayahuasca with truly visionary effects will contain both β -carboline and tryptamine alkaloids. The former—harmine and/or harmaline—come from the *B. caapi* vine, and the later—*N,N*-dimethyltryptamine (DMT)—comes from the leaves of the *P. viridis* bush.

It is interesting and significant to note that neither of these plants consumed alone are normally visionary when taken orally. (Harmine/harmaline have been reported to cause “hallucinations” in very high doses, but in less “heroic” quantities they are, at best a tranquilizer, and at worst an emetic.) DMT is not known to be active orally in any quantity by itself without the addition of a monoamine oxidase inhibitor (MAOI). Harmine and harmaline are potent short-term MAOI drugs, and this action allows the DMT-containing plants to produce what has been described as one of the most profound of all entheogenic experiences.

MAOI INHIBITION

Parenthetically, it must be noted that the concept of MAOI is complex and hardly obvious to everyday experience. Indeed, the variety of clinical effects produced by MAOI drugs is not fully understood by Western science even today. Yet in the Amazon, “primitive” cultures have been making use of the MAOI effect in their ayahuasca brews for hundreds of years, if not millennia. Some anthropologists might ask us to believe that these tribes (from

widely separated areas, speaking different languages, and many of them deadly enemies) all managed to discover the “ayahuasca effect” on their own by trial and error. Considering the sheer number of plant species growing in just one square mile of rain forest (not to even mention all of the possible combinations of plants), for each individual tribe to come up with the correct mixture “on its own by trial and error” beggars the imagination with the astronomical odds against its probability.

PLANT ALLIES

The Indians have no problem with the concept—they claim that the plants *themselves* taught them how to make the brew. Indeed, shamanic cultures worldwide share a near-universal belief that each plant species contains “spirits” that can be used as allies for shamanic work. Contrary to the Western assumption that such notions are naive or superstitious, *The Entheogen Review* operates from the hypothesis that there may be something to these beliefs. Whether plants actually manifest as sentient entities, or whether the plant’s alkaloids activate components of the human psyche that present themselves in this guise has yet to be determined. The point is that empirical use of such plants consistently evokes forces experienced by some users as sentient “others” (DEKORNE 1992).

THE ANALOGUE PLANTS

Ayahuasca is exotic stuff—few of us are able to travel to Amazonia to experience its effects, and the plants from which it is traditionally compounded are tropical species that do not thrive outside of the rain forest. TERENCE MCKENNA has perceived this problem and suggested its resolution:

Probably only a synthetic duplication of ayahuasca compounded with the correct percentages of DMT and beta-carbolines will ever make the experience available outside the area where it is endemic (MCKENNA 1989).

By suggesting that a “synthetic duplication” might be necessary, MCKENNA missed an easier solution; that numerous plants worldwide contain the same active chemicals as the traditional ayahuasca plants. This is precisely the concept of an “ayahuasca analogue.” It is quite possible to find other, less tropical (hence easier to grow in northern latitudes) plants containing the same alkaloids as *Banisteriopsis caapi* and *Psychotria viridis*. Hence, the entheogenic experience provided by ayahuasca is available to almost anyone willing to grow the plants and compound the brew.

The β -carboline alkaloids, harmine/harmaline, are relatively easy to acquire. *Peganum harmala*, (commonly known as Syrian rue), is the plant from which harmine was first isolated, as well as being a source of harmaline and tetra-

hydroharmine. The total β -carboline content runs 0.3–7% by weight in the seeds of *P. harmala* (CHATTERJEE & GANGULY 1968; DEGYAREV *et al.* 1984; OTT 1993, citing KUTLU & AMAL 1967; AL-SHAMMA & ABDUL-GHANY 1977), actually making this a *better* source for these alkaloids than the traditional ayahuasca plant, *Banisteriopsis caapi*.

[*Peganum harmala*] grows in semi-arid conditions. It originated in Central Asia, and is held in high esteem throughout Asia Minor as a medicinal, aphrodisiac and dye plant... It now grows wild in Eurasia and has recently been spread to Texas, Nevada, New Mexico and Southern California. Dye quality seeds are available from several West Coast seed services for about \$50.00 per pound (GRACIE & ZARKOV 1986).

While GRACIE & ZARKOV may have been paying \$50.00 per pound back in the mid '80s, these seeds were available throughout the mid-to-late '90s for about \$12.00 to \$16.00 per pound (although some specialty botanical companies geared towards ayahuasca analogue enthusiasts certainly charged more than this).

*As far as β -carboline yields from *Peganum harmala* seeds go, it is interesting to note that while 0.9% harmine and 0.6% harmaline were extracted in one instance from ripe seeds, the same researchers found green unripe seeds to contain 4.3% harmine and 0.28% harmaline, plus much lower levels of the unwanted alkaloids that also occur in *P. harmala* (DEGYAREV *et al.* 1984). This suggests that it would be a better idea to harvest the seeds before they had matured. — DAVID AARDVARK & K. TROUT*

Peganum harmala was evidently introduced many years ago into the U.S. by an exotic plant enthusiast who lived near Deming, New Mexico. It escaped from cultivation and by 1938 was found growing wild near Pecos, Texas. Now it is said to be found all over the Southwest. Some of the literature leads one to believe that this plant has “taken over” (it is targeted for weed-eradication programs in some areas), but on a recent collecting trip through its adopted habitat, I found it to be rather difficult to find. One spot to look is on Interstate 10 between Fort Stockton and El Paso, Texas. In August of 1992 there were several *P. harmala* plants growing on the freeway median immediately East of exit number 159. I collected about a half-pint of seeds from only three plants—there are many more remaining. Apparently *P. harmala* dries up after setting seed, then puts out new shoots from the root. This is what these plants were doing at any rate.

CULTIVATION OF PEGANUM HARMALA

“Shamanic use” suggests that one raise one’s own mother plants for seed production. There is an incredible amount of subtle energy exchanged between the grower and the growing plants—this sounds mystical I know, but only someone who has done it can really understand what I’m trying to communicate. There is far more to this business than left-brain logic would

suggest. Unfortunately, I have found *Peganum harmala* to be more than a little tricky to grow from seed. Having finally raised a half-dozen plants past the early seedling stage, I would definitely recommend that one *not* start them in flats. The seeds are tiny, but it is worth the extra trouble to plant them individually in peat pots for later transfer to larger containers. Transplanting from flats stresses the seedlings enormously, and the amount of special care then required to nurse them back to health is avoided if one plants them individually.

EXTRACTION OF HARMALA ALKALOIDS

As of this writing (early September 1992), I have not yet extracted any alkaloids from *Peganum harmala* seeds, but it appears to be a very simple procedure:

The technique was a two-stage extraction. The first extraction was a boiling alcohol (we used vodka) and water infusion, followed by a second extraction using boiled distilled water. Each infusion was boiled for several hours. A "slow cooker" is ideal for this... For the [*Peganum harmala*], we first ground the seeds very fine [in a spice mill]... The second extract was a bright cloudy yellow, which may indicate harmine in solution. The plant material was strained and compressed after each extraction. The liquids from the two extractions were combined and dried using low heat on the slow cooker... The weight was about 20% of the original for the... [*P. harmala*]... A plain water infusion would also seem to be just as effective in removing the harmine and would result in less of the other plant components being extracted (GRACIE & ZARKOV 1986).

Recent data suggests that one gram of *Peganum harmala* seeds contains between 20 and 70 mg of the harmala alkaloids. A good place to start would be 2–3 grams of seeds, twice extracted with a minimal amount of water mixed with 30% lemon juice (or acetic acid or vinegar) to produce 60–210 mg of alkaloid (140 mg is considered the optimum amount necessary to allow the DMT-portion of the brew to be orally-active).

PLANTS CONTAINING DMT

While *Peganum harmala* is generally recognized as the best non rain forest source of harmala alkaloids, DMT sources seem to be less well researched. Although several species of North American plants are known to contain DMT, I have so far been unable to find any data concerning how to extract it and use it specifically as an ayahuasca admixture. At a conference on entheogens in 1992, I was unable to find *one* person out of forty attendees who had actually ingested any of the analogue plants in an ayahuasca brew. One of the many goals of *The Entheogen Review* is to elicit such information and make it available to subscribers.

Plants containing DMT are not hard to find, however. *Desmanthus illinoensis* (a weed legume common in the Midwest), *Arundo donax* (a bamboo-like plant apparently introduced from India, and found growing wild in many areas of the U.S.), and *Phalaris arundinacea* (a common grass species) have all been found to contain DMT in various concentrations. There are some indications that this alkaloid may actually be very common—all that is lacking is some sophisticated chemical analysis of likely plant varieties.

Indeed, a chapter in the 1997 book Tryptamines I Have Known And Loved: The Continuation, *by ANN SHULGIN and ALEXANDER T. SHULGIN, titled “DMT is Everywhere,” points out that DMT can be found in a huge number of plants and even animals. — DAVID AARDVARK*

The Leguminosae, for example, are an extremely large botanical family, which have yielded many DMT-containing plants. While on my recent collecting trip, I found what I assumed was a *Desmanthus* species growing alongside a Texas highway. They mow the road shoulders in Texas regularly, and most of the plants growing there get pretty severely pruned several times each summer. What I thought was *Desmanthus* was actually a very stunted mesquite bush—another legume species, which in terms of numbers may be the most common wild plant in the Lone Star State. The leaf configuration of *Desmanthus* and mesquite is very similar. Out of curiosity (once I'd realized my mistake), I looked up mesquite in MICHAEL MOORE's *Medicinal Plants of the Desert and Canyon West*, and was amazed to find that at least some species of this plant contain 5-hydroxytryptamine (serotonin) and tryptamine in their leaves, pods, and bark. I'm no chemist, but those sound like alkaloids not too far removed molecularly from *N,N*-dimethyltryptamine (DMT). What I'm suggesting is that there may be DMT-containing plants growing all around us, and that the legumes might be a good place to start looking for them.

To date, I've yet to uncover a complete, tested ayahuasca analogue formula—which doesn't mean that one doesn't exist. (Living in the New Mexico boon-docks confines much of my research to obscure books and journals, and there are lots of data points that never get written-up.) *Peganum harmala* has been successfully combined with synthetic DMT (GRACIE & ZARKOV 1986), but that experiment tells us nothing about how to work with the DMT-containing plants themselves. Surely by now someone must have developed a reasonably easy extraction procedure for DMT-containing plants. If not, that is valuable information in itself. Is there anyone out there willing to share their knowledge of this subject?

JIM DEKORNE's question posed above appeared mid-1992, in the first issue of The Entheogen Review. It is my own belief that this question, and his publication, were largely responsible for initiating modern interest in underground ayahuasca analogue

exploration, as well as acting as a catalyst for lay-research into entheogens in general. This book is one result of that question. — DAVID AARDVARK

MAO INHIBITORS: READ THIS, IT MIGHT SAVE YOUR LIFE

Winter 1992

Ayahuasca contains harmala alkaloids—MAO inhibitors that allow the DMT in the mixture to become orally-active and produce its visionary effects. Although the subject of MAO inhibition is somewhat complex, no one who intends to experiment with ayahuasca or its analogues should be ignorant about the possible dangers inherent in such use. Here are two quotations for serious perusal:

A severe, atypical headache is usually the first sign, and may herald an impending crisis, which can end in a cerebrovascular accident and death. The hypertensive syndrome is usually characterized by headache, palpitations, flushing, nausea and vomiting, photophobia, and occasionally hyperpyrexia, arrhythmias, and pulmonary edema...Foods with high tyramine content are a major concern. This chemical is a fermentation by-product. Any food with aged protein should therefore be avoided...

Monoamine oxidase inhibitors and many pharmacological agents are synergistic, sometimes resulting in a hypertensive crisis. The agents with which the [MAOI drugs] may be synergistic include: amphetamine, dextroamphetamine, methamphetamine, ephedrine, procaine preparations (which usually contain norepinephrine), epinephrine, methyl-dopa, and phenylpropranolamine (over-the-counter cold preparations)...Acute toxicity can be very serious with the [MAOI drugs]. The signs of intoxication often do not appear until 11 or more hours after ingestion...Most characteristic of a severe overdose is paradoxical hypertension. The elevation of blood pressure can precipitate pulmonary edema, circulatory collapse, or intracranial hemorrhage.

The management of a serious overdose is generally symptomatic. Since hypertension may be acutely life-threatening, aggressive treatment with phentolamine...5.0 mg IV, is indicated. Phentolamine, 0.25–0.5 IM every 4–6 hr, may be used thereafter to control blood pressure. If this drug is not available, chlorpromazine is a good alternative. The initial dose is chlorpromazine 50 mg IM, with 25 mg IM doses used every 1–2 hr thereafter to control the hypertension. The patient's blood pressure should be monitored carefully, since marked hypotension may follow a hypertensive episode...

The pharmacological effects of [MAOI drugs] are long-lasting, since they permanently inactivate enzymes. The body must resynthesize the enzymes before normal metabolism of body amines resumes; this process takes 1–2 weeks (BASSUK & SCHOONOVER 1977).

NOTE: This last paragraph does not apply to the short-acting MAOI β -carboline harmala alkaloids, nor is it true of the pharmaceutical drug moclobemide. — DAVID AARDVARK

There is a very real danger in interfering with the protective function of MAO. The harmala alkaloids, like other MAO inhibitors, are non-specific. They prevent the metabolic inactivation of many other drugs and biogenic amines in addition to the neurotransmitters.

For example, MAO normally detoxifies barbiturates, alcohol and narcotic analgesics. MAO inhibitors prevent their inactivation can prolong and intensify their central depressant effects to a potentially lethal, life-threatening level.

MAO inhibitors also potentiate the action of many amphetamine-like compounds [*e.g.* asarone, mescaline, *etc.*]. They are synergistic with most amphetamines, ephedrine, norepinephrine, epinephrine, methyl dopa, and phenylpropanolamine, sometime precipitating a hypertensive crisis. Often associated with sweating, pallor, nausea, vomiting and fright, a hypertensive crisis is a high blood pressure headache which can lead to cranial hemorrhage.

A hypertensive crisis can also result from the ingestion of foodstuffs that contain amino acids normally metabolized by MAO. The well-known tyramine-cheese reaction illustrates this danger. Tyramine is formed as a fermentation by-product in many foods. It is a naturally occurring amine normally metabolized by MAO. In the presence of [a] MAO inhibitor, the resulting high levels of tyramine can produce dangerous increases in blood pressure.

Anyone experimenting with MAO inhibitors should be aware of the potential for hypertensive crisis. Avoid all foods or liquids with high amine content. Do not mix MAO inhibitors (*e.g.* the harmala alkaloids) with any of the following: cheese, especially aged cheese, beer, wine, pickled herrings, snails, chicken livers, yeast products, figs, raisins, pickles, sauerkraut, coffee, chocolate, soy sauce, cream or yogurt... — From a ROSETTA reprint

CONCERNING MAO INHIBITORS

Spring 1993

DAVID GOLDSTEIN and myself have been doing background work for serious researchers involved with entheogens for quite some time. This is through the PAPERS FROM THE HISTORY OF DRUGS (PHD) catalog and archival library. The PHD has over 12,000 articles going back to 1860, and continues to grow all the time. I thought your readers might enjoy DAVID'S recent response to one of our contacts regarding the minimum effective doses of MAO inhibitors

that make DMT or 5-MeO-DMT orally-active. The focus is on MAOI drugs found in plants. — THOMAS LYTTLE

From DAVID GOLDSTEIN'S Letter:

The question of the minimum effective dose of a MAOI such as harmaline that makes DMT or 5-MeO-DMT orally effective is complicated for several reasons. In papers dealing with the use of harmaline, doses are given through sometimes unspecified routes, and therefore have different pharmacodynamics.

UDENFRIEND, S. *et al.* (1958) established that harmaline is an effective MAOI in rats at 5–15 mg. This is probably i.p., but the specific route of administration was not mentioned.

FRETER *et al.* (1958) compared a series of reversible MAO inhibitors and established the harmala alkaloids as the most potent.

SJOERDSMA *et al.* (1958) likewise found harmaline to be an effective MAOI. There is further information on MAOI drugs in *Pharmacological Reviews*, Vol. 18(1), 1996.

MORTON, SZARA and AIKENS (1967) determined that the effective dose of harmine (*via i.p.*) in a mouse brain is 5 mg/kg.

An early publication of THE CHURCH OF THE TREE OF LIFE called *Barkleaf* (1972), stating that gut-absorption is poor for harmala alkaloids, recommends some of the highest doses for "hallucinogenic" purposes; harmine at 500–700 mg, harmaline at 250–375 mg, and harmalol at 125–190 mg.

Note that another source appears to have confirmed that harmaline is about twice as potent as harmine, listing the dose of harmaline as being "psychoactive above 1 mg/kg i.v. or 4 mg/kg oral" and the dose of harmine as being "psychoactive above 2 mg/kg i.v.; 8 mg/kg oral" (NARANJO, Ethnopharmacologic Search for Psychoactive Drugs, 1967 in OTT 1993). — DAVID AARDVARK

A later *Barkleaf* (1973) suggested that harmine be snorted at 25–50 mg, or that 50–75 mg be placed under the tongue or between the gums and lips but not swallowed.

NARANJO used 4 mg/kg orally (as noted above), and this may be the source for SHULGIN'S suggestion of an oral dose of 300–400 mg (1977).

STAFFORD (1992) suggested that harmine and harmaline have the same strength orally and are active at 200 mg.

BROWN and MALONE (1978), however, stated that the toxic oral dose of harmaline is 200 mg, citing GLASBY (1975).

In most (but not all) toxicological reviews, the psychoptic effects of visionary drugs are viewed as a form of toxicity. Hence, the reviewers consider the effective human dosage to be the toxic dose. (This unfortunate practice may lead people to assume that truly toxic compounds are less dangerous than indicated in the literature.) The TDLo (toxic dose low) should not be confused with the LDLo (lethal dose low); meaning the least amount reported to produce effects, and death, respectively. It is also worth noting that the 1978 paper by BROWN and MALONE is, to a large extent, a factually impoverished work that is heavy on hyperbole. — K. TROUT

GRINSPOON and BAKALAR (1979) stated that harmaline is active in the range of 300–400 mg orally.

ALBERT MOST (1985) stated that oral harmine is a CNS stimulant at doses of 25–50 mg, and is “hallucinogenic” at doses above 200 mg.

In most of the previous citations, no one bothered to mention that it is assumed that the harmala alkaloids are given as the HCl salt.

...GRACIE and ZARKOV’s personal preference was 7 grams of *Peganum harmala* seeds with 30 mg of DMT (1986).

MOST (1985) stated that 10 grams of *Peganum harmala* seeds contain 400 mg of total β -carbolines, which would put GRACIE and ZARKOV’s dose at 280 mg.

OTT (1993), citing KUTLU & AMAL 1967; AL-SHAMMA & ABDUL-GHANY 1977, says that the total β -carbolines are 2–7% by weight in the seeds of P. harmala. This would mean that 10 grams of seeds contains 200–700 mg of total β -carbolines. — DAVID AARDVARK

Previous to this there appears to be only three papers dealing with the use of β -carboline MAO inhibitors in connection with DMT. These are by SAI-HALÁSZ (1962, 1963), and LU *et al.* (1974).

...It appears that GRACIE and ZARKOV’s short paper is the only one that discusses the use of an oral MAOI with DMT. Of course, the literature on the use of *yagé* or ayahuasca is extensive. For instance, RIVIER and LINDGREN (1972), and MCKENNA, TOWERS, and ABBOTT (1984) describe the relative doses of harmine and DMT in two preparations of *yagé*.

As for bufotenine, BLASCHKO (1952, 1953), ERSPAMER (1955) and HIMWICH and COSTA (1960), established that bufotenine is metabolized by amine oxidase and that MAOI potentiated bufotenine’s effects. However, it is still to be determined whether bufotenine is truly visionary, and whether or not it can be used as a recreational drug, like its relatives.

There are contemporary experiments researching the question of MAO inhibition. For instance, a commonly prescribed hypotensive agent called Tranylcypromine (Parnate®) is an effective inhibitor of gut MAO, but it is only available by prescription. I don't think anyone has discovered this yet, but there is an existing and naturally-occurring MAOI available over-the-counter. This is ephedrine from *Ephedra*.

WHAT IS THE LETHAL DOSE FOR HARMALINE?

Spring 1993

I have a couple of questions regarding *Peganum harmala*. First, I recently received a booklet on *P. harmala* written by ALBERT MOST and sold by ROSETTA. Mr. MOST states that harmine/harmaline is an effective visionary drug at the 200–750 mg range. Would you consider this information to be erroneous, or perhaps an exaggerated claim for the effectiveness of harmine/harmaline on their own? What is the approximate lethal dose of this alkaloid? Secondly, there are several botanical companies offering *P. harmala* seeds, and most make a distinction between “viable” seeds and “dye-quality” seeds, with a significant price difference between the two. Do dye-quality seeds contain harmine/harmaline? — D.Z., NY

As you can see from the preceding letter, there seems to be some confusion about the difference between lethal and visionary doses of the harmala alkaloids. MOST says that 200 mg is “hallucinogenic.” BROWN says that amount is toxic. My understanding is that high doses of harmaline are psychoactive, but that unpleasant side-effects (nausea, vomiting) dominate the trip. I do not know the lethal dose. To me, the most interesting properties of harmine and harmaline are their seeming ability to potentiate visionary tryptamines in general, and in particular their ability to make DMT orally-active. It is my understanding that the only difference between viable and dye-quality seeds is that the latter have been rendered sterile. The alkaloid content should be similar. — JIM DEKORNE

Since the question above lumps harmine and harmaline in the same category when discussing dose amounts, it should be noted again that harmaline is about twice as potent as harmine. The LD50 of harmine in rats is 200 mg per kg subcutaneously (Merck Index Ninth Edition, entry #4471), and the LD50 of harmaline in rats is 120 mg per kg subcutaneously (from USDIN & EFRON 1979, citing the Merck Index Seventh Edition). It is pointed out in Ayahuasca and Ayahuasca Alkaloids by K. TROUT that:

[Harmine and harmaline] MAY be hallucinogenic if extremely high doses are used. Physical distress is pronounced at these levels. Much of the resolution difficulties concerning the question of whether [these alkaloids] are hallucinogenic [stems] from differences in [the] definition of what ‘hallucinogenic’ means. There is wide variation between the lines that are drawn

by different people, especially if comparing the 'experienced' user with the 'naive' professionals who study [these alkaloids] (TROUT 1998).

As DEKORNE notes, the most interesting aspects of these alkaloids is their MAOI action, which renders DMT orally-active. — DAVID AARDVARK

HARMALINE VS. PARNATE

Spring 1993

I am very interested in the ayahuasca analogues. My own experience with harmaline twenty years ago was horrible at a dosage of 400 mg. I've enclosed an underground publication that suggests that 1 to 2 mg of Parnate will work as well. — C.A., PA

See the following letters regarding the use of Parnate in lieu of harmala alkaloids. The harmala alkaloids are bummers in large doses, and their main value is as a short-term MAO inhibitor. At lower doses they don't seem to be so unpleasant. — JIM DEKORNE

ON THE USE OF SYNTHETIC MAO INHIBITORS

Spring 1993

As one involved with psychopharmacology at the post-doctoral level for 23 years, I strongly advise against the use of pharmaceutical MAO inhibitors (intended for the treatment of depression) to potentiate visionary drugs. Firstly, these agents, which include Marplan, Parnate, and Nardil, are far longer lasting than the β -carbolines of *Banisteriopsis caapi* or *Peganum harmala*. It requires 10–14 days for them to be eliminated from the body, as opposed to perhaps the same number of hours for the botanical β -carbolines.

Secondly, unless between 24 and 48 hours separate between the ingestion of a pharmaceutical MAO inhibitor and a visionary drug, the side-effects (especially headache) are often intolerable. How many people know their situations well enough to know with certainty that they will be able to take a mind-altering agent after such an interval? It just adds another uncontrolled variable to a situation already fraught with uncertainty.

This is the first and only report that I have heard wherein it is suggested that pharmaceutical MAO inhibitors will produce side-effects such as headache when taken within 1–2 days of a visionary drug. I am curious as to how many experiences this statement is based on. — DAVID AARDVARK

Finally, the use of these agents usually at least doubles the length of the trip.

To me, this is an adequate reason to avoid the practice. Those who take visionary drugs with impunity are usually not afraid of a drug-induced psychosis, but I have seen far more drug-induced psychoses from MAO inhibitors than from visionary drugs.

The information that a pharmaceutical MAO inhibitor may cause an ayahuasca trip to last twice as long as one that used a β -carboline/harmala alkaloid as the MAO inhibitor is an interesting comment. If this is a true statement, some psychonauts may see this elongation of the experience as being beneficial, rather than detrimental. — DAVID AARDVARK

While, from an ethical standpoint, I cannot endorse either the use of illegal visionary drugs or the combination of pharmaceuticals with the same, I am unaware of any adverse consequences from the addition of sergiline [*sic*] (Eldepril [*sic*]).

The correspondent means to refer to selegiline hydrochloride, which is sold under the names of Atapryl, Deprenyl, Eldepryl, and Jumex. — DAVID AARDVARK

Changing the focus a bit, I have found the combination of *Banisteriopsis caapi* leaf and raspberry leaf an effective treatment for PMS. The recipe is as follows:

Bring 4 or 5 *Banisteriopsis caapi* leaves to a rolling boil in a quart of water for a moment, then simmer 5–15 minutes (longer for more severe PMS). Take the water off the burner and add a tablespoon of raspberry leaf tea. Allow to cool to a tolerable temperature and drink the result in 1–2 ounce increments until relief is obtained. — A.B., TN

The Entheogen Review is dedicated to publishing accurate information about the cultivation, preparation, and use of psychoactive plants. I confess to being uncomfortable with data concerning synthetic drugs—not that I am opposed to them *per se*, but because one almost needs a degree in pharmacology to use them intelligently, and even the experts often disagree. The last thing I want on my conscience is the death of someone who carelessly ingests a substance based on something written in these pages. Fortunately, an individual well-versed in these matters has agreed to be a consultant to this newsletter. The following is a response to some of the issues raised in the letters above. — JIM DEKORNE

ANSWERS TO MAOI QUESTIONS

Spring 1993

100 mg harmaline HCl (dissolved/suspended) in water takes 15–30 minutes to inhibit gut MAO, before 100 mg oral DMT free-base (similarly suspended) is psychoactive, although not fully “psychedelic.” That is, there is

some closed-eye imagery, but effects are primarily somatic (increased energy) and affective (euphoria). These effects are based on pure synthetic compounds.

Note: 100 mg of DMT is a pretty stiff dose, and certainly should be quite active at this level! JONATHAN OTT states that this is 3 times the minimal visionary dose for him, and he claims to be more resistant than most to tryptamines. As well, OTT places the dose of free-base harmaline that allows oral-activation of DMT in most individuals at 60 mg, and has found for himself that as little as 40 mg will work for him (OTT 1999). (Although one should keep in mind that free-base harmaline is slightly more potent than the harmaline HCL used above.) Clearly different individuals have different responses to different doses, and prudence suggests starting low and working one's way up slowly.

— DAVID AARDVARK

I have heard that harmine/harmaline are more active if taken sublingually (*i.e.* under the tongue), thus avoiding extensive metabolism by the liver. In addition, acidifying the saliva by mixing it with vitamin C also enhances its effects.

SAI-HALÁSZ'S papers re: DMT and "β-carboline MAOI" are not using β-carboline MAO inhibitors—one of his papers (#18) used a serotonin antagonist, *i.e.* blocking serotonin receptors, which has nothing to do with MAO. His second paper (#19) used iproniazid, a synthetic MAOI without resemblance to the β-carbolines.

Tranylcypromine (Parnate) is a commercially available prescription MAOI used as an antidepressant, not an anti-hypertensive or hypotensive (*i.e.* for high blood pressure). Its half-life is about 8–12 hours. I know of no one who has used oral, smoked, or injected DMT with it. One would guess it would prolong the effects from DMT, and make DMT orally-active, but there is no data out there to my knowledge. I looked at a couple of standard pharmacology texts regarding ephedrine, and found no reference to its MAOI effects. It is an adrenaline-like stimulant though, and should be used carefully with anything that is cardio-stimulatory—most notably phenethylamines (MDA, MDMA, mescaline, 2C-B, DOM, DOB, DOI, *etc.*).

The comment by the psychopharmacologist that claimed it took "10–14 days to eliminate [MAOI] from the body" is not accurate. Pharmaceutical MAO inhibitors such as Parnate and Nardil are eliminated relatively quickly. However, they are what is known as "irreversible" MAO inhibitors. New MAO must be synthesized for normal MAO function to return. This process takes 10–14 days, not the elimination of the drugs themselves.

SAI-HALÁSZ'S #19 paper pretreated subjects with a MAOI for 4 days and then waited 2 days before administering intramuscular DMT—effects were lessened and became "stranger."

Selegiline (L-Deprenyl) is a MAO-B inhibitor. As such, it would not be expected to enhance efficacy of DMT, which is metabolized by MAO-A. Is "sergiline" a typo? There is no such drug I am familiar with.

Yes, "sergiline" was a spelling error. While Deprenyl is a MAO-B inhibitor at low doses such as 5–10 mg, at higher doses such as 60 mg it may be inhibiting both MAO-A and MAO-B, as the hypertensive "cheese reaction" to tyramine-containing foods has been observed to some degree (DEAN, MORGENTHAUER & FOWKES 1993). Anecdotal accounts have noted at least two daily users of low doses of Deprenyl reporting extended DMT voyages (both smoked and taken orally with another MAOI), as well as extended 2C-B and mescaline trips. (One of these users will occasionally supplement with an additional 20 mg dose of Deprenyl, just prior to consuming the entheogen; this user reported effects for 12- to 14-hours from 2C-B, 16-hours from mescaline, and 14-hours from ayahuasca!) It is hard to say exactly what is occurring here.

DMT is known to be oxidized by MAO-A (CALLAWAY & MCKENNA 1998). Some evidence suggests that DMT is also affected by MAO-B, and at higher concentrations the latter may actually be preferential (SUZUKI et al. 1981). Harmine and harmaline do affect MAO-B (with less affinity than for MAO-A), but they are readily displaced by tyrosine (etc.), so do not pose the same threat of adverse interactions encountered with many prescription MAO inhibitors. At lower concentrations, harmine primarily affects MAO-A, but one human pharmacokinetic study of ayahuasca ingestion indicated that the peak concentrations may be high enough to affect both MAO-A and MAO-B (CALLAWAY et al. 1999). — DAVID AARDVARK & K. TROUT

Lethal doses of harmine/harmaline? I don't know. When you feel sick on it, that's probably nearing too much. 200–300 mg should be safe in a healthy person, if it's not combined with any other drug/plant affected by or affecting its pharmacology. — DOCTOR KNOW

EPHEDRINE AS MAO INHIBITOR

Summer 1993

In the Spring 1993 issue there was some question about ephedrine being a MAO inhibitor—one source claimed that it is, another said he could find no reference to substantiate the claim. Hopefully the following communication clears up the issue:

I checked on ephedrine as a MAO inhibitor. The statement is:

Compounds such as cocaine and ephedrine inhibit MAO *in vitro*, but their familiar pharmacological properties have nothing to do with this (MEYERSON, McMURTREY & DAVIS 1976).

This citation came from a book called *The Biochemistry of Alkaloids*, 2nd edition, by TREVOR ROBINSON, p. 191. — C.A., PA

Actually, amphetamine, mescaline, psilocybin, DMT, etc., also all show some MAOI activity, but it is far too weak to be meaningful with regard to their deliberate use as a MAOI intended to allow DMT to become orally-active. There are still a lot of unresolved questions regarding the specificity of the different MAOI drugs for DMT. Variation occurs not just by species, but also by which organ is involved. — K. TROUT.

AYAHUASCA ANALOGUE EXPERIENCES

Summer 1993

Two strains of *Phalaris arundinacea*, “Yugoslavian fresh-cut” and “Turkey red,” were bioassayed as ayahuasca analogues. Each variety was harvested in late September 1992, after being cultivated as described in the Spring 1993 issue of *The Entheogen Review*. Foliage was clipped inches above ground level in the early morning (about 8:00 am), and alkaloids extracted by the hot water method. The β -carbolines used as a MAOI were extracted from *Peganum harmala* seeds. One trial (November 28, 1992), was made with *Desmanthus leptolobus* in place of the *Phalaris* extract.

All dosages were 50 mg total *Phalaris* alkaloids, and 125 mg of *Peganum harmala* alkaloids, except where noted. The *P. harmala* extracts were ingested first, with capsules pulled apart before swallowing. *Phalaris* alkaloids were taken fifteen minutes later, with the gummy extraction redissolved in just enough ethyl alcohol to put it into solution. This was then added to enough honey, hot water, and vitamin C to make a tea solution to maximize absorption in the gut.

EFFECTS — SINGLE TRIALS

October 15, 1992. “Turkey red” (30 mg) plus *Peganum harmala*. Very subtle and spacy, feeling of leaving the body. Some nausea after about two hours. Down in three and a half hours. I feel very healed. Not quite a full dose.

November 1, 1992. “Turkey red” (40 mg) plus *Peganum harmala*. More nausea, but spitting and lying down helped. Information about the plants comes, and the name “Turkey red.” Down in about four hours, awake for next six hours, want to talk.

November 28, 1992. *Desmanthus leptolobus* (45 mg) plus *Peganum harmala*. Bad heartburn at first, then very visionary; the images of bulls breaking their way into my skull and trying to communicate with me. Afterwards walking around and praying for the native people of Australia. Very cold, wanted cuddling. Lasted about four hours.

December 9, 1992. “Yugoslavian fresh-cut” plus *Peganum harmala*. Took it

when tired and distracted. Not visionary—went to sleep after an hour. Next day felt highly aware and strong in my body. This continued for several days.

GROUP SESSIONS

November 14, 1992. “Turkey red” plus *Peganum harmala*. Six people. Within twenty minutes “T” began very violent purging, which continued for two and a half hours. He was in a highly visionary state, but seemed agitated and fearful. I sat very strongly and after thirty minutes began to sing and chant. This continued on and off throughout the session. I did healing work with the rattle as needed. “L” kept to herself at first, but then began to interact with “T” and do healing work with him. At one point she was extracting from him and purging. She said later that after this she had a complex visionary sequence of exploring an otherworldly landscape. “A” was very active, singing with me part of the time and other times alone outside. We spent some time communing together with heads touching. At one point “A,” “L,” and I generated a tone-song that could have built into a very dynamic group visionary experience if the distress that “T” was going through had not been so distracting. We three remained strongly connected through visual contact. “J” stayed withdrawn, stating later that he did have some visionary states, but only when he could be alone and quiet. About six hours.

November 16, 1992. “Turkey red” plus *Peganum harmala*. “A” and myself. Took a normal dose, and then another full dose at about the second hour when it started to peak. Began at 9:00 am and lasted until midnight. Many experiences, both connected to “A” and by myself. Did a lot of praying and asking for help from the Grandfathers. Took a booster of *P. harmala* extract in the afternoon, which seemed effective.

December 15, 1992. “Turkey red” plus *Peganum harmala*. Six people. Began by sitting in the configuration shown to “L” in her dream. I sat back with her, with “A,” “N,” “M,” and “S” sitting in the four directions. After about thirty minutes “L” started to rock, chant, and then repeat “I remember, I remember.” She went into a healing crisis and began purging a lot. Later she said she journeyed back through her DNA and remembered encoded memories all the way back to the primal ocean. She was very sick the whole night—it reminded me of my first jungle ayahuasca. She was in a healing crisis for almost a whole week afterwards. “A” and I began shamanizing. “A” sang and chanted to project sounds into “L.” I remained seated and chanted to support the work that “A” was doing. At one point I did some sucking, extraction, and purging for “L,” and at times would try to challenge and connect with her, but she wanted no one to touch her. The grass rattle worked well. “M,” “S,” and “N” quietly stayed by themselves. About six hours.

INNER VS. OUTER FOCUS

The experience seems to have an inner visionary and informational focus when taken quietly alone in the dark. On the other hand, taking it in a group setting with people one knows and trusts facilitates a shamanic, healing experience while enhancing interpersonal bonds and connections. One individual often goes into a healing crisis, and many of the rest of the group then begin shamanic work. At some point this is resolved, and then everyone tends to enter deeper physical and mental space with each other. The resulting energetic connections seem to be a part of the healing process. The fine light vibrations of the experience often last almost a week. I feel better physically than after mushrooms—strengthened rather than that wiped-out feeling. — JOHNNY APPLESEED

DRUG INTERACTIONS I

Summer 1993

Individuals experimenting with ayahuasca analogues should be aware that harmine/harmaline extracts from *Peganum harmala* are powerful short-term MAOI inhibitors and deadly reactions are possible if they are ingested in the presence of certain other drugs. Particularly dangerous are commonly prescribed Selective Serotonin Re-uptake Inhibitor (SSRI) antidepressants. Do not combine a MAOI with Prozac, Paxil, Zoloft, Tofranil, etc. If you are taking any antidepressant medication, leave the ayahuasca analogues alone, or your voyage to other dimensions may be a one-way trip!

Paroxetine (pa rox' e teen; Paxil—SmithKline Beecham), a new selective serotonin re-uptake inhibitor (SSRI), is now available in the USA. Two other [SSRI drugs], fluoxetine (Prozac...) and sertraline (Zoloft...), were approved previously... All SSRI medications, including paroxetine, can cause a life-threatening reaction if they are given concurrently with a monoamine oxidase (MAO) inhibitor. After stopping paroxetine, patients should not take [a] MAO inhibitor for at least two weeks, and vice-versa (*The Medical Letter*, Vol. 35, No. 892, March 19, 1993).

Prozac (Fluoxetine Hydrochloride)...should not be used in combination with [a] MAOI, or within 14 days of discontinuing therapy with [a] MAOI. Since fluoxetine and its major metabolite have very long elimination half-lives, at least 5 weeks should be allowed after stopping Prozac before starting an MAOI... Similarly, at least 14 days should be allowed after stopping Zoloft before starting an MAOI (*Physicians' Desk Reference* 1993)

PEGANUM HARMALA EXTRACTION FORMULA

Summer 1993

First, pulverize a measured amount of *Peganum harmala* seeds to a fine powder. Assume that one safe dose of extract is derived from 3 grams of seeds. Therefore, weigh your raw material so that the extract may be apportioned from a 3:1 ratio—6 grams of seeds equals 2 doses of extract, 9 grams equals 3 doses, etc. I use a WEST BEND MINIFOOD CHOPPER, which quickly turns the dry seeds to powder (but almost any food processor will work). Place the seed powder into a crock-pot with a 30% acetic acid solution and simmer overnight with the lid on.

This should be a 3% acetic acid solution, not 30%. Standard vinegar contains 5% acetic acid. — DAVID AARDVARK

White distilled vinegar is an inexpensive source of acetic acid, and you can simplify the measurements by mixing one part vinegar with two parts water. After 12 hours of simmering at about 215 degrees, strain the extract through a paper coffee filter; save the liquid, and simmer the marc as before in fresh aqueous acid. The second extraction is often quite spectacular; a clear yellow liquid with a fluorescent green tinge to it: obviously potent stuff! Strain again, discard the marc, and evaporate the combined extracts in the crock-pot (lid off) down to a dry residue. Monitor the operation at the end so that it doesn't burn in the pot. Scrape off the extract with a razor blade—it should be a reddish-brown crystalline stuff. Weigh this essence, divide into the predetermined number of portions, and place in gelatine capsules. In the above dose-form, this extract is not in itself visionary, but it will certainly allow DMT to be active orally, and it will greatly potentiate psilocybian mushrooms (2 grams of *Psilocybe cubensis* come on like 5, etc.) — J.G., CA

DMT QUESTION

Fall 1993

We know that DMT is orally inactivated by gut MAO. We also know that this can be circumvented by the use of a MAO inhibitor. My question is: what system de-activates DMT in the brain when the route of ingestion is by smoking, and what strategies are available to prolong that experience? Do β -carbolines also inhibit the neural breakdown of smoked DMT? — JOHNNY APPLESEED

Anecdotal reports of extended smoked DMT experiences following the ingestion of harmala alkaloids certainly do exist (TURNER 1994; GRACIE & ZARKOV 1985). Perhaps inhibition of MAO in the brain causes the DMT to break down less quickly? — DAVID AARDVARK

DRUG INTERACTIONS 2

Winter 1993

I am taking a medication called Wellbutrin, and I wonder if it is safe for me to ingest ayahuasca or smoke DMT. — D.C., KS

DR. KNOW responds: Wellbutrin (bupropion) is an antidepressant, not chemically related to the tricyclics or MAO inhibitors. It is most closely related chemically to diethylpropion (Tenuate), an appetite suppressant and stimulant. Its structure is phenethylamine-like. It does not inhibit MAO function. It is a weak re-uptake inhibitor of serotonin and norepinephrine, and has dopamine re-uptake blockade effects, too. It has stimulant effects in lower animals: *i.e.*, increased locomotor activity, and stereotypic behavior (*i.e.*, repetitive, purposeless behavior, like one sees in high-dose amphetamine psychosis). It causes seizures at 10 times the recommended human dose in dogs and rodents. In animals, acute toxicity of bupropion is increased with MAO inhibitors. The main risk with this drug is that of seizures in humans at doses over 450 mg. It used to be prescribed at up to 600 mg but many seizures were reported. The use of bupropion with MAO inhibitors is contraindicated, because of the risk of severe hypertension and/or neuropsychiatric toxicity. Thus, one might assume that tryptamine/indole hallucinogens' effects might be lessened because of "downregulation" of serotonin sites with chronic treatment. One should be careful using things like psilocybin or DMT. That is, start off with low doses to assess drug/drug interactions. I would not take it with ayahuasca because of the MAO inhibiting effects of the β -carbolines in it. Also, I would avoid the phenethylamine compounds mescaline, DOI, 2C-B, DOB, MDMA, and similar drugs. And, probably, I would avoid smokable tryptamines anyway, because of their tendency to elevate blood pressure.

AYAHUASCA MATTERS

Winter 1993

I have been frustrated at the lack of a complete, tested ayahuasca analogue formula. I recently purchased 40 grams of *Psychotria viridis* leaves and I have some *Peganum harmala* seeds. I have yet to find a concise recipe so I can use them. I noted the *P. harmala* extraction procedure in Vol. 1 of *The Entheogen Review*, but I am in the dark as to how to extract the *P. viridis*. 40 grams of leaves is not very much, so I don't want to use them until I can be confident I've got a formula that will work. [Try the extraction formula on page 11, Vol. 1., No. 2 of *The Entheogen Review*. Also see the "Entities" article in Vol. 2, No. 1. — JIM DEKORNE] I recently attended a traditional ayahuasca ceremony. The experience was not very memorable. The brew seemed to be almost entirely

Banisteriopsis caapi and hardly any *P. viridis*. There was a little closed-eye imagery for the first hour and then nothing but a very heavy narcotic feeling for the remaining five hours. It was frustrating because I had high hopes for some interesting journeying and what I got was this woozy, lethargic stupor that I could not do anything with. My spirit felt trapped behind a wall of stupefaction. So now I know what the effect of a high-dose of β -carbolines is like, and I know it ain't worth doing alone without a DMT admixture. This shaman has been taking ayahuasca for 30 years. I wonder if he actually prefers it this way or if he leaves out most of the DMT-containing botanicals when he comes to the U.S. so as not to give us Westerners too intense an experience? All I know is I paid \$260.00 for two nights of trying to stay awake and glean what little inspiration I could out of the experience. — R.W., OR

Unfortunately, your story isn't unusual, even for those who have taken ayahuasca in the Amazon. Much depends upon the plants used, their condition, who mixes them, and how they are mixed. The word "ayahuasca" itself is very imprecise—in theory it can refer to the *Banisteriopsis caapi* plant alone, as well as to any number of mixtures of that plant with other botanicals, from *Brugmansias* ("tree *Daturas*") through numerous DMT-containing species, to even tobacco. Plants found in some mixtures have yet to be scientifically identified. In addition, there seem to be a wide range of individual responses to the brew, with some people getting off while others feel nothing. Also, be aware that since more and more "ayahuasca seminars" are being offered in the U.S. these days, and since the visionary constituent of the brew (DMT) is Schedule I, it shouldn't be surprising that some people suspect that half of the mixture may be missing; without any DMT in it, "ayahuasca" is legal, and the seminar promoters are not at risk. — JIM DEKORNE

PROPER AYAHUASCA MIXTURE

Spring 1994

I am eager to experiment with ayahuasca, and proceeding with caution. I understand that the extract from three grams of ground-up *Peganum harmala* seeds is adequate, but I do not know the proper dosage for DMT. Is it harmful if the ayahuasca contains too much DMT? — T.A., CO

The recommended ratios of pure chemical compounds are 1.5 mg harmine/harmaline per kg of body weight, and 0.5 mg DMT per kg of body weight. That's 102/34 for a 150 pound individual. When working with relatively impure plant extracts, it is difficult to make estimates, since everything depends upon the alkaloid content of the plant source. In the case of some *Phalaris* grasses, for example, a given plant may contain no DMT at all. A typical dose of *Peganum harmala* seed extract is one gram, as it takes about three grams of seed to produce this. *Phalaris* grass extraction dosages are in the 50–60 mg range; if the grass extract is potent, 60 mg should be a very adequate dose. Neither *P. harmala* nor DMT extracts are physically dangerous in reasonable doses, 'though they may make you nauseous. Psychologically, however, the higher-end doses can be extremely challenging. — JIM DEKORNE

LOOKING INTO THE ABYSS

Spring 1994

I have conducted ayahuasca experiments in the last few years; two with *Peganum harmala* and *Desmanthus illinoensis*, and one using *Banisteriopsis caapi* and *Psychotria viridis*. The latter was simply devastating. I advise readers using *P. viridis* leaves that no more than 20 dried grams is necessary, and that's pushing it; maybe 10 grams is a good starting dose. I used the same cooking technique described in the Spring 1993 *ER*. This is a powerful brew that should be approached with caution and respect. Was it worth the trouble? Damn right it was! To paraphrase NEITZCHE, "Remember, when you look long into the abyss, it looks into you!" I rather enjoyed being looked back at. — C.G., VA

MAO-A AND MAO-B

Spring 1994

There are two classes of MAO: MAO-A and MAO-B. Most MAO inhibitors are unselective and inhibit both types. MAO-A inhibitors are the ones that cause the problems with tyramine from fermented foods, *etc.* MAO-B inhibitors don't cause these dangerous food reactions—they slow down the metabolism of neurotransmitters. Deprenyl is a MAO-B inhibitor and therefore doesn't cause hypertensive reactions from eating certain foods. My question is, will Deprenyl or any MAO-B inhibitor, potentiate the effects of orally-ingested tryptamines? If so, this may be a safer MAO inhibitor that has positive non-entheogenic properties as well. Also, I read in several sources that Piracetam may increase the effects of psychotropics. Does anyone have any more information about this? — T.B., NE

Limited anecdotal reports indicate that Deprenyl does in fact extend the duration of effects when taken with both tryptamines and phenethylamines. Nevertheless, I suspect that moclobemide might be a safer choice as a pharmaceutical MAOI. There have also been limited anecdotal reports that suggest the occurrence of a sort of "potentiation" between mescaline-containing cacti, and pure mescaline sulfate, combined with Piracetam (TROUT 1998b; CASE 1999, in TROUT 1999). — DAVID AARDVARK

PEGANUM HARMALA EXTRACTION FORMULA

Summer 1994

Q: There is a technical error in the formula in the Winter 1992 issue of *The Entheogen Review* that deals with *Peganum harmala* extraction. It should specify a 3% acetic acid solution rather than a 30% solution, since this is what is used in the original scientific literature. A typographical error apparently

slipped in here. 30% acetic acid is extremely strong, and only available from a chemical supply house. Using distilled vinegar is okay, since consumer-grade distilled vinegar is formulated to a standard 5% acetic acid content. Dilute the vinegar with an equal volume of distilled water (not two volumes, as directed in the article), to obtain a 2.5% solution for the extraction. Also, the procedure is incomplete, since it does not give any indication as to how much acetic acid solution should be used for a given weight of seeds. — ANONYMOUS, CA

A: The formula was based on data given at an entheogenic plant conference in 1992, in which *Peganum harmala* extractions were made with 30% lemon juice—which is dilute citric acid—rather than pure acetic acid. (My error for not pointing out the difference.) Enough aqueous acid to cover the seed mash is adequate, and super-accurate measurements are unnecessary, since I obtained a potent extract using the original formula (which, from your data, I now realize must have technically only been a 1.66% solution). White vinegar smells far worse than the lemon juice, so the latter is an aesthetically preferable solvent. My extract works very well in one-gram doses, as stated in the original article. — J.G., CA

The procedure (from HASENFRATZ 1927) as stated in the Winter 1992 issue of ER noted: "The crushed seeds are covered with three times their weight of water containing 30 g. of acetic acid per liter of water..." (The original, in French, states "Les graines, ecrasees entre des cylindres, sont recouvertes de trois fois leur poids d'eau contenant 30 g. d'acide acetique par litre." A more literal translation would be, "The seeds, crushed between cylinders, are covered with three times their weight in water containing 30 g. of acetic acid per liter." However, the translation that appeared is certainly close enough!) This provides the correct amount of acid (30 g of glacial acetic acid in one liter is 3% (30 divided by 1000 = 0.03 = 3%). As well, this also does provide an indication of "how much acetic acid solution should be used for a given weight of seeds:" three times their weight in water. It is quite true though, that DEKORNE incorrectly referred to this as a "30% acetic acid solution" just prior to the publication of the quote from HASENFRATZ. DEKORNE also incorrectly stated in the Fall 1992 issue that "2 grams of seeds, double extracted... in 30% lemon juice (or acetic acid or vinegar) [will] produce about 140 mg of alkaloid—the optimum amount necessary to activate the DMT portion of the ayahuasca brew." In discussing this quote, we would be remiss not to note that 2 grams of seeds purchased as "esphand" did not produce enough MAO inhibition to allow for oral activation of DMT in one of us. It has been determined that 3 grams is a better dose (OTT 1993). Finally, the error that is being corrected above by J.G., CA appeared in his "Peganum harmala Extraction Formula" article from the Summer 1993 issue of ER. — DAVID AARDVARK & K. TROUT

PEGANUM HARMALA AS AN ANTIDEPRESSANT

Winter 1994

There have been several reports about extracting and using *Peganum harmala* seeds, but not a word about what I experienced. Three grams of seeds, crushed and swallowed in tomato juice, tasted very bitter but the bitterness passed and there wasn't much of a noticeable effect. Then I tried four level teaspoons (about 8–9 grams) the same way. How anyone could take this much without reporting the side-effects, I'll never know! The taste is very bitter, but with the higher amount the bitterness increased, lingering in my mouth, stomach and brain. Nothing I ate or drank could make this go away; water made me vomit. Weak and sick, yet unable to sleep, I went to bed, summoning all my strength not to continue vomiting. I could only wait it out until the next day. There were some mild psychedelic effects, but they were completely eclipsed by the sickness—the longest bad trip I've ever had. I suffer from depression and take antidepressants. Despite the bad effects from the above trip, I didn't need to take my medicine for the first time in eight years. MAO inhibitors are good antidepressants. Doctors don't like to prescribe strong MAO inhibitors because of potential adverse reactions with tyramine-containing foods. During the above experiment I tried caffeine tea and raisins and had no problem at all. If the medical community has overlooked a wonderful antidepressant in *P. harmala*, I will be trying to extract it, since it is legal. Can anyone tell me the procedure for buying this chemical? Chemical companies often refuse to sell to individuals for home use, but is it illegal to extract a legal drug in one's home? — B.J., FL

Peganum harmala's potential as an herbal antidepressant suggests intriguing research possibilities. It is usually utilized for its ability to orally activate tryptamines, and is not generally regarded as visionary by itself except in amounts large enough to make you sick. It is not illegal to possess, extract or ingest *P. harmala* at home. The alkaloids are easily extracted for ingestion in capsule form, thus avoiding the bitter taste. Here is a good formula:

1. Powder the seeds in a coffee-bean grinder. (This can be difficult, as the seeds are fairly hard; they may require repeated grindings.) Soak the powder in methanol for 24 hours. Assume three grams of seed equal one dose, so calculate original quantity with that ratio in mind (*e.g.*, nine grams of seed will yield three doses of final product, *etc.*).
2. Filter methanol from seed mash; evaporate methanol in shallow dish.
3. After complete evaporation, scrape up residue, and redissolve in aqueous acid (*e.g.*, lemon juice or vinegar in water to pH 5): add enough liquid to easily dissolve the extract. Simmer this in a crock-pot for 12 hours.
4. Cool liquid and pour into a container (a large mason jar is good). Add methylene chloride (about one ounce per quart). Gently swirl ten or more times to mix thor-

oughly; each time you stop agitation, the methylene chloride will settle to the bottom. Use a turkey baster (or separatory funnel) to draw off the solvent. This is discarded as it contains unwanted oils and fats.

5. Add a base to the liquid (lye, pure ammonia, even baking soda) to pH 9.
6. Add more methylene chloride (same ratio) and gently swirl to mix contents. Repeat this ten or more times over 24 hours: swirl gently to avoid creating emulsion bubbles.
7. Draw off solvent with turkey baster/separatory funnel and put in a clean dish. Evaporate thoroughly (methylene chloride is a carcinogen, so you want no residues left over). What remains are relatively pure harmala alkaloids.
8. Divide into predetermined number of doses and put in gelatine capsules. — JIM DEKORNE

Although extracting the harmala alkaloids is relatively easy, we would suggest that methylene chloride be avoided due to the residue that it leaves after evaporating; we have no idea what this residue is, but since methylene chloride is fairly toxic, we suspect that it isn't a great idea to ingest it. As well, methanol apparently leaves plasticizers behind in the residue and is quite toxic, so its use is not a great idea. Nor is the suggestion to use a turkey baster, since all turkey basters that we have seen are made of plastic. For those who don't want to bother performing their own extractions, harmine/harmaline hydrochloride can now be purchased from a number of specialty chemical/ethnobotanical companies that sell to individuals. — DAVID AARDVARK & K. TROUT

A PRIMER ON MAOI

Winter 1994

MAO-inhibitors are chemical compounds whose activity in the body slows down or interferes with Mono Amine Oxidase, an enzyme system that oxidizes many compounds in foods and drugs into harmless by-products. In the presence of MAO-inhibitors, compounds that would normally be metabolized into inactive by-products instead have the duration of their physiological and psychological activity extended (McKENNA 1993A).

There are two types of MAO inhibitors: permanent (irreversible) and temporary (reversible). The permanent MAOI drugs destroy one MAO molecule and then move on to destroy another, then another, *etc.* Many prescription antidepressants are permanent MAOI drugs. Temporary MAOI drugs merely repress MAO for a period of time specific to the inhibitor. It takes one molecule of a temporary MAOI for each molecule of MAO inhibited. The alkaloids harmine and harmaline are temporary MAOI drugs found in various plants—*Peganum harmala* seeds being particularly rich in these compounds.

Most of the warnings about the dangers of using MAOI drugs along with specific foods and drugs are based upon the characteristics of the permanent MAOI drugs. The body requires at least two weeks to recover from these because it takes that long to replace all of the MAO that was destroyed. Conversely, when beginning antidepressant therapy using a medical MAOI drug, it takes about two weeks for therapeutic levels of these drugs to show any effect. This is because it takes that long to destroy all of the MAO.

The temporary (reversible) MAOI drugs, however, simply attach to and then release the MAO after a period of time—they do not destroy it. After four-to-eight hours, one's body will have overcome ("reversed") the effects of the MAOI drug and reclaimed its original MAO protection. At normal doses, even at the peak of the temporary inhibition, not all of the MAO is inhibited—some is still active.

To illustrate: imagine two rooms each containing one-hundred mice representing MAO molecules. Into one room are placed fifty adult cats and into the other room are placed fifty kittens. The adult cats are hungry and know how to kill mice. They will catch a MAO mouse, kill it, and then catch another. They represent the permanent MAOI. The kittens really just want to play. They will catch a mouse and play with it until they get bored, and eventually they will turn it loose. They represent the temporary MAOI.

As a result, room one (the hungry adult cat room) is left with anywhere from a low of zero to a high of fifty mice, but the second room still contains the original one-hundred mice. More importantly, the minimum number of mice unoccupied in room two is fifty, as opposed (eventually) to many less than that in room one. As you can see in the example, with fifty of the MAO mice still functioning in the kitten (temporary MAOI) room, the body still has a fair latitude for error in eating the foods (cheese, yogurt, etc.) that may cause dangerous reactions when combined with MAOI drugs.

After consuming an ayahuasca analogue containing *Peganum harmala* (and after the effects had worn off) JONATHAN OTT has then eaten a cheese sandwich, drank a beer, and eaten chocolate. These are some of the items that are contraindicated for consumption with the permanent MAOI drugs, but he experienced no trouble whatsoever with the temporary β -carboline MAOI alkaloids in *P. harmala*. This spring I tried this. I drank an extract made from three grams of *P. harmala* seeds. After ten minutes I consumed $\frac{1}{3}$ of my normal dose of *Trichocereus pachanoi* (4 inches of a 12 inch piece). The mescaline was felt as if a normal dose had been taken. The experience was different due to the sedative effects of the *P. harmala* seed extract. Instead of being full of energy to go out and explore nature, I was left sitting on the couch without the desire to stand up. This did provide opportunity to explore my inner landscape, however; perceiving inner energy and losing myself in it.

The combination encouraged full introspection from the beginning. — B.C., WA

The temporary MAOI drugs are obviously safer than the permanent ones, but it's still wise to pay attention to one's diet and drug intake before using them. A friend ingested some *Peganum harmala* seed extract a few hours after taking a tyramine-containing supplement and had an extremely unpleasant trip. OTT's lack of any problem may be related to the fact that he ate the "forbidden" foods *after* the experience was over and the MAOI drug had been worn off. He cautions that one should not eat these foods *before* or during the experience. Here's a highly anomalous view on this important topic from GRACIE and ZARKOV. — JIM DEKORNE

...[A]lthough the literature would indicate that the harmine MAO inhibition should be reversed in about five hours, the effects from all of the smoked plant material continued for at least 24 to 48 hours. That is to say, clear potentiation was noticed after this amount of time had elapsed...Once we had taken 7.5 gm of very potent dried *Strophoria*. We were interested in making contact with the "voice in the head" phenomenon. We potentiated the mushrooms by each smoking [the extract from] about 750 grams (!) of passion flower...starting about 30 minutes after eating the mushrooms. The potentiation was quite overwhelming. After smoking about one quarter of the plant material, each fresh lungful brought on, within seconds, powerful "starburst" and "intersecting lightning bolt" hallucinations which, with eyes opened, obscured a well-lit room. The "voice" phenomenon was loud and clear and very unsettling (the content of the trip has been described in *High Frontiers*, Issue 2). Before this trip we had attempted on several occasions to invoke the voice phenomenon with the same mushrooms at doses of up to 10 grams, to no avail. But, even more curiously, effects such as clear instance of MAO inhibition, voices in the head, visions (with both closed and open eyes) and finally at the end of the period, clear potentiation of another psychedelic (LSD) occurred at discrete short intervals over a period of 14 days! We realize that this sounds unbelievable, however it did happen. It is our opinion that peculiar long-term effects can be initiated by large combined doses of tryptamines and β -carbolines that cannot be adequately explained using current models of brain chemistry.

Additionally, since that rather harrowing trip, the mushroom "voice" has been inescapable even on dosages as low as approximately one gram. As less spectacular long-term effects, we have also noticed this "locking-in" or "tuning-in" effect with the β -carboline/DMT combination. That is, effects that were previously elusive on DMT alone became easy to invoke once they have occurred in the combination. ...Indole psychedelics taken in a state of MAO inhibition are much more intense and *qualitatively different* than when taken alone. We believe that these combinations offer numerous fruitful avenues of further research... (GRACIE & ZARKOV 1985).

Here, and in a few other places within this book, psychonauts have reported extended "potentiation" due to MAOI consumption. While not discounting these experiences, the half-life of harmine in humans given ayahuasca orally was reported to be less than

two hours, with maximum plasma levels reached 102 minutes after ingestion (CALLAWAY et al. 1999; McKENNA et al. 1998). A point to note regarding GRACIE and ZARKOV's smoked Passiflora extract is that along with the harmine consumed, they undoubtedly smoked a far larger quantity of harman, which is the primary alkaloid in Passiflora. However, despite it being known to be a MAOI (UDENFRIENDET al. 1958; McISAAC & ESTEVEZ 1966), 250 mg harman hydrochloride was shown ineffective as a MAOI to orally activate DMT by one psychonaut (OTT 1994). Nonetheless, it seems at least possible that the effects produced by smoking the extract were responsible for the extended "potentiation." (It has been suggested that the harman content in smoked tobacco contributes to its psychoactive effects.) Harman has a longer duration due to a slower period of metabolism. Some studies show it to be a more potent MAOI than either harmine or harmaline. (It also has greater toxicity than harmine, and is suspected of being carcinogenic.) The sedation produced by Passiflora clearly lasts longer than that produced by Peganum harmala. — K. TROUT

MAO INHIBITORS AND MescalINE

Winter 1994

With regard to MAO inhibitors and mescaline: I think the answer to this is that harmine/harmaline are short-acting. They inhibit mostly gut MAO. It takes a long time (several weeks) to inhibit brain MAO and the prescription MAO inhibitors that do this are indeed dangerous. One only needs about a third the normal amount of mescaline for a trip if taken with the natural MAO inhibitor. I certainly would caution folks to go slowly with any MAO inhibitor, especially if they are hypertensive, in ill health, *etc.* Unfortunately, the pharmacology literature only deals with the synthetic drugs, so there's not a lot of reliable information on this. — Prof. BUZZ DE LUX, CA

ONE MAN'S DOGMA IS ANOTHER MAN'S MYTH

Winter 1994

The myth about prolonged avoidance of tyramine before ingesting harmala alkaloids is absurd. In South America, the shamans just don't eat for about six hours before ayahuasca. The only time when I had problems was when I swallowed little balls of *Peganum harmala* extract encased in five-year-old miso. I was trying to avoid the bitter taste. After I began feeling weird, the potential "hypertensive crisis" was avoided by induced vomiting. I intend to start to mix *P. harmala* and *Trichocereus pachanoi* with increasingly higher amounts of the former because I am sceptical of the assertion that it could be problematic. — R.S., CA

SUPPORT FOR ABOVE

Summer 1995

MAOI drugs (let alone whole plants) have more than one effect. I haven't done much research into the ayahuasca phenomenon, but I'd steer clear of synthetic or purified MAOI drugs and stick to ayahuasca plants and their analogues. Otherwise it's a bit like eating cholesterol when what you want is an egg. — T.H., OR

You first reasonably note that whole plants, like MAOI drugs, have more than one effect; yet then you strangely discount the pharmaceutical in favor of the plant? In many ways (and despite editor JIM DEKORNE's bias against them), pharmaceutical drugs are much safer than plant-based drugs. Pharmaceuticals are pure, not adulterated with any potential toxic components that plants containing the desired compounds may have. Pharmaceuticals come in known doses, making intelligent decisions about how much to consume much easier. Information about the specific effects, side-effects, and contraindications of pharmaceuticals is relatively easy to acquire in publications such as the Physician's Desk Reference. And, should a problem arise when one consumes a pharmaceutical and needs medical treatment, it is much more likely that a doctor/hospital will be able to treat the problem effectively, since they will be familiar with the pharmaceutical (but may not be familiar with the myriad of active and/or toxic components that plant extractions can contain).

Nevertheless, it is empowering for individuals to be able to create their own medications from plants. Dependence on the pharmaceutical industry is not necessarily a great thing. Whether consuming a pharmaceutical or a plant-based concoction, education and moderation are the ideas to keep in mind. Read all that you can find before experimenting, and start out slowly, erring on the side of caution. It is also a good idea to always let someone who is not on drugs know what you are taking (write it down too), and when you are taking it, especially when trying new combinations. Have this person check in with you periodically to monitor your progress. (It can be helpful to take notes during or just after the experience.) Don't consume MAO inhibitors of any type if you are on a SSRI drug, and keep in mind all of the other foods and drugs that are contraindicated with MAO inhibitors. Pharmaceuticals and plant-based extractions can both be dangerous when improperly used. — DAVID AARDVARK

PEGANUM HARMALA AND PSYCHOTRIA VIRIDIS

Fall 1995

I made a brew of "half-ayahuasca analogue," using *Peganum harmala* and *Psychotria viridis* leaves, following the psychonaut's description on page 99 of *Psychedelic Shamanism*. Only I used 25 gm of *P. viridis* instead of 10 gm. Twenty minutes after drinking the brew I vomited. Then nothing—no experience. I guess it's time to try a simpler method, such as running several handfuls of *Phalaris* grass through a wheatgrass juicer for immediately available potent juice. — J.S., NM

Vomiting seems to come with the territory on ayahuasca. One should try diligently not to throw up until the desired effects begin to come on, at which point it's virtually impossible to control anyway. Once the trip starts, vomiting usually has no effect on the psychological part of the experience. Be extremely cautious with *Phalaris* grass juice—there isn't enough hard data on it yet. Other chemicals in the grass could be dangerous, even fatal if one took too much. I'd leave raw *Phalaris* grass juice alone and extract the alkaloids from it instead. — JIM DEKORNE

DIET QUESTIONS

Fall 1995

Can anyone give a complete list of foods one can eat prior to drinking ayahuasca? Also, a list of foods one must avoid for 5–7 days prior to an ayahuasca ingestion. Is the diet for reasons of MAO inhibition, or is it simply to reduce somatic effects? — T.W., NY

It's for both. Classical ayahuasca (botanical harmala alkaloids plus botanical DMT) is in my opinion, an entheogenic medicine and a shamanic path in itself. Like any path with heart, it demands everything you've got; diet is an essential part of the ayahuasca path. To compile a list of foods you can eat would ultimately include everything that doesn't interfere with ayahuasca's effects—obviously data overload. The general guidelines in past issues of *ER* are a good place to start. Once on the path, the medicine will teach you. — JIM DEKORNE

WE'RE ALL GONNA DIE!

Fall 1995

Many *ER* readers express a disappointment in the ayahuasca analogues that I think is dose-related. Try freshly ground and encapsulated *Peganum harmala* seeds (3–4 grams) with 1–20 teaspoons of fresh extracted *Phalaris* grass juice. This is a very insightful and powerful experience, which I find is best tamed with an occasional puff of *Cannabis*. It is interesting that so many *ER* readers complain about these combinations making them sick. I believe that they are having an experience of the sickness of our world, without and within, in a most graphic format. So I wanna hear more accounts of mushroom neophytes ranting, "We're all gonna die!" It's what I've always thought. — G.W., CA

PEGANUM HARMALA

Winter 1995

Peganum harmala by itself doesn't cause me to throw up—it's the synergistic combo of it and some DMT-containing substances. It can make you feel uneasy, but doesn't do anything by itself. I've seen one reference claiming it is visionary in only toxic (*i.e.* near lethal) doses. An acquaintance claims he uses it instead of coffee to stay awake—maybe he's putting me on. As a coffee substitute it would win no awards and curdle your milk. It smells bad enough while cooking that a housemate called it "paint." The growing tips published by OF THE JUNGLE suggest that half a gram of properly processed seed would deliver. Not knowing the potential of any given seed source, I'd use a gram. I took a spoon of the boiled substance toward the end of a good LSD trip and found it perked up the intensity and flow; I felt higher and glided down. — R.S., DE

3 grams of Peganum harmala seeds, or 1 gram of seed-extract, may be preferable, to be sure that the MAO is sufficiently inhibited. — DAVID AARDVARK

ESPHAND

Winter 1995

Peganum harmala is available through most Middle Eastern grocery stores under the product name "esphand." Four ounces set me back \$2.79! — D.L.

AYAHUASCA SUPPOSITORIES

Winter 1995

Our latest experiments proved to be quite a surprise. Without a shadow of a doubt the 5-MeO-DMT and DMT plus *Peganum harmala* combinations are active when ingested by means of a rectal suppository. This method was free of the nausea and purging effects that often accompany ayahuasca. We first inserted a gelatin capsule filled with *P. harmala* extract equivalent to three grams of seeds, waited 30 minutes for the *P. harmala* to take effect, then inserted a capsule containing either 5-MeO-DMT or DMT. At 13–15 mg the 5-MeO-DMT was extremely active and very intense. On the other hand, the DMT did not seem to be as active when ingested this way. At 70 mg (a much larger dose than needed via the stomach) we experienced a very mild, but distinctive DMT trip. Compared to the 5-MeO-DMT, the DMT had a much slower onset, with the rise to peak taking about one hour. — TOAD

Here is fellow traveller TAFFKA'S account of this 5-MeO-DMT experience:

Effects from the 5-MeO-DMT were quickly noted after the dose was administered; approximately 7 minutes or so. I had walked down a hill on a short stroll to a lake where I took the 5-MeO-DMT. Not expecting such a rapid onset I began to jog quickly up the hill to the house as I noticed increasing shifts of awareness. By the time I got there I was nearing a "plus-three" and within minutes topping out at an uncomfortable "plus-four" with slight nausea (I think this was due to the nature of 5-MeO-DMT) and what seemed like poisonous electric static in my brain. This stage lasted about 30–40 minutes, during which an "energetic reaming" took place. All I could do was to breathe sharp rhythmic breaths to stay with it. As the hairy part leveled out I enjoyed a pleasant refreshed state with tracers, visuals, and enhanced auditory sensation. The remainder of the evening I found myself in a delicious state of heightened awareness... Very fine and clear. — TAFFKA

5 mg is considered a "standard" dose of 5-MeO-DMT, so 13–15 mg is in the 3x overdose range. It is almost impossible to measure kitchen extractions that small without a milligram scale, so it goes without saying that caution is advised when determining doses. — JIM DEKORNE

DEKORNE states that 13–15 mg is "in the 3x overdose range." However, he is basing this statement on the amount that one might smoke. It does seem possible that the route of administration in this case—via rectal suppository—might have an effect on how well the drug is absorbed.

Electronic scales that weigh down to ± 2 mg are available for about \$280.00 (See the Spring 1999 issue of The Entheogen Review, page 30, for more information on these scales.) Those who don't wish to spend this kind of money could purchase an electronic scale that weighs down to ± 10 mg for about \$130.00. Using such a scale for an initial measurement of a larger amount of material, one method to fairly accurately dose small amounts of material is to dissolve a known quantity of material into a solvent that it is soluble in. For example, weigh 100 mg and put this into a small sealable glass jar. Let's say that you want to produce twenty 5 mg doses from this. Using an eyedropper, put 200 drops of solvent into the jar and seal it. Work as rapidly as possible; depending on what solvent you are using, it may evaporate quickly. (Due to this you may wish to put a few additional drops of solvent into the jar, or use a solvent that evaporates slower.) Swirl the liquid around until the material is dissolved. Open the jar and rapidly suck as much of the solvent into the eyedropper in one pull as possible. Then drop 10 single drops per puddle/dose, spaced apart onto a glass baking dish. After each puddle of drops evaporates, the residue left-over should contain approximately 5 mg of material, which can be scraped up individually for use when needed with a razor blade.

Or, if one wanted to, each 10-drop-amount could be placed onto a small pile (20 mg) of crushed dried leaf material and allowed to soak up and dry. These single doses can be stored conveniently in 000 size gel-caps, until they are needed. — DAVID AARDVARK

MINIMUM MAOI DOSAGES?

Spring 1996

Peganum harmala seeds seem to potentiate psilocybin without any harmalaline-type side-effects when used at 0.1 grams per 10 pounds body weight. ("00" gel capsules weigh 0.1 gram, and when filled with *P. harmala* seeds, weigh 0.5 grams.) With this combination, effects can be felt with as little as 0.3 grams of dried psilocybian mushrooms. Diet restrictions have been followed as per established guidelines for as little as five hours after *P. harmala* ingestion. This was a taco pizza and bottle of beer; there were no noticeable hypertension effects afterwards. This may be due to the limited initial amount of *P. harmala* ingested. — WARRIORS ON THE EDGE OF TIME

ON CHOOSING A HEALER

Spring 1996

In February I visited Iquitos and Explorama's camps some hours down the Amazon. There I spent several days with ANTONIO MONTERO P., an ayahuasquero who has worked closely with JIM DUKE, a USDA botanist heavily involved in tropical ethnobotany. During our stay don ANTONIO was our source of information on uses of local plants: as medicines, dyes, food and drinking water, as well as ayahuasca.

I observed the preparation of ayahuasca, complete with local names and Latin binomials. Don ANTONIO shared with us his medicinal skills and clinical eye. He worked hard to make his information available to us, and for those who requested it, he healed. He referred to the "ayahuasca tourism" occurring in Iquitos and related how people with little or no training, who might not know the components, their proportions or how to deal with the experience, were offering "ayahuasca" to visitors. In some cases they put something in the brew to knock the people out and then robbed them. In others they did give them a trip. He said these pseudo-shamans embarrassed him and often made him consider giving up ayahuasca.

This was contrasted with the rejection he experiences from many of the younger locals. They have no time for this *flautero* (bullshit artist), this self-proclaimed "witch doctor," this relic; and they let him know it with covert digs.

So what did this ayahuasquero feel like to me? He felt like a healer. He listened; he made healing herbal concoctions and bathed our heads. He "laid on hands" and blew native tobacco smoke on us. This latter was one of the shamanic procedures that I had always felt was total bullshit when I'd read

about it or when I saw it done to others in Sibundoy, Columbia, in the early '70s. Now the smoke hit me: relaxing, cleansing, sweeping into me somehow, and driving the darkness away.

So when you choose an ayahuasquero, pick him the way you would pick your family physician. Ask people you trust. Ask your guts, use your intuition. And above all, don't be in a hurry. I asked don ANTONIO whether he in fact saw the spirits of the jungle animals when on ayahuasca. He smiled and said:

"One of my first times the Anaconda came. He wrapped himself around me and his head rose above my face. He looked me in the eye and started as if to crawl down my throat."

"What did you do?," I asked.

"Oh, I let him crawl inside me," he replied. "That's what it's all about. You must let him in."

Think about it: do you want some inexperienced gringo-pleasing hustler as your guide when something like that happens?

Don ANTONIO is a very special man, from whom I perceived good intentions, concern and real tenderness. Our short acquaintance made me feel that I would trust him to take me anywhere. To use an old term, he felt *righteous* to me. I honestly don't know whether he is representative of other real ayahuasqueros.

I've lived in Latin America off and on for more than 25 years. Because I speak Spanish fluently, it's easier for me to spot a scam. Perhaps English-speakers might do better to stay on their home ground, work with the ayahuasca analogues, and deal with people and spirits closer to home. From there one might be able to use the medicine to visit don ANTONIO without the bother of buying a plane ticket, and with no language problem! — CLAYTON STREET, South America

VAPORIZING PEGANUM HARMALA

Summer 1996

You will love vaporizing *Peganum harmala* extract! Not only is there no puking involved, but the effects are much clearer and more cerebral. I find that vaporizing 50–75 mg of the extract usually does the trick; more than that doesn't increase the potentiating effects but *does* seem to increase the body

load. With further refinements, the nausea and puking of all the ayahuasca analogues will become a thing of the past.

When extracting *Peganum harmala*, I've modified the recipe from the Winter 1994 issue of *ER*. Instead of lemon juice I use HCl acid to lower the pH. When defatting I use methylene chloride as about 10–15 percent of the total volume of acidified water. I'm not sure this much is necessary, but I like to get all the oils out for the cleanest possible product. I use ammonium hydroxide to raise the pH. To extract I use 15 percent methylene chloride, swirl it, and let sit for a day. Then I do four more solvent extractions at weekly intervals. Evaporation of the solvent fraction yields a dry crystalline product suitable for vaporizing. — TOAD

Extracting the harmine/harmaline from Peganum harmala using the HASENFRATZ method, described below, allows one to create a pretty pure product with the benefit of not having to work with solvents such as methylene chloride. The basics of the method, adapted from Ayahuasca and Ayahuasca Alkaloids by K. TROUT, are as follows:

Powder seeds. Cover seeds with 3 times their weight in an aqueous acid created from 2 parts vinegar (5% acetic acid content) and 1 part water. A thick dough is formed. After 2–3 days, press the liquid from this dough (squeezing balled-up in a T-shirt works well). Then recover the remaining marc in 2 times its weight of the same strength aqueous acid, and—after maceration—press this liquid out. The marc is discarded, and the two liquid squeezings are combined, and refiltered through a cloth coffee filter and then vacuum filtered. Then this liquid is combined with table salt (sodium chloride) at the ratio of 100 grams of salt per liter of liquid. Refrigerate this liquid until cold. Then siphon off the bulk of the liquid, leaving the crystalline residue at the bottom. This residue is vacuum filtered, and then redissolved in hot water. The subsequent addition of more salt, and re-chilling the liquid, will cause harmine hydrochloride and harmaline hydrochloride to precipitate as a "crystalline mush." Care must be taken not to use too much salt. (If too much is used, the final dose will need to be adjusted upwards, to compensate for the excess salt.) This recrystallization process is to be repeated until the hydrochlorides acquire a yellow color (they will start out as a reddish color). This may take 3 to 5 recrystallizations. At this point the material can be dried by gentle heat. (If concerned about excess salt, one could take the "final" product, dissolve it in a small amount of warm water, add an excess of ammonia, and then filter off the precipitated harmine/harmaline free-base crystals, thusly removing any excess salt.)

PEGANUM HARMALA EXTRACTION QUESTIONS

Fall 1996

Using the method outlined in *Psychedelic Shamanism*, I extracted eight grams of pulverized *Peganum harmala* seeds. The 3X extraction was a three-day procedure and resulted in a crystalline substance suspended in a syrupy tar.

After weighing the residue, the weight came to 15.71 gm—about double the weight of the original biomass. Is this normal? One might expect that an extraction would yield less than the original weight. Where does the extra come from?

Perhaps I didn't filter properly, but coffee filters don't flow too well with lemon juice. How patient should one be with the filtering process? Should I allow longer evaporation time? Is there danger of burning or vaporizing the harmaline molecules out of the extract? OTT's *Pharmacotheon* reveals melting-point temperatures for many molecules. What does this temperature mean? Is it a temperature to attain to melt the molecule out of the biomass, or a temperature to avoid for fear of destroying the molecule? My *P. harmala* extraction was done with lemon juice. What is to be expected if done with methylene chloride? Can one be confident that it evaporates completely? Not confident about the extraction, 3 grams of pulverized seeds were consumed one hour prior to 2.5 gm of *Psilocybe cubensis*. Although there was nausea and a woozy feeling, it was definitely worth the experience and made me wish all the more to produce an extract I could feel good about. — HERSHEY

It sounds like you wound up with a lot of the original biomass in your aqueous extract. Filtering is a drag if you don't have a vacuum pump, and most of us don't. Try doing a crude first filtration through cheesecloth, then use cotton or a coffee filter. Your aqueous extract should be relatively clear of particles and have an almost fluorescent yellow-green tint. After air evaporation, the dried (usually reddish brown) residue ought to have a definite crystalline vibe to it—there should be little or no tar if properly processed and evaporated, 'though the sandy crystals are usually quite sticky. My understanding of melting point temperature is just that: it's the temperature at which a given molecule melts. For amateur kitchen chemists without sophisticated lab equipment, it probably has little practical application. A methylene chloride extraction would be the next step after (not instead of) the acid aqueous extraction. The same procedure for extracting any alkaloid must be followed: *e.g.*, de-fat, basify, *etc.* JOHNNY APPLESEED takes his *Peganum harmala* extractions this extra step and it definitely results in a purer product, 'though I'm not convinced that it eliminates the nausea usually associated with this alkaloid. — JIM DEKORNE

It is hard to say for sure why the extract described above weighed more than the original material. DEKORNE's suggestion that a lot of the original biomass ended up in the extract is undoubtedly true, but it wouldn't explain a weight gain. It seems likely that there was additional water-weight in the extract (it should not be a syrup, and this suggests the presence of water). Perhaps part of the weight gain was due to the salt being present rather than the base.

Spend the money for a vacuum filtration set up! These are a joy to use, and well worth the \$50.00 to \$80.00 that you might spend (which includes the cost of an attachment to your sink spigot for use as the vacuum source). A cheaper filtering system that might work a little better than paper coffee filters is a gold-screen Mellita-type filter, or a "French press" coffee filter. Even less expensive is a cloth and plastic yogurt strainer (but these wear out fairly quickly).

The melting point of any compound is simply a physical "constant;" a ballpark figure that can be useful as a low-tech and rapid (but not precise) test that may be helpful for people attempting to identify something once it is pure.

No, we don't feel confident that methylene chloride will be entirely removed via evaporation. Check this yourself by pouring a small amount into a clear glass dish, and then holding it over both a dark and a light surface. Do you see residual chemical left on the dish? (This is a useful purity test for any solvent that you might consider.) — DAVID AARDVARK & K. TROUT

HEAVY HARMALA

Fall 1996

In response to "Ayahuasca Zombie," (Spring 1996 issue of *ER*) I can empathize. I am overly sensitive to *Peganum harmala* and avoid it like the plague. I once ingested 3 grams of crushed seeds (encapsulated) prior to a 20 gram *Trichocereus pachanoi* beverage. I never made it to the cactus. After one hour the *P. harmala* laid me out. I was unable to stand for the next four hours due to extreme dizziness. Lying down, mind racing, it took much willpower just to get comfortable. I saw very articulate visions of naked women in black and white. There were other visions too: black and white, no color at all! Very lucid dream-like, in that I could manipulate the visions at will effortlessly. Perhaps a gram or two before bed would be useful for dream work. (A bonafide shamanic approach.) Any more, I'll use my entheogens "un-potentiated." — WAXING MOON

THE PLANT TEACHERS MADE ME DO IT!

Spring 1997

And you thought you only had to worry about narcs! An article in the August 4, 1996 *Seattle Times*, describes how a U.S. patent was granted to one LOREN MILLER of Palo Alto, California for:

...a variety of *Banisteriopsis caapi*, the Latin name for the ayahuasca vine... Miller said he had travelled to Ecuador, consumed ayahuasca and become intrigued with Amazon Indians. He sought the patent to determine (*sic*) if the variety had any medicinal properties, but said that he hadn't tried to market it.

In response to this, a group in Spain also took out a patent on ayahuasca: the idea being that a "heterogeneity of owners" would muddle the issue enough to prevent a monopoly. (See the August 1996 issue of *Eleusis*.) Various Indian groups in Ecuador are understandably upset about all this, to the

point of demonstrating in front of U.S. embassies. "Sorry, Chief—you gotta buy your medicine from us now!" — JIM DEKORNE

The patent held by MILLER was temporarily suspended for six months by the U.S. PATENT AND TRADEMARK OFFICE in late 1999, due to evidence that the plant had been described in publications prior to the time when MILLER's application was filed. If MILLER does not present sufficient evidence to protect his patent within this six-month period, then the suspension will become permanent. MILLER has stated, "We remain totally confident that our patent is valid, and we are absolutely confident this frivolous challenge is doomed to failure" (Ho 1999). — DAVID AARDVARK

ESPHAND OR ESFAND

Spring 1997

I purchase *Peganum harmala* seeds here in L.A. at various Arabic and Iranian markets, very cheaply. Of course you know it's called "esfand." I asked my Iranian co-worker what it's used for. He says that it's used as a purification incense against "the Evil Eye" at holiday gatherings, and vaporized into smoke on hot coals. — D.A., CA

AYAHUASCA DRUG TESTING

Summer 1997

We have random drug tests at work, so I need to know if they will reveal ayahuasca analogue consumption. Can anyone shed any light on this problem? — B.C., WI

I honestly don't know, though I suspect that ayahuasca is a bit arcane to be picked up on a normal drug test. Can anyone out there enlighten us? — JIM DEKORNE

Drug tests generally only look for opiates, cocaine, amphetamines, and Cannabis. Those facing drug tests who take ayahuasca should have nothing to worry about as long as they don't also consume any of the former. — DAVID AARDVARK

AYAHUASCA DISCOMFORT

Summer 1997

I recently had my first jungle ayahuasca (200–300 grams of *Banisteriopsis caapi* plus 12–14 grams of *Psychotria viridis*). Wow! "Plus-two" and "plus-three" for six hours and more. Not many visuals; I was engaged in finding personal answers (and got them). Just a question before I take ayahuasca again: I'd like to know if a *Peganum harmala*/*Phalaris* grass ayahuasca can

make you sick? (Because the nausea was terrible.) I vomited two or three times—yuck! In the morning I couldn't take one step without vomiting; I was in a chaotic state, and that taste, that taste... Maybe all of us should consult a psychiatrist to know why we ingest such horrible stuff! — S.H., France

Sounds like a fairly normal ayahuasca trip. Alas, even the analogues tend to make one sick. Be glad you didn't have uncontrollable simultaneous diarrhea and vomiting; a rather embarrassing condition, especially if you're in a group setting! Many people suggest that it's the harmaline that causes this, so maybe we need to come up with the minimum amount of MAOI to trigger the DMT portion of the brew. (200–300 grams of *Banisteriopsis caapi* sounds like far more than necessary, at least when compared with the 3 gram normal dose of *Peganum harmala* seeds.) Some opinion claims that the somatic discomfort is the result of a synergy between the two substances. Others say that the phenomenon is part of the healing that takes place when you ingest ayahuasca—a symbolic purging of all our “shit,” our illusions. — JIM DEKORNE

PUKING IS GOOD FOR YOU

Summer 1997

We continually fall victim to the European myth that intelligence began with the Renaissance. This is patently obvious in the urge to minimize nausea and vomiting; for example, to determine the lowest amount of MAO inhibitor to promote the effects of DMT, *etc.* Do you really believe that after 1,000s of years, the Amazonians don't know what they are doing? Up your intake of MAO inhibitors (instead of 4 grams of *Peganum harmala* seeds, start with 12 grams and work up), keeping your DMT at the constant Amazonian level! Be assured the vine has a lot more to offer than just MAO inhibition. Get into the puking! — ANONYMOUS, Australia

FOOD AS AN AYAHUASCA CATALYST

Summer 1997

TOAD, one of *The Entheogen Review's* faithful psychonaut correspondents, describes ingesting 10 grams of *Mimosa hostilis* root-bark and 150 mg of *Peganum harmala* extract as an ayahuasca analogue. Nausea was prevalent, but not as bad as previous trips using *Psychotria viridis*. After almost 2.5 hours, nothing much was happening, so he ate a couple of apples and some cottage cheese, thinking the trip was a misfire. The food seemed to make things happen; a solid one-hour ayahuasca trip rapidly ensued. A similar experience a week later reinforced his conviction that eating can catalyze a poky ayahuasca experience. (See further data in article following.) — JIM DEKORNE

MOCLOBEMIDE: A NEW SYNTHETIC MAOI

Summer 1997

ER has received reports from several correspondents that ingesting 75 mg of Aurorix (ROCHE), an antidepressant containing moclobemide [*p*-chloro-*N*-(2-morpholinoethyl) benzamide], can be used as the MAOI portion of an ayahuasca trip. Despite the traditional “no-no” about combining MAOI and phenethylamines, people are also taking moclobemide with 2C-B without apparent side-effects.

The advantage of moclobemide over *Peganum harmala* is a reported lessening of the nausea associated with the latter MAOI. The sedation of *P. harmala* is also absent, and dietary restrictions are minimal. Half a tablet (75 mg) is said to increase the effects of 2C-B by a factor of about 2 times.

Ingesting 150 mg moclobemide with 150 mg of synthetic DMT resulted in a very rough trip for ER correspondent FORBIDDEN DONUT: “perhaps the most terrifying psychedelic experience that I can recall.” He describes a “psychic rape” by alien presences. Nausea was not completely absent, and after vomiting the experience seemed to subside. As in TOAD’s report about food as an ayahuasca catalyst (above), DONUT ate a hard-boiled egg after he felt he was down and found himself precipitated back into a full-blown ayahuasca trip for another hour.

150 mg of DMT is a pretty stiff dose! — DAVID AARDVARK

TOAD tried 150 mg moclobemide and 12 g of *Mimosa hostilis* root-bark, which resulted in some nausea, but he states that the trip was both clearer and more “alien” (like pure DMT) than the traditional *Peganum harmala* experience. Again, eating food late in the experience kicked the intensity back to previous levels. TOAD said he liked the crystal clarity of the moclobemide, yet he also appreciates the earthy spirit of *P. harmala* as well.

“The Moclobemide Report” (3 pages), available for \$5.00 from SOMA GRAPHICS, POB 19820 (Dept. ER), Sacramento, CA 95819, goes into more detail than this summary, advising that 75 mg of moclobemide is a better starting dose when orally-activating tryptamines in ayahuasca brews.

ER readers are encouraged to share their experiences with this new MAOI. Many people have stopped ayahuasca use precisely because they feel that the heavy somatic trip is not worth the rest of it. It’s hard to commune with the gods when all your energy is spent in feeling very, very sick. There are those who say this is good for you; I personally disagree. — JIM DEKORNE

ALKALOID PERCENTAGES IN VARIOUS PLANTS

Fall 1997

Alkaloid reported as mg per 100 grams of dried plant, and as percent of total plant source weight:

- 1) *Phalaris aquatica* (= *P. tuberosa*): DMT = 170 mg (0.17%); 5-MeO-DMT = 22 mg (0.022%); bufotenine = 5 mg (0.005%) (Source not provided).
- 2) *Phalaris aquatica* (= *P. tuberosa*): DMT = 170 mg (0.17%); 5-MeO-DMT = 60 mg (0.06%) (Internet gossip).
- 3) *Phalaris arundinacea*: DMT = 60 mg (0.06%) (Internet gossip).
- 4) *Desmanthus illinoensis* (root): DMT = 180 mg (0.18%) (OтT 1994).
- 5) *Desmanthus illinoensis* (root-bark): DMT = 340 mg (0.34%) (OтT 1994).
- 6) *Psychotria* sp. (averaged from 11 samples containing *P. viridis*, *P. carthaginensis*, and an unidentified *Psychotria* species): DMT = 200 mg (0.2%) (OтT 1994).

While these figures may be useful to get an idea of the amount of alkaloids in a particular sample of plants, it must be stressed that alkaloid levels can vary radically from stand to stand, strain to strain, plant to plant, and also according to when and where the plants were harvested, and many other factors. Plant analysis can only relate what was in the specific plant that was looked at, and can not be used to indicate consistent or predicible levels of alkaloids. (In the case of Phalaris grasses, these tests can't even reliably predict which alkaloid is going to be present in all cases.)
— K. Trout

HIGH-ALKALOID PLANT VARIETIES

Winter 1997

Locating high-alkaloid varieties of known plants, especially *Phalaris* and *Desmanthus* is something that still needs to be resolved. I am growing *Desmanthus* from two sources and will hopefully soon determine potency variances. Since potency seems to vary from field to field, it would be good if people finding high-yielding strains would present them to our favorite seed distributors. What soil conditions or time of harvest are conducive to high alkaloid content? Do you have any recent *Desmanthus* data? — ANONYMOUS

Not really. I confess I gave up on *Desmanthus* once I discovered the potent strains of *Phalaris*; it's easier to trim the same grass plants year after year than to uproot and kill a *Desmanthus* "bush." ALLIES sells the same "Turkey red" and "Yugoslavian fresh-cut" *Phalaris* varieties that JOHNNY APPLESEED gave me back in 1993. These are proven to be potent. Wild *Phalaris* grows everywhere, but why mess with an unknown strain (unless you're a dedicated ethnobotanist) when you know what already works? — JIM DEKORNE

AYAHUASCA... STIRRED OR SHAKEN!

Summer 1999

Suppose somebody brewed up a big batch of ayahuasca using the analogue plants *Peganum harmala* and *Mimosa [tenuiflora]*. Suppose they measured out a medium-sized serving and had a moderate effect. Suppose several weeks later they pulled the jar out of the refrigerator and noticed that the solid material had settled to the bottom of the jar, leaving a relatively clear, impotent-looking liquid at the top of the batch. Suppose the person drank a smaller quantity of this than their first serving, expecting only a mild threshold reaction. Suppose this person was unaware that in most liquids—water included—alkaloids will float to the top, concentrating into a liquid of unexpectedly strong potency. This produced a horrifyingly intense experience—much more than the person bargained on getting. What lesson was learned? *Completely stir or shake any liquid preparation before ingesting!* — R.S., CA

The notion that alkaloids "float" in an aqueous solution defies both chemistry and physics. I don't dismiss the psychological reaction described in this report, just the conclusion. TERENCE MCKENNA has also reported a surprisingly powerful effect (much stronger than he expected) from an old batch of refrigerated ayahuasca that he shook. The things that these two reports have in common are: 1) The ayahuasca had been stored for a while, 2) The ayahuasca had been prepared in quantity, 3) The ayahuasca had been kept refrigerated, 4) The ayahuasca produced effects that were barely manageable and far in excess of what was expected based on prior experience. — K. TROUT

SANTO DAIME BUSTED

Summer 1999

The following article was adapted and translated by J. P. MORGAN from "Be Prepared" by MICHEL VAN HINSBERG in *EssensiE* magazine #22, and "Freedom of Religion in Danger?" by JAN SENNEMA in the April/May 1999 issue of *Highlife*.

Police raided two branches of the LICHT VAN HET BOS (LIGHT OF THE FOREST) Brazilian church in Groningen and Alkmaar in March. They confiscated several hundred *Cannabis* plants, and 100 liters of ayahuasca. The raid was

sparked by an anonymous tip reported to the police from neighbors. The plants and grow lamps were presumably destroyed, as is usually the case in the Netherlands when a “kwekerij” (growing operation) is discovered, and the ayahuasca is now in a government laboratory being analyzed for prohibited substances. According to the most recent enhancement of the penalties for *Cannabis* growing—which is now a felony rather than a misdemeanor—the church could get a heavy fine, and its leaders could be jailed for up to four years.

FRANCISCO FRANKLIN, the leader of the Netherland’s *Santo Daime* church, lived for many years with his family in the church’s Brazilian headquarters. The small amount of funds generated by the church in the Netherlands goes to help support the work in Brazil. LICHT VAN HET BOS has been trying to interest official government addiction-treatment organizations in ayahuasca as a treatment, and has itself had success in helping break the addiction cycle of many individuals.

While a jail term is not expected, the 200 members of the church are indignant. LIDA BEENTJES, one of the members, says, “It’s never been a secret that we use Santa María [*Cannabis*] and Santo Daime [ayahuasca] for spiritual purposes. But we can’t just go buy the Santa María for our members in a coffee shop; we couldn’t afford to pay for it.”

For years, LICHT VAN HET BOS has tried in vain to get an exemption from the OPIUM LAW for spiritual use within its circle of members. A request to Premier KOK was only answered with the message, “We wish your church community all the best.” BEENTJES says, “We drew our conclusions from that.”

“In Brazil, the spiritual use of marijuana by our church has been recognized and permitted for years. Why should the Netherlands, with all its coffee shops, be so hard on us? During our services, we have healed many sick people. People who the medical world had written off as dead, saw the light again with us. It’s really incomprehensible why the government is taking action against that. There’s also supposed to be something like the freedom to practice one’s religion, isn’t there?”

The church is considering a lawsuit. Undoubtedly, this would be an important test case to see how far a legal appeal can go on the basis of *Cannabis* growing for spiritual use.

MUSHROOMS AND MAOI

COMBINING PEGANUM HARMALA WITH PSILOCYBE CUBENSIS

Winter 1992

You asked me to tell you when I knew the results of my proposed experiments with *Peganum harmala* and *Psilocybe cubensis*. I have since found that one gram of *P. harmala* seed-extract more than doubled the effects of two grams of *P. cubensis*. That is, subjectively, the experience was at least as strong as previous five gram doses—a true example of “less is more!” The experience was qualitatively different also—colors seemed not quite as vivid, though moire patterns were very pronounced. I was physically almost unable to move for two or three hours (making shamanic work all but impossible), and the trip lasted at least two hours longer than expected, with a long slow decline after the peak. Be careful, though—I unthinkingly drank a cup of coffee the next day and quickly developed a splitting headache. This was possibly the effect of MAO inhibition, since I practically never get headaches of any kind. —J.G., CA

Thanks for the data on your *Peganum harmala*/*Psilocybe cubensis* experiment. It would be interesting to know if others have tried this combination, and what the results were. As always, the potential risks of MAO inhibition are not to be taken lightly.
— JIM DEKORNE

*It is unlikely that the headache described was due to MAO inhibition—especially the next day! Just hearing that headaches are a symptom of hypertensive crisis can cause some people to assume that any headache is such a sign. (Headache, confusion, and slurred speech should raise concern.) I have never had headaches, even while drinking coffee on top of the full-blown MAO (always from *Banisteriopsis caapi* or *Peganum harmala*). I actually like caffeine and harmine in combination. *Ilex guayusa* is not an uncommon ayahuasca admixture, where it grows, and it's loaded with caffeine. — K. TROUT*

MUSHROOM AYAHUASCA WARNING

Winter 1994

Low dose *Psilocybe cubensis* ingestion is massively potentiated when combined with *Peganum harmala*. However, I found that a higher dose of five grams each were fundamentally different than any previous mushroom experience. Absolutely pole-axed is how I would describe my reaction to this ayahuasca analogue. This was undoubtedly the most powerful entheogenic experience of my life, 'though at one point I felt I was going into a hypertensive crisis. I wish to endorse *The Entheogen Review's* warning on the use of MAOI drugs. CALLAWAY, in a recent *MAPS Bulletin*, warns of the dangers of mixing Prozac with ayahuasca analogues. Two deaths have been reported in the medical journal *Lancet* from serotonin syndrome (failure of serotonin re-uptake). There is also a danger of mixing them with amphetamines, MDMA, etc. I expect an explosion in the use of ayahuasca analogues in the next few years. Although this potent entheogenic brew may yet be the catalyst for a shift in cultural values, people need to be warned of the dangers. Ignorance could be fatal. — R.H., England

PEGANUM HARMALA AND PSILOCYBE CUBENSIS

Fall 1995

I must comment about mushroom ayahuasca using *Peganum harmala* and *Psilocybe cubensis*. It is not merely an increase in the strength of the dosage, it's almost like a different substance. It is very beautiful, with a lot more detail filling the view, either with eyes closed or open. The colors and shapes are so magnificent. Timing is also different. It takes a lot longer to start: an hour and a half. I thought nothing was going to happen. It came on slowly, then increased stronger and stronger, but always calm and controlled. After I came down and went to bed, I continued to have beautiful visions before I fell asleep. — B.J., FL

MUSHROOM AYAHUASCA BUMMER

Winter 1995

As one who has taken the sacramental psilocybian mushroom well over thirty times, several of them larger doses, it has been both a pleasure and a horror to combine *Peganum harmala* extract in my mushroom journeys. The first sampling of this *fungihuasca* mixture began innocently enough. After swallowing a 1 gram dose of very potent *Psilocybe cubensis*, an extract equal to 1 gram of *P. harmala* seeds was vaporized. Effects were almost immediate—upon inhalation, effervescent auditory and visual phenomena were noted;

clarity of mind sharpened greatly and a sense of calm assurance spread across my face in one of those “no way” smiles. Objects pulsed and wavered with ridiculous aliveness. Then I began to nip a few more pinches of mushroom—perhaps I didn’t allow enough time to measure each dose’s effect, for I soon realized I’d consumed about 5 more grams. I enjoyed the intensifying state for another 45 minutes until something snapped—a brief moment of fear bubbled up like indigestion. But then it was back to the fun—no bummers possible here; it was too good. Again amusement and abandon swept through me and for awhile I was fine—but only for awhile. Suddenly, I became confused, aware of chaos, mental mayhem and fear. I took a walk. Where before objects were merely pulsing, they now lurched backward and forward; the trees, the ground... This broke into something else again as I entered another building. I was being possessed and not quite sure if I was ready for it. I sat in a chair breathing heavily, my heartbeat accelerating—like a startled animal frozen in the headlights of an oncoming car. Ominous tones in my mind’s ear were heralding doom, everything was in chaos. Barely able to walk, I stumbled again outside. In a panic I stuck my finger down my throat in a vain attempt to exorcise the demons. I drank as much water as possible, but to no avail. Only stark terror and every possible gruesome fate was moving toward me. I managed to make my way to a friend’s house nearby and I awoke him in the middle of the night, begging for help. I spent the next four hours totally freaked out, certain that I was going to die. Had it not been for my friend’s experience in the fungal arts and his help, I have no idea of what would have happened. His affirmations and care guided me through a truly hellish trip. When I finally snapped out of it, I breathed what seemed like my first breath and cried like a baby, my emotions gushing. Truly, this is an experience I don’t intend to repeat. Yet I did feel incredibly fresh and well the next morning, in full appreciation of all creation as I walked awestruck into the glistening sunlight. — TAFFKA

MUSIC HATH CHARMS TO SOOTHE THE SAVAGE TRIP?

Winter 1995

This is feedback on my note in the Summer 1995 *ER* concerning the PATRICK BERNHART *Atlantis Angelis* CD (cut #7: “Harmony of the Om Spheres”) as meditation music to use with mushroom ayahuasca. One of the first people to try the Om/*Peganum harmala*/*Psilocybe cubensis* combo was my wife. Her initial experience was characterized by intense ecstatic bliss. She tried the same formula several months later and had a devastatingly brutal, ego-shredding experience. At the time, her impression was that the Om was cruelly taunting and mocking her. At a certain point during the experience she felt like her feet were being crushed and mutilated. The whole trip left her feel-

ing shaken, raw and vulnerable. I had a similarly intense ego-shredding experience on five dried grams. Both these experiences took place during the daytime. In *Hallucinogens and Shamanism* HENRY MUNN states:

The Mazatec Indians eat the mushrooms only at night in absolute darkness. It is their belief that if you eat them in the daylight you will go mad. The depths of the night are recognized as the time most conducive to visionary insights into the obscurities, the mysteries, the perplexities of existence (MUNN 1973).

It seems that when your number is up for ego-shredding, there isn't much to do but ride out the experience. Then again, it may be possible to learn how to mentally step back and out, to view the experience from the perspective of one's witness. In "Clocking Serious Mayhem," *Psychedelic Illuminations* 1(7), JAMES KENT describes his own terrifying experiences with psychedelics:

I would have trips that seemed to be completely fueled by mayhem. Demonic conspiracies were plotting against me, my life was in serious danger, I could trust no one, and the voice chanting "rubber room, rubber room..." was no help. These experiences shook me hard—to the point where I wondered if I was indeed losing my mind. I started to fear psychedelics.

My fear persisted for many months until I happened upon the notion that this mayhem was not a product of my own crumbling mind, but instead some kind of sinister entity that had latched onto me while I was in a vulnerable state of altered consciousness... This idea intrigued me to the point where I was again willing to take the psychedelic leap and risk confronting mayhem. Now, when the mayhem creeps up on me and paranoia and confusion fill my head, I can step back and say, "Wait a minute. This is *you*, isn't it? I know you. I know what you're up to."

The act of personifying mayhem allowed me to dissociate myself and keep it at bay. Instead of fearing it, I now learn from it. I can see the strings it tries to pull in me and the way it tries to shake me, but I don't let it. I can sit back and study [its] machinations with detached amusement or I can simply banish it. Mayhem no longer has power over me—It is just another monster under the bed (KENT 1995).

In future entheogen sessions it will be interesting to try this technique to see if it can be used to defuse difficult situations. — D.L.

ANOTHER INTREPID TRIP

Winter 1995

A *Peganum harmala* and *Psilocybe cubensis* combination proved to be the most demanding and extraordinary trip of my life. I first ingested 5 grams of po-

tent mushrooms and waited until they were coming to peak. Then I vaporized a *P. harmala* extract equivalent to 1.5 grams of seeds. This instantly transformed the trip into something totally different than mushrooms alone. The MAOI added an overwhelming ecstasy impossible to describe in words. For six hours I was floored and found it difficult to even stand up. Ecstasy kept building and building until it was more than my limited ego could handle. I am still trying to sort through and integrate the series of events that followed. I'd read many stories of seeing entities, hearing voices, and the like, but I'd never experienced such things before. It wasn't what I'd expected, and different from what I've read in *ER*. Quite simply, I was the entity. It was as if this being was exploring the physical dimension through me as me, while "I" was thrown into its domain of energy space. The entity was constantly moving my body and making sounds, expressing itself through my mouth in a weird language of vibration. This channelling of the entity realm was far beyond anything I could have imagined possible. At times I would return, only to be reamed with emotion and then find myself taken over again. I remained fully immersed in this experience for six hours, and after what seemed a lifetime, finally came out of it. My previous near-death experience while kayaking somehow prepared me for this level of intensity, since I was able to deal with the fear whenever I found myself losing control. This dosage level is unrepeatable for me (at least for a long while), as it took me way over the edge. With all its power, the trip was incredibly humbling and truly fulfilling—I will never be the same. An interesting note is that I didn't experience any of the nausea typically associated with this combination. I am particularly sensitive to nausea, and was pleasantly surprised not to have to deal with it. It appears that vaporizing the *P. harmala* extract is a great way to go.

The following week three of us tried the same combo with 1 gram of *Psilocybe cubensis* and an extract equal to 3 grams *Peganum harmala* seeds taken together (instead of waiting for the mushrooms to come on first). Two did *P. harmala* implants (enema not released) with a very small amount of water, while the other tried the *P. harmala* sublingually without swallowing it. None of us experienced any nausea, though it did make the initial woozy feeling of the mushrooms more pronounced for me. In our next session we ingested 2 grams of *P. cubensis*, waited until they were coming on strong, then vaporized an extract equal to 1.5 grams of *P. harmala* seeds. This provided incredible clarity and a more cerebral experience than the *P. harmala* implants. This is my favorite in terms of dosage and method of ingestion. The channelling phenomenon did not occur, but I could sense the entity presence around me. — TOAD

ER is receiving consistent reports that high-dose mushroom ayahuasca can be a rigorous experience, often with the presence of "demonic" entities. The shamanic challenge is to maintain a critical perspective during these encounters; whoever or

whatever these beings are, they seem to feed on fear. They also seem to be quite powerless once we stop taking them seriously—easier said than done when you're in the middle of such an encounter! — JIM DEKORNE

COMING ON SLOW

Unable to Locate Date of Entry

My experience with mushroom ayahuasca begins very slowly—for almost two hours virtually nothing—maybe a slight flushing of the extremities. This is on an empty stomach. I've never had anything take so long to begin.

— ANONYMOUS

This report allows for a good opportunity to point out how individuals metabolize substances differently. For myself, the combination of Peganum harmala extracts and psilocybian mushrooms has always produced effects that come on more rapidly than with mushrooms alone; sometimes in a mere 15 minutes I begin to feel the effects of the mushrooms. (This is always having pre-dosed with the P. harmala extract about 15 to 30 minutes prior to consuming the mushrooms.) — DAVID AARDVARK

REPORT FROM THE PALENQUE CONFERENCE

Summer 1996

The following is excerpted from a long and interesting letter from an attendee of the 1996 BOTANICAL PRESERVATION CORPS conference in Palenque, México. — JIM DEKORNE

...Perhaps the biggest bombshell of the conference was dropped by JONATHAN OTT in a talk regarding the "ayahuasca effect" in which he categorically stated that MAO inhibitors *do not* potentiate tryptamines. While they do allow DMT to pass through the digestive system, in the brain they actually inhibit the action of indole psychedelics! He cited numerous clinical studies done on psychiatric patients during the 1960s in which various indoles were administered, subjects were then treated for a number of days with medicinal MAOI drugs such as Marplan and Iproniazid, and then indoles were re-administered. In all cases, pre-treatment with MAOI drugs significantly blocked the subjective effects of materials found to be previously active in the same patients. The rationale for this was explained as follows: intake of MAOI drugs boosts brain serotonin levels, and since indole psychedelics are serotonin antagonists, their effectiveness is lessened when brain serotonin levels are higher than normal. This contention was supported by the fact that methysergide, a known serotonin inhibitor, has been shown to potentiate both LSD and DMT. OTT's assertion was, of course, loudly debated by many attendees whose subjective experiences seemed to contradict it.

When mushroom ayahuasca was mentioned, OTT noted the large body of anecdotal evidence supporting it, but stated that in light of the nearly four-fold variation of psilocybin content in mushrooms from the same jar shown by JEREMY BIGWOOD, he would remain skeptical until carefully controlled experiments could be carried out with pure compounds. In his own experimentation, the only evidence he had of MAOI potentiation of a psychedelic was in the case of mescaline, which he said was intensified by a factor of four in combination with *Peganum harmala*. — FORBIDDEN DONUT

MUSHROOM AYAHUASCA INSIGHTS

Summer 1996

I used 3.5 gm of powdered 'shrooms and 1 gm of *Peganum harmala* extract. The first time I took the mixture with juice in a blender, the second time brought to a quick boil with lemon juice and chamomile, then strained and drunk. Both worked. I think I will stick with this dose for a while. The first time, I had the distinct impression that a "space suit" was being made for me. This suit has been in the making for years—anyone can have one. In it, one is immortal and omniscient. It is difficult to describe: bliss, euphoria, my eyes exploding, being transected with laser beams ... The first half of the trip seems to be devoted to alien contact. I think this is the establishment of symbiosis. The alien might be the mind of the mushroom, the mind behind nature, the mind of more advanced, differentiated, even future versions of oneself, or other aspects of the collective unconscious. I do not believe it is aliens from another solar system *per se*, leastwise not having come here in bodies and starships. The second part of the trip is devoted to visions of one's own life and acquaintances, irrespective of time. — REMASTER, CA

MUSHROOM AYAHUASCA

Summer 1997

After a week's time and 3 days of watching my diet I ingested 50 mg of harmine HCl. An hour later I ate 3.7 gm of dried psilocybian mushrooms (apparently two different species, as indicated by size differences of about 500%). My wife ate 2.5 gm of the very same mushrooms without any harmine. About the only thing our experiences had in common was a left/right splitting of bodily sensation. I felt the right half associated with civilization, the city and the left side with the woods and tribalism. My wife reported the same thing but in different terms. In all my years of journeys I have never before experienced this splitting phenomenon. I must have learned it well as I can now differentiate the right and left at will, if I look deep for it.

The trip was intense—about equal to a dosage of 3 times what I ate. Not all aspects were increased however. Rise time was about 2 hours, which is about what I would expect of 3.7 gm alone. Physical symptoms of poisoning, nausea, *etc.* were not potentiated. The duration and intensity of the peak and plateau were definitely extended. A full “plus-three” for 4 hours and a decline to the point where I could just barely sleep took another 6 hours. (My wife fell asleep about the time I began to come down.) Sleep came at 5:30 am, 11 hours after ingestion of the ‘shrooms. The next day was fuzzy and trippy all day—sleep came at 7:00 pm.

Quite the experience. Certainty β -carbolines should be considered a valuable adjunct for enhancement of the desirable aspects of shamanic inebriation. I dreamt like crazy for 3 days after. — CYOTEE

CURIOUS BUGS

Summer 1997

I would like to report a phenomenon peculiar to my experience of mushroom ayahuasca (1 gram *Peganum harmala* extract plus 3.5 grams *Psilocybe cubensis*). I usually do this in the dark alone at night. During these trips, an eye—not unlike a curious lizard eye—very occasionally peered in on me. At first I thought of the benevolent “Eye of Horus,” but this was a tad scary; like a dinosaur eye may look mean at first, but it’s really only relatively impartial or perhaps merciless. This happened on several occasions until finally by direct mind contact I asked it who it was. It hesitated to reveal itself and when I assured it I would not be too frightened it came out into the light. It was the biggest beetle I’ve ever seen! I was kind of freaked out by its power! I think it may have wanted some kind of transfer of information, but I must have lost interest in communicating and (as best I can remember) we more or less made another date for when and if I was ever ready.

Later on I saw how humans would die in a day on earth without bugs, but bugs could live on for a billion years without us, even in the midst of our left over fallout. Then I saw how in this one galaxy of ours, out of hundreds of millions of known galaxies, our sun is the most common type of star (a type “G,” or yellow phase). The likelihood of other places like earth existing in our galaxy alone (based on earth’s size and distance from its sun) is over 1 billion right now! So, if the bugs are so much more able to adapt than mammals, they may be one of the many types of extraterrestrials, aka angels or fallen angels. I can accept spiritual manifestations—the question is whether they want to save us or usurp us. As NIEZSCHE said, “Be watchful when dealing with monsters lest you become one of them.” — ANONYMOUS, CA

MUSHROOM AYAHUASCA

Spring 1998

Into one liter of pineapple juice (used to hasten the conversion of psilocybin to psilocin), I combined five grams (dried and powdered) *Psilocybe cubensis* and five grams (dried and powdered) *Banisteriopsis caapi* leaves. (With all of the literature that I had encountered citing the stems as the primary component containing harmala alkaloids, I felt that using the leaves would offer a mild MAOI effect; assumptions can get you nowhere and everywhere). I refrigerated this overnight. Seven travelers gathered, divided the brew equally, and cruised. The effects were rapid, beginning in about fifteen minutes, rising to a dramatic height and gradually tapering after two hours. None of us were prepared for the intensity, and our focus was not maintained as we had planned. There was a greater internal visionary display than with mushrooms alone, which was more in the green and brown range (more organic) than the blues and red that I usually experience. I also encountered some plant communion with the *B. caapi* growing in an adjacent room (vining, twining, searching, green), although this was an experience only felt by me and none of the other participants. There was some mild GI upset, and pronounced [sweating], but overall the experience was wonderful. — ORION, CO.

Five grams of dried, powdered Banisteriopsis caapi leaves would at most provide 95 milligrams of total combined β -carbolines if the leaves used were comparable to the strongest reported so far (RIVIER and LINDGREN 1972; McKENNA et al. 1984). In ayahuasca, this might not provide enough MAO inhibition to orally activate DMT for one person (OTT 1994). It is certainly possible that a greater quantity of B. caapi leaves could be used (rather than stem) as the MAOI in ayahuasca, and—while liana production is outside the reach of all but a few individuals with greenhouses, who might produce enough material for themselves and a couple of friends—growing ayahuasca for leaf and new growth production is well within the capabilities of most people. Nevertheless, we vaguely recall hearing that the natives don't use the leaves as they cause much more nausea than the stem-bark (perhaps the leaves contain flavonoids, tannins, or other toxic materials). Regardless, it seems unlikely that the small amount of B. caapi leaves added to this brew had much to do with the apparently increased potency, though we are at a loss to explain why less than ¼ of a gram of mushrooms per person would have such pronounced effects.

Not familiar with the idea that adding pineapple juice to ground psilocybian mushrooms will "hasten the conversion of psilocybin to psilocin," we asked Dr. ALEXANDER SHULGIN if he thought that this would occur. He responded:

Lordy, I have no idea. I kinda doubt it. Fresh pineapple (especially unripe pineapple) contains a rather potent protein hydrolysis enzyme called [bromelain] which is pretty effective at tenderizing raw meat (and is why there is no such thing as fresh pineapple JELL-O, since gelatin is also a protein). But there is no protein-like bond in psilocybin. And why would one want

to do such a conversion anyway? Recent Swiss trials have demonstrated that psilocybin metabolizes to psilocin (and to 4-hydroxy-indoleacetic acid) in the human body (HASLER *et al.* 1997). And for storage purposes psilocybin is the more stable compound.

Indeed, it may be that the antioxidant quality of any vitamin C contained in pineapple juice actually reduces the conversion of psilocybin to psilocin. See "Internet Mushroom Info" (Spring 1998 ER, pp. 8–11) for more on this idea. On the unrelated topic of possible mechanisms for "potentiation," we've seen speculation on the Internet that the use of white grapefruit juice may "potentiate" specific visionary drugs (DXM was mentioned as one possibility), due to this juice containing "naringenin, which inhibits the P450-1A2 and 3A4 liver enzymes." As well, we've heard Internet rumblings that 5-hydroxytryptophan has been used successfully with MDMA "100 mg just before the peak, or on the way down, seems to greatly enhance the entactogenic/empathogenic qualities without causing an increase in muscle tension, jitters, etc." Finally, one last Internet-reported experiment: "Mildly positive" results have been touted from taking three grams of Ca/Mg supplement over one hour prior to ingesting MDMA. (This practice is based on the idea that amphetamines are more easily absorbed in an alkaline gut.) Apparently the Ca/Mg reduces "jaw clench." — DAVID AARDVARK

PHENETHYLAMINES AND MAOI

MAOI AND TRICHOCEREUS PACHANOI

Summer 1995

Information coming in suggests that plant-based harmala alkaloids (temporary and reversible) are not nearly as dangerous as synthetic MAOI medications commonly prescribed for depression. Messing around with the synthetics can be fatal, and 'though I'm not familiar enough with MAOI pharmacology to say that the botanicals are never dangerous, they seem to be a good deal safer. JONATHAN OTT and others (see below) have shown that using harmala alkaloids with *Trichocereus pachanoi*, a botanical source of mescaline (a phenethylamine, hence conventionally considered a big "no-no"), may be both safe and potent. However, that in no way implies that it's therefore okay to use harmala alkaloids with synthetic phenethylamines like MDMA, 2C-B, dexedrine, etc. — JIM DEKORNE

TRICHOCEREUS PACHANOI AYAHUASCA I

Summer 1995

I know someone who has been experimenting with *Trichocereus pachanoi* and *Peganum harmala*. Two ounces of *T. pachanoi* powder was too much and he had negative side-effects for two days. Recently he tried one gram of *P. harmala* seeds with 25 grams dried *T. pachanoi* powder and said it was just right. He says the *T. pachanoi* feels about 3 times as strong when potentiated in this manner. No negative after-effects this time. He claims that this is now his favorite entheogen combo; very deep. — ANONYMOUS, NM

TRICHOCEREUS PACHANOI AYAHUASCA 2

Summer 1995

After ingesting 3 grams of raw, crushed *Peganum harmala* seeds, I waited 30 minutes and ate 20 grams of powdered *Trichocereus pachanoi*. Within a half hour the physical effects of mescaline were felt. At 45 minutes psychoactivity was noted. I took a walk, and the ground began to feel like a heavily cushioned carpet. This intensified and it felt like I was sinking into the sidewalk. I returned home and smoked a small amount of *Cannabis*, lit a candle and allowed the effects to progress. Two hours into the trip a strong rush dissolved me, the other side of which found me floating in an emerald green place surrounded by transparent red globes of varying sizes. Then visions began. I closed my eyes for a second and opened them to discover it was morning and I was home. I speculate that increasing the dose to 30 grams of *T. pachanoi* would be equivalent to 90 grams without the *P. harmala*. — ANONYMOUS, IN

MAO INHIBITORS AND PHENETHYLAMINES

Spring 1996

The debate about the compatibility of MAO inhibitors and phenethylamines is very confusing. At first, it seemed to be an unqualified “no-no.” Then it was noted that *Peganum harmala* and *Trichocereus pachanoi* have been used together, seemingly with relative safety. Recently JONATHAN OTT has described experiments using harmaline and pure mescaline hydrochloride with no reported ill effects (OTT 1994). I would like to hear from readers who have dared to combine other synthetic phenethylamines and MAO inhibitors and survived. I am considering testing these admittedly risky waters (probably using 2C-B) and any advice would be greatly appreciated. — ANONYMOUS

Peganum harmala is shaping up as an apparently safe, reversible MAOI. Conventional wisdom claims that any combination of MAO inhibitors and phenethylamines (mescaline, amphetamines, MDMA, *etc.*) is potentially dangerous. This is based on data related to synthetic, irreversible MAO inhibitors and not from the reversible MAOI in *P. harmala* or its extract. However, just because it seems okay to ingest with plants like *Trichocereus pachanoi*; it doesn't necessarily follow that it is therefore safe to combine with synthetics like 2C-B. I personally am not so curious that I'm willing to experiment with my own body to discover the limits of how far these things can be pushed. — JIM DEKORNE

MAO INHIBITION AND DOSING

Spring 1998

I have two friends, "ANDY" and "BOB," who used to take between three and six times as much (respectively) of any substance as me to get to the same level, and they still had a much flatter peak. We are all about the same size and weight, and lead similar life-styles. One day we were all going to partake in an ayahuasca experience. A double-dose of *Peganum harmala* (just to be sure) and 30 mg DMT each. BOB got a few rushes and other physical sensations, but very little visually. ANDY and I had the most amazing and scary time of our lives. (This was about a year ago.) Since then we have tried many other substances in minute quantities—like half a tablet of MDMA, LSD, mushrooms, *etc.*—but always with our MAO fully inhibited. For the time the MAO is inhibited, we have equal amounts of the substance to give each one of us equal effects. Even BOB is now on the same drug dosage; his problem was that even the double *P. harmala* dose was not enough. We now use moclobemide, which is much gentler on the stomach, and easier to dose accurately. CAUTION: with MAO fully inhibited, one MDMA tablet equals about 8–10. It's worth mentioning that the comedown is equivalent to slightly more than the actual amount of drug taken, not equivalent to a comedown that would be expected from the experienced effects. — DISTORTED, Australia

These comments regarding MAOI drugs and MDMA are interesting observations. One psychonaut we know of has tried the combination of moclobemide and MDMA "four to five times without any favorable results." We've also heard one report of severe adverse effects with this combination. It has been suggested that the order of consumption can dramatically effect the results experienced. However, there is evidence for a disparity of response based on many factors besides individual variation of MAO production. Frame of mind, physical condition, and environment can also play a part. K. Trout responds to this idea of combining MAOI drugs with MDMA:

It seems prudent to suggest pre-administration of the MAOI and cutting the MDMA dosage to 10–20% of normal (*i.e.* 7–20 mg) if people are crazy enough to actually want to mix the two. The problem with making such suggestions is the automatic accusations that this potentially risky behavior is being advocated. Unfortunately some people may indeed try this after hearing about it; in one sense I really am being irresponsible to 'enable' something that I have **never and would never try nor ever recommend**. I do think it more important to help people minimize possible problems through education and awareness. I'll bet money that these two drugs have been mixed far more than has ever been reported. I certainly don't advocate the mixture, but if people are already planning on taking the mix they should know elements that might help them avoid adverse effects.

We are interested in hearing from anyone who has combined MAO inhibitors with phenethylamines (or amphetamines). For further thoughts on individual variation of

response to different drugs, we recommend the chapter "Idiosyncrasy and Pharmacophilia" in Jonathan Ott's 1997 book Pharmacophilia or, the Natural Paradises. — DAVID AARDVARK

MISCELLANEOUS
AND MAOI

MAOI AND LSD

Spring 1994

I read that LSD is used as an ayahuasca additive in underground psychotherapy. Although LSD possesses characteristics of tryptamines, it also displays some phenethylamine characteristics. The latter are not recommended for use with MAOI drugs. Is it really safe to combine MAOI drugs with LSD? How long do the alkaloids from *Peganum harmala* inhibit MAO? — R.S., CA

YOHIMBE

Summer 1994

Corynanthe yohimbe bark is a MAOI also, and a seemingly potent one. It is very pleasurable if a good strain can be obtained. The good stuff is strong smelling, dark oak brown, and almost powdered. It is a very strong aphrodisiac for both men and women. It is not entheogenic or visionary, but it does produce mild distortions and patterns in the dark. Many would find it pleasurable to mix with an indole for a night of beautiful, psychedelic ultra-sensual sex. E.B., TX

YOHIMBE A MAOI?

Winter 1994

Do you know about the use of MAO inhibitors other than *Peganum harmala*? *Corynanthe yohimbe*, for example, is supposed to be a MAOI. How high are the concentrations of β -carbolines in the *Passiflora* species? —G.W., NY

Unless you understand them thoroughly, avoid synthetics. Herbal MAOI drugs are

considered the safest, and *Peganum harmala* seeds are the richest source I know of. I've been unable to locate much information about *Corynanthe yohimbe* bark; there is some question about whether or not it's a true MAOI, although it does contain indole alkaloids and is regarded as an aphrodisiac. It might be interesting to try in combination with *P. harmala* extract, if you're into marathon sex. Conventional wisdom says that *Passiflora* isn't nearly as good a source of harmine as *P. harmala*. Unless you have nothing else, it sounds hardly worth bothering with. — JIM DEKORNE

ERGINE & DESMANTHUS AYAHUASCA: ECSTASY VS. SEDATION

Summer 1995

Lysergic acid amide- (ergine-) containing plants produces two distinct effects: ecstasy and sedation. The ecstatic phase is like LSD. One is lucky when this is the only effect. The trip generally starts ecstatically, and after a couple of hours the two effects begin to alternate. Usually at around three or four hours the sedative effect becomes dominant. In almost all ergine trips I've had, at seven hours the sedation gives way to a pure LSD-like effect, which will last for two or three more hours—if you can stay awake that long! Unfortunately, one is usually exhausted by this point. But that's okay; when you wake up you'll feel squeaky clean, just like after LSD.

I heard somewhere that certain Amazonian tribes sometimes add ergine-containing plants to their ayahuasca mixtures. I took 3 grams of raw *Peganum harmala* seed, then 1 baby Hawaiian woodrose (*Argyrea nervosa*) seed, followed about an hour later with 3–4 grams of pulverized *Desmanthus illinoensis* root-bark. Potent stuff! The tryptamines overcame the sedation of the ergine, providing a trip that was the best of both. *D. illinoensis* root-bark may also be smoked. To describe the trip as "heavy" is only scratching the surface. — ANONYMOUS, IN

I've always wondered what the result would be to add a bag of a high-caffeine tea, like Celestial Seasonings' "Morning Thunder" to an ayahuasca brew to counteract any sedative effects. Just a thought. — JIM DEKORNE

We are not aware of any ergine-containing plants that have been used as traditional admixtures to ayahuasca. — DAVID AARDVARK & K. TROUT

WOODROSE REACTIONS

Summer 1995

The *Peganum harmala*-potentiated baby Hawaiian woodrose trips from the Indiana guy are truly spectacular sounding. I get life-threateningly sick from

woodrose and it takes a month to recover. It is the most toxic entheogen for me. On the other hand, I've never had the slightest symptoms of illness from straight ayahuasca. Diet is everything, and this is especially true for me.
— ANONYMOUS, NM

FOLLOW-UP EXPERIMENTS

Summer 1995

Here's some new, and I think exciting, info on combining ergine-containing plants with *Peganum harmala* seeds. Ergine is an acquired trip, as it takes a certain amount of practice to be able to utilize its benefits. Often a person's first experience with ergine-containing plants is unpleasant, but with repeated administrations the effects become increasingly beneficial and even enjoyable.

After extracting the alkaloids from 100 baby Hawaiian woodrose (*Argyreia nervosa*) seeds, utilizing methods previously mentioned in *ER*, I divided the resulting residue into ten doses. The residue is quite dry, about $\frac{1}{4}$ crystalline and very concentrated. I used flour to add bulk. With 1 gm of crushed *Peganum harmala* seed, I ingested 1 dose of the *A. nervosa* extract. Physical effects, dizziness, numbness of the hands, *etc.*, were prominent in 20 minutes; dissolution of the physical world was well underway within the hour. I fell into a *Datura*-like stupor for 3 hours and then awoke to a trip similar to a too-high dose of LSD. The universe was a wild wheel of color and the physical world was often washed away by another world trying to push its way through the doorway I'd unwittingly opened. Electric blue bubbles of varying sizes rose through my head like some kind of carbonated drink. My mind seemed in a liquid state—a liquid so clear I could see infinity. Body distortions were profound; there were light years separating my head and hands, and my feet seemed to lie in separate dimensions of their own. It took a millennium between my mind's command to move and the actual movement of my limbs. After ten hours, the trip subsided quickly. In subsequent trials, using a smaller dose of *P. harmala*, I've had more control and have avoided the *Datura*-like stupor. — ANONYMOUS, IN

YOHIMBE I

Winter 1995

I don't think *Corynanthe yohimbe* is a MAOI, as reported in ADAM GOTTLIEB'S *Legal Highs*, 'though it does seem to potentiate. Were it a MAOI, it wouldn't be sold over-the-counter. It's not overly friendly. For me it elevates blood pressure. Don't take it with antihistamines as it might induce vomiting and

extreme dryness of the nasal passages. I did this accidentally, thinking it was "okay." I turn scarlet when I use *C. yohimbe*, and my blood pressure is fairly low. It induces inhibition loss and impulsiveness in me. —R.W., DE

Your description of *Corynanthe yohimbe*'s potentiation of antihistamine suggests that it may indeed be a MAOI—being sold over-the-counter doesn't disprove this. — JIM DEKORNE

YOHIMBE II

Winter 1995

Yohimbine, the primary active ingredient in *Corynanthe yohimbe* bark is not a MAOI, it is an alpha blocker. This is why it's prescribed for impotence. An alpha blocker causes venous retention of blood. — R.N., WY

The alkaloids in Corynanthe yohimbe (aka Pausinystalia yohimba.) are indoles. The primary active alkaloid, yohimbine, is indeed an alpha-2 adrenergic blocker.

I have read that Corynanthe yohimbe is a MAOI in a number of "popular" drug-culture books (GOTTLIEB 1973; MILLER 1983; MILLER 1985; STAFFORD 1992; RÄTSCH 1992; RÄTSCH 1997). However, there was only one non-drug-culture book available in the ER library that states, "Yohimbe is a weak monoamine oxidase inhibitor, but it also increases monoamine production, so its overall effect is that of a reasonably active MAO inhibitor" (FOSTER & TYLER 1999).

There is no mention of the specific alkaloid yohimbine having MAOI activity in numerous books that I checked (MILLER & MURRAY 1998; WREN 1907; ROBBERS & TYLER 1999; MEDICAL ECONOMICS COMPANY 1998). A fairly recent book on prosexual drugs that also investigated this question states: "...it is safe to conclude that either yohimbine does not in fact inhibit MAO, or that its MAO-inhibiting action is too minimal to warrant concern" (MORGENTHAUER & JOY 1994). Finally, two psychonautical attempts to use yohimbine hydrochloride (first at 54 mg, then at 80 mg) to allow DMT to be rendered orally-active were unsuccessful (OTT 1994). I have heard that the plant's bark itself acts as a MAOI, while the isolated primary active chemical, yohimbine, is not a MAOI. Unfortunately, I have no idea whether or not this is true. — DAVID AARDVARK

IS LICORICE ROOT A MAOI?

Winter 1995

I was at the herb shop a few days ago and asked for *Peganum harmala* seeds. The lady said, "Never heard of it—what's it used for?" I told her about MAO inhibition (without mentioning entheogens), and she told me that licorice root works as an enhancer/accelerator. So I drank a cup and a half of moderately strong licorice root tea after eating *Trichocereus peruvianus* and within

20 minutes experienced very enhanced visuals. Licorice root is also said to be an excellent adrenaline gland rejuvenator. — PHIL

Licorice root (Glycyrrhiza glabra) does indeed contain the chalcones liquiritigenin and isoliquiritigenin, which have been shown to be MAOI inhibitors in vitro (WREN 1907). We suspect that the MAOI activity of licorice root is not too strong, but it might be interesting to see if it was possible to orally activate DMT with it. However, it should be noted that another constituent of licorice root, glycyrrhizin, has been well-documented as having toxic effects in some individuals (FOSTER & TYLER 1999) It is also worth noting that licorice root is generally considered something that should be avoided while on MAOI drugs (so experiments with licorice root while already dosed with some other MAOI may be a bad idea). — DAVID AARDVARK & K. TROUT

HERBAL MAOI QUESTIONS

Summer 1996

...In your Winter 1995 issue, PHIL said that he drank licorice root after taking *Trichocereus peruvianus*. I am relatively new to the entheogen scene, but wouldn't that cause a hypertensive crisis? Might St. John's wort (*Hypericum perforatum*) be a good MAOI to use with ayahuasca? — J.B., TX

To date, the licorice root-as-MAOI theory has come from only one correspondent, so more reports are needed to determine how effective it is. Latest opinion is that herbal MAOI use with the mescaline-containing cacti is safe. *Hypericum perforatum* is a MAOI, but I've heard that it is one of the few (only?) known herbal irreversible MAOI drugs, which (in their synthetic forms at least) are known to cause hypertensive crises. Anyone have further data on these questions? — JIM DEKORNE

*Although there was an initial report in 1984 that hypericin in *Hypericum perforatum* was a MAOI, subsequent tests by other researchers were unable to confirm this. Recent studies have shown *H. perforatum* extract to only exhibit MAOI action when it is of weak purity and contains a high concentration of flavonoids. (Since pure hypericin does not seem to show the MAOI effect, one would suspect that it may be the flavonoids that have a slight MAOI effect, rather than the primary active ingredient.) It has been pointed out that "St. John's wort may possess a mild, low-grade MAOI effect, but this inhibition is not sufficient to explain its antidepressant effect. This is important news. Because St. John's wort does not function as a MAOI, one does not need to follow any dietary restrictions" (KNISHINSKY 1998).*

*However, since using *Hypericum perforatum* to treat depression is becoming increasingly common by those attracted to herbal medicine, it should be pointed out that combining *H. perforatum* along with the MAOI from ayahuasca or an ayahuasca analogue, may not be a good idea:*

Hypericum, in part, functions as [a Selective Serotonin Re-uptake Inhibitor], similar to Prozac and Paxil. Because of this, hypericum should not be taken with a MAOI such as Nardil, Parnate, or Marplan. This information

has not been based on clinical studies of hypericum, but on the medical information known about prescription [SSRI drugs] and [MAOI drugs]. Research has shown that [MAOI drugs] and [SSRI drugs] do not mix successfully. When administered together, central serotonin syndrome (CSS) can occur, subjecting persons to any number of severe reactions such as dangerous fluctuations in pulse and blood pressure, confusion, rapid pulse, sweating, and disturbed consciousness, which can ultimately result in coma or death (KNISHINSKY 1998).

Indeed, Hypericum perforatum is commercially available in pills that also contain 5-HTP, and which are specifically sold for the purpose of increasing serotonin levels. Those taking H. perforatum would be wise to discontinue its use 2–5 weeks prior to consuming ayahuasca or an ayahuasca analogue. — DAVID AARDVARK

LSD/DMT/PEGANUM HARMALA COMBO

Fall 1996

I first ingested 150 mg of *Peganum harmala* extract and waited 25 minutes for it to take effect. Then I ingested a capsule of 90 mg of DMT free-base and placed two hits of LSD under my tongue. About 40 minutes later I ingested a second capsule of 90 mg of DMT as a booster. The effects really kicked in about an hour after taking the first DMT capsule. Visions began to unfold as trails of color that soon began to transform and take a life of their own. Entities abound! I found myself sitting in the midst of a cosmic circus. The playful energies were joyously acknowledging my presence and encouraging me to join them in celebration. And I did! I was communicating with them in a glossolalia of sound and movement. Just as I was really getting into it, a tidal wave picked me up and plunged me into an ocean of energy. Suspended in a beautiful blue light I realized that my body was gone and my thoughts had ceased. I was totally free... Suddenly a hand, mouth, sound, or smell would manifest out of nowhere and bubble forth with delight. It was so blissfully easy, and unlike any other transcendental psychedelic state I have ever experienced. I glided right beyond the fear before I even knew what hit me. Such a magical synergy of chemicals! This state continued for several hours, gradually giving way to an LSD-like experience that lasted for a long, long time. In fact, I wasn't back to baseline until some 24 hours later. I really liked this brew, and I hope to hear of other ER readers experiences with the LSD/DMT synergy. For me, it made the whole DMT dissolution process a much easier and more blissful endeavor. — TOAD

While LSD and ayahuasca (Banisteriopsis caapi and Psychotria viridis) are awesome together, this combination might be best left for the true "hard heads" amongst us. It's incredibly electric, and left me feeling quite fried after-the-fact. — K. TROUT

AMANITA AND MAOI

Spring 1997

I have heard that drying and smoking *Amanita muscaria* is very effective ... I wonder if it would be rendered more active orally in the presence of a MAOI like those in *Peganum harmala*. I have experimented with throwing passion flower into the water when I make tea from psilocybian mushrooms. Although the amount of harm(al)ine is low (as far as I know), it seems to really turn on the mushrooms. — BZRK, NYC

AMANITA MUSCARIA

Fall 1997

In response to the letter from BZRK of NYC on *Amanita muscaria* and MAOI: I first heard of this combination a couple of years ago from an employee of a local occult bookstore who sells numerous herbs, including *Amanita muscaria* and *Peganum harmala*. She stated that 10 grams is a good amount for her, but that when used in combination with 2 grams of *P. harmala* the *Amanita* dose can be halved. Although I've not tried it yet, a friend tells me that this combination is definitely worth the experimentation. — M.S.S., PA

What with the numerous chemicals that may cause adverse reactions when combined with a MAOI, it is possible that the combination of Amanita mushrooms and a MAOI might be a bad idea. — DAVID AARDVARK

THE
PASSIFLORA
GENUS

PASSIFLORA INCARNATA 1

Spring 1995

You kinda slammed *Passiflora* in Winter 1994 issue of *ER*. This could be considered the North American ayahuasca vine, and it does work quite well. It grows as a perennial in central Texas, producing many pounds of material per plant, and should be virtually maintenance-free in most parts of the country. One could assay different strains and clone them, keeping those varieties of consistent potency. When compared with the tricky *Peganum harmala* as a source of homegrown β -carbolines, this is a cinch to grow. I suspect it is only a little weaker than *Banisteriopsis caapi*. I tried almost a pound as a MAOI along with *Psychotria viridis*: definitely potent. — ANONYMOUS, TX

I've never bothered with *Passiflora*, but I see your point. It grows practically everywhere without much fuss, whereas *Peganum harmala* is a desert plant that is difficult to cultivate. Cultivating high-alkaloid *Passiflora* strains might be worth the trouble. My lack of enthusiasm for *P. incarnata* stems from data like the following, which suggest that one must ingest a great deal of material to get a minimal dose. — JIM DEKORNE

Passiflora species contains less harmine by weight than Banisteriopsis caapi. Passiflora incarnata is one of the very few Passiflora species that contains harmine. The low levels in this plant are the reason that GRACIE and ZARKOV used such large amounts. The main alkaloid in Passiflora species in general, and P. incarnata in specific is harman. This means that in order to get an effective dose of harmine, a huge dose of harman, and possibly other unwanted β -carbolines, are also going to be ingested. — K. TROUT

PASSIFLORA INCARNATA 2

Spring 1995

Vinegar extraction of 40 grams dried *Passiflora incarnata* yielded about 10 grams dried extract—enough to fill 16 size '0' gelatin caps. — D.B., OR

16 size '0' caps are a lot of pills to swallow. — JIM DEKORNE

PASSIFLORA INCARNATA 3

Spring 1995

On one occasion, I first ate a whole bottle of the 4:1 extract of *Passiflora incarnata*, which is available over-the-counter in Australia. Each tablet contains 500 mg of extract, and I ate 60 tablets. [That's 30 grams: more than an ounce of material! — JIM DEKORNE] A single tablet is supposed to be an herbal sedative, but I was not sedated after eating the 60. My reason for doing this was that *P. incarnata* is supposed to contain...MAO inhibitors (used to activate oral DMT). About 40 minutes later, I smoked some DMT, the effects of which were not greatly different from what I am used to. I then had a slightly larger amount, and without warning, felt an intense, incredible rush of physical pleasure through my body. Within seconds, I was riding on the most intense, unimaginable, pure total-body orgasm. I was unable to control myself, and was screaming at the top of my voice until the effects subsided. The visual and auditory enhancement were mild, but the physical effects were by far the most enjoyable thing I have ever experienced. Observers, who were taken aback by my behavior, claim that I was in this state for about 10 minutes. Afterwards, I felt intensely euphoric, and both very excited and very relaxed. I tried eating a significant quantity of the DMT after this experience, and found no effect. This would indicate that the passion flower extract is insufficient to orally-activate DMT at these doses. It may be that higher doses would have some effect, or that the extract doesn't contain enough β -carbolines (from ftp.u.washington.edu:/public/alt.drugs/chemistry-extracting).

PASSIFLORA CAERULEA I

Summer 1995

The blue passion flower (*Passiflora caerulea*) contains chrysin. In the past, I've combined it with *Cannabis* and opium, both singly and with all three, never using more than three leaves of *Passiflora*. All experiences were uniquely anxiety-free, with amplified mental and visual effects. I decided to experiment with larger doses: seven large *Passiflora* leaves, well-chewed and swallowed; two hits of good-quality sinsemilla; two heavy tokes of opium. The following insights resulted:

In sleep, I am approaching consciousness through a dream, but I never reach it; in wakefulness I am approaching sleep through a dream, and sometimes I can reach it. The dream is the common modality of awareness: we've risen from death into this world and shall eventually sink back into it. — ANONYMOUS

PASSIFLORA CAERULEA 2

Summer 1995

Passiflora caerulea is a good source of harmala alkaloids. For best results, smoke the leaves—one joint equals about a gram. This plant is easy to cultivate and probably wouldn't be targeted for legislation. If any of us are not yet growing harmala source plants, you could do much worse than this plant. We should all grow it on general principles. — ANONYMOUS

I am unable to find any literature that indicates that harmine is contained in Passiflora caerulea. Harmala alkaloids like harmol and harmalol are not that uncommon in Passiflora, but like harman (which is not a harmala alkaloid), they are not alkaloids that are going to have the desired effects. — K. TROUT

THE
PHALARIS
GENUS

PHALARIS MANAGEMENT FOR ALKALOID PRODUCTION

by JOHNNY APPLESEED
Spring 1993

Although the presence of tryptamine alkaloids in the *Phalaris* genus has been widely reported, these reports show quite a bit of variation in which specific alkaloids are present, and in what concentration. Some of the varietal, environmental, and horticultural factors contributing to these variations are discussed below.

Alkaloid production differs within the varieties of each species. In *Phalaris arundinacea* (reed canarygrass), for example, the alkaloids range between zero in some varieties, to all specimens testing positive in varieties native to Turkey and Yugoslavia. In *Phalaris aquatica*, the varieties "Australia" and "uneta" have tested highest in ayahuasca admixture alkaloids.

Another factor to consider is soil fertility. The more fertile the ground, especially in nitrogen content, the more alkaloids one can expect to harvest. Likewise the placing of plants with respect to shade is important. Partial shade, if available, is more conducive to alkaloid production.

Perhaps the most important management factor is the clipping schedule and time of harvest. The first growth of the year should be clipped as soon as the seed stalks appear, with clipping continuing as needed for the whole first half of the growing season. (These initial clippings may be discarded, as they will have little or no alkaloid content.) The highest alkaloid production will appear during the second half of the growing season, especially in regrowth associated with an abundance of moisture after a period of dryness. After the last clipping, sometime in early August in most temperate regions, one waters the stand and lets it regrow. The highest alkaloid production will come during a period of cool weather following fast regrowth during hot

weather. One can usually obtain two good cuttings, one at the end of August, and another sometime in September, with the latter being the most potent. Studies have shown that cutting during the early morning hours harvests more alkaloids.

The last factor to consider is whether to dry the grass or extract the alkaloids from the fresh material. Drying tends to reduce the alkaloid harvest, but in some cases, especially that of the Turkish variety of *Phalaris arundinacea*, drying may reduce the presence of unwanted alkaloids.

SMOKABLE DMT FROM PLANTS: PART I

By JIM DEKORNE
Winter 1993

Note: The "DMT" mentioned in the article below is actually a mixture of 5-MeO-DMT, DMT, and β -carboline alkaloids. Mr. DEKORNE was unfamiliar with the differences between DMT and 5-MeO-DMT at the time that he wrote this article, and was under the impression that the Phalaris grass he was working with contained DMT. A later laboratory analysis showed that, while it did contain some DMT, the main active alkaloid was 5-MeO-DMT. Although it was unfortunate that the information was presented incorrectly at first, a correction was printed in a later ER. The actual chemical content of the particular grass that he was working with in no way diminishes the fact that smokable tryptamines (and, in some cases, only DMT) can be easily extracted from Phalaris grasses and other plant sources. This point is brought up in advance, as it will allow the context of the specific effects related below as "DMT effects," to be more correctly understood as applying predominantly to 5-MeO-DMT, and not to DMT (especially since 5-MeO-DMT is about 4 times as potent as DMT). — DAVID AARDVARK

It is with mixed feelings that I have chosen to publish the following article. Just as the Bolshevik revolution took place within the context of the First World War, the entheogen revolution seems likely to re-explode within the context of the War on Drugs. What you are about to read constitutes a tactical nuclear explosion in that war. Although the consequences of this are unpredictable, human survival now demands that we stop pacing ourselves according to the limitations of the weakest among us. The nature of our culture almost mandates that this information will be abused, but that must not prevent me from communicating with my intended audience.

Smokable DMT can be easily extracted from *Phalaris arundinacea* and *P. aquatica*. (Presumably the same holds true for any DMT-containing botanical, dozens of which have now been identified and continue to be discovered. There is much research to be done in this area. Obviously, a lot depends upon each species and its varieties as well as differences in individual plants. For example, an extraction made from the root-bark of *Desmanthus illinoensis* produced only threshold symptoms—a "plus-one" on the SHULGIN

scale. Does this mean that *D. illinoensis* is not psychoactive? No. But perhaps this particular strain was low in DMT, due to genetics or environmental conditions.) The extraction procedure is a simple process of simmering the biomass in a 30% lemon juice bath for about 12 hours: a crock-pot is ideal for this. When cooled, the filtered solution is de-fatted with an organic solvent such as methylene chloride. The aqueous solution is then basified to about pH 9 and an organic solvent used to extract the alkaloids. This is evaporated and the resulting tar is scraped up with a razor blade and weighed into dose-sized amounts—prudence advises one to start out conservatively at 10–15 mg. This amount of tar can be then redissolved in ethanol in a shot-glass and a one-toke quantity of inert matter (mint, parsley, oregano, etc.) stirred in. After evaporation, this is ready to be smoked in a small pipe. (See the Winter 1992 issue of *ER*, for a more detailed description of this extraction process.)

ANALYSIS

Depending on alkaloid concentration, the experience from a one-toke inhalation of this substance may be more than even a veteran psychedelic voyager can handle comfortably. I am not exaggerating when I say that a 50 mg trip I took on this stuff felt analogous to having a psychic hydrogen bomb go off in my brain. It was quite simply terrifying—when I came down ten minutes later, I was profoundly grateful that I still had all of my mental faculties intact. (A friend has suggested that free-fall parachute jumping is good preliminary training for would-be DMT smokers!)

DMT is a normal part of human metabolism (it is apparently synthesized in the pineal gland or “third eye”) and is considered physically benign, but while it’s sparking across your synapses it’s difficult not to believe otherwise. The onset is sudden and intense—it is already coming on before you’ve exhaled. Then one is swept away in a cerebral hurricane of light and motion. Resist any impulse to resist: flow with it, breathe with it. Imagine a Zen meditation at Hiroshima ground-zero. Knowing that it won’t last very long helps considerably—within ten minutes or so, it is already subsiding.

DMT is obviously a molecule that demands respect. Because of this, I can’t imagine it ever becoming a recreational drug—its nature is to sear away our illusions down to the core of being—a process few would describe as “recreational.” My guess is that after an initial trip or two, most people will choose to leave DMT alone—such intensity is difficult to manage without a working structure. Intuition suggests that breath and sound are good points of departure for the creation of these inner structures.

Semantically, the word “entheogen” refers to anything that evokes the “god within.” This, because it cannot be anything but subjective, will be different

for everyone. Some people see entities, some just see light—I am sure that there are as many manifestations of transcendence as there are people to perceive them.

I experienced light—clear, white light of such power and intensity that the only metaphor I can use to describe it is that of an atomic fireball at the instant of detonation. The insights came later—after the fireball had subsided. The first insight was a cosmic pun:

“The Third I is We.”

Something was blasted loose within my psyche and the fallout continues. My dreams have changed dramatically: nocturnal strobe-lights heralding pregnant enigmas. We are light-containing vessels and it is essential that our vessels grow strong enough to hold its full intensity. Each ego is a finger pointing at its own inner moon; forget the finger and just be the moon. It has taken light-years for this illumination to reach the very eyes through which it has been shining all along. Take care that it doesn't blind you.

SOME COMPARISONS

LSD, at best, is a chemical synthesized in a laboratory by a Ph.D.—a drug presently obtainable only from a complex technology via an underground hierarchy of “dealers.” It is, therefore, the example *par excellence* of a contemporary consumer-culture psychedelic. Aside from any positive effects it may produce, it is still inextricably entangled within a toxic and moribund techno-economic system. This principle holds for all synthetic drugs, including ketamine, MDMA, 2C-B, *etc.*

Ayahuasca, a tea brewed from rain forest plants, is an Amazonian shaman's medicine. It is traditionally used by people who live within an entirely different set and setting than our own. It did not grow out of our culture, and is arguably a forced transplant. Modern Westerners do not easily accept the concept of plant teachers, nor are we comfortable with the severe somatic side-effects of this substance. These principles are generally true for the ayahuasca analogues, as well as for most traditional shamanic entheogens, such as *Amanita muscaria*, *Datura* species, *Lophophora williamsii*, *Tabernanthe iboga*, *Trichocereus pachanoi*, *etc.*

Phalaris DMT is something brand new—derived from one of the ayahuasca analogue plants, it is a natural form of DMT and/or 5-MeO-DMT that can be grown by anyone anywhere on the planet outside of the polar regions. It generally has no somatic side-effects (vomiting, nausea, *etc.*), nor is it dependent for its extraction on complicated laboratory procedures, equipment or knowledge. Neither is it necessary to rely upon a profit-oriented monopoly

of dealers to obtain it. It comes on fast, is too intense, and subsides rapidly—just like the way we live our lives. Here for the first time—untainted by high technology, drug dealer capitalism, cultural unfamiliarity, or somatic malaise—is an extremely powerful entheogen potentially available to anyone who wants it. It just might be the right catalyst at the right time to transform our world.

The numinous nature of the DMT experience recalls some verses from the Hindu scriptures: In chapter 11 of the *Bhagavad Gita*, ARJUNA asks KRISHNA to show him his *visva-rupa*, or “universal form:”

If You think that I am able to see Your cosmic form, O my Lord, O master of all mystic power, then kindly show me that universal self (PRABHUPADA 1972).

KRISHNA responds to ARJUNA’S request by saying:

But you cannot see Me with your present eyes. Therefore I give you divine eyes, so that you can behold My mystic opulence... (PRABHUPADA 1972).

Whatever KRISHNA does to open ARJUNA’S eyes, it obviously precipitates a profound alteration in consciousness. Anyone who has experienced a full-fledged DMT flash might see a parallel here. At any rate, ARJUNA is deeply disturbed by the vision he receives:

O all-pervading Visnu, I am unable to keep the equilibrium of my mind! Seeing Your radiant color filling the skies and seeing Your mouths and eyes, I am afraid.

O Lord of lords, O refuge of the worlds, please be gracious toward me! I cannot keep my balance seeing thus Your blazing, deathlike faces and awful teeth. I am bewildered in all directions (PRABHUPADA 1972).

Compare this with TERENCE MCKENNA describing a psychedelic trip:

I even have conversations in the hallucinogenic spaces where I say, “Show me what you are for yourself.” And then it starts like an organ tone that begins to lift velvet drapery. After about forty-five seconds of that I say, “That’s enough of what you are for yourself. Let’s go back to dancing mice and little elves and, you know, the happy, nice stuff! This is scaring the socks off me!”...It always cloaks itself. It’s not an entirely honest encounter. It knows that you actually couldn’t handle it...It can accept as many projections as we can put onto it. It literally is beyond the power of human imagining, so whatever image we lay onto it, it can take that and give it manifestation. The mice, the elves, the alien abductors (MCKENNA 1993B).

With the DMT experience now available to anyone willing to extract this endogenous (you've got some in your pineal gland right now) entheogen from any one of scores of different plants (many of them common North American "weeds"), it seems that the fools and angels among us are being offered "divine eyes" for seeing the "universal form," or something like it. Given the historical context of this sudden gift, I cannot help but feel that McKENNA's "ingression of novelty into time" is about to go into overdrive. May the force be with us.

SMOKABLE DMT FROM PLANTS: PART 2

Spring 1994

The following is a clarification and update of the "Smokable DMT from Plants" article appearing in the Winter 1993 issue of *The Entheogen Review*, in which alkaloid extractions made from *Phalaris arundinacea* were described and discussed:

Phalaris arundinacea (reed canarygrass) is a species of grass that has worldwide importance as a forage crop. (Some species in the *Phalaris* genus got their name "canarygrass" because their seeds are often used in commercial birdfood mixtures.) Although we reported that *P. arundinacea* "varieties" *aquatica* and *tuberosa* have been found to contain high percentages of DMT and 5-MeO-DMT, further research indicates that *Phalaris aquatica* is a separate species in itself and is not a variety of *P. arundinacea*. In addition, *P. aquatica* and *P. tuberosa* are the same species, *tuberosa* being the older, now obsolete name. (Often the literature is unclear about these matters, suggesting that botanists themselves haven't yet agreed about what is what.) Although this causes some confusion, it should be stated that both *P. arundinacea* and *P. aquatica* contain tryptamine alkaloids, and that potency can vary widely.

It is difficult for amateurs to identify these grasses, particularly when the grasses are immature, since positive identification is dependent upon the characteristics of the seed head at the point when the plant is fully developed. At any rate, to the uninitiated, these plants look just like orchard grass. This feature, plus the commercial importance of *Phalaris* as animal fodder (not to mention the fact that only certain varieties have high alkaloidal content), should make it difficult for the DEA to schedule this plant, let alone be able to enforce it effectively. Two *P. arundinacea* varieties known to be potent are "Turkey red" and "Yugoslavian fresh cut." (Extractions from a mixture of these two varieties were tested in the Winter 1993 issue.) It is my understanding that the "variegated" variety of *P. arundinacea* is inactive.

It appears that the alkaloid mentioned in the Winter 1993 article in *ER* may have been 5-MeO-DMT rather than DMT. This tentative conclusion is deduced from the fact that the smoked extract does not seem to produce the entity contact phenomenon—at least not very often. Instead, one gets an extremely intense whirlwind of light:

When smoked, DMT produces a very rapid, intense intoxication of short duration that is marked by vivid visual imagery... By contrast, smoking of pure 5-MeO-DMT, a more potent tryptamine, produces an overwhelmingly powerful experience that can be unnerving. One user describes inhaling 5-MeO-DMT vapor as “a rocket ship into the Void.” Another comments: “If most hallucinogens, including LSD, merely distort reality, however bizarrely, 5-MeO-DMT completely dissolves reality as we know it, leaving neither hallucinations nor anyone to watch them. The experience need not be negative, but it is not for the novice” (DAVIS & WEIL 1992).

Increased heart rate is also typical and therefore these extractions must never be smoked by anyone with high blood pressure or any kind of heart condition. A sample of the extraction has been sent to a laboratory in Switzerland for analysis, but to date no response has been received. It is hoped that we'll get an answer before the next issue goes to press. Significantly, 5-MeO-DMT is not scheduled by the DEA. (Most people will probably find it too intense for it to ever become popular as a drug of abuse.)

Extraction of the alkaloids is not difficult, but it must be done properly. There are many formulas, most based upon the fact that DMT is not too soluble in water, but is soluble in aqueous acids and, after basification, in organic solvents. Here's a formula from Australia:

(Plant material was) extracted by repeated maceration with methanol. The extract was concentrated, an equal volume of dilute sulfuric acid added, and after filtration the filtrate was made basic with ammonia. Extraction with chloroform gave a crude alkaloid solution. The alkaloid was extracted back into dilute sulfuric acid, the acid fraction basified with ammonia, and extracted with chloroform. The chloroform was evaporated off to give the alkaloid... It was purified from coloured material by elution with 2% methanol/benzine from a column packed with neutral alumina. A crystalline fraction was obtained (ROVELLI & VAUGHN 1967).

“Elution” means to “wash out.”

One of the most important points from the Winter 1993 article seems to have been missed by many readers; that point is that smokable DMT or 5-MeO-DMT is easily extracted from any botanical that contains these molecules. *Psychotria viridis* leaves, as well as *Desmanthus illinoensis* root-bark are obvious possibilities here.

NETWORK FEEDBACK ON PHALARIS

Spring 1994

All this talk about DMT-containing grasses! The best grasses I have seen are *Phalaris aquatica* strains. The concentration varies from strain to strain. See *Phytochemistry* Vol. 11, 1972, pp. 2767–2773; and *Nature* March 4, 1967, p. 946. How one obtains them, I don't know. Perhaps some Australians will read this article and help out with information about how to buy these strains.

CPI 14279—originating from Greece.

CPI 19344—originating from Portugal.

CPI 14419—originating from Portugal.

These have approximately 75% of total alkaloids as DMT. No β -carbolines, no bufotenine. A sizable percent of the other alkaloids is 5-MeO-DMT.

Regarding DMT extractions. My extractions produce a large middle layer of emulsion. It takes a week or so for the solvent to depart from this layer. After evaporating the skimmed-off solvent a small amount of clear oil remains. After mixing the oil with powdered unextracted material, I stored it in a refrigerator. I extracted four doses worth. I tried smoking a dose, with no effect. I continued smoking until (within 30–45 minutes) used up all the material—to no effect. As I said, the oil and solvent were clear. According to the article in Winter 1992 *ER*, the solvent layer should turn color. Do you have any idea of where I went wrong? Can the pH of the mixture get too alkaline so that decomposition occurs? — VIRLA-WHIRLA, OR

PHALARIS IDENTIFICATION

Spring 1994

How can you tell the difference between varieties of *Phalaris*? I've been to the University library and found *P. arundinacea* but no mention of *P. aquatica* or *P. tuberosa* varieties. I tried a methanol extraction with some *Phalaris* purchased through a mail-order plant service with disappointing results. There was some psychoactivity ("plus-one") that peaked within fifteen minutes. — C.G., UT

JOHNNY APPLESEED RESPONDS

Spring 1994

Phalaris aquatica (= *P. tuberosa*) is a tufted perennial primarily grown in Australia. It spreads weakly from rhizomes. It grows about 1 foot high, has a light green color, and the seed head is compact. During summer it grows very slowly.

Phalaris arundinacea is a strong sod-forming perennial growing wild in the Northern two-thirds of the U.S. and in most other temperate countries. It spreads strongly from vigorous rhizomes, and likes water, often being found along streams and irrigation ditches. It has wide, coarse, dark-colored leaves growing several feet high, and a coarse seed stalk that shoots up to 5 feet high. The seed head is a loose cylindrical cluster from 3–6 inches long.

I prefer to work with *Phalaris arundinacea* for several reasons. Much more is known about its genetics and there are many more varieties that have been tested. When I have extracted alkaloids from *P. aquatica*, they are not as great in quantity. Also the *P. arundinacea* grows much more vigorously, and thus gives you much more foliage to start with. *P. aquatica* is also not very winter hardy, and it does not grow well farther north. It is known to have bufotenine (5-hydroxy-DMT), which may not be good to ingest. I have not seen bufotenine listed as a constituent of *P. arundinacea*.

CPI stands for COMMONWEALTH PLANT INTRODUCTION (in the Commonwealth countries). These numbers are similar to the American PLANT IDENTIFICATION (PI) numbers in this country that can be used to access the U.S. DEPARTMENT OF AGRICULTURE germplasm repository. I don't know how to access CPI numbers. It is much easier to get a PI number.

As to the failure to extract alkaloids, I don't know what to say. If alkaloids are being extracted, they should not be in an "oil" form. Perhaps you've got the wrong variety of *Phalaris*? — JOHNNY APPLESEED

SOME QUOTES ABOUT PHALARIS SPECIES

Spring 1994

"*Phalaris*" is an old Greek name for a grass.

Phalaris: A genus of about twenty species, these distributed in the temperate regions of the world. Of the nine species in the United States, four have been introduced from Europe. Most of our species occur in moist situations

on disturbed soils and are more or less weedy. *Phalaris arundinacea*, reed canary grass, is a valuable hay grass in the northern Midwestern states... [and is] found in marshes and moist places, New Brunswick to Alaska, south throughout the United States except in the southeast; Eurasia. An important lowland hay grass from Wisconsin to Montana (GOULD 1993).



At least nine alkaloids, grouped as either phenol, indoles or β -carbolines, have been found in reed canarygrass... Genotypes completely free of alkaloids are not known, but the variations in alkaloid concentration within groups of plants treated uniformly are shown to be very wide (Marten 1974)... It is very difficult to explain the presence of skewed distribution in this material without knowing exactly the function of alkaloids in reed canarygrass. The skewed distributions exist in all populations, independent of the origin, or whether the populations have been exposed to selection or not... Assuming normal distribution and if natural selection has been going on by means of grazing, a selection towards higher alkaloid levels should be expected.

Two of the alkaloids found in reed canarygrass (DMT and 5-MeO-DMT) have been claimed to be responsible for two diseases in sheep and cattle grazing *Phalaris aquatica* L. (= *P. tuberosa* L.) in Australia. One of these diseases, "Phalaris staggers," causes chronic disorder of the central nervous system. The other disease is "sudden death," characterized by sudden collapse, ventricular fibrillation and cardiac arrest (Gallagher *et al.* 1964; Oram 1970)... Parenteral administration of these two tryptamines has proved them toxic to both ruminants and non-ruminants (Marten 1974), though it has also been indicated that these disorders are very likely not caused by indole alkaloids alone.

Alkaloid concentration in reed canarygrass is enhanced by moisture stress (Marten 1973), by decreasing light intensity and by high rates of N fertilizer, especially NH₄-N source (Frelich and Marten 1972). Cutting reed canarygrass every second week produced a sharp increase in indole alkaloid levels as compared with levels in free growth tissue (Woods and Clark 1971). Alkaloid concentration is greatly reduced in dried grass (Donker *et al.* 1976) and in silage (Hovin *et al.* 1980).

Alkaloids in reed canarygrass are confined largely to the leaf blades (Marten 1973)... Hagman *et al.* (1975) stated that the upper third of the total herbage had the highest and most uniform alkaloid concentration as compared with the middle and lower thirds. High correlation ($r = 0.94$ to 0.98) between alkaloid concentrations in the upper third and in the total herbage enabled them to recommend sampling only the upper third of herbage canopies for routine alkaloid screening of reed canarygrass... (ØSTREM 1987).



HARDING GRASS, *Phalaris tuberosa* (sic) [cv.] *stenoptera*, a cool season

perennial, is grown in the Southwest and in southern California under irrigation in forage mixtures for hay and pasture...

BULB CANARYGRASS, *Phalaris tuberosa* (sic), is a perennial extensively grown in Australia ... It is necessary there to add cobalt to the soil or to the animal diet when *Phalaris* toxicity is encountered with sheep or cattle grazing this species (HUGHES 1961).

Plants of *Phalaris aquatica* L. (syn. *P. tuberosa* L.) "Stenoptera" grown from seed have widely varying differences in their concentrations of *N,N*-dimethyltryptamine and *N,N*-dimethyl-5-methoxytryptamine. Although some variation was anticipated, the magnitude of the differences was beyond expectation and in sharp contrast to the indolealkylamine content of plants propagated vegetatively. It is suggested that the variation noted may have important ecological implications with reference to *Phalaris* toxicity (RENDIG *et al.* 1970).

ALKALOID CONCENTRATIONS

Summer 1994

Regarding the low alkaloid concentrations of some *Phalaris* varieties: my feeling is that all species have some activity and if one can harvest with a lawn mower, who cares if the content is low? At 2% content, a kilo of lawn clippings would yield two grams! A lawn mower bag weighing ten kilos of only 0.2% would still yield two grams, and so on. — Prof. BUZZ DE LUX, CA

Assuming that there is even DMT in the grasses that you are harvesting with a lawn mower, what else might be concentrated in that two grams you extract? This could be quite a dangerous strategy, due to the wealth of unknowns that are going to be extracted. A person using the "shotgun" lawn mower approach to grasses with unknown alkaloid content would be wise to have GC/MS run on the extract (to see what's really there), and then separate it out via some chromatography method. — K. TROUT

DANGEROUS DATA

Summer 1994

I understand at least some of the reasons why you had mixed feelings about publishing the "Smokable DMT from Plants" article in the Winter 1993 issue of *ER*. Your analogy to a tactical nuclear explosion is an apt one; I, however, would like to say "Bombs Away!" I hope this will be the first of many such articles and breakthroughs. It's been a long time brewing, and this is just too important to be anything other than bold about. — S.F., WA

MEDITATION DIET

Fall 1994

When preparing for ayahuasca medicine journeys, a simple diet of fresh foods without salt or spices is best. Steamed fish and rice for five to seven days is recommended. To be avoided at all times at least five days prior to the journey are all aged foods: raisins and all dried fruits, ripe avocados, ripe bananas, brewer's yeast, amino acids, any supplements and protein drinks containing the amino acid tyramine. Avoid coffee, chocolate, soy sauce, cream or yogurt, sauerkraut, cheeses (especially aged cheeses), any fermented/alcoholic beverages, broad beans, herring, lox, jerky and smoked foods, chicken livers, and snails. All narcotics, barbiturates, antihistamines and alcohol must be free from one's system prior to this meditation.

This discipline is well rewarded and worth the effort. A word to the wise: to disregard this diet can be rather unpleasant. These plant teachers are healing in ways beyond description; approach them with respect and enter the ocean of the souls. — A.S., NM

The above diet has been reported to reduce nausea and somatic side-effects, as well as much of the psychological stress associated with ayahuasca ingestion, specifically including *Phalaris ayahuasca*. — JIM DEKORNE

There is, of course, nothing wrong with monitoring one's dietary intake or fasting prior to the consumption of ayahuasca (or any entheogen). It is worth noting, however, that the dietary restrictions that some traditional shamans follow prior to using ayahuasca have nothing to do with potential adverse effects from MAO inhibition. For example, according to the list presented above, "ripe bananas" should be avoided. Yet plantains are one of the most commonly permitted foods in traditional shamanic diets.
— K. TROUT

TRYPTAMINE CONCENTRATIONS IN PHALARIS VARIETIES

Summer 1994

Approximately 25 mg of *Phalaris arundinacea* extract (as described in the Winter 1993 issue of *ER*) was sent for analysis to the INSTITUT UNIVERSITAIRE DE MEDICINE LEGALE, LABORATOIRE DE TOXICOLOGIE ANALYTIQUE in Lausanne, Switzerland. The results of the assay are as follows:

...The extract contains mainly 5-MeO-DMT with 50% of a compound with molecular weight of 216 which might well be 6-MeO-Methyl-1,2,3,4-Tetrahydro- β -carboline and around 5% of 2-Methyl-1,2,3,4-Tetrahydro- β -carboline and DMT. The identity of 6-MeO-2-Me-THC is still pending as I

am missing the reference substance. Additional works are going on to offer a firmer identification...

This confirms our educated guess in the Spring 1994 issue that the subjective experience of smoking this extract conformed more to the 5-MeO-DMT profile than that of DMT. The next task is to identify a strain or species of *Phalaris* that contains more DMT and less (or no) 5-MeO-DMT—a molecule that tends to be more intense than most people are comfortable ingesting.

— JIM DEKORNE

AYAHUASCA ANALOGUE QUESTION

Summer 1994

I was wondering if *Phalaris arundinacea* could be boiled up with *Peganum harmala* and drunk. If so, what would be the approximate dried and/or fresh weight of each species required? — M.S., PA

Does anyone have any experience with this? My guess is that this method would require a lot of trial and error to perfect—it seems easier to just extract the alkaloids chemically. — JIM DEKORNE

SMOKABLE AYAHUASCA

Fall 1994

A methylene chloride extraction of *Phalaris arundinacea* (described in the Winter 1993 and Spring 1994 issues of *ER*) was mixed 50:50 with a *Peganum harmala* extract (described in the Summer 1993 issue of *ER*) by soaking both in ethanol and depositing this on mint leaves. After evaporation, a one-inhalation quantity of this was smoked. The experience was, as GRACIE and ZARKOV say, “qualitatively different” than the *Phalaris* extract alone. The variety of *Phalaris* used in this experiment contained mostly 5-MeO-DMT, which is an extremely intense trip when smoked by itself. With the addition of the MAO-inhibiting *P. harmala* extract, the experience seems to be somewhat longer and considerably smoother, with what can best be described as a “full body orgasm” as its predominant sensation. (It is my hypothesis that 5-MeO-DMT and DMT affect the chakras along the cerebro-spinal system.) Most people who have tried this combination prefer it to the *Phalaris* grass extract alone.

A variant of this “smokable ayahuasca,” which was originally described by GRACIE and ZARKOV in their 1985 *Notes From Underground #7*, is to smoke about three inhalations of *Peganum harmala* extract prior to an inhalation of

Phalaris grass extract. (The *P. harmala* is a surprisingly smooth and pleasant smoke. Its main effect is mildly tranquilizing, but not visionary.) In combination with *Phalaris* this seems stronger than the first method, though it still buffers the “alien” intensity of the 5-MeO-DMT alone. There’s no doubt that using MAO inhibition with these tryptamines synergizes a “qualitatively different” experience, and in my opinion, a much “friendlier” one. — GAVILAN

PHALARIS AYAHUASCA

Fall 1994

I swallowed approximately 1 gram of *Peganum harmala* extract in three capsules. One hour later I took 1 teaspoonful of fresh-squeezed juice from *Phalaris arundinacea* var. Turkey red. Three hours later the strong effects began (until then only mild “plus-one” and “plus-two” symptoms were noted). The experience rapidly grew to “plus-three,” lasted about two hours, then subsided. The trip was extremely uncomfortable, with constant diarrhea, weakness, dizziness, and mild nausea. The “psychedelic” effects were without colors, insights or euphoria, but with a characteristic “tryptamine buzz” and overtones of nameless anxiety. Very weak, I lay on the bathroom floor, not wanting to be far from the toilet, since the recurrent diarrhea was intense. The word “intoxication” kept running through my mind; I was experiencing something “toxic” for sure! Others have taken this combination without such negative symptoms, so I suspect that everyone may respond to it in their own way. I was amazed how only one teaspoonful of juice could be so potent and was glad that I hadn’t ingested more; the trip took so long to come on, I thought perhaps I hadn’t taken enough. Don’t be fooled by that! — J.G., CA

NOTES ON PHALARIS

Fall 1994

Extracting *Phalaris* grasses with a wheatgrass juicer is a recent innovation. *Phalaris* expert JOHNNY APPLESEED advises caution when using this new technique. He points out that *logically* there should not be a high enough tryptamine content in only *one* teaspoonful of juice to produce the reported effects. This suggests that other chemicals may be involved. APPLESEED asks us to remember that these grasses are known to *kill* sheep that eat them. In other words, be cautious with this stuff until we know more about it! — JIM DEKORNE

PHALARIS UPDATE

By JIM DEKORNE
Fall 1994

The discoveries now emerging from the *ER* network regarding *Phalaris* grass are nothing short of incredible. It is as if a “trans-personal intelligence” is revealing data deliberately designed to create the widest possible opportunity for the mass expansion of consciousness. Having been exposed for years to TERENCE MCKENNA’S ideas about global changes in awareness, the “ingression of novelty into time,” and the “end of history” a scant 18 years away, I can’t help but feel that it is all happening on a scale too large and at a pace too rapid for comfortable assimilation. To really understand MCKENNA, you have to go where he’s been, and that’s becoming easier all the time.

Once upon a time, not so very long ago, people could at least imagine a credible future—education, career, marriage, family, growing old with dignity and a death surrounded by loved ones; in short, a life infused with plausible rewards for the effort of drawing breath. Now posterity fades before our eyes. No one knows what’s lurking over tomorrow’s horizon, other than that it will likely be darker than today’s. Our survival prognosis is grim; barbarous abuses of power escalate unchecked while social structures developed over long centuries disintegrate within decades, years, even weeks and days, with nothing to replace them except generic forebodings about our destiny. That’s a hell of a way to spend your life.

Since consciousness is our essence, it is both the problem and its solution, and anything that can alter the reality-perception of a significant mass of humanity has the potential to save our asses before we destroy them. As the cliché says so well, “We need all the help we can get.”

Now conjecture a “trans-personal intelligence,” charged with the elevation and evolution of human awareness into higher realities. We have sunk so deeply into matter that most of us can hardly imagine other realms of being, so this “intelligence” must first provide a catalyst to blast us out of our material myopia. To be effective, this catalyst must be available to the widest possible number of people at little or no cost—something so common that it would be impossible for the entrenched power structure to control or destroy. It must be easy to use, requiring minimal preparation. And it must be potent, even psychologically dangerous, for nothing less will open our awareness to the encompassing Mystery. (The ego must understand that this is an all-or-nothing proposition; there are no comfort zones in the unknown.) The catalyst must be brand new—it cannot have a history of use because control structures must be non-existent—the law must not touch it before it becomes so endemic that it transcends all possible control.

The tryptamine-containing species within the *Phalaris* genus of grasses fit the above catalyst description perfectly. These species grow both wild and under cultivation over large portions of the United States. Although many (most?) varieties are not considered psychoactive, there is some evidence suggesting that stress to the plant, as in overgrazing, may activate tryptamine production in almost all varieties—alkaloid synthesis may be the plant's defense against predation. This hypothesis remains unproven at present, but it is well worth investigating. I have heard of grasses growing wild along irrigation ditches in Oregon said to be extremely potent. ("Over-potency" is an important factor to be considered when experimenting with *Phalaris* grass; there seems to be a high concentration of 5-MeO-DMT in most varieties, and this is an alkaloid best appreciated at lower doses.)

When combined with a tea or extract made from *Peganum harmala* seeds, one teaspoonful of potent *Phalaris* grass juice may create an authentic analogue of the Amazonian ayahuasca brew. When this *Phalaris* grass juice is dried to a powder, it may be smoked for a DMT-like experience. Depending upon DMT concentration and its ratio to the usually accompanying 5-MeO-DMT in the grass, this experience can vary in its effects.

A friend describes 5-MeO-DMT as the "power," and DMT as the "glory." Whether alone or in combination, these alkaloids can evoke something analogous to the "fear of God" so prominently mentioned in the Old Testament. There is no doubt that these substances provide us with an opportunity to experience the numinous in our lives. This is exactly what the world needs right now.

CORRECTION: SMOKABLE TRYPTAMINES FROM PLANTS

Fall 1994

I have one point of criticism about what you call (repeatedly) "smokable DMT from plants." I think this is very imprecise, sloppy language, which is misleading and will give a wrong impression to not-so-educated readers, and it really ought to be changed! Reminds me a bit of the old booklets claiming to show one "how to extract LSD from morning glory seeds in your kitchen." (Which actually contain only LA-111, as *we* know.) I am one of the lucky (alas few) people who has smoked both chemically pure *N,N*-dimethyltryptamine and 5-methoxy-*N,N*-dimethyltryptamine. All other people (experts only) whom I gave some to try agreed with me that the effects from these two substances are different not only in duration (5–10 minutes vs. 2–3 minutes) but definitely also in the quality of the trip. (And *all* of these people preferred the unsubstituted DMT!) If you now consider

that 5-MeO-DMT (2–3 mg) is, by weight, far more potent than DMT (50–70 mg, both: free-base, smoked/85 kg body weight), and that nearly all plants like *Phalaris* grasses contain considerable amounts of 5-MeO-DMT (even if they contain more DMT by weight, it's usually more 5-MeO-DMT by effective dosage), it should be clear, that it *is* and therefore should be called a *smokable tryptamine mixture* from plants. The fact that the plants that produce this mixture are an easy-to-acquire source of visionary drugs that may become quite important in the near future remains untouched, of course. — W.D.A., Germany

You are absolutely correct. The error in nomenclature stems both from my initial ignorance of the combination of substances in *Phalaris*, and my initial inexperience with the differences between them. Now that we know better, and until a source of pure plant-derived DMT is identified, we cannot call this anything but “smokable tryptamines from plants.” This is how psychedelic myths are created and I hope I haven't inadvertently started one. Incidentally, although the 5-MeO-DMT trip is quite different from DMT, it has its own interesting features, which are now beginning to emerge. — JIM DEKORNE

The comparative dosages presented by this correspondent equate 2–3 mg of 5-MeO-DMT to 50–70 mg of DMT. This is wrong. 5-MeO-DMT is generally considered about 4 times more potent than DMT. Hence, active doses of 5–10 mg of 5-MeO-DMT would be equivalent to about 20–40 mg of DMT. — DAVID AARDVARK

LAWNS OF PHALARIS

Fall 1994

I am interested in planting a lawn of *Phalaris* grass. To obtain a lawn's worth of seeds from an ethnobotanical outlet would be prohibitively expensive. How about commercially available seed—it's much cheaper than the specialty suppliers. How does it compare? Where can one obtain seed of the “Turkey red” variety? As the grass is used as animal fodder, can one obtain it ready-grown? — ANONYMOUS

The purchase of potent *Phalaris arundinacea* or *P. aquatica* seed varieties is frustratingly problematic: the grasses are extremely uneven in tryptamine content. Some varieties appear to contain nothing psychoactive, some have only DMT or 5-MeO-DMT, but usually there is a combination of the two. Seed is readily available from many commercial sources but who knows whether it represents a potent variety? Unfortunately, extensive breeding has been carried out to eliminate the tryptamine-containing types, so logically one might expect to get more benign seed than otherwise. For the same reason, one could not plausibly expect to purchase a harvested bale of *Phalaris* grass that was very potent; *Phalaris* grass alkaloids were originally discovered because livestock were getting sick from eating this grass. If a stockman bought some bales of *Phalaris* that killed his sheep, he'd likely sue the supplier.

Also, I understand that even potent strains, such as “Turkey red,” do not necessarily breed true; one could get seed from such plants that still might not produce the desired alkaloids. For this reason, it is probably best to obtain root cuttings and plant these out. The little plants spread vigorously via rhizomes, and in a year or two the new clumps can in turn be sectioned to eventually create a large lawn of known potency. To date, this appears to be the only way to guarantee consistently repeatable results. On the other hand, there is speculation that stress to the plant might initiate alkaloid production. Since *Phalaris* is not normally planted as a lawn, perhaps weekly mowing might induce prolific tryptamine synthesis. (The image of mower bags full of this stuff boggles the mind, as only teaspoon-sized doses of the juice are considered quite potent.) More research needs to be done to nail all this down. — JIM DEKORNE

SMOKABLE “DMT” FROM PHALARIS

Spring 1995

The Fall 1994 is depressing. You published before you had your facts and now “everyone” is passing this info on (*Factsheet 5*), with most trying to make money—*Psychedelic Resource List* is selling info, LOOMPANICS is using it to sell your book (as are you, I guess). Ah, the lure of fame and fortune. Are you or have you:

1. Written to these and other publications (*Psychedelic Monographs and Essays, Psychedelic Illuminations, High Times, Whole Earth Review, etc.*) enclosing a disclaimer with each copy of “that” back-issue and your book.
2. Planning to have a notice in forthcoming issues stating the truth. This will not hurt anyone but might help some folks.

You have started a myth and nothing will stop it. The best you can do is make a valid, honest and serious attempt to limit it. In the revised info in the following *ER* (after the false story) you wrote “this confirms our educated guess” re: 5-MeO-DMT. What does that make your original story based upon? Is it any wonder society in general considers us the lunatic fringe? Please give some thought to giving as much media attention to correcting mistakes as you did publishing the false info. I now consider your disclaimer to be the word of God. The way this false info is being dealt with is pathetic. Makes me sad, JIM, very sad. — R.D., Canada

This correspondent is concerned about my article (Winter 1993) claiming that DMT can be extracted from *Phalaris arundinacea*, and is dismayed that the variety of *Phalaris* originally described, “Turkey red,” was subsequently found to contain more 5-MeO-DMT than DMT (though it actually contained both tryptamines). He feels that I have been irresponsible in my handling of this information. (Readers seeking the full story as it unfolded are referred to articles in the Winter 1993 and Spring, Summer and Fall 1994 issues of *ER*.)

Phalaris arundinacea and *P. aquatica* are known to be extremely variable in their alkaloidal content—I have repeated this fact *ad nauseam* in every article I've written on the subject. There are some varieties that contain only DMT; had I started out with an extraction from one of these, presumably there would be no objection, "though species-wise, the original claim would have been equally imprecise. Please remember that I don't possess the technology necessary for full chemical analysis, and that when I first experienced the effects of the *Phalaris* extract I was unfamiliar with the differences between these two closely related molecules. I published a correction in *ER* as soon as I discovered it, and the second printing of *Psychedelic Shamanism* also contains a corrective footnote.

For the record, I do my best to ensure accuracy with this newsletter. The subject of entheogens is both politically and scientifically "incorrect" in mainstream culture. By definition then, much of our information is based upon the subjective experiences of "outlaws." Anyone who thinks it's possible to avoid errors under such circumstances, hasn't given the matter much thought. One of the goals of *The Entheogen Review* is to sort fact from fiction; in handling brand new data is it possible to always differentiate the two? The process itself creates the discrimination. I could find any number of equally inaccurate statements in the scientific literature, made in good faith by people with far better credentials than mine. (And yes, please pay close attention to the disclaimer on the first page of every issue of *ER*—it means exactly what it says!) Finally, I'd prefer that readers carefully consider their words before they criticize in this fashion—my experience with entheogens implies less aggressive ways of approaching each other. — JIM DEKORNE

HOW MUCH PHALARIS?

Spring 1995

In the crock-pot extraction method for smokable (tryptamines) from *Phalaris* grass, how much plant material is needed? You mention boiling up tubs of *Phalaris*, but what would I need to get a toke or two's worth? Also, does one need to ingest *Peganum harmala* alkaloids before smoking, or is that only for orally ingested tryptamines? — ANONYMOUS

Your first question is asked a lot, and I apologize for being unclear. It all depends upon the alkaloidal content of the grass—some varieties have few or none of the desired alkaloids, so no matter how much you boil up, you won't extract anything usable. The "Turkey red" variety will yield as much as 50 mg of extracted 5-MeO-DMT from a big double-handful of grass. Unfortunately, I've never weighed it, but it's enough to fill an average-sized crock-pot between $\frac{2}{3}$ and $\frac{3}{4}$ full, along with enough aqueous acid to cover. Harmala alkaloids or other MAO inhibitors are not required to activate smoked tryptamines, "though they may cause them to last longer or change the quality of the experience. — JIM DEKORNE

ITALIAN PHALARIS REPORT

Spring 1995

The following quotes are taken from a recent Italian paper. It describes the discovery of solely DMT in large quantities in yet another *Phalaris* species—*P. brachystachys*. Apparently the usual 5-MeO-DMT and other tryptamine “contaminants” are entirely absent from one variety of this plant, which is native to Portugal:

P. brachystachys and *P. minor* seem to contain only (DMT), the former in high concentration, the latter in trace amount(s)...

The article goes on to discuss tryptamine toxicity in cattle and sheep (*Phalaris* staggers), and states that the “sudden death syndrome” associated with *Phalaris* toxicity is not associated with its tryptamine content. This, of course, implies another still unidentified cause—especially significant because the wheatgrass juicer extraction method presented in the Fall 1994 issue *ER* probably does not exclude this “factor-X.” Some of the symptoms of *Phalaris* staggers are described:

The peracute syndrome or “sudden death,” formerly included in the toxicosis complex, is now considered apart, owing to the etiology, almost certainly not tied to tryptamine alkaloids... Death may occur by heart failure, (a) few hours after the intake of toxic forage in the acute syndrome, (or not) until 5 months later in the chronic one. In the latter case, post-mortem examination gives evidence of irreversible degenerative lesion(s) in the central nervous system...

Finally, these intrepid researchers describe an ayahuasca analogue experience using a *Phalaris aquatica* variety common in Italy:

A *P. harmala* extract quantity corresponding to 4.5 g of seeds was first ingested on an empty stomach; the (*Phalaris*) extract supposed to correspond to 40 mg of indole alkaloids, but probably greater for at least a factor 5, and equivalent to about 400 g of fresh *Phalaris aquatica* was ingested 20 minutes later. A first peak, clearly entheogenic but fully controllable, became evident about 30 minutes later, followed by an apparent sensation of diminishing effects. In this first phase neither nausea nor any other physical symptoms or feeling to be intoxicated appeared. One hour and a half after the ingestion of *P. aquatica* the effects quickly became acute again leading, for one of us, to a complete loss of consciousness 40 minutes later (FESTI & SAMORINI 1994).

DIFFERING EXTRACTION METHODS

Spring 1995

Regarding the subject of “dangerous” *Phalaris* alkaloids extracted with a wheatgrass juicer, mentioned in the Fall 1994 issue of *ER*. As noted, one teaspoonful of raw juice is not enough for any tryptamine activity considering typical concentrations reported in the scientific literature, so it is probable that something else causes the psychoactivity. Some issues ago JOHNNY APPLESEED carefully described how to extract *Phalaris*. This is not to say that the juicer technique is of no use, just that there is a huge difference in methods. APPLESEED cooked the leaves to get an acid-water solution that he then fat-extracted; the remainder was basified and the alkaloids removed with an organic solvent. The raw juice might contain fat-soluble toxins as well as disease-causing micro-organisms—at least pasteurize it! Although APPLESEED’S method takes longer and is more tedious, the result is an alkaloidal extract without contaminants. — VWIRLA-WHIRLA, OR

QUANTITY PHALARIS PRODUCTION

Spring 1995

What are the best ways to get large stands of *Phalaris* grass with consistent alkaloid content? Surely vegetative propagation with OF THE JUNGLE’S plants at \$25.00 each would either be very expensive or a very long term project. Should seed from a known-potency plant be expected to produce offspring with a similar alkaloid profile if self-pollinated? I have the patience for a long-term project with delayed rewards, but prefer a shorter path to the same end. — A.H., TN

JOHNNY APPLESEED RESPONDS

Spring 1995

Quantity alkaloid production from *Phalaris* grass is a long-term project, but not an interminable one. Starting with one plant, one could grow it in a pot indoors during the winter with plenty of light and moisture. By spring, one could take out the developed root-ball and obtain from 25 to 50 rhizome sections suitable for planting. If we take the conservative estimate of 25 sections, we would then plant-out these rhizome sections on a one-foot grid, covering a 5 X 5 foot area. With good watering, these plants in turn by fall should each have a root-ball that could in turn be divided into 25 sections, giving a total of 625 rhizomes. Thus, by the fall of the first year, we should have a 25 X 25 foot square planted. The second season, if each of the above plants were divided, we would have a total of 15,625 plants, or an area of

125 feet on a side, or 0.34 acres. One more division would give an area large enough for most purposes. All these plants would be genetically identical.

The main factor in consistent alkaloid content is the genetic make-up of the plant. Not all plants of known potency can be expected to produce offspring from seed with a similar alkaloid profile. *Phalaris arundinacea* is self-sterile and has a two-gene system proposed for alkaloid production (MARUM *et al.* 1979). Given two genes and a forced crossing each generation, there are four possible genetic combinations possible from each parent (MT, Mt, mT, mt) and thus 16 genetic combinations possible in the offspring. Using the alkaloid inheritance scheme proposed by MARUM *et al.*, out of these 16 possible combinations, there would be 12 possible combinations that could produce 5-MeO-DMT in the progeny, and of those 12, only 4 would breed true in subsequent generations.

Three of the possible genetic combinations would produce DMT in the original progeny, and only one of them would breed true (mmTT). One of the possible original 16 combinations would produce the alkaloid gramine (mmtt). These are not the ratios one finds in actual crosses, as the frequency of occurrence of these genes differ. Thus gramine, with only one possible genetic combination, occurs in less than 60% of random plants tested, while DMT, with 3 possible genetic combinations occurs less than 1% of the time.

So you can see that seed from any producing cultivar is not assured to produce consistent yields in subsequent generations. The cultivar "Turkey red," a 5-MeO-DMT producer, has been tested by TLC to determine the alkaloid production pattern for a number of individual plants. Out of the 16 plants selected at random from the original seed source, all 16 plants exhibited a similar alkaloid production pattern of 5-MeO-DMT. Out of over 50 seed sources and over 800 individual plants tested, no other strain exhibited such uniformity of alkaloid production. Thus it may be safe to assume that the "Turkey red" strain should breed true in subsequent seed generations, if care is taken not to plant within one quarter mile or so of a pollen source of other *Phalaris arundinacea*. — JOHNNY APPLESEED

PHALARIS STAGGERS

Summer 1995

Tryptamine alkaloids, which are similar in chemical structure to serotonin, have been reported to cause sudden death, acute neurologic disturbances, cardiac arrhythmias, and the chronic neurologic condition known as *Phalaris* staggers. These conditions, associated with the feeding of graminoid plants (especially *Phalaris* spp.) to sheep and cattle, have been observed in Australia, New Zealand, South America, and South Africa, but have only recently

been observed in animals in the United States...Chronic *Phalaris* staggers is more likely to develop in sheep that have had prolonged exposure to alkaloid-containing plants grown on soil deficient in cobalt (LEAN *et al.* 1989).

*The above quote implies that it is the tryptamine alkaloids that cause said "sudden death." It is noteworthy that Phalaris arundinacea regularly contains more 5-MeO-DMT than P. aquatica (examples: PI 172443 Turkey; PI 235547 Sweden; PI 253317 Yugoslavia; USDA palatable clone #41-5; APPLESEED 1993, see also BARNES *et al.* 1971; GANDER *et al.* 1976), and, despite over 200 years of its recorded deliberate use for fodder, it has a total of 2 instances of stagger reports worldwide (MARTEN & HEATH 1973). Neither were in the USA. One, in Norway, involved only a single young animal (ULVAND 1985, cited in ØSTREM 1987); a more serious outbreak occurred in New Zealand on mixed pasturage containing an estimated 60% P. arundinacea (SIMPSON *et al.* 1969). Reports of staggers in the USA are infrequent, and are limited to P. stenoptera and P. minor in California (RENDIG *et al.* 1976), and 'Ronphagrass' (a Phalaris hybrid) in Florida (MARTEN & HEATH, citing RUEIKE *et al.* 1954).*

*Even a given field that produces staggers one year may not in the following years, even when nothing has been done (RENDIG *et al.* 1976). It is also noteworthy that attempts to reproduce chronic Phalaris staggers using pure alkaloids have never been successful (GALLAGER 1964; GALLAGHER 1967). — K. TROUT*

ITALIAN AYAHUASCA

Summer 1995

...The oral psychoactivity of the *P. aquatica*... aqueous extract is obviously different from (that) of the single compounds DMT or 5-MeO-DMT... Moreover, in spite of the title of this communication where we use the word "ayahuasca-like effect," the pharmahuasca *P. aquatica*/*P. harmala* seems to be a lot different from the Ayahuasca australis; the sometimes aggressive and often up-down subjective effects of the former are in contrast with the meditative and often almost oneiric characteristic of the latter. The reasons for this difference are probably due to the distinct chemistry of the two preparations. It is possible that some pharmahuasca characters are linked to the interaction between DMT and 5-MeO-DMT considering that the latter substance is not contained in the classic additive *Psychotria viridis*... We cannot exclude, however, that other compounds present in the *Phalaris*, little or not active themselves, could play an important role in the global pharmacology of these species (FESTI & SAMORINI 1994).

ALKALOID INDICATORS?

Summer 1995

Some of my *Phalaris* plants produce dark droplets of sap that appear on the ends of the leaf blades after cutting. Some plants have quite noticeable dark spots at the tips of their blades, while others do not. I suspect the darkness

may indicate alkaloids. Is there any physical characteristic of the various *Phalaris arundinacea* strains that would indicate high alkaloid content? Perhaps those strains originating from locations known to produce high-alkaloid plants have distinct characteristics. I bought some “killer strain” seeds from OF THE JUNGLE and they are apparently high in alkaloids, but I don’t know if they’re high in *desirable* alkaloids. Has anyone else had experience with these seeds? What percentage of tryptamines can be expected from potent *Phalaris*? — ANONYMOUS, Canada

TOXIC JUICE

Summer 1995

I have abandoned any usage whatsoever of *Phalaris arundinacea*. Smoking the juice extract gets me high, but it gives me a toxic feeling and I get severe insomnia when I go to bed that night. I’ve never had any interest in drinking the fresh juice with *Peganum harmala*. There are too many more interesting plants on the horizon. — ANONYMOUS, NM

MEDIOCRE PHALARIS EXTRACTION

Summer 1995

Phalaris arundinacea is everywhere in Vermont. A methanol extraction of *Phalaris* (3 times over 36 hours), with resulting tincture evaporated in a crock-pot, resulted in a tar that, when combined with a dry herb, heated/burned and inhaled, produces unmistakable “plus-two” rushes, but not the kick into the universe next-door that is the philosopher’s stone of this particular alchemical quest. — Dr. SAX, VT

BETTER LUCK WITH PHALARIS EXTRACT

Summer 1995

To avoid the nausea of ingesting dried *Phalaris* juice I tried a one-gram anal suppository (after first swallowing a gram of *Peganum harmala* extract). I became distracted by the burning and churning of my lower intestines and the suppository was soon eliminated. (A gram was probably too much anyway.) Not wanting to waste the *P. harmala*, I hastily swallowed 250–350 mg of *Phalaris* in another gel cap and resumed my meditation and chanting practice. Sitting at an altar lit only by flickering candles in a mood of reverence is enough to induce fluidity of vision all by itself, but I was pleased to note more fluidity than usual as well as heightened alertness and energy. I did yoga while listening to ROBBIE BASHO, one of the nearly-forgotten treasures of

the sixties. I began to reflect on difficulties I was having with my housemate and formulated a more compassionate view of our situation. Stepping out of candles into electricity brought the realization that I was definitely tripping. There were no wholesale visual alterations, but everything buzzed with the intensity of its nature. Speaking with my housemates, our conversation was fruitful and we enjoyed a greater sense of ease than we had in several weeks. I went to sleep readily around midnight and had memorable dreams. Woke up feeling good and went to work. While not the powerful experience some people are reporting, it is the most encouragement I've had in the several years I've been playing with tryptamines. I'll keep you posted.
— Dr. SAX, VT

SOLVENT ODORS

Summer 1995

I've extracted *Phalaris* using methylene chloride, but I'm too afraid to swallow it with a MAOI. It still smells like solvent, even though totally dry. No luck smoking this stuff. Even if I evaporate it onto an inert substance it just bubbles like resin and I get no effect. — E.K., LA

A potent *Phalaris* extract should smell strongly of DMT, which is unmistakable once you learn it. It could easily be mistaken for a solvent odor, since DMT smells vaguely like mothballs, or some kind of plastic dissolved in gasoline. I strongly advise that if there's any solvent odor at all, the extract be re-dissolved in ethanol (drinking alcohol) and then re-evaporated. Solvent odor indicates the presence of a potential carcinogen! — JIM DEKORNE

Again, I would recommend that one use a solvent other than methylene chloride, due to its penchant for leaving behind an unknown residue. — DAVID AARDVARK

PHALARIS TOXICITY I

Winter 1995

I am dismayed to learn that *Phalaris arundinacea* toxicity is not due to DMT content, and that all high-alkaloid strains are suspect. I would prefer something that didn't require complicated extraction procedures with environmentally-unfriendly and toxic solvents. — HATTER

My recommendation in this case would be to use either Psychotria viridis leaves, Diplopterys cabrerana leaves, or Mimosa tenuiflora (=M. hostilis) root-bark. — DAVID AARDVARK

PHALARIS TOXICITY 2

Winter 1995

Concerning *Phalaris* toxicity: Sheep eat many pounds of this grass per day. JONATHAN OTT points out that *Phalaris* grasses contain trace amounts of β -carbolines, so I suggest that the sheep are unwittingly “ayahuascaing” themselves to death. — G.W., CA

PHALARIS BRACHYSTACHYS

Winter 1995

An extract of *Phalaris brachystachys* originating from Algeria proved to be excellent. 50 g of fresh grass was extracted by the APPLESEED method. I first smoked an extract equivalent to 2 g of *Peganum harmala* seeds to potentiate the DMT. After 5 minutes I smoked the *Phalaris* extract and was smoothly propelled into a “plus-three” experience that lasted for 10 minutes. Definitely ecstatic... Based on the effects, I think DMT was the only tryptamine present in the extract. — TOAD

While I don't doubt that you may well have a Phalaris brachystachys that contains mainly or solely DMT, it is worth noting that the P. brachystachys clones that JOHNNY APPLESEED obtained from the USDA were 5-MeO-DMT containers. Just another example of how the alkaloid content can differ from strain to strain within a single species. — K. TROUT

AYAHUASCA ZOMBIE

Spring 1996

I tried the combination of *Peganum harmala* and *Phalaris aquatica* (Harding grass, a “special strain” from OF THE JUNGLE) recently on an excursion to the Nevada desert. 300 gm dried *Phalaris* material (stem leaves and inflorescence) was ground in a coffee grinder and placed in a plastic bottle. I did the same with 100 gm *P. harmala* seeds. To extract the alkaloids I made a tea of the combination of both ground materials and added the juice of 4 limes and water to make 500 ml. This was simmered for about an hour, then filtered through a coffee filter. I poured 250 ml of vodka over this with the intention of improving the extraction, since my last try was fruitless. I drank half of the resulting tea.

Perception of the world began to change in about 20 minutes. My vision seemed not to catch up with my eye movements. This resulted in a blurring and impressionist-like view of reality. I also became apprehensive about los-

ing control of my body. I became more and more sedated, but this was not sleepiness. Eventually I lost much physical control and speech was impossible. I lay in a tent for the next six hours. I was able to get up to drink water and urinate, but it was very difficult. I felt like a zombie—my body was numb, but my mind wouldn't slow down. My thoughts obsessed on the loss of my autonomic functions, such as breathing and heartbeat and how it would be for my friends to find me dead there in the desert. I had the life-before-my-eyes feeling and was able to see myself from other people's perspectives. This was somewhat like what is described as an out-of-body or near-death experience, but I was quite aware that I was experiencing this in my head while my body lay in a lump on the floor of the tent. There was none of the peace that is described with these experiences. Thoughts went through my head with abandon; I had lost the filtering and organizing ability of ordinary consciousness. It was as if the dream state was functioning while the critical mind watched. Occasionally, these thoughts led to sexual desire without arousal. I fell asleep after about six hours. When I awoke the effects had worn off completely. This feeling of regaining my body and consciousness was better than nearly any feeling I've ever had! I wonder if others have had this experience. Was it the result of set and setting or the inappropriate dosage of materials? I'm especially curious if *Peganum harmala* was the main culprit here, since the dosage as a MAOI was probably 20 times more than necessary. I'm also curious about the alkaloids present in Harding grass. I'm very apprehensive to try this again, even with careful measurement. Any thoughts about this? — S.R., UT

If nothing else, the above account describes a very large overdose—even allowing for the possibility of few tryptamines in untested plant materials, 300 gm of *Phalaris* and 100 gm of *Peganum harmala* is really tempting fate. Pouring vodka over an aqueous acid marc should insure that any nauseating fatty acids left in the marc would drain into the filtrate; instead of extracting more alkaloids, it may have extracted more of the very stuff you want to eliminate. *P. harmala* in particular contains some nasty oils that are one probable culprit in creating somatic discomfort. *P. aquatica* is thought to contain an as yet unidentified “factor X,” which kills sheep who eat it in any quantity. Only half of the tea should have included at least 3 shots of alcohol—in combination with all the other stuff, a not-insignificant cocktail of mind-altering brew.

I understand the frustration of trying “sensible” doses two or three times without effect and the resulting temptation to really overdo it in an effort to get something. Unfortunately, the “something” you usually get is likely to scare you off enteogens for a long time to come. The following comments are general, and not intended to apply specifically to the author of the above account:

The emerging consensus about these new ayahuasca analogue plants is that they are the antithesis of “recreational” drugs and that it is all but impossible to predict how any given individual will respond to them initially. I know of a group session in which “A” was having a re-birth crisis while “B” was violently retching, while “C” was so hungry she had to keep getting up to raid the icebox, while “D” was quietly contem-

plating infinity—all of these responses on identical doses of the same plant extractions! (60 mg *Phalaris arundinacea* plus 125 mg *Peganum harmala*.)

I have come to the belief that this is the way it is supposed to be—these are shamanic plants, not for everyone, and the shamanic path is anything but easy for those who walk it. Unfortunately, there's a popular image of the shaman as a new age hero—sort of what football players and fighter pilots were to previous generations. From what I can tell, if you stay honest with yourself, you'll always be pushed to the edge of your strength and ability. It never gets easy, because you just keep on growing into higher levels of challenge.

Bummers are an essential part of this path because they force us to confront our greatest fears and illusions. We typically start out by imposing our Western notions of reality on a Mystery that responds by giving us exactly what we need to correct our fantasies—and that's the whole point: "Wake up, post-modern white boy (or girl, as the case may be)—get with the program or go extinct!" Not many of us can handle messages like that; even when our minds agree, the rest of us resists like hell. On the bright side, some psychonauts have worked through their spiritual/somatic crises and can eat ayahuasca or its analogues and seldom get sick or more weirded-out than they can handle. — JIM DEKORNE

PHALARIS BRACHYSTACHYS

Spring 1996

An experiment with a *Phalaris brachystachys* variety from Greece was a success. This was my first full-on *Phalaris* ayahuasca experience, and one I will certainly not forget. In fact, it was a solid two hours of meltdown intensity similar to smoking 5-MeO-DMT. I estimated my dosage based upon a TLC test that showed a large alkaloid spot with the same position and color reaction as *Psychotria viridis*. I later learned from my experience that TLC testing can be inaccurate when dealing with closely related compounds such as 5-MeO-DMT and DMT. After a 24-hour fast I took 150 mg of *Peganum harmala* extract in a concentrate of fresh ginger root tea (ginger root is one of the best herbs for nausea and stomach distress.) After waiting 25 minutes I took 150 mg of *Phalaris* extract with some vitamin C and washed it down with more ginger tea. About an hour later I found myself riding a tidal wave toward infinity. The first stages of this wave were absolutely invigorating, but it soon transformed into a more serious endeavor as I found myself suspended at ground zero. The only thing I could do was breathe... It seemed like a definite blend of the tryptamines, with the power of the 5-MeO-DMT being the dominant force. The familiar 5-MeO-DMT blast was splashed with the brilliant colors of DMT. Finally as the 5-MeO-DMT tapered down (a welcome relief) colorful visual trails remained for another half hour or so. It was amazingly clear and I did not experience any nausea, stomach distress or other somatic symptoms. It was quite the opposite—I felt physically healed

during and especially after the experience. The term “energetic medicine” came to mind. The vibrational effects are quite amazing and I liked the after-glow much better than the trip itself, at least at this high dosage level. I would say that this particular strain of *Phalaris* is probably best appreciated in smaller doses. — TOAD

PHALARIS QUESTIONS

Summer 1996

1) Using the extraction method in *Psychedelic Shamanism* for *Phalaris* grass, roughly how much extract may be obtained per kilogram (2.2 lb)? Does the extraction solvent make the end product toxic?

2) Do you have any tips on germinating *Phalaris* seeds? I can't seem to get the seeds from JLF to sprout.

3) Is fear or escalating anxiety common after smoking 5-MeO-DMT (12 mg) for the first time, with no previous DMT exploration? — E.F., FL

1) It depends on whether the weight is wet or dry—in either case, a kilo of *Phalaris* is a lot of grass. I've always done amounts less than that—a crock-pot full of fresh grass will yield about 50 mg on the first go-round; lesser amounts can be extracted from the same material on subsequent cycles. If you redissolve the evaporated tar in ethanol and add a smoking medium (like mint), the evaporated product shouldn't be toxic.

2) I've never had this problem—throw 'em in the ground and water them moderately. Be sure the variety is known to be psychoactive, otherwise you're just growing plain old grass.

3) Smoking 12 mg of 5-MeO-DMT would be a challenge for anyone unfamiliar with the effects of smoked tryptamines. The fear usually goes away with more experience; if it doesn't, most people stop smoking the stuff. — JIM DEKORNE

NO FEAR!

Summer 1996

In these days of potent *Phalaris* extractions, I confess to being demonically tempted by the popular “No Fear!” logo that the high school kids like to display these days on T-shirts, *etc.* “Hey, kid! C'mere, I got something for you to smoke!” — FRIENDLY STRANGER

PHALARIS AQUATICA

Fall 1996

I have just had the most peaceful experience with ayahuasca made from *Phalaris aquatica*. Coming on it felt like mushrooms, but to the end there was no overwhelming power, no big experience, only a pure healing medicine. Perfect control, no fear, pleurably heightened senses. I thought: "this is the real ecstasy." There was continuous contact with reality: outdoor noises seemed normal. What a tragedy for the world that such a drug is not legal.

Directions: *Phalaris aquatica* Italian strain AQ-1 from OF THE JUNGLE, dried blades shredded in coffee grinder, three and one half level tablespoons in milk shake, half an hour after one level teaspoon of processed *Peganum harmala* seeds. The fresh blades leave a tart reddish resin on the scissors. They do not dry crisp, but a coffee grinder/blender with sharp blades will sufficiently powder them. After half an hour I could feel it coming on. It peaked at one hour, with time slowing. By one hour and forty-five minutes it was over. I could use a whole lawn of this. Here in Miami it does not grow outdoors, but it is doing very good indoors in a sunny window. — THE Gnostic, FL

PHALARIS BRACHYSTACHYS

Summer 1997

I made an ayahuasca brew using 30 grams of fresh *Phalaris brachystachys* (grown from JLF seeds) and 5 grams *Peganum harmala* seeds. It came on within two hours and was pleasant for about an hour, but soon became extremely intense, with continuous diarrhea and vomiting, left side of body numb, racing thoughts, anxiety, etc. This went on for 36 hours! After coming down, some pleasant visuals returned to cycle in and out over a period of two days. It even woke me out of sound sleep with strong sounds of weird things. I've never experienced this before, never wish to again. Either I'm very sensitive or this strain was kick-ass. — E.H., MA

SMOKABLE TRYPTAMINES FROM PHALARIS GRASS WITHOUT THE USE OF CHEMICALS

Fall 1997

I placed the dehydrated blades of *Phalaris arundinacea* var. Turkey red in distilled water purchased at the grocery store. My hope was that most of the

tryptamines would be soluble in boiling water without the addition of acid and would be released within 20 minutes. (Further boiling should be avoided as it is likely to release unwanted toxic compounds.) The cut blades, 2–3 inches long, were boiled in a stainless steel pot with the lid on it. Enough distilled water was added to cover the leaves. At the end of 20 minutes I poured the boiling liquid through a screen to separate it from the biomass. I then continued to boil the water until it was reduced to a depth of about one-quarter inch in the pot. This was poured into a glass baking tray, placed in a dehydrator and heated until completely dry. The hardened residue was then lightly sprayed with water. After the material had softened completely, I easily scraped it to the center of the tray and added just enough powdered mullein leaf to soak up excess goo. This in turn was placed on a screen in my dehydrator and dried.

When completely dry, I loaded one big hit into a water pipe, lit up, inhaled, and sat back. Very powerful waves of energy moved through my body and the room around me took on an unreal quality. The extract was definitely entheogenic. I found it to be smooth, and without the side-effects I've experienced from extractions made with methylene chloride and ammonia. A number of friends have tried this, and nobody has reported any negative side-effects; all find the potency to be excellent.

This technique puts smokable tryptamines into the hands of anyone who wants them without resorting to environmentally toxic chemicals. The material smokes best when broken into tiny pieces for faster burning. It has a wonderful smell and taste, and is simpler to smoke than the extremely tacky, gooey mess I always got with methylene chloride. It is, of course, essential that you start out with properly grown and harvested grasses of known potency. — B. GREEN

Drug effects are always subjective, and often potency is also. I've not found water extractions of *Phalaris* anything to write home about, but then probably I'm jaded. A little vinegar in the water to make the pH slightly acidic would ensure more tryptamines would be extracted and shouldn't cause undue toxicity. Try this with grass of known potency and compare with a chemical extraction to gage the difference. — JIM DEKORNE

PHALARIS GRASS PROPAGATION

Fall 1998

What is the most effective method to propagate *Phalaris aquatica* AQ-1? A trial resulted in very thin seedlings that didn't root (perhaps due to over watering). FESTI and SAMORINI concluded that water stress, high nitrogen, cutting in the morning, and harvesting only the upper $\frac{1}{3}$ of the seedling (just the regrowth after cutting) was the optimum procedure to follow for

the highest alkaloid content. Please provide detailed step-by-step cultivation methods. How many harvests can be made before alkaloid levels are no longer plentiful? Can it be cut like a lawn indefinitely to yield results?

I am trying to achieve the most simple and cost-effective methods for psychonautical exploration. Theory is fine, but without practical results, enlightenment is not fully achieved. Thanks, and keep up the fine work! *ER* is truly a service to human consciousness. — J.C., IL

Getting the highest yields from Phalaris grass depends on a lot of variables, and may be a little problematic. See the following article for some answers to your questions about effective ways to grow and use this grass.

CULTIVATING AND HARVESTING PHALARIS GRASS FOR OPTIMUM ALKALOID PRODUCTION

by K. TROUT
Fall 1998

Adapted from TROUT'S NOTES A-5: *Ayahuasca and Ayahuasca Alkaloids*.
Please consult these NOTES for a more detailed discussion.

Phalaris can be easily grown but like any grass, care must be taken not to disturb newly germinating plants or damage their roots. Surface sow, then carefully water the seeds in and mist regularly until they sprout. If misting is not an option, try covering the soil surface with fibrous mesh such as are sold for retaining grass-seeds and lightly but frequently water with a sprinkler. Once the plants are established water normally. It will do best when in the ground but large flat containers (like kiddie wading pools with drain holes added) work fine for a couple of years. It can also be started in flats or pots and then transplanted. While many strains of *P. aquatica* love wet conditions, some are very drought tolerant. Since the AQ-1 was found in a dry weathered caliche, this perhaps suggests that it may do better if kept on the dry side. Plant the seeds in early fall or as early in spring as possible. (Many *Phalaris* show a summer dormancy period.) Before you plan to harvest, subject them to several months of moderate drought stress, then severely cut back the plants. Begin heavy watering. The regrowth that occurs is the best crop, followed by the second regrowth, which will be weaker. The sooner the plants are harvested the higher the alkaloid content, but there is a trade-off as the volume is much less. While a week of growth may be more potent, a month of growth will yield more material. In the northern hemisphere, it appears that later summer, into fall, is the only time when the grass is very potent, but we might add that the actual work done is fairly limited. It is clear that regardless of all other factors, there are one or more rather brief

but very high peaks of tryptamine concentration occurring during this time period. The work-to-date suggests that β -carbolines may be favored during other times of year when the alkaloid content is much lower. Another important factor is the occurrence of alkaloid subtypes within most populations of *Phalaris*. For this reason, in all but a few strains, it is preferable to obtain tried-and-true plants if possible and propagate them by rhizome divisions.

Many factors can affect alkaloid concentration and composition. The work involving *Phalaris aquatica* has been inadequate for our discussion but we might better understand the situation if we approach *Phalaris* generically, with an eye for determining what variables are important. Along with the part of the plant harvested and using regrowth instead of first growth, the best date for harvest is one of the most important factors to consider, despite the great difficulty of predicting it. Alkaloid concentrations and proportions are highly variable from week to week and also from year to year and usually show dramatic seasonal fluctuations (this is most pronounced in the high-alkaloid producers and varies markedly between strains). Additionally, fluctuations in the actual alkaloid composition itself have been noted. In many populations there may even be marked differences in both amounts and the actual alkaloid profile from one plant to the next. (Some strains are more true than others and it is these that tend to be selected for ayahuasca analogue use.) For these reasons it is impossible to give an exact prediction of when is best to harvest; but we can get it into the ballpark.

Some of the highlights to consider when growing *Phalaris* for use: Age and regrowth differences are extremely important. Not only is the alkaloid level highest in the new growth but artificially-induced growth (regrowth following mowing or cutting) shows a consistent increase over the initial levels (BARNES *et al.* 1971; MARTEN *et al.* 1973; MOORE *et al.* 1967; PARMAR & BRINK 1976; WOODS & CLARK 1971). Second regrowth (following a second cutting) often shows an increase from the initial value but falls short of the concentration in the first regrowth. The initial growth shows the lowest concentrations and was apparently devoid of alkaloids in a few cases that had quite potent regrowth! One study of high-alkaloid strains (that contained mainly gramine) found that cutting every second week caused sharp increases over freely-growing plants (WOODS & CLARK 1971). Age-related differences can be quite dramatic. Alkaloid content has been consistently noted to be highest in young growth, with tryptamine content dropping with age (MARTEN *et al.* 1973). 5-MeO-DMT concentration has been evaluated in new growth of *Phalaris tuberosa* leaves (cv. Hardinggrass) and was found to be 0.236% in 7-day-old fresh leaves, 0.105% in 9-day-old fresh leaves and 0.077% in 21-day-old fresh leaves. 21-day-old leaves that had been frozen for 3 days showed 0.076%. 21-day-old leaves that had been dried showed 0.071%. All figures are % dry weight (MCCOMB *et al.* 1969). *Phalaris* species have been

reported to contain 65–81% water by weight. 80% is common in regrowth harvests.

Seasonal differences can be dramatic. Great variations of alkaloids have been found not only between different strains but also between sampling dates. The total tryptamine levels in “Seedmaster” (DMT is main alkaloid) and “Sirocco” (5-MeO-DMT is main alkaloid) were approximately five times greater in fall than in winter (ORAM 1970). Fall had higher temperatures, higher light intensities, longer days and more moisture stress. In one study of *Phalaris tuberosa* cv. *stenoptera* (Harding grass) the total indole alkaloid levels hit two peaks of 0.14% in late-September and mid-November one year, but only one peak in each of two other years (RENDIG *et al.* 1970). In the latter cases; the year with a peak in late-September was also around 0.14% while the year with the peak in mid-November was 0.08%. The latter year showed some of its lowest values in late-September. This analysis only included data from mid-September through mid-February. In northern hemisphere studies, July through early-August should be the starting point for such determinations. Especially in the northern U.S. where peaks have been noted during this time. Alkaloid levels have also been reported as being markedly different from one month to the next and one year to the next. In some clones, there was also a change in alkaloid composition (MARTEN *et al.* 1973).

Diurnal differences have been reported. Foliage harvested early in the morning showed greater quantitative yields than if harvested later in the day (APPLESEED 1992–1996).

Temperature has effects on alkaloid production. Increased temperatures have been found to result in higher DMT and total alkaloid levels in all ecotypes of *Phalaris aquatica* (as *P. tuberosa*) examined in one study (ORAM 1970). The highest alkaloid levels reported were seen in plants experiencing 21° C days, 16° C nights (MOORE *et al.* 1967). These plants also showed the greatest yield of plant weight (36.9 grams of dry weight per 18 plants.)

Moisture can also play a role. Moisture stress increases alkaloid levels, and the best quantitative results came when harvesting the new regrowth resulting from rains following a drought (MARTEN *et al.* 1973; APPLESEED 1992–1996).

Light levels can be an additional factor. Shading also increases alkaloid content but does so at the expense of plant growth and stimulates 5-MeO-DMT production far more than DMT content. (In strains that produce only DMT this is not an issue.) One study determined that 28% light intensity increased the alkaloid content dramatically—61%—but it also decreased the total yield of plant material dramatically—64% (MOORE *et al.* 1967). Artificial shading applied to growing *Phalaris* pasture swards, showed marked increases at between 40% and 12% light levels, a low and insignificant increase

from 99% to 40% and a decline below 10% light level. Alkaloid levels were found to be high in shaded plants irrespective of nitrogen levels and did not increase in response to increased available nitrogen. In full light the alkaloid levels increased in direct proportion to the concentrations of nitrogen. 12% light levels caused 5-MeO-DMT to rise to a level of 50 mg per 100 grams of dry weight. At all other times DMT was the predominate alkaloid in the *Phalaris* studied (*P. tuberosa* cv. Australian Commercial). Decreasing the light intensity was also found to increase the alkaloid levels (FRELICH & MARTEN 1972).

Nutrition can have dramatic effects on alkaloids. One study found that *Phalaris tuberosa* cv. Australian Commercial grown under high nitrogen conditions contained up to four times as much total alkaloid as those grown nearby in garden rows without added nitrogen (MOORE *et al.* 1967). Regrowth was taken three weeks after cutting to ground level and commencing nitrogen treatments. Similarly high alkaloid levels have been noted in fields enriched by several seasons of clover. An insignificant difference was found between low and intermediate nitrogen levels on alkaloid production, whereas at the high level a mean average in excess of over 20% increased total alkaloids was reported (MOORE *et al.* 1967). This was coupled with an increased dry weight for the sample. The highest levels of alkaloids were observed in the uppermost leaves of plants receiving ammonium sulfate at high rates (PARMAR & BRINK 1976). Generally speaking (at high levels): Ammonium sulfate > Ammonium nitrate > Urea > Cyanamid > Sodium nitrate, in terms of benefiting alkaloid production (MARTEN *et al.* 1974). It is important to be aware that this is only true at high levels of high nitrogen fertilizer. And that there is minimal benefit if the amounts are low to moderate *or* if the plants are shaded *or* if a balanced fertilizer is used. Nitrates favor vegetative growth (as does high K levels); Ammonium favors alkaloid production. Tryptamine concentrations seem to be related to both the type and the amount of fertilizer used (GALLAGHER 1966; FRELICH & MARTEN 1972). However, the picture may be more complicated as significantly higher levels of alkaloid in plants grown in an infertile peat soil than in fertile, mineral rich soil have been found (MARTEN *et al.* 1974). Addition of a complete fertilizer in some cases decreased the alkaloid levels when compared to sterile peat but their results were conflicting. Uptake of ammonium ions tends to be greater on glei soils than well-drained types (PARMAR & BRINK 1976). *High levels* usually represent around five times the normal recommended nitrogen. This is well within what is often recommended for turf maintenance. Alkaloid distribution within the plant should also be considered. It has been determined that the upper third of the regrowth of *P. arundinacea* has the highest alkaloid concentration overall (HAGMAN *et al.* 1975). Slightly higher concentrations in field-grown plants have been reported than those maintained in a greenhouse (HAGMAN *et al.* 1975). The following average alkaloid concentrations in *P. arundinacea*, using only regrowth and harvesting when the plants

were at 20–60 cm tall and still in vegetative stage, have been reported: 0.29% in upper half of leaf blades; 0.23% in lower half of leaf blades; 0.07% in leaf sheaths; 0.04% in stems; 0.05% in inflorescences (MARTEN *et al.* 1973).

Drying (or freezing) versus fresh material. Around half of the total alkaloid has been reported lost during drying (CULVENOR 1964). In addition, there was a higher proportion of bufotenine and a lower proportion of the uncharacterized indoles of high Rf present in fresh grass. A similar decrease when comparing fresh material to frozen has been found by others (BARNES *et al.* 1971). Drying or freezing has the greatest negative impact on young growth and on high alkaloid strains. The effects on older growth and on poor alkaloid producers is much less. The response to drying has been found to be highly dependent on the variety (APPLESEED 1992–1996). While the total is less, some strains increase the 5-MeO-DMT to DMT ratio as they dry. Grass treated with ethanol immediately upon harvesting also gave higher returns. This is believed due to the action of the alcohol denaturing the enzymes responsible for the loss (CULVENOR 1964).

Optimum conditions for high-alkaloid harvest: Using the first regrowth after cutting; using only the upper third; harvesting in late summer to fall; harvesting early in the morning; using new growth following rains at the end of a prolonged dry spell and with ambient conditions of 70° F or hotter; and maintaining day and night-time temperatures in the 60s. The alkaloid concentration will be maximized in plants excessively fed with ammonium or else grown in shade. The exact peak dates appear to vary not only from strain-to-strain but thus far seem to also vary from year-to-year. Still, what has been published suggests that, in the northern latitudes, the peak(s) will occur at some point during early August to November, with the most likely peak dates occurring during the latter part of August to the end of September. While detailed studies on a day-by-day basis have never been performed, there appears to be an initial high peak on day 7 both in seedlings (MULVENA & SLAYTOR 1982; MULVENA & SLAYTOR 1983) and in new growth after recutting (MCCOMB *et al.* 1969). In some studies it appeared that tryptamine concentrations showed huge spikes during early fall growth but none lasted more than a few days at most (ORAM 1970). Some strains showed decent concentrations at around 4–6 weeks of regrowth, so there may be a happy medium between trying to maximize the alkaloid concentrations and the volume of useful material (MARTEN *et al.* 1973). While it may be best to attempt to get a large volume of growth and catch a peak level of tryptamines, it would be interesting to study the home production of *Phalaris* grown (and processed) like wheatgrass with harvests performed on day 7. Obviously this would require raising a seed-crop to obtain adequate seeds to make this cost effective.

While *Phalaris* may be highly variable in content and performance, it should be obvious that it holds great promise for development as an ayahuasca analogue admixture plant or a source of DMT/5-MeO-DMT.

PHALARIS STENOPTERA: A NEW POTENT SOURCE OF TRYPTAMINES?

Summer 1999

A couple of years back, I was sent a small number of seeds for *Phalaris stenoptera* (= *P. aquatica* var. *stenoptera*) along with packets of a number of other *Phalaris* species for growing-out and testing in my greenhouse. I didn't get around to growing-out and testing the *P. stenoptera* until winter of 1998–1999. This particular strain had been grown-out by others and chromatography showed it to be the *P. stenoptera* with the highest DMT content of any of the grasses tested. Since I had already isolated a very potent strain of a DMT-containing *P. brachystachys* from Greece (and I had a number of these plants growing in my greenhouse), I decided that this plant would be my subjective basis for comparison with regard to both potency and quality of the *P. stenoptera*'s DMT content. My method of preparation for all the DMT-containing grasses is to run the fresh grass blades through a motorized wheat-grass juice machine, then spread the liquid out into glass baking trays and set the trays into a dehydrator until the liquid is dry. The dehydrated residue is then scraped up, powdered in a nut grinder, and stored in pint jars. Whenever I am ready to ingest any of these materials, I simply put the powder into gelatin capsules and swallow them with water. I do a similar boiled extract with ground-up *Peganum harmala* seeds, and in this manner I avoid the entirely nauseating scenario of drinking those nasty, bitter brews.

After I planted about 25 *Phalaris stenoptera* seedlings and they were fully mature, I figured that they would be ready for their first harvests in about 5 more months. At the 4-month period I had an unexpected surprise—they all began sending up seed-heads. I have never had this happen to me before in the dead of winter in my greenhouse with any other species of *Phalaris*, all of which usually send up seed-heads in the spring or mid-summer. Also, I have never been able to produce much more than 30–50 seeds per year from any of my other plants; greenhouse conditions simply did not encourage adequate pollination, even when I helped the plants out artificially.

This strain of *Phalaris stenoptera*, however, ended up producing about an ounce or so of seed—anywhere from 3 to 5 thousand seeds. I have not yet tested them for germination, but based on previous experience with these types of grasses, I expect that it will be 90% or better. This is a real plus for this plant in my book, because now I have plenty of seed for sale and to send

to friends and companies in the seed network. Growing these grasses from seed is by far the easiest method for the clumping types of grasses. (The *P. arundinacea* strains are better spread by runners, as this way the clones should have a similar tryptamine content as the mother plant, since genetically they are the same plant.)

Once I had a powdered *Phalaris stenoptera* juice-extract encapsulated and ready to go, I did a small number of comparison tests with my known potent *P. brachystachys* extracts. Subjectively, I could not tell any difference whatsoever between the two extracts, either in potency or quality. I have sent some of this extract off to be chromatographed, hoping to verify the “DMT-only content” that has been alleged for this particular strain. My impression is that the extract is as potent as any I have tried, and the effects were typical to plants containing only DMT. Leaf production of the *P. stenoptera* is at least twice that of my *P. brachystachys* per cutting, and the added plus of prolific seed production makes this grass a very good choice for people living in warm climates with mild winters, or for those who have greenhouses. This grass might be grown in a pot with soil next to a window indoors, although when I tried this with a *P. brachystachys* a couple of years ago, the plants rapidly became root-bound and died or ceased growth entirely. You just never know until you try it; I did succeed in doing this with *P. aquatica*, which grows in pots just fine. — B. GREEN, NM

ARUNDO DONAX

SUFI AYAHUASCA... THE SOMA OF THE ARYANS?

Winter 1992

According to an acquaintance who was sworn to secrecy by a Sufi musician, *Peganum harmala* root and the roots of *Arundo donax* were and are the source of a secret entheogen long used in particularly musical orders since before Islam influenced the Sufis. *A. donax* (giant reed or cane) is used in Persia for making the "Nay," an end-blown flute, or reed pipe. The same plant is the source for reeds for clarinet, sax, oboe, bassoon, bagpipes and so on. My informant would not give me particulars on how the "mystical potion" was made. A crock pot water extraction of *A. donax* root only yielded molasses (*A. donax* is a relative of sugar cane). I will ask an organic chemist friend about specific solvents useful for extracting DMT. I'm interested in Illinois bundleweed (*Desmanthus illinoensis*), but it doesn't grow here. Much Sufi literature, mostly untranslated, makes many oblique references to the reed pipe and *P. harmala*, which become clearer with the knowledge of their use. My "working group" here has a psychic who talks with plant spirits, so we are going to go to the source for info on their way to use these plants.
— T.A., CA

Your mention of Sufi connections with *Peganum harmala* and *Arundo donax* is fascinating! I immediately flashed on the possibility that this could be the mysterious *Soma* (or, in Persian, *Haoma*) of the Aryans. FLATTERY and SCHWARTZ published a book (*Haoma and Harmaline*, U.C. PRESS, Berkeley, 1989), proposing the hypothesis that *P. harmala* was *Soma*. They argue a fairly good case for this, but I remain unconvinced because *P. harmala* in reasonable doses isn't particularly visionary. As we know, harmine and harmaline (the alkaloids in *P. harmala* and in the South American vine, *Banisteriopsis caapi*), are MAO inhibitors that activate orally-ingested DMT in the Amazonian ayahuasca brews. If there is indeed a secret Sufi tradition combining *P. harmala* with *A. donax* to make a "Sufi ayahuasca," then a more convincing answer to the *Soma* mystery could be argued. Anybody out there want to research a Ph.D. thesis on this one? — JIM DEKORNE

PRELIMINARY REPORT ON TWO AYAHUASCA ANALOGUES

Winter 1992

I ingested one gram of *Peganum harmala* extract with 50 mg of an *Arundo donax* extraction. No psychoactivity was present, but I did get a mild allergic reaction. Within an hour I noticed that my vision was impaired; there was some difficulty in focusing on the print in a magazine. Later, my eyes felt watery and slightly swollen. The next day, I had a medium conjunctivitis, and occasional hives appearing on my body. It took three days for these symptoms to subside.

Later in the week I ate 125 mg of *Peganum harmala* extract and 50 mg of a *Phalaris* grass extraction. No allergic reaction this time, and there was definite psychoactivity in the potion, unfortunately accompanied by waves of nausea. The experience was what SHULGIN might describe as a “plus-two;” there was definite activity, but not so much that I couldn’t function in an emergency if I had to. The experience could have been much deeper (compared with two grams of mushrooms, for example), but it was definitely “psychedelic.” It is difficult to describe—a novel sense of at least three energy fields radiating from my body at set “wave-lengths.” An unusual sensation, and not quite like anything I’ve ever experienced before. There were bright hypnogogic-type visions (immediately forgotten) and an extremely tranquilized “weak” feeling—almost as if my consciousness was connected to my body by the thinnest of threads. I won’t call it an out-of-body experience, but it wasn’t far from that. The nausea was a definite problem, although I didn’t actually vomit. Two of my fellow travellers spent the evening with the dry heaves, though they seemed to get more positive benefits as well. I’ve never had jungle ayahuasca, so I don’t know how this analogue experience compares with the real thing. — J.G., CA

ARUNDO DONAX AS A PLENTIFUL DMT SOURCE

Winter 1992

Your discussion of potential DMT sources caught my interest. I have seen OF THE JUNGLE’S comments on *Desmanthus* and *Arundo donax*. The percentage of DMT in these plants remains in question—no one seems to have specific data. If the DMT amounts are small and one has to obtain large amounts of biomass to extract usable amounts, I think the giant reed, *A. donax*, would be a good candidate. Here in Southern California there are huge stands of the stuff growing wild in numerous locations. In some areas it grows densely

in relatively dry stream beds and in some areas is actually cut down as a fire hazard in the dry season. What I'm getting at is that, should *A. donax* (called "carrizo" by the Hispanic people) prove to be a good DMT source, there are tons available... While driving down the street today I noticed a clump of wild *A. donax* growing in a gully. I dug up some rhizomes and planted them in my yard. They look much like bamboo roots and I think they will be fast growers with proper care. — V.C., CA

I agree that if usable amounts of DMT can be easily extracted from *Arundo donax*, the fact that it grows wild in large stands in many parts of the country makes it a great potential source of alkaloids. I saw a single stand in Texas that must have covered half an acre. The roots are humongous globular things, chunks of which can weigh several pounds apiece. They transplant easily and grow fast—every segment I chopped out of the Texas earth and transplanted in New Mexico was pushing up sprouts within a couple of weeks.

Here's the original source claiming tryptamine content in *Arundo donax*:

Arundo donax L. (graminae), a tall, stout, perennial shrub, often woody below, is widely distributed in India... (Alkaloids were obtained from) the alcoholic extract of the rhizomes of this plant... As the rhizomes contained very little fat the alkaloids were extracted directly with alcohol without prior defatting with petroleum ether... Dried and milled rhizomes (700 g) were extracted (95% EtOH), in a percolator, at room temperature for 4 weeks. The EtOH extract was concentrated under reduced pressure to give a brown viscous consistency (112 g)... (GHOSAL *et al.* 1969).

The first part of the extraction formula appears pretty straightforward—after that it rapidly exceeds my ability to translate. Essentially, approximately two pounds of dried root-powder is percolated in 95% ethyl alcohol. (Available in liquor stores under brand names such as EVERCLEAR and CLEAR SPRINGS in many states, or make a run to Tijuana for the much cheaper Mexican version of the same stuff.) The time period of four weeks seems a bit extreme—anyone know how to do this faster? Also, the rest of the formula was probably designed to separate out each alkaloid for identification. Maybe that isn't necessary to make an ayahuasca analogue—in the Amazon, raw plant material is just boiled in a pot over an open fire. — JIM DEKORNE

Unfortunately, DMT (unlike many other compounds) seems to be only rarely present in Arundo donax—at least in those specimens that I have encountered. JOHNNY APPLESEED ran TLC on numerous collections and plant parts that I made using material from Central Texas. Many, often dark, bands were found. None were identified. DMT was completely absent from every single sample except for one of young skinny white roots. — K. TROUT

ARUNDO DONAX TOXIC?

Summer 1993

...I'm not thrilled with *Arundo donax*. According to the article mentioned (GHOSAL *et al.* 1969), it contains significant amounts of bufotenidine—a chemical the article details as demonstrating a “curare-like” toxicity. If one followed the extraction procedure in the article, one could conceivably separate out the DMT, losing the 5-MeO-DMT with the bufotenine and bufotenidine. It might be worthwhile, given sufficient biomass, ‘though it sounds like much more work than even *Desmanthus* species. (Digging and pulverizing heaps of woody root-stock would be no picnic.) — B.D., CA

The only report I've received to data on *Arundo donax* resulted in a moderate allergic reaction in the user, with no apparent psychoactivity. The chromatographs I've seen on specimens collected in Texas and New Mexico have shown very little, if any, DMT content. There is a variegated variety of *A. donax* native to the Middle-East, which possibly contains a higher percentage of alkaloids. The problem with both *Desmanthus* species and *A. donax* is that you have to sacrifice a mature perennial plant just to extract the root. For this reason, *Phalaris* grasses seem like a better bet, since one is only extracting the grass clippings. — JIM DEKORNE

ARUNDO DONAX PSYCHOACTIVE?

Spring 1995

Among entheogen seekers, giant reed (*Arundo donax*) has been known for some time as a DMT-containing plant. These findings were established from specimens growing in India in a 1969 scientific article reproduced and disseminated by ROSETTA. The article begins:

Five indole-3-alkylamine bases, viz. *N,N*-dimethyl-tryptamine, 5-methoxy-*N*-methyltryptamine, bufotenine, dehydro-bufotenine, and bufotenidine were isolated from the rhizomes of *Arundo donax* L. (GHOSAL *et al.* 1969).

Arundo donax thrives in many parts of the United States and is sometimes regarded as an ornamental (it looks a lot like bamboo), sometimes as a noxious weed. Once established, it is extremely tenacious and in California, its spread has become a serious ecological problem:

...They multiplied at an alarming rate and grew more than two inches per day until they were 30 feet tall!...They sucked up enormous quantities of water, causing the water table to drop...(This) green alien invader is giant reed (*Arundo donax*), the world's largest grass...

Giant reed has established itself as one of the primary threats to native riparian (riverside) habitats in the western United States: it grows enor-

mously fast, it comes back quickly after fire, it lacks natural predators and competitors in North America, and it appears unsuitable as food or habitat for native wildlife.

Giant reed (or cane, as many refer to it) is native to the Mediterranean region of Europe. It was introduced to Los Angeles in the 1820s to control erosion in drainage canals and was used as roof thatching for sheds, barns, and other buildings. But giant reed has spread uncontrollably and is now found in virtually every stream system along the coast from Sacramento into Baja... The greatest limitation to a healthy natural riparian forest on the river isn't the availability of young willow or cottonwood trees germinating on the river bank, but the inability of those young trees to compete with the "plant from hell" (BELL 1994).

My experience with a 50 mg extraction from the roots of this plant was a moderately severe allergic reaction that lasted three days. No psychoactivity was noted. Since then I've lost interest in this species, but now wonder (considering its widespread availability) if it isn't worth another look.

Does anyone out there have any experiences to relate concerning this plant? There's a possibility that the variety found in India may be more potent than our naturalized types. A recent chromatograph of rhizomes from a variegated (striped) variety of *Arundo donax* showed an almost identical band in the DMT position as *Psychotria viridis*, the reference plant. An anecdotal report suggests a secret Sufi tradition linking *A. donax* and *Peganum harmala* with mystical initiations. If accurate, this would constitute evidence for the use of a bonifide ayahuasca analogue in the ancient Near East—the celebrated *Soma* of the Aryans? — JIM DEKORNE

CAN'T KILL IT

Spring 1995

I had a patch of *Arundo donax* growing in my front yard for 11 years at the house I used to own in L.A. and I never knew what it was. I couldn't kill it by not watering it. Every spring after the rains, the sucker would undergo prolific growth and I had to get into it with a machete and clear it all out if I wanted to see out my front window. — B. GREEN

ALLERGIC REACTIONS I

Spring 1995

I feel that *Arundo donax* is a red herring for some. Almost all written material discussing the use of it with *Peganum harmala* indicate an "allergic reaction."

The *Dictionary of Sacred and Magical Plants*, by CHRISTIAN RÄTSCH says the roots of *A. donax* contain approximately 3% DMT and a percentage of bufotenine. This might be the source of the nausea. Perhaps the roots could be juiced and dried and smoked. The ancient Vedic scholars knew the difference between hives and enlightenment. I've never used *A. donax*, and after reading the various reports, I will not. I already have allergies and have had a couple of serious breathing problems and don't see the need to hallucinate and have trouble breathing. An unruly patch of *A. donax* can be killed off by using dry ice and ammonia. My own patch was killed in 1994 after ice storms and twenty-below-zero temperatures. — R.S., DE

ALLERGIC REACTIONS 2

Concerning repeat experiments with substances that cause allergic reactions—it may not be a good idea! A sensitizing process occurs—even a one-time antigen-antibody stimulation can set you up for a full-blown anaphylactic reaction the next time you take the substance. This can result in cardio-pulmonary arrest; *i.e.*, you can wind up dead! Remember the axiom, “No old, bold shaman.” — S.M., AZ

DESMANTHUS ILLINOENSIS

ANOTHER AYAHUASCA COMBINATION

Spring 1993

Due to the difficulty of access to *Psychotria viridis* leaves, I utilized dried, whole *Desmanthus illinoensis* root-stock in conjunction with the usual dried sections of *Banisteriopsis caapi*, both equal in weight (I used equal portions because I had no known precedent by which to work with the *Desmanthus*). In retrospect I believe that I should have utilized a larger quantity of the *Desmanthus* root, for I did not experience more than a very mild alteration of perceptions, with occasional ripples of energy through my body that had been triggered by ambient sounds...

I was heartened to hear "S" say (at the August seminar) that his belief (based on personal empirical evidence) was that one can never tell how strong the ayahuasca experience will be. Apparently the vine lets you to experience only what it allows. It seems to me that if enough of the two basic alkaloid groups were present in a given brew one could not help but have a profound experience—but perhaps the realm of ayahuasca does not adhere to "logical" principles. — A.S., CA

I understand that the root-bark of *Desmanthus* is the only part of the plant that contains the alkaloids, so there is no advantage to using the whole root-stock unless it is hopelessly dried out. The bark can be easily removed from fresh roots by pounding them with a hammer until the bark loosens and peels off.

There is some evidence that *Desmanthus illinoensis* may not be the best source of these alkaloids—another *Desmanthus* species, *D. leptolobus*, provided a subjectively stronger response than *D. illinoensis* for one correspondent. I concur with your comment about ayahuasca not adhering to logical principles—there seems to be general agreement that this stuff contains a very real teacher; what you get is what you need to get. — JIM DEKORNE

JUNGLE CATS

Fall 1995

I did an ayahuasca analogue experiment with *Desmanthus leptolobus* and *Peganum harmala* with some effect. The difference seemed to be that the visuals slowly rise out of the black of your closed eyes instead of the in-your-face geometric patterns of psilocybin or LSD. An interesting point is that one of my few visions involved a leopard. Although I'd read NARANJO'S theory on this (e.g., that ayahuasca produces visions of large jungle cats), I'd forgotten it totally during the experience. It didn't hit me until later. — E.K., LA

SHAMANIC POSTURES

Fall 1995

I did a *Banisteriopsis caapi* and *Desmanthus illinoensis* mixture—two ground-up six-inch stems of *B. caapi* and about 1 ounce of fairly knobby *Desmanthus* root. I added many trimmed, medium-sized root hairs from other specimens as well. It seemed pointless to shave the bark off, so I just boiled the material until the bark began to peel and slide (barely) off the root. The resulting experience was a bit too strong. Forty-five minutes after ingesting the coffee cup of material I felt the same as after six tabs of LSD. The vomiting seemed to take forever. Later I tried to move into "The Bear" position suggested by the book, *Where the Spirits Ride the Wind* by FELICITAS GOODMAN. [*This book is a seminal guide to shamanic states of consciousness. It describes "shamanic yoga" postures that evoke altered awareness.* — JIM DEKORNE] The ayahuasca made it impossible to stand as required, so I did the same pose lying down on a water bed. I cocked my legs, placed my hands over the navel as suggested and drifted into a mantra. A few minutes later I "saw" with my body a flow of energy through the third chakra; blue-white and crackling with energy and power. A huge wave of relief and joy swept over me. I drifted. My hands moved, breaking the "body circuit." I couldn't concentrate enough to bring it back. I allowed the mixture to take me where it would. It curiously concentrated on the various "floaters" in my eyes and used them as points of reference. I wound up trying to move seven arms when I tried to wipe my nose or examine my watch—a useless enterprise, because I saw seven watches and was unable to focus on any of their dials. Then I saw an enormous red globe, backlit with pulsating white light. And it went on from there... The positions in the book are proto- or pre-yogic positions. They seem to lock the body into configurations that accelerate energy flow. Combining certain drugs with the positions creates altered states that are unavailable by either alone. — R.W.S., DE

PEGANUM HARMALA DESMANTHUS ILLINOENSIS

Fall 1995

Boiling the *Desmanthus illinoensis* and *Peganum harmala* together for a few minutes in a 30% lime juice solution (OTT's recommendation in *Ayahuasca Analogues*), didn't work for me. The most effective preparation I've used is to first eat the *Peganum harmala* seeds (they taste awful; powdered, mixed with liquid and drunk would be a lot better). I boiled the *D. illinoensis* in a 1-part lime juice, 2-parts water mixture for one and a half hours, poured off and saved the liquid, then added just water to the roots and boiled for another 1.5 hours. (These were not finely cut and sifted roots, they were root pieces.) Both times I used just enough liquid to cover the biomass. The second experiment I used 3 grams *P. harmala* seeds (next time I'll use less—I felt more nausea than I want to feel again), and three to four ounces of *D. illinoensis*. The effects were very noticeable. There was nausea at first, but that was replaced by an intense MDMA sort of body warmth and tactile sensitivity. Not many visuals—mostly bright speck color enhancement and one fuzzy image of moving through a library/information-storage environment. The experience centered primarily around childhood memories and clearing energy through the chakras. It was very relaxed—none of the subtle “fear edge” I often get with LSD or mushrooms. — R.G., HI

The root-bark is the only part of *Desmanthus* roots that contains alkaloids, and it is almost impossible to peel off dried material. Just boiling up the whole root seems like the only solution to this problem. — JIM DEKORNE

GROWING DESMANTHUS ILLINOENSIS

Summer 1993

What are the growing parameters for *Desmanthus illinoensis*? Since it is a legume, would plants benefit from a legume inoculant (especially if grown indoors in sterile mix)? Has anyone tried growing it hydroponically (especially in a NFT/aero system) and continuously harvesting some root-stock? — B.S., IL

These are very interesting questions—my only experience with *Desmanthus illinoensis* is with several potted greenhouse plants that I started from seed last year. They are now medium-sized, and doing well, but probably have a year or more to go before the roots reach harvestable size. The hydroponic idea sounds fruitful—if done properly, I expect one could continuously cut off pieces of root-stock without killing the plant. Obviously, the main problem with this species is that a mature specimen must be sacrificed to get the roots. People living in the Midwest where it thrives, should be able to glean all they need from wild plants. — JIM DEKORNE

*While not meaning to discourage anyone from experimenting with hydroponic growth experiments related to *Desmanthus*, it is worth noting that analysis of wild *D. illinoensis* and *D. leptolobus* collected at a site showing an abundance of water (from a leaky sprinkler line) showed no DMT. This was in contrast to the excellent stand across the road from it, and also a few yards away on the same side of the road. We never investigated further to determine if excess water was the actual cause, but I thought that I should mention this, since this waterlogged site was the only negative *D. leptolobus* specimen ever encountered. (Other species, such as *Psychotria*, due quite well in hydroponics systems. Of course *P. viridis* grows in areas that are flooded for part of the year.) — K. TROUT*

PLANT IDENTIFICATION PROBLEM

Summer 1996

It is almost impossible to distinguish *Desmanthus illinoensis* from *Albizia julbrissin* seedlings. I can only tell when *D. illinoensis* is in flower (white)—*A. julbrissin* flowers are pink. I am fooled often because the latter often don't flower around here. Anyone have some easy way to distinguish between these two plants? — C.H.

ACTIVE TRYPTAMINES IN DESMANTHUS

Summer 1996

... Several books and articles on tryptamine vectors (plants or animals containing tryptamines) usually express the importance of a substance containing *N*-methyltryptamine, as well as DMT and 5-MeO-DMT. Some say that *N*-methyltryptamine is psychoactive, others say it isn't. *Desmanthus illinoensis* contains a fair amount of it. Is it psychoactive? Perhaps it potentiates or otherwise contributes to the DMT effect? How important is *N*-methyltryptamine? — PRAIRIE DRAGON, IL

*We are unaware of any works that express the importance of a plant containing *N*-methyltryptamine (MMT), with regard to the effects produced. All works that we are aware of simply state that the compound is there. It often occurs along with DMT or 5-MeO-DMT. It may possibly interact with these tryptamines, and influence their effects, but this issue is apparently completely unstudied. No source that we can locate that claims MMT is active has included any meaningful reference. One anecdotal report has been noted, stating that the "smoking of 50–100 mg gave visuals that lasted for maybe 15 seconds" (SHULGIN & SHULGIN 1997). So perhaps it is mildly active, or would produce greater effects if a larger amount were smoked? For our purposes MMT can probably be viewed as a fairly inactive substance ("though it does do things like lower blood sugar). Actual activity aside, MMT would be important to consider when weighing out material that contain it in appreciable amounts (since it would lower the potency of said material). — DAVID AARDVARK & K. TROUT*

MUCUNA PRURIENS

MUCUNA PRURIENS I

Summer 1995

The leaves of *Mucuna pruriens* contain various tryptamine compounds. Ingestion of the plant material apparently irritates the dental nerves in some way and is most unpleasant. This can be eliminated by smoking the leaves. After one cigarette-sized joint, a general CNS stimulation (throbbing “tryptamine buzz”) resulted. Ingestion of three grams of *Peganum harmala* seeds and smoking two *M. pruriens* joints produced throbbing in the head accompanied by colored geometrical patterns. Mild irritability evolved into a mellow feeling over the course of an hour. (Pulsating colored patterns spiraling around me, a strong urge to lie down. Very mellow and detached.) *M. pruriens* looks promising for extraction. This plant, if naturalized across the U.S. would be awfully difficult to legislate against. — ANONYMOUS

Mucuna pruriens is listed by JLF as “velvet bean.” HORUS BOTANICALS offers “*Mucuna* sp.” as: “(Cowhage) Vine with beautiful dark purple flower clusters similar to wisteria—followed by many interesting bean pods covered with a velvet-like fuzz. Seeds long considered an aphrodisiac in India and recently found to contain alkaloids...” — JIM DEKORNE

Although this isn't necessarily the case with the above comments, it is worth noting that botanical companies are not always a reliable source of information about the plants they sell or their chemical constituents. I have come across errors in the catalogs of numerous companies selling psychoactive plants. — DAVID AARDVARK

NEW MUCUNA PRURIENS DATA?

Spring 1996

Here is an interesting note from *Economic Botany* 49 (1) January—March, 1995, p. 15:

The seeds of the *Mucuna* species contain levodopa and *N*-dimethyltryptamine (DMT) (CSIR 1962; Infante *et al.* 1990). Levodopa is used in the treatment of Parkinson's disease but can produce a toxic confusional state in humans (Infante *et al.* 1990). The hallucinogenic properties of DMT are well documented.

Mucuna species have been grown as a soil-improving crop, a "smother" crop to control weeds, a forage plant, and as a minor food crop, in a period spanning four centuries. Some species have also been used as an ornamental, an aphrodisiac, an emetic and as a poison (Duke 1981; Watt 1883).

Could someone check the references cited in this article and give us a summary? One man's toxic psychosis may be another man's illumination!
— CLAYTON STREET, South America

MUCUNA PRURIENS

Spring 1996

Mucuna pruriens is a hardy prolific vine here in the South. I'd like to hear more reader's experiences with it. — W.W., FL

MUCUNA PRURIENS

Summer 1996

ER recently received a long letter describing several experiments with *Mucuna pruriens* (said to contain DMT, along with other compounds), combined with *Peganum harmala*—all of which were psychoactively negative. I appreciate receiving first-hand data like this. Even when results are inconclusive or negative, the information is very valuable in our attempt to understand entheogenic plants. It also prevents weird rumors from getting started. So—has anyone had a *M. pruriens* experience that *was* entheogenic? — JIM DEKORNE

A NEW SOMA CANDIDATE?

Fall 1996

In the Kama Sutra herbal section *Mucuna pruriens* is mixed with *Tribulus terrestris* as an aphrodisiac. The latter plant is closely related to *Peganum harmala* and is said to contain harmine and harmaline in OTT's *Ayahuasca Analogues*. — E.H., MA

This is an interesting connection—it is claimed that *Mucuna pruriens* contains

tryptamines. I've received reports that *Tribulus terrestris* (goat's head, land caltrop, puncture vine) contains more harmine/harmaline than *Peganum harmala*! It follows that the two mixed together would be a bonafide ayahuasca analogue. Many people experimenting with smoked tryptamine extracts report aphrodisiacal effects. Could this combination be the *Soma* of the Vedas? I don't have a copy of the *Kama Sutra* available, but perusal of its herbal recipes might be illuminating. — JIM DEKORNE

The literature suggests that Tribulus terrestris only contains low amounts of β -carbolines (FESTI & SAMORINI 1997, citing BORKOWSKI & LUTOMSKI 1960; LUTOMSKI et al. 1967; GILL & RASZEJA 1973; TOSUM et al. 1994), and hence would probably be much less suitable as the MAOI component of an ayahuasca analogue than Peganum harmala. Unpublished results from TLC run by JOHNNY APPLESEED also showed only trace levels of these β -carbolines. There is a "5X" extract of T. terrestris that has become available in recent years from various ethnobotanical suppliers, with the claim being made that there is less nausea reported from this plant than there is from P. harmala. I have no experience with this plant, and don't personally know of anyone who has used it. It should be noted, however, that T. terrestris is "considered toxic in veterinary, as it is thought to be responsible for two rather severe syndromes in sheep and goats" (FESTI & SAMORINI 1997). — DAVID AARDVARK

TWO MUCUNA PRURIENS QUOTATIONS

Spring 1997

Plants which cause skin irritation: A Leguminosae (pea family). *Mucuna* species (cowage).

DESCRIPTION: Trailing vine to 30 ft. in length, with 3-leaflet compound leaves 4–10 in. long. Light purple flowers occur in clusters along the stem. Fruiting pods, 2–5 per cluster, 2–3 in. long, 1–2 in. thick, contain 3–6 large, shiny black seeds. The entire plant is copiously covered with short hairs, giving it a fuzzy appearance. The hairs are light brown at maturity; they are easily detached and are scattered by wind. The plant called "Pica-pica," *Mucuna pruriens*, is most commonly known and widely distributed.

HABITAT: Plants occur in open grounds and as weeds in cultivated fields (especially sugar cane), at low and middle elevations. The vines are easily recognized climbing over other vegetation.

INJURY/SYMPTOMS: Plants are most harmful during the dry season when the hairs are mature and wind-borne. The dry hairs, capable of penetrating clothing, cause severe itching and irritation. Heightened irritation occurs when a person is hot and wet with perspiration (OAKES 1967).



The barbed hairs or trichomes, on the pods of several *Mucuna* species cause an intense stinging irritation and itching. Those on *M. pruriens* (L) DC. have earned the species the common name "cow itch" or cowhage, a corruption

of “kiwach,” a Hindi word meaning “bad rubbing.” Ingestion by cattle has resulted in hemorrhage, emaciation, and death ... The responsible substance was viewed as a member of the histamine-liberator group similar to that in bee and snake venom (ALLEN & ALLEN 1981).

MUCUNA PRURIENS

Spring 1997

I'd like to report that several *Mucuna pruriens* parts are used in Ayurvedic medicine and several *Mucuna* species are used in Asian medicine. The particular formula mentioned in *ER* with *Tribulus terrestris* however (at least classically), used only the seed instead of the plant parts.

Chemical structures change upon a seed's sprouting (like from complex to more simple carbohydrates), so after reading that it had been used as food after being repeatedly soaked and rinsed, I sprouted some. I tried drinking the soak water a couple of times and thought I felt something like a small 5-MeO-DMT rush pretty quickly. In his first book D.M. TURNER says 5-MeO-DMT is orally-active at some levels without MAOI.

Actually, TURNER does not say this. What he does say is that 5-MeO-DMT itself is a MAOI. While this is apparently true, it is—unfortunately—not a very strong MAOI.
— DAVID AARDVARK

The sprouts got moldy quickly, but once I saved a quarter pound (110 gm dry weight) of sprouts and consumed them on an empty stomach in a kind of chili with extract from 4 grams of *Peganum harmala* seeds (I didn't put the *P. harmala* in the chili). I received only slight 5-MeO-DMT type water-rushing sounds but the nausea was fairly bad and did not subside with a simple visit to the washroom. The worst part was the cardiac effect: my heart felt like it was stretching to twice its normal length on each beat! Seeds are pretty easy to get and it grows easily given a slightly tropical environment. Nothing like the abundant biomass production of *Phalaris* grass however. — G., CA

HIGH- AND LOW-DOSE RESPONSES TO MUCUNA PRURIENS IN LAB ANIMALS

Fall 1997

Lower dose corresponding to the clinical dose significantly decreased the sleeping time, increased the motor activity and gave equivocal results in rotarod test in experimental animals. The high dose (3 times the clinical dose) significantly increased the sleeping time, decreased the motor activ-

ity and reduced the time for falling from the rod. Thus the drug possesses CNS stimulant effect at low doses and CNS depressant effect at high doses (AHMAD *et al.* 1991).

I'm not sure why I'm printing this, other than for the record—there's not much data on *Mucuna pruriens*. If these guys would ingest the stuff themselves, they might come up with more useful and interesting data. — JIM DEKORNE

WARNING

In response to Mr. DEKORNE'S hopefully tongue-in-cheek remark above, we must stress that unless a method is used that reliably separates the various chemicals in *Mucuna pruriens* into pure, known alkaloids, we strongly discourage the consumption of this plant in any manner. *M. pruriens* has been reported to contain L-dopa: from 1.5% in the seeds (BELL *et al.* 1971, citing DAMODARAN & RAMASWAMY 1937) up to 6.4% in the seed meal (BELL & JANZEN 1971). Large doses of L-dopa are dangerous on their own, and especially dangerous in the presence of a MAOI. *M. pruriens* has also been reported to contain a whole host of other chemicals, including 5-MeO-DMT, DMT, DMT-N-oxide, bufotenine, serotonin, 6-methoxyharman (GHOSAL 1972; GHOSAL *et al.* 1971), 3-carboxy-6,7-dihydroxy-1,2,3,4-tetrahydroisoquinoline (BELL *et al.* 1971), choline, two unidentified 5-oxy-indoles (GHOSAL *et al.* 1971), tryptamine, and the seed alkaloids mucunine, mucunadine, and prurienine (ICMR 1987). — DAVID AARDVARK & K. TROUT

PHRAGMITES AUSTRALIS

PHRAGMITES AUSTRALIS: ANOTHER AYAHUASCA ADMIXTURE PLANT

Spring 1995

I boiled a tea of *Phragmites australis* root (45 grams) for about 15 minutes, then threw in the usual dose of *Peganum harmala* (3 grams). It was the most sublime, pristine experience of my life and definitely my heaviest ayahuasca analogue trip to date—highly visual, with awesome insights into myself and the world. God, what a day! Six hours of mind-blowing revelations and insights. Incredible sensations of intense beauty. Visions of golden worlds beyond imagining. I was shivering all over for the first hour, which is typical for me whenever I'm on anything containing DMT. I was deeply touched emotionally by the delicacy and beauty of it all. I heard from (someone else) who said it enabled him to speak to the animal spirits—he wasn't exaggerating. *P. australis* will revolutionize ayahuasca usage in this country. I was about twice as high as I've ever been on anything like this. I'm sure the dose could even be increased with no problems. There was no nausea or other side-effects whatsoever. The brew even tasted great, without the usual *P. harmala* bitterness—a slightly sugary molasses taste. Anyone could get this down without difficulty. This is what I've been looking for—my search for the DMT-source-plant appears to be over. — ANONYMOUS

Lordy, lordy—new plants are being (re)discovered monthly, it seems! *Phragmites australis* is totally new to me; a quick look in the JLF catalog tells me that its common name is giant reed—the same moniker that *Arundo donax* goes by, 'though it's obviously in a different genus. OTT's *Pharmacotheon* gives the original reference as: WASSEL, G.M. *et al.* 1985. "Alkaloids from the rhizomes of *Phragmites australis* (Cav.) Trin. ex Steud." *Scientia Pharmaceutica* 53(3): 169–170. *Chemical Abstracts* 104: 48723f. Your description suggests that it contains DMT minus other junk that often clouds the trip or makes you sick. Let's get some more first-hand data on this plant. — JIM DEKORNE

PHRAGMITES AUSTRALIS: NEGATIVE

Summer 1995

I was intrigued with the “*Phragmites australis*: Another Ayahuasca Admixture Plant” article in the Spring 1995 issue of *ER*, and decided to check it out. I ordered 90 grams of the root from JLF and did two tests. In the first, I weighed out 22.5 grams of root and 3 grams powdered *Peganum harmala* seeds, and boiled same in three cups of water for fifteen minutes. I drank the admixture to no effect. In the second test, I used 45 grams of root, 3 grams of *P. harmala* and let the mixture simmer overnight in a crock-pot at low heat. Again, nothing happened. If the person who wrote in initially (or anyone else) can shed some light on what I may be doing wrong, I would be most obliged. — D.L., NV

PHRAGMITES AUSTRALIS: POSITIVE

Summer 1995

Our first trials with *Phragmites australis* combined with *Peganum harmala* were not quite what we were hoping for. The standard 3X lemon juice extract of 60 grams *P. australis* plus 3 grams *P. harmala* were taken after a 24 hour fast. It was definitely entheogenic, with the predominant sensation of 5-MeO-DMT. There was very little visual effect, but there was definitely a lot of clear spatial energy movement through the body. The experience peaked at a “plus-two” about an hour after ingesting the *P. australis* portion of the brew. At this point my fellow psychonaut suddenly felt the urge to make a beeline for the bathroom where he puked and shit at the same time. (Quite a predicament indeed!) Two hours into the trip I took a booster equivalent to 30 grams of *P. australis* and 1.5 grams of *P. harmala*. This pushed me into a solid “plus-three,” which lasted for several hours. It came in waves of intensity. I experienced some very unpleasant nausea and somatic discomfort, which set the tone of the trip. I suspect the lemon juice may have been a factor in the side-effects, perhaps it’s not necessary in this brew. For future trials I plan to investigate other possible means of ingestion. — EROS

It seems unlikely that lemon juice would cause the side-effects noted. Have a tall glass of lemonade and rethink this. — DAVID AARDVARK

MORE PHRAGMITES AUSTRALIS REPORTS

Fall 1995

My test of *Phragmites australis*, using indole test strips from JRL BIO SCIENCES (no longer in business) showed no tryptamines. These strips have been very

reliable in testing other substances. Could there be variability in the type of *P. australis*? I got mine from JLF. In the interest of clearing up distortions could you include the sources of the materials mentioned in *ER*? — Mr. SEE, UT

The dilemma in naming the sources for drug-containing plant products is that it could be seen to imply that these companies are selling such plants for consumptive purposes (which would be illegal in the case of plants that contain scheduled compounds). Of course, if a plant sold by one of these companies is inactive, then it probably doesn't contain a scheduled compound. Hence, it might be less of a problem to report those sources that are providing inactive plant material than reporting those that provide the active stuff. — DAVID AARDVARK

JOHNNY APPLESEED RESPONDS

Fall 1995

I dug some common reed (*Phragmites australis*) this winter in February and did an alkaloid extraction using the acid/base method. The first extraction yielded enough for a pyro-assay, which resulted in a faintly perceptible “plus-1.5.” A later oral assay was about the same. The TLC plate shows a very small quantity of 5-MeO-DMT. This may be another one of those cases where there are alkaloids present, but in too small a quantity to make extraction worthwhile. I am sure there are varietal differences as well. — JOHNNY APPLESEED

PHRAGMITES AUSTRALIS: NEGATIVE

Spring 1996

Just for your info, I tried three times the *Phragmites australis*/*Peganum harmala* combination with rhizomes from JLF. It was only very weakly psychoactive, and a big disappointment after the glowing report in *ER*. — H. WESTKEY, FL

The general consensus seems to be that *Phragmites australis* is hardly worth bothering with. The “glowing report” in the Spring 1995 *ER* came from a single individual who maintains an extremely strict diet and is probably more sensitive to entheogens than the average user. Bear in mind that individual plants can vary widely in tryptamine content and one person's unique experience is not always repeatable across the board. Because of the mostly negative feedback on this plant, I have learned to be more cautious about emphasizing rave reports concerning otherwise unproven botanicals. — JIM DEKORNE

ANOTHER POSITIVE PHRAGMITES AUSTRALIS REPORT

Summer 1996

I have been pursuing *Phragmites australis* “giant reed” as a Ayahuasca analogue ingredient since your Spring 1995 issue, and can now report good results. I encourage your readers to experience it, as my journeys have been excellent and like those described by the anonymous contributor to *ER*. *P. australis* should by no means be written off, as it is kinder than true ayahuasca. Yet it is different. My present recipe is 3 grams of *Peganum harmala*, following p. 57 of OTT’s *Ayahuasca Analogues* closely. With this small volume of lime juice and incidental water, there has been no nausea. Just boil it 15 minutes and filter it twice with a cotton T-shirt. Increase the water and you will experience the trouble of thinking about your body and will probably blow chow. The *P. australis* rhizome (50 wet grams; a higher dose to be tested soon) is simply boiled 20–30 minutes and tastes just fine. This is about 2.5 feet of rhizome if you can get it dried out. If you drink only the extracted root portion at least, there have been absolutely no bad physical side-effects to date with 9 tests on four people. *P. australis* has the advantage of being everywhere, and I’m happy to report, difficult to eradicate in the East. It needs abundant water and is hard to find where I live in Northern California and in the desert. However, I finally found it growing at the Sacramento River Delta, and most poetically, next to the mothball fleet of warships anchored in the backwaters of the San Francisco Bay. I like to think about the plant spiritually and physically cleansing this horror of American pollution. I have been told by a botanist that he was unsuccessful in his attempt to grow it here, yet I have started five large tubs of it and every piece has sprouted dramatically. I plan to keep some of the plant growing with water lilies under water, and some in mud only damp on the surface. I expect the tubs to fill with rhizomes and almost burst with the wild energy of this beautiful reed.

I am interested in getting a response from other ayahuascaros on a related subject that I have both experienced and witnessed. It has no physiological explanation that I can understand. My tea drinking has been with *Banisteriopsis caapi* and *Psychotria viridis*, made by *Santo Daime* church members and brought in from Brazil, and with the analogue plants described above. The California tea drinkers are often people new to the experience, but all practicing some dietary restrictions, and none eating at least four hours before the event. Now, some of these people, including myself, all of whom drank appropriate portions to get off, experienced almost nothing at all on some occasions, and soared on others. This has been with both “real” ayahuasca and my analogue. My experience yesterday was with a long time *União do Vegetal* church member and myself, this time with me soaring and

he feeling less (although he reported that his arms started growing pine needles as he transformed into a tree). The time we drank together last, he became much higher than me. It would appear that it is possible to block the experience sometimes, so that little happens. Although I can't explain this, it might account for reports of no entheogenic results on new plants sometimes, and variability ascribed to the plant material itself. Have other experienced this with their groups? I personally find that I cannot attain great heights without evoking help and assistance from the "Source" or "Sources" of the "Light." I cannot get off on my own; or at least I no longer want to try. I need to do this with prayer at the very onset of the tea coming on. I might add that I am a person who never prayed before, and who would not now, I suppose, if I had not been so powerfully answered. May you stay in the presence of the Light. May the Light protect our planet. — ANONYMOUS, CA

**PEGANUM HARMALA
AND PHRAGMITES AUSTRALIS**

Spring 1997

60 grams of *Phragmites australis* roots plus 3 grams of *Peganum harmala* seeds.

Phragmites australis is effective; I wasn't sick, just very weak—possibly due to the 24-hour diet. It was my first ayahuasca—very wild and pagan. Spirit faces everywhere in the trees, very dark. I wasn't really in the experience—it was too weak. I saw the spirits but was unable to talk to them or to act with them. I was between two realms. Either 60 grams is a low dosage or my *P. australis* was too old (one year at least). But again, it was very wild and pagan. — H.S., France

PSYCHOTRIA VIRIDIS

DMT FROM PSYCHOTRIA VIRIDIS

Spring 1996

Has anyone ever extracted smokable DMT from *Psychotria viridis*? *Phalaris* grasses seems to be the plants of choice (probably because they are easier to cultivate), but they can contain an uncertain mix of other (potentially dangerous) alkaloids. *P. viridis*, however, contains only DMT, making it much more attractive to me. — ANONYMOUS

In a 1994 bust of a “designer drug” lab in San Francisco, the DEA found “various types of plant materials from Brazil” being extracted. I’m guessing that (because one of the drugs being “manufactured” was DMT), that these plant materials probably included *Psychotria viridis*—it has a high DMT content and is being aggressively marketed by the kilo now in the U.S. (See “Chacruna Feedback,” p. 11 in the Winter 1995 issue of *ER*. Keep it up folks—let’s get the DEA on all our cases!) That off my chest, to answer your question; there is no reason why it shouldn’t be as simple as extracting from *Phalaris* grass. — JIM DeKORNE

PSYCHOTRIA VIRIDIS CULTIVATION I

Winter 1995

I managed to defoliate my *Psychotria viridis* plant that had become infested with scale, by using Malathion. Fortunately, they started sprouting leaves in new sites but the scale remained. After two months of leaf growth, I treated the plants with a high dose of Enstar by SANDOZ. The scale died and turned brown in a day or two and the leaves are still bright green. Any advice on the care and feeding of *P. viridis* would be helpful. I am especially curious about light levels for the best growth. — ANONYMOUS, PA

It seems unwise to use anything but non-toxic (to humans) insecticides on plants that may at some point be consumed. For scale, you might try the combination of 4 parts water, 1 part rubbing alcohol, and 1 part liquid castile soap. Completely drench the plants in this solution, and then rise it off a couple of hours later. If this doesn't work,

you may have to remove the scale manually with your fingernails. For severe insect infestations, soap sprays containing pyrethrin (a chemical extracted from Chrysanthemum flowers) is generally considered safe for use on fruits and vegetables. However, I have found pyrethrin-based sprays to sometimes "burn" the leaves on my plants. It is best to test this out on a small amount of plant material first, to see how the plants react. — DAVID AARDVARK

PSYCHOTRIA VIRIDIS CULTIVATION 2

Spring 1996

Psychotria viridis is a slow-grower, even in the tropics. I know of a ten-year old plant in Florida that is only 4 feet tall. My plants are just over a year old and about a foot high. I give them no special care other than high humidity and 50 percent shade in my greenhouse. Monthly feeding of any good fertilizer (fish emulsion or MIRACLE-GRO) at half-strength seems to make them happy. Some of the leaves are over six inches long, even on my smallest plant. It is a fairly easy tropical with no special needs that I can tell. It will clone from leaf cuttings; simply pinch off a leaf and stick it stem first in moist soil, applying root hormone in the process. Remember that *P. viridis* has its own time schedule: SLOW. I've had leaf cuttings take nine months to put out four inches of root, with no stem yet. Keep them at 75–85 degrees F. and humid. I use the clear plastic trays that you get salads in at the grocery store as a humidity chamber. — J.F., CA

While Psychotria viridis apparently has a higher DMT content than P. alba, it is worth noting in response to your comments about P. viridis being a slow grower, that P. alba is far faster growing and a whole lot hardier. Even if it is half as strong, it grows at least several times as fast. — K. TROUT

TRYPHTAMINE EXTRACTION TIPS

Summer 1996

Regarding extraction problems with *Psychotria viridis* (Winter 1995 issue of ER, p. 18)—when boiling a normal ayahuasca brew, 10 gm of *P. viridis* is not enough. 28 gm gave me a solid "plus-2.5," but more would be better. Also, most municipal water supplies have basic pH levels—like 8 to 9, and adding just lemon juice won't acidify the brew enough. I use spring water, or tap water with dilute HCl, added to bring it down to 6 or 6.5 pH. Aquarium shops carry inexpensive bromthymol blue test kits costing only a few bucks. Most native brews use river or rain water that is very near pH 7 or lower, so their brews work.

Regarding chemical extraction of smoking tryptamines: it seems to me that if you have a supply of *Psychotria viridis* or other DMT-containing plant, that a brew taken orally is preferable to smoking. It lasts longer, there are fewer problems with the sudden onset, and it just seems to be a nicer experience. Sure, nausea can occur, but it can be avoided by fasting half a day or observing some of the traditional food restrictions. Until a reliably simple extraction procedure is developed, I'm content to brew my ayahuasca and enjoy it in the traditional way. — J.F., CA

10 grams is a reasonable dose for some Psychotria viridis leaves. However, most that I have encountered requires 20–25 grams. For others it will take 50 grams for the same results. Some leaves may not have any effects, no matter how much one eats. You simply can't predict a given amount for a given batch of plants unless you have some way to know it is homogenous and have actually bioassayed it (or executed some sort of quantitative chemical analysis). This really is a situation where growing the plants and establishing a relationship with them is where true results will come from; not writing a check and saying "sell me a drug." Plants are plants—literally individuals and living beings. Their chemistry is not standardized or predictable beyond likely ranges to expect, and even then surprises can be encountered. For example (and these are just what few analyses have been published): DMT content in Psychotria viridis has ranged from 0.1% to 0.34%; DMT content in Diplopterys cabrerana has ranged from 0.16% to over 1%. Some Lophophora williamsii has been reported that is 63 times stronger than other samples tested, and some Trichocereus pachanoi has been found that is 20 times stronger than other samples tested. The key words to stress: know your material! — K. TROUT

MIMOSA TENUIFLORA
(= *M. HOSTILIS*)

REPORT FROM THE PALENQUE CONFERENCE

Summer 1996

The following is excerpted from a long and interesting letter from an attendee of the 1996 BOTANICAL PRESERVATION CORPS conference in Palenque, México. — JIM DEKORNE

As far as new DMT-containing ayahuasca analogue admixtures were concerned, the root-bark of *Mimosa hostilis* (source plant of the mysterious *vinho da jurema*) received high praise from both JONATHAN OTT and a highly respected ethnobotanist/botanical supplier who asked not to be recorded or directly quoted. It apparently is concentrated enough that 5 to 10 grams per dose was said to be quite sufficient in an anahuasca potion. The ethnobotanist made it very clear, however, that this should only be utilized via aqueous extraction techniques to remove other unwanted alkaloids; a report was mentioned in which an over-zealous psychonaut ate several grams of ground root-bark, precipitating a physical crisis which required medical intervention. Aqueous extraction techniques were also stressed in combination with *Peganum harmala*, to reduce somatic discomfort. — FORBIDDEN DONUT

MIMOSA HOSTILIS: A POTENT NEW AYAHUASCA ANALOGUE

Winter 1996

Fifty years ago, DMT was isolated from the root-bark of *Mimosa hostilis*, a tropical “weed tree” native to both North and South America. It was the very first scientific extraction of this powerful entheogen from a botanical source. They called it “nigerine.”

The herbal medicine *tepescohuite*, sold in markets throughout México, consists of bark taken from the *Mimosa hostilis* trunk. There is some confusion as to whether or not *tepescohuite* is entheogenic when combined with a MAO

inhibitor: one informant swears that it's a bonafide ayahuasca analogue; others say that only the bark from the roots contains DMT. I haven't tried either yet, so I can't say, but it is interesting to note that *tepescohuite* is sometimes available in U.S. herb stores for around \$3.00 an ounce. (Five grams is considered a full dose of the root-bark, so—if the amount of stem-bark needed is comparable—that comes out to about fifty cents a hit.)

Whether or not *tepescohuite* is entheogenic, the root-bark of *Mimosa hostilis* is known to be extremely potent. How about some of you *Mimosa hostilis* psychonauts sharing your data with us? The following accounts by the same correspondent are presented verbatim: if the leaves are potent, one needn't dig up the roots and destroy the tree. Obviously there are some careful differentiations to be made here. — JIM DEKORNE

THE Gnostic's FIRST TRIP

Winter 1996

After spending hundreds of dollars on expensive seeds, and painstakingly caring for the seedlings, and waiting two years to get enough for a single dose, all in search of the great ayahuasca experience, I am very disappointed.

I am talking about *Mimosa hostilis*. I pulled up about twenty-five runt plants, less than one foot tall. I boiled the roots in tap water with some citric acid crystals. The water does not become dark quickly like coffee or tea. I stopped after about one hour, but I suggest boiling for several hours. The mother liquid was slightly yellowish and not too bad tasting. After a half hour I could feel that it was going to come on as a trip. [*Obviously a MAOI was also ingested.* — JIM DEKORNE] Unfortunately, there were contaminating factors that caused uncomfortable body effects. A little bit of aversion to food, but I got a bowl of cereal down and did not vomit.

I sat down and put on eye blinders. The trip was similar to mushrooms. However, the visions were more static and chaotic, like the new younger generation's shirts with bits and pieces of unrelated color blotches. And then it was disappointingly short, lasting only one hour. The only worthy part was viewing the night sky afterwards. For the first time in my life I noticed that I could see very clearly the gray "seas" on the moon (it was full). Before, a full moon only seemed to be shining white.

Unless higher doses prove to be drastically more powerful, I can tell you that this is nothing like mushrooms. The beautiful, clear, geometric color patterns; the quality of the fear (giving you real respect for God and the meaning of life); the impressive duration—I think we have the real premium

stuff already: mushrooms. — THE GNOSTIC, FL

THE GNOSTIC'S SECOND TRIP

Winter 1996

These are very fast-growing plants, putting on five feet in one year. The root-bark is considered the best part, however I noticed that the old brown bark on the trunk had visible balls of sticky resin on it. Also, the leaves were sticky. After trying the roots, which aren't very big, I tried boiling the trunk stems in slightly acidic water. Consuming this, with *Peganum harmala* seeds of course, produced no effects. So I assumed that the leaves would also be ineffective. But I saved them anyway, and tried them later.

“WOW” is putting it mildly! I'm a die-hard mushroom advocate, and thought that there was nothing better. But these leaves were absolutely beautiful. Wonderful geometric shapes and beautiful colors, with no hint of the great impressive bumper. And there was no contaminant side-effect. It was so impressive, but over quickly.

Forget about the roots. The bark is very thin, so losses can occur by rub-off. Also, there is a contaminant in the roots that causes an uncomfortable stomach feeling. Finally, the roots were weaker.

These plants are a lot easier to grow than mushrooms. But, proceed with caution. From a distance they look a lot like pot. Neighborhood kids may see them and report them as pot. I got a helicopter hovering close to my house for a long time. Then I got a visit by a man claiming to be a citrus inspector and wanting to look in my back yard. I let him in and believed him. But, later I thought it was a DEA ruse to find pot.

I plan to cut off the green stems in early fall. The plants stop growing here in the dry and cooler fall-winter weather. In summer, they can throw up four green branches quickly. — THE GNOSTIC, FL

MORE MIMOSA HOSTILIS LORE

Spring 1997

If you like DMT, this is definitely the easiest. It can grow five feet in the first year, far outbeating the slow-growing *Psychotria viridis*. Since it is fast-growing, you can cut the limbs off without worry. The limb must be cut to harvest the leaves, which are too tiny by themselves. Harvesting can be done every year since many of the leaves are shed in the fall and therefore are lost. The

cut branches can be placed into a large plastic yard bag, kept open for drying purposes. After drying, the branches are taken out and placed into a laundry tub. The leaves are then simply stripped off the branches by running your hand down it. You must wear a leather glove since there are thorns on the branches. [*Indeed there are! That's what the "hostilis" stands for!* — JIM DEKORNE] The dried leaves do not need to be powdered prior to boiling. They are tiny enough already. Two cups of dried leaves, not compressed, is the minimum. For me it seems to be the same as psilocybian mushrooms except shorter. This *can be* preferable for the higher dose experience, that might include the solipsism bumper. — THE GNOSTIC

In December of 1996, driving down México's Baja peninsula highway between Loreto and Ciudad Constitución, I passed through hundreds of square miles of *Mimosa hostilis* trees. At kilometer 29, the Jesus María turnoff (love the synchronicity of the names!), I collected several voucher specimens. Would-be dope smugglers are advised, however, that I was stopped eight times in 1000 miles by teenaged soldiers with loaded assault rifles; the revolution in Chiapas has spawned roadblocks everywhere. They're mostly looking for guns, but "dope" is also on their list of items as they paw through all your personal stuff out there in the middle of the desert. Try explaining to a 19-year old Mexican GI what you're doing with a truckload of *Mimosa hostilis*! — JIM DEKORNE

The above comments by THE GNOSTIC are the only reports that I am aware of that relates the use of leaves from Mimosa tenuiflora (=M. hostilis). Most of what is available commercially on the "entheobotanical market" is root-bark, which is commonly believed to be the most potent part of the plant. Stem-bark is available commercially in México, where it is used for skin conditions and for stomach ailments. (Mimosa tenuiflora is listed in the Mexican book comparable to the Physician's Desk Reference.) While 7–10 grams with a MAOI, is considered a "dose" of the root-bark, I have heard a guess that it might take 100 grams of the stem-bark for similar effects. I have not actually heard of anyone successfully using the stem-bark though. It is quite interesting that the leaves may be active. Even if it requires more material, they could easily be concentrated through extraction. Using the leaves would mean that one wouldn't have to damage the plant's root system in order to harvest material—a plus for those concerned about the life of the plant! — DAVID AARDVARK

MIMOSA HOSTILIS 2

Spring 1997

The summer 1996 issue of *ER* introduced me to *Mimosa hostilis*. The root-bark and *Peganum harmala* gave me my first ayahuasca experience. I would like to order more *Mimosa hostilis* but am unsure of its shelf-life. Do you know if the root-bark maintains its quality over time? — P.F., WI

I don't know. Anyone have an answer to this? — JIM DEKORNE

While I don't really have any idea how long the root-bark stays potent, it is more likely

to retain its potency if left intact, rather than being ground-up. Grinding would increase the potential for oxidization. If one did grind it up, tightly packing the powder into glass jars (vacuum sealing them if possible) and storing in a freezer would seem prudent. I have consumed Mimosa tenuiflora root-bark that was over two years old (kept whole, but not refrigerated or frozen), and it was still quite potent. — DAVID AARDVARK

MIMOSA HOSTILIS JOURNEY

Spring 1997

The *Mimosa hostilis* root-bark that I purchased was rather substantial, with a core center about $\frac{1}{4}$ inch (no losses from rub-off). I took 5 grams plus 2.5 grams *Peganum harmala* and blended this in a coffee grinder. I simmered in 30% lemon juice in water (I think this is too strong; it should be 3% as stated by JAMES KENT in the Winter 1995/1996 issue of *Psychedelic Illuminations*, p. 75. Two tablespoons lemon juice in 3 cups water.) Anyway, I thrice extracted in 30% lemon juice in water and simmered down to about $\frac{1}{2}$ cup ayahuasca concentrate. I have smoked *P. harmala* powdered seeds with no negative effects but I got an irregular heartbeat for about a half hour from the drink. Not painful, but a stronger than normal beat and irregular. My heart is sore now as I write this three days later. My stomach was empty but I did eat black-eyed peas, coffee and chocolate that day (5 hours earlier). If my heart didn't skip, it could have been a "plus-1.5" to "plus-two" journey.

I think I shall journey with each plant separately now and discover more about each individually. I wonder about MAOI inhibitors now. Is it wise to freak-out your chemistry so much just to get close to the *Mimosa hostilis*? We should be able to feel the *M. hostilis* without the MAOI. How about a simple flying ointment or a alcohol extraction sublingually? — GREEN GIANT

A 3% lemon juice solution is too low for the quick extraction procedure that many people use (as described in Ayahuasca Analogues by JONATHAN OTT). Nevertheless, Mimosa tenuiflora is indeed active without either heat or acid needed; a cold-water extraction works. However, a much larger amount of root-bark—perhaps 30 grams—must be used. See page 163 for more information. — DAVID AARDVARK

MIMOSA HOSTILIS

Fall 1997

Mimosa hostilis is a much better choice than *Psychotria viridis* (which requires full shade) for an ayahuasca brew. A healthy *M. hostilis* specimen can grow four feet in only three months in 80 degree weather with plenty of water. In cooler weather plant growth stops almost completely. Harvesting of leaves is best done by cutting off the whole new green branches. This year I plan to

scissor the leaves off the cut branches and immediately try to root the latter with rooting powder. If this works, the crop would multiply fantastically.
— THE GNOSTIC, FL

MIMOSA HOSTILIS BETTER THAN MUSHROOMS

Fall 1997

I have found *Mimosa hostilis* to be as strong as mushrooms. I've had moderate doses of mushrooms about 100 times, over a period of 2 years. The *M. hostilis* seems to produce less paranoia—perhaps because the trip is shorter in length. It grows wonderfully fast here in Florida in the 90 degree weather. Also it is very sticky on the new leaves and stems. — B.J., FL

MIMOSA HOSTILIS EXTRACT

Fall 1997

Does a *Mimosa hostilis* extract qualify as an analogue to DMT under the drug laws, or is it a natural plant extract? — ANONYMOUS

If it's a good extraction, it isn't a DMT "analogue," it *is* DMT, and therefore a scheduled substance. This rule holds for any extraction, be it from *Phalaris*, *Desmanthus*, *Mimosa* or whatever—currently you can't be busted for growing the plants, but if you extract the alkaloids from them, you're liable for arrest and prosecution. — JIM DEKORNE

MIMOSA HOSTILIS

Winter 1997

Mimosa hostilis root-bark is a definite hit. Boil with a little lime juice, 3–4 times, 1 hour each time. Filter, let the cloudy sediment settle, pour off liquid and drink. Or store as ice cubes for later use. This is not a toy. My first dose was from 7 grams—comparable to a 120 mg hit of pure DMT. The experience might have been unbearable had I not previously been there. The *M. hostilis* seems toxic for about an hour. Intense yawning and anxiety—but not every time, so I'm not sure if it's the plant or me. Mine was drop-shipped from México and labelled as a topical antiseptic. Testing it without a MAOI, I noticed no side-effects. — P.J., MT

You don't mention the MAOI used in the initial dose; I'm assuming it was *Peganum harmala*, as that's the one used by most people. Since you noticed no side-effects without a MAOI (and presumably no entheogenic effects either), that confirms most

people's experience of *P. harmala* as the culprit in somatic discomfort. From what I'm hearing, *Mimosa hostilis* is becoming the preferred ayahuasca analogue among experienced psychonauts. As mentioned in a previous issue, it covers hundreds of square miles in certain parts of México and has long been used as an herbal medicine there.

— JIM DEKORNE

As noted earlier, and on page 163, at high enough doses Mimosa tenuiflora (= M. hostilis) is active without the addition of a MAOI. The reason for this activity is currently unknown, but I found 25 grams of powdered root-bark extracted in cold water only (with no heat and no acid) and using no MAOI, to be visionary; 'though next time I would extract 30–35 grams as a "dose." — DAVID AARDVARK

MIMOSA ACTIVE WITHOUT MAOI?

Spring 1999

JONATHAN OTT seems to think that *Mimosa hostilis* is active without MAOI added. The ingredient, kokusaginine, which is morphine-like in structure, may possess MAOI properties such as the other well-known MAOI morphine-like compound, moclobemide, does. I would suggest that the kokusaginine supposedly, insoluble in water, is nonetheless extracted enough—especially with heat—to allow for sufficient MAOI effect. However, if *M. hostilis* is taken *whole*, the quantity of kokusaginine causes excess MAOI effects coupled with morphine-like effects, producing the reputed bad effects.

One could make a fat extraction and if the *Mimosa hostilis* aqueous extraction *then* proved inactive, this would imply that the kokusaginine is the contributing MAOI factor.

Does anyone know, for certain, what the effects of kokusaginine are? Those who are chemistry smart might check this out. — J.S., OR

*I have only heard of kokusaginine reported from the Rutaceae. I know nothing about its activity except for the fact a related compound was reported to be antagonistic to Ditrán. I would like to hear more on all of this. I suspect tannins are what cause people problems when they ingest the actual powdered bark. (Perhaps worth noting, I've heard one report that someone ended up in an emergency room from ingesting powdered *Mimosa tenuiflora* root-bark directly.) "Morphine-like," I love that phrase—what does it mean though? Mescaline is sometimes defined as being morphine-like because of the similarity of the subjects to an observer. I suspect this is in reference to its action in your usage. I did notice a very strong stuporous component with one bioassay of *M. tenuiflora* root-bark and a MAOI, that I did not in the others. JONATHAN would be the best one to talk with about this. — K. TROUT*

We asked Mr. OTT what his thoughts on this matter were, and he responded:

It isn't so much that I "seem to think that *Mimosa* [*tenuiflora* (WILLD.) POIR. =

M.] *hostilis* [(MART.) BENTH.—let’s get this taxonomic orthography straight for good and all] is active without MAOI added,” but rather that I *know this*, having felt it in my own body in the only valid scientific analysis I know: the psychonautic bioassay. This ought not be surprising, and I have always known in my bones it were so—all the scant ethnographic evidence is entirely consistent with this, and there is absolutely no evidence for some lost or missing ingredient, all the sterile and uninformed scientific speculation in this regard notwithstanding. I’ve no idea whence derives the querist’s notion that kokusaginine occurs in *M. tenuiflora*, and I am in agreement with K. TROUT’S remark in this regard, while it is a mystery to me why it would be assumed this compound possesses MAOI activity, nor indeed how this compound—or moclobemide, with which it is structurally unrelated—is “morphine-like;” none of which has anything to do with the recondite pharmacology of *jurema preta* / *tepescohuite*, in any case. Perhaps there is some confusion here between the rutaceous kokusaginine [found in New Caledonian *Dutaillyea* spp., among others] and the so-called “kukulkanins” reported from powdered stem-bark of Mexican *tepescohuite* [misreported as *Mimosa tenuifolia* L. (sic): *Journal of Natural Products* 52(4): 864–867, 1989], also of obscure pharmacology. There is no reason to suppose this compound or any of the diverse saponins likewise reported from bark of Mexican *tepescohuite* [*Phytochemistry* 30(7): 2357–2360, 1991; *JNP* 54(5): 1247–1253, 1991; *Journal of Ethnopharmacology* 38(2,3): 153–157, 1993] show MAOI activity, and at least five phytochemical analyses of Brazilian *jurema preta* [mostly unpublished] have failed to show presence of β -carbolines nor any other category of potent MAO. Moreover, pharmacologically and pharmacodynamically, the psychoptic effects of cold-water, hand squeezed and short-time-infused, aqueous extracts of simple pounded *jurema preta* root-bark prepared according to the traditional manner as documented in several Brazilian reports, bears no relation to the—to me—well-known pharmacology of the β -carbolines and other MAOI, such as the artificial isocarboxazid and moclobemide, and others. Preliminary chemical evidence reveals rather the presence of several novel and yet-unidentified DMT-adducts in *jurema preta* root-bark, apart from free DMT itself. Either these compounds show oral activity *per se*, not being substrate to gastric MAO, or rather show a *higher* affinity for the enzyme[s], serving thus as competitive inhibitors respective to DMT for its active site[s], in the manner that the β -carbolines do. My current work strongly suggests the former conjecture is the more parsimonious. Remember, the simple, short-acting tryptamines are *themselves* MAOI, albeit far weaker than harmine and harmaline in this regard. The reported enhancements of psilocybian effects by concomitant administration of β -carbolines suggests that even psilocine, with its dramatic oral activity, is a significant substrate for gastric MAO, as this synergy, if it is borne out scientifically, yet to be done, would almost certainly be due to inhibition of gastric MAO, as all evidence suggests that in the brain, the MAOI [at least in the case of β -carbolines, probably *via* a general inhibitory effect at the GABA_A receptor combined with competitive inhibition of tryptamine-binding at 5-HT receptor subtypes]; including the artificial, medicinal agents like iproniazid, *etc.*, markedly *inhibits* effects of DMT and its congeners, not to mention LSD [*vide* my article in *MAPS* VI(3): 32–35, 1996 for references and the new edition of *Ayahuasca Analogues* for a discussion of this phe-

nomenon; *vide item: The Heffter Review* 1: 65–77, 1998; recall also that cerebral MAO is found *inside* nerve-terminals, *not* in synapses]. Finally, why this undue and exaggerated emphasis on the *ayahuasca* effect in attempting to rationalize the pharmacology of *jurema preta*? I can assure you—but will say no more at this time, pending resolution of yet-outstanding mysteries—that the psychoptic pharmacology of the tryptamines neither begins nor ends with the hallowed *ayahuasca* effect, exploration of which constitutes only scratching the surface of a broad and intricate, far-ranging topic, rife with scientific, commercial and political significance which has yet to dawn on psychonauts, much less *ayahuasqueros*, governmental sanatory authorities or pharmaceutical-corporation scientists.

— JONATHAN OTT, México

On the topic of Mimosa tenuiflora we also received the following question:

[One of the ENTHEOBOTANY instructors] at the seminar in Uxmál said that *Mimosa [tenuiflora]* could be used in a quick, cold-water extraction. 15 minutes?! My two experiments were not successful. Maybe my *Peganum harmala* extract wasn't sufficient. In any case, I would like to know more about this as a possible reliable ayahuasca method. — T.C., OR

We had heard through the grapevine that JONATHAN OTT announced at the 1998 PSYCHOACTIVITY conference in Amsterdam that Mimosa tenuiflora root-bark was active by itself at the 35 gm dose. In a letter regarding this, Mr. OTT confirmed what he stated above about this, noting that M. tenuiflora:

...is indeed active neat, with no cooking nor additives, simply by hand-squeezing briefly the pounded root-bark in water—25 g twice infused for less than an hour and minimally squeezed in 125 ml cold, neutral water each time was quite distinctly visionary and *pharmahuasca*-DMT-like, albeit with a slightly accelerated pharmacodynamic all-'round, which militates in favor of the directly-orally-active DMT-adduct-theory, as opposed to some endo-MAOI from same (OTT 1999).

Without knowing any more details (such as amount of the Mimosa tenuiflora used, whether or not is was root-bark or stem-bark, potency of whatever plant-part was used, exact length of infusion, etc.), it is hard to say what went wrong with the two experiments performed by T.C., OR. What is clear is that the case has been made by Mr. OTT that T.C., OR needn't have used any Peganum harmala extract at all, in order to experience effects. Though we doubted not Mr. OTT's claims, it seemed only reasonable to get a second opinion. DAVID AARDVARK stepped forth for the bioassay:

25 grams of *Mimosa tenuiflora* root-bark was powdered in a coffee bean grinder. The fine dust that wafted upwards when the lid was removed smelled quite strongly of DMT. (Indeed, if one burns a piece of *M. tenuiflora* root-bark, one can also notice the pungent odor of burning DMT.) The root-bark powder was placed into a tupperware container with 125 ml of cold tap water, shaken, and left to sit for an hour. It was then strained through a "French press" coffee filter, and soaked a second time in a fresh 125 ml of

water for another hour. This was strained and the two extracts were combined and drunk. The taste was *quite* bitter and astringent, but didn't evoke a gag response until the final few swallows (which had a bit of fine particulate matter in them, like the last sips of Greek-style coffee might). I later learned that it was apparently traditional to add honey to this infusion, to cut the astringent bitterness (GONÇALVES DE LIMA 1946). There was some *very* mild stomach upset at the onset, but no real nausea to speak of at all, and no diarrhea. I was amazed that I started to feel the first effects in about 15 minutes after consumption. These built up over the next 20 minutes or so to a solid "plus-two" on the SHULGIN scale. The effects were indistinguishable from smoked DMT. I felt as though I had smoked about 25–30 mg, the only difference being the more gradual onset, and the longer duration. After hitting the peak, there was a fairly rapid decline to near baseline. This all within one hour. I was surprised to find myself almost sober for about 5–10 minutes (I could have easily driven a car), and then I started going up again! I peaked a second time—equally as high—but for perhaps a slightly shorter period of time, and came back down. Again 5–10 minutes passed where I felt almost totally sober, and again I started going up for a third time. This third peak was not as high, and did not last as long. The trip was completely over within two hours, and I felt a pleasant afterglow. I was (and am) amazed by the whole experience, and eager to try this again at a higher dose. (I'm tempted to double the dose, but will probably step up more slowly, in 10 gram increments.) There was virtually no "body load," and the whole experience was quite pleasant. I am at a loss to explain the wavelike nature of the experience with the three peaks and returns. I'd also be quite interested to know how much DMT is left in the marc from this experiment, and if this root-bark might be used a second time if it were cooked in acidified water and taken with a MAOI? More experiments are obviously needed, and I encourage *ER* readers to see for themselves that this astonishingly simple preparation can produce an effective, enjoyable, and brief entheogenic voyage.

MIMOSA TENUIFLORA, NEAT

Winter 1999

I duplicated my *Mimosa tenuiflora* bioassay, and experienced very mild but quite pleasant results. I think my first try—mentioned in the Spring 1999 issue of *ER*—was masked by the somatic effects of the *Peganum harmala*. It seems for me that a much larger amount than 25 grams of root-bark is required. Carry on with your excellent work. — T.C., OR

THE *ACACIA* GENUS

ACACIA SPECIES

Summer 1993

...It's too bad *Acacia phlebophylla* is so scarce. Its leaves and twigs are at least as good as *Psychotria viridis*; it's a large bush/small tree, which can stand some snow. *Acacia maidenii* (bark above ground) is a fast-growing, frost-hardy, drought-tender tree. Conceivably it could be grown near some sort of shelter or in pots and pruned yearly for its bark. — B.D., CA

ACACIA SIMPLEX (SIMPLICIFOLIA)

Fall 1995

Can you print some information on *Acacia simplex* (formerly *A. simplicifolia*), which the BASEMENT SHAMAN is about to begin selling? — T.A., CO

Our friends down under seem to have a monopoly on these potent *Acacia* varieties. OTT's *Pharmactheon* reference (POUPAT, C. *et al.* 1976. "Plants of New Caledonia Part 38. Alkaloids of *Acacia simplicifolia*," *Phytochemistry* 15: 2019–2020) indicates that *A. simplex* is a southern hemisphere species. Does anyone have further data on this plant? — JIM DEKORNE

ACACIA SPECIES AND DMT

Fall 1995

I am interested in *Acacia-huasca* because of *Acacia's* high DMT content. I purchased some *Acacia tortilis* from L.E.R., and understand that the alkaloids are in the bark—does this mean that they are non-existent in the leaves? (I've heard they are only in the leaves in some species.) Are there any contra-indications to the use of *Acacia* species, such as toxic properties? — M.S., PA

This is all fairly new stuff, so not much is known about it yet. — JIM DEKORNE

I am unaware of any analysis of Acacia tortilis that has shown it to be DMT-containing, despite claims that it does contain DMT being repeated in several publications. In at least one such publication, the error apparently occurred due to a careless reading of "Dimethyltryptamine from the Leaves of Certain Acacia Species of Northern Sudan," Lloydia 38: 176–177, by S.K. WABBA KHALIL and Y.M. ELKHEIR. This paper specifically stated that the A. tortilis examined did not contain DMT.

I have never found any report indicating that DMT was only present in an Acacia's leaves. There are several reports that only looked at the leaves, but they simply did not analyze any other plant-parts. Of the Acacia species with DMT in the leaves, only A. phlebophylla contained useful levels; the rest, all African species, contained only trivial amounts. — K. TROUT

NEW AUSSIE DMT SOURCE

Fall 1995

I have some interesting news for you, which is the identification of another Australian *Acacia* rich in DMT, *Acacia obtusifolia*. This is a very fast-growing tree, reaching 15 feet, and quite common in NSW coastal regions (my specimens were collected in Sydney). Rough comparative tests with *Acacia maidenii* showed the *A. obtusifolia* contained slightly more alkaloids. The *A. maidenii* contains 0.6% alkaloids in the bark, comprising mono-methyltryptamine (inactive) and dimethyltryptamine in a 2:3 ratio; thus it is a very clean source of DMT. Subjectively the *A. obtusifolia* seems just as clean, with a higher proportion of DMT. (We still need to do accurate tests.) We currently have two more *Acacias* to investigate that we think may contain DMT. There are also a couple of β -carboline-containing plants (e.g. *Ailanthus triphyta*) that may be potential MAOI sources. I've found that smoking the crystals produced by solvent extractions of the alkaloids from *Passiflora* or *Peganum harmala* produces a more potent MAO-inhibiting effect, and also more potent mental effects, than oral ingestion. As GRACIE and ZARKOV noted, the effects of the *Passiflora* seem to last longer than the *P. harmala*—potentiating smoked DMT up to two days later, and affecting dreams. — N.E., Australia

EXTRACTION FROM ACACIA MAIDENII BARK

Spring 1996

Excerpted and edited from: ft.u.washington.edu:/public/alt.drugs/chemistry-extracting.8/31/92

I discovered that a local plant, *Acacia maidenii*, was reported to contain 0.6% alkaloids in the bark, of which one-third was *N*-methyltryptamine, and two-thirds was dimethyltryptamine (DMT) ... I took about half a kilo of vertical

strips from a number of trees, trying to cause as little as possible permanent damage. The bark was thick, red, fibrous and resinous. Smoking the bark directly gave a mild visionary effect, on the limits of detectability.

That evening, I shredded the bark by hand. This was difficult and incomplete; mechanical milling would be far preferable. I placed the shreds in about 3.5 litres of analytical grade methanol from Monday night to Friday afternoon. The methanol quickly took up color from the bark and turned a deep red color. As much as possible of the methanol was removed by filtering. I evaporated off the methanol using a fractionating column, a condenser, and a saucepan of boiling water as the heat source, and I recovered much of the methanol. I placed this methanol back with the bark and re-extracted for some hours while evaporating the rest, then filtered the bark again and combined the extracts, and stripped as much as possible of the methanol, to leave a resinous brown liquid. A portion of the extract was evaporated using a hair-dryer to give a thick brown resin. Attempts at smoking this using pipe and hot knife proved unpleasant and gave minimal effect.

It was decided to perform further purification. To the extract was added dilute hydrochloric acid (about 20 ml 10M, but well diluted). Immediately, a large amount of tar congealed and was removed, leaving a watery brown aqueous mixture. This was basified with NaOH, although on reflection, I would use NH₃ next time as it is less likely to overbasify and react with any of the compounds present. White precipitations were seen on basification, which redissolved on stirring. The aqueous phase was extracted twice into CH₂Cl₂, and the solvent evaporated as before. The last stage of evaporation was accomplished with a hair dryer, to leave about a gram or so of pale yellow liquid. On standing 24 hours, this liquid crystallized as circular arrangements of needles.

Preliminary attempts at smoking small amounts of the alkaloids gave varying mild effects, and a friend and I decided to try a larger dose. He took a cone in one toke, and was immediately on the ground, making strange sounds and looking odd. He hugged me and told me to meet him in that place, and said it was very strong. I managed to finish a large cone in 3 tokes, and was instantly blown apart as if by a large brick through the head. I think I was temporarily blinded, and found myself on the ground grasping my friend, and coughing for air, as I watched all of my surroundings fragment into small pieces divided by lightning bolts, and feeling all the air in the universe escape through the holes. We were both totally astounded and scared shitless. Two minutes later, the intense part was over. We staggered out into the open, and walked in the park until we calmed down. Pleasant mild visions continued for about half an hour, and there were no after-effects whatsoever. The experience was extremely intense, and the smoke has an unpleasant taste. Several other people have tried it since, and the most popular adjective is

“wicked.” Effects have ranged from mild to intense, and some people say that while it could not be described as “good” or “enjoyable,” they would be happy to try it again. My subsequent trips were more bearable, as I was not under any anxiety about the duration or outcome of the trip. Nevertheless, the trip is still extremely intense, and also physically demanding: giving strong tactile hallucinations and stimulation.

On a second occasion, I took 1.7 kg of bark, and pulverized it as best I could, using a circular saw. The result was mostly a fibrous powder. Some pieces had to be shredded by hand. Methanol extraction was performed as before. Since the amount was larger on this occasion, the quantities were somewhat unwieldy. Stripping the five litres of solvent took approximately 14 hours. On attempting to acidify, filter and basify, considerable difficulty was experienced, the acidified residue seemed unfilterable, and when basified with NH_3 , a thick pink gel was formed which was impossible to extract. By a painful process of trial and error, I found that at a very low pH, most of the resins became dissolved or suspended. At slightly low pH, the residue separated nicely into a tar and an aqueous phase. At slightly high pH, the mixture became a thick gelatinous solid. At very high pH, this solid redissolved. The result of this seems to be that much of the tar can be separated by successive extraction at moderately low pH (dilute HCl), and then that the addition of strong hydroxide will leave the amphoteric resins in solution, but make the alkaloids insoluble. These are then extracted into dichloromethane as before, and the organic layer is back-extracted with salty NaOH solution to remove the impurities. The dichloromethane is then stripped as before, to leave the alkaloids, which crystallize in 24 hours or more.

A friend and I experimented with repeat doses of DMT at close intervals. A base pipe was used for smoking the alkaloids. This pipe allows minimum combustion and maximum vaporization, and thus is the most economical way to smoke DMT. Because there is little combustion, the smoke does not taste quite as bad, and also the base pipe allows more accurate metering of the dose. After the initial physical rush, it was found that taking small tokes at intervals of a few minutes was sufficient to maintain an extremely pleasant trip, not unlike that of psilocin. There was minimum physical discomfort associated with the cruise. However, in this mild state, I took two large tokes of the substance, and a few seconds later, without warning, I was blown apart. I was walking, but staggered and choked, gasping for air. The effects were totally overwhelming, like being thrown out of the universe, and I watched my visual sphere being pixelated at successively lower resolutions, until I could see merely individual elements of color. The intensity was such as to make it very unpleasant.

A few more experiences should be related. It seems that the response of various people to this extract varies greatly, and even a single individual can

have a variety of responses, from no effect to total dissociation. One girl tried a single toké for the first time, and was completely thrown out of the universe (from her description). She was begging for it to end; the duration was longer than usual: about 15 minutes of heavy peak, and at the end of it she vomited while gasping for air when beginning to return to some normality and bodily control...

I am planning to side-step the methanol extraction, simply by attempting to extract directly into hydrochloric acid. Freezing and thawing the bark might serve to burst the vesicles containing the alkaloids... My references tell me that *N*-methyl tryptamine is most likely inactive at these doses. Does anyone have any information regarding the physical and psychological effects of this compound? — ANONYMOUS

MISIDENTIFICATION OF ACACIA SPECIES

Fall 1996

ER has received information that the "Extraction from *Acacia maidenii* Bark" article in the Spring 1996 issue was probably based on a species mis-identification. The species extracted was most likely *Acacia obtusifolia* (formerly *A. intertexta*), not *Acacia maidenii*. The point is that *A. obtusifolia* contains something like five times more tryptamine alkaloids than *A. maidenii*! So if you're seeking a species that contains up to 0.15% alkaloids (in one assay 0.72%!) in the bark (and possibly in new-growth leaves as well), *Acacia obtusifolia* is your plant. Bioassays with smoked extracts and orally with *Peganum harmala* as an ayahuasca analogue, prove it to be a very potent botanical. Since this is a common Australian species, American ethnobotanical suppliers please take note. — JIM DEKORNE

URGENT REPORT ON THE AUSTRALIAN ACACIA SITUATION

Winter 1996

I am the one who accidentally discovered the properties of *Acacia obtusifolia* in 1992 when I mis-identified it as *Acacia maidenii*. I passed this knowledge on to others and for a couple of years it was used in informed or sacramental circles. Then, a number of large-scale European drug dealers arrived in Australia, specifically hunting the DMT source. Unlike mine and others' approach of removing bark strips or single branches, which does not kill the whole tree (most are in diminishing National Park ecosystems), they ripped hundreds of trees out, started selling to the rave party set, and encouraged people to smoke it in joints at parties (which has led to some pretty extreme psycho-

logical disturbances). They shipped several hundred grams to places like Goa, India.

Now, a 3–4 foot strip of bark (say 1 1/2 inches wide) can yield 3 smoking doses (sometimes a few more), but that's it for the life of that tree unless you want to kill it, and to reach that size takes at least five years. My point is that until planting happens seriously, this is an exhaustible resource, particularly if exploited commercially.

Acacia obtusifolia is regionally and seasonally variable in alkaloids, and often contains other alkaloids which can produce (particularly with repeated smoking) very “dark” and physically uncomfortable experiences (including hypotension). Not recommended for newcomers to these spaces/species, in my opinion. A close relative known to cross-breed, *Acacia sophorae*, has been found to contain DMT, 5-MeO-DMT, gramine, cinnamylahistimine, other weird histamine-like compounds and bufotenine at about 0.6% in bark and 0.15% in leaves.

Acacia maidenii does, in some regions, contain up to 0.7% DMT and NMT, usually in younger trees. It's cleaner and more common.

Acacia phlebophylla is the cleanest, containing just DMT, but is rare and even more threatened by over-harvesting.

Acacia longifolia (Sydney golden wattle) has been found to contain (particularly in winter) up to 0.2% DMT, is clean (other alkaloid probably tryptamine) and is very common, sold in many nurseries.

Despite this appearing in print, there is nothing in the published literature that I am aware of that states Acacia longifolia contains DMT, and I suspect that the comment above is a misunderstanding of one of the papers written by E.P. WHITE, concerning an unidentified alkaloid he had isolated (probably WHITE 1944A and/or WHITE 1994B and/or WHITE 1951). To state that the alkaloid content is “clean” would—in my mind—mean that there is only DMT in the plant; hence, the “other alkaloid [is] probably tryptamine” is a contradiction. This species certainly may turn out to contain DMT, but to date it remains unknown. — K. TROUT

And of course, *Phragmites* and *Phalaris* are everywhere if you just spend a little time looking.

I have written this because I have already seen the physical damage in National Parks that have been untouched for thousands of years, not for medicine or growth, but to make money. I believe successful long term shamanic use of these plants involves forming a relationship with the plant by growing it and protecting it. — E., Australia

ACACIA SIMPLEX

Spring 1997

Acacia simplex is a fast-growing, healthy tree which also contains the desired alkaloids. However, it is far too weak to be worth it. 150 fresh green leaves, taken in two installments of 75 each, was disappointingly short of one dose.

— THE GNOSTIC

DMT
AND
5-MEO-DMT

SOME DMT QUOTATIONS

Winter 1993

Yet however much we may be hedonists or pursuers of the bizarre, we find DMT to be too much. It is, as they say in Spanish, *bastante*, it's enough—so much enough that it's too much... One of the interesting characteristics of DMT is that it sometimes inspires fear—this marks the experience as existentially authentic... To not be terrified means either that one is a fool or that one has taken a compound that paralyzes the ability to be terrified.
— TERENCE MC KENNA, "Tryptamine Hallucinogens and Consciousness"

It is unfortunate that such a unique and desirable drug as DMT is not freely available and widely used. We feel that anyone who likes entheogenic drugs would do well to try DMT, if given the chance. Not only are the effects enjoyable, but most users are astonished to learn that a drug can so rapidly produce such profound effects which have such short duration. DMT may be the quintessential "wonder" drug, for the initiate cannot help but wonder at its awe-inspiring potency. — JEREMY BIGWOOD & JONATHAN OTT, "DMT"

DMT ENTITIES

Winter 1993

FIRST TRIP: I watched a *Star Trek: The Next Generation*-type of low-lying city on a flat plane on the far horizon mutate through a variety of colors and hues (mostly green), with a quickly changing background and foreground; the city grew much larger in the distance as I watched it, with many ill-defined "things" floating in the air above it. Then the air between me and the city, the void space, became full of twinkling, circular lines; as I watched the evolving panorama of motion and light, with the city still visible in the distance, I was surprised by a huge fuzzy wreath of dull white light that rolled across my visual screen from my left to my right, quite close to my face, without

actually touching me. It was warm and benign, but its proximity alarmed me.

Then I noticed a middle-aged female, with a pointed nose and light greenish skin, sitting off to my right, watching this changing city with me. Her right hand was on a dial that seemed to control the panorama. Turning slightly toward me, she asked, "What else would you like?" I answered telepathically, "Well, what else have you got? I have no idea of what you can do."

She arose, walked up and touched my right forehead, warming it up. Then she used a sharp object to open up a "panel" in my right temple, releasing a tremendous pressure; this made me feel much better than I felt before, even though I realized that I'd felt fine before anyway.

Then the visions became diffuse, with very busy spiraling red and yellow lines. I gradually returned to a space of warm darkness...

SECOND TRIP: I felt like I was being pulled up an almost vertical shaft by two unseen forces; at the top of the shaft was a tall, tan, arched metal lattice underlying a cement arch; I heard two unisexual voices in conversation outside of the shaft. They were trying to decide how to get my stiff, rigid, board-like body through these arches and upstairs into a shopping mall. Their gentle manipulations seemed to take forever and it was really sort of boring floating in the vaults all that time while the two individuals outside tried to manipulate my body by some unseen mechanism...

THIRD TRIP: I noticed several male and female figures striding rapidly alongside me. I was walking down a gray road that curved upward to the right and they seemed to be on a sidewalk in front of me to the right of the road. A humanoid male figure turned toward me, threw his right arm toward the patchwork of bright colors, and asked, "How about this?" The kaleidoscopic patchwork immediately became brighter and started to move more rapidly. A second male figure stepped in front of the first and asked, "And how about this?" He also turned toward me, threw up his right arm and the patchwork of bright colors began to swirl quite rapidly and became very bright. Then a third male figure stepped up and asked, "And how about this?" And I consciously gave permission to go to a new level of previously unknown involvement. I immediately saw a bright, yellow-white light directly in front of me. I felt relaxed, safe and enchanted and I remember giving myself the ultimate permission to "go into it." It was a quick decision—almost instantly I was enveloped in the light and I seemed to meld and become a part of it. There were no distinctions, no figures or lines, shadows or outlines, no sense of my body or of any inside or outside. I was devoid of self, of thought, of time and space, of separateness, of ego—of anything but the white light. I can't say that I even had a concept of "me." It was *ecstasy* and pure *euphoria*.

The light and I were one, without fear, without thought or recollection of the past or of how I got there. I have no idea of how long I remained in this confluence of pure energy. There are no symbols or language that can describe that sense of pure being, oneness and ecstasy. The Gnostic concept of “There was Light, and the Light was One, and there was no Darkness or Doubt” seems to ring true to this ineffable experience.

After a timeless period (eternity) I found myself sliding backwards down a broad greyish-black ramp, with the Light on my left—I was a naked, thin, luminescent child-like being that glowed with a warm, yellow light. My head was enlarged and my body was that of a four-year old child; I had regained a sense of self. I somehow watched my young naked body slide down this gently inclined ramp on my left hip, with my left arm outstretched and supporting me as the numinous Light lapped out at me, then slowly receded. Although I was still feeling a tempered euphoria, I was already aware that the ecstasy was departing—already I was forgetting its intensity and quality. The travel down the ramp seemed to take a long time, but was quite fun. I was almost dizzy with happiness...

FOURTH TRIP: I was presented with a warm, yellow rod that grew from my stomach upward into my face. It pushed my forehead upward several inches before the pressure resolved and the visual hallucinations started. Spirals (from brown to tan to blue-green) evolved into large bright circles and spirals which in turn evolved into two stick-like figures (like the ones that computers use to simulate athletic movements). They knew I was there, but didn't interact with me at all; they were riding stick-like bicycles around and around a large terraced structure resembling a parking garage, with me standing in its central opening. We did this for a long, long time; I kept wondering if anything else would happen; slowly the trip ended, but I can't remember how. —C.M., NM

TANTRIC TRYPTAMINES

Spring 1994

We are interested in your idea of creating a “working structure” for using the newly discovered botanical sources of smokable DMT. Potentially, an entirely new class of shamanic drugs has been made available. Because DMT is found in the human spinal fluid and pineal gland, it occurred to us that perhaps it naturally plays some role in regulating the chakra system. My wife and I have engaged in tantric sexual practice for several years—a meditation that concentrates on the mutual energy flow within the cerebro-spinal system. To test our hypothesis that DMT might play some role in this system, we simultaneously smoked some *Phalaris* DMT while in tantric union.

We were amazed to discover that the “flash” was markedly different, and manifested not so much in the head as in the genital chakra. In a later experiment, I found that it can also release its energy through the heart chakra. This “opening” was so intense as to be on the edge of physical pain. The most surprising finding is the difference between the typically terrifying response when experienced in the head vs. the equally intense but qualitatively different response felt in the lower chakras while engaged in tantric union with a partner. We do not know why we experience this difference, and have not had enough time yet to explore the phenomenon in greater detail. We offer this information in the spirit of scientific inquiry, and hope that others will experiment with it and share their findings. — SHIVA and SHAKTI, CA

5-MeO-DMT AND SHEEP

Spring 1994

5-MeO-DMT, one of the more potent indolealkylamine hallucinogens (Gessner *et al.* 1961), is a constituent of plants used by South American Indians as hallucinogens in mysticoreligious ceremonies (Pachter *et al.* 1959), and of the Australian grass *Phalaris tuberosa* [sic], (Gallagher *et al.* 1964). Sheep grazing on this grass sometimes suddenly collapse and die, or develop a more chronic syndrome, phalaris staggers, of motor incoordination, convulsive spasms, nodding of the head, and dilation of the pupils (Gallagher *et al.* 1964).

Sheep are particularly sensitive to 5-MeO-DMT, 0.1 mg/kg injected into the jugular vein producing an intense syndrome. Similar symptoms are also induced in sheep by somewhat larger doses of bufotenin and DMT, also major constituents of *Phalaris tuberosa* [sic], (Gallagher *et al.* 1964). 5-MeO-DMT is also highly toxic to guinea pigs, rats, and mice. (Quote source unknown.)

Phalaris tuberosa is now called *Phalaris aquatica*. — JIM DEKORNE

RECREATIONAL & SACRAMENTAL USE OF 5-MeO-DMT

Spring 1994

... Yes, it was coming on; accelerating through space, through time and things beyond things which can't be written with the mundane tool of human language... If you get high enough to see visual effects, your head will be in such a bizarre place, that the hallucinations will seem trivial...

It is not a trip that I can *take* such as I would take a trip with LSD, peyote, or

mushrooms, it is a trip which unequivocally *takes me*...I was humbled and awed by the terrifying glory of it all. Terrifying? I was scared shitless with no place to shit...Can we ants, who call ourselves human, presume to know anything about the capabilities of God or what he has in store for us?...I was aware that relatively few people could or would want to experience this thing, and I counted it a privilege that I had been able to do so...It is unquestionably a humbling experience...but not one I'm eager to do repeatedly. I suppose I'll do it again, but I'm in no great hurry. Perhaps next year. A little goes a long, long time (WILLIAMSON 1985).

A 5-MeO-DMT TRIP

Spring 1994

A few days ago, with my wife to observe me, I smoked about 5 mg of 5-MeO-DMT. Things definitely got weird, but not too bizarre. Later I did the remaining 15 mg. Against advice, I did this by myself. About ten seconds after inhalation, it hit—ten seconds later I blew out a fair amount of smoke. Then my world became very strange. I could feel static energy vibrating and rippling in my body and throughout the room. The music, *Transcendental Anarchist*, was doing a weird heartbeat thing and I told myself to stay centered and hold onto who I was. Although I never forgot that it was a drug effect, I still felt like I was losing my mind. I had to change the music to something very comfortable. Somehow I managed to put on *Changes in Latitudes* by JIMMY BUFFETT. By then I was starting to come down. I went around the room, turning off the lights, lay down on the couch and rode the waves. Then I began to relax; more relaxed than I've ever been in my life. All in all, it was interesting and scary, but not profound. It doesn't seem to be an entheogen worth pursuing. — NEWATHIS, GA

I don't think we know how to use 5-MeO-DMT yet. It seems to be associated with chakra openings, and I suspect it could become a very valuable entheogen if we only knew the proper procedure for use. — JIM DEKORNE

DMT WITH MUSHROOMS

Fall 1995

I highly recommend smoking DMT about 3–4 hours after eating mushrooms. The actual take-off was not scary at all (as it usually is). It was a melding of myself and the two tryptamines in perfect harmony with the music (JEAN MICHAEL JARRE's "Oxygene VI"). I was transported into some kind of cosmic *Tron*-like info-network. I was sure that the Great Spirit was with me and everything was okay; drop fear, paranoia, *etc.* and move on! Traveling within the music felt like eternal divine grace. — T.W., NY

Other correspondents have observed that smoking DMT while already into another entheogenic experience (mushrooms, LSD, *etc.*) is far easier to handle than smoking it straight. The probable reason for this is that when one has reached a high plateau (usually taking an hour or so to get there) the sudden contrast between two states of consciousness has been eliminated. In other words, it may not be DMT the drug itself, as much as its speed of onset, that feels so intimidating. Metaphorically: you can hold your hand in a pan of water slowly heating on the stove and tolerate more heat than if you just plunged it into the hot water suddenly. — JIM DEKORNE

THE DIFFERENCES BETWEEN TRYPTAMINES

Spring 1995

An important thing you might discuss is the difference between DMT and 5-MeO-DMT. Some sources describe the effects of these two substances as being very much alike, while others greatly emphasize the differences. Most agree that DMT is the preferred substance. — T.J., TX

5-MeO-DMT is active at much lower doses compared to DMT (5 mg vs. 25 mg), and is generally considered to be less “visual.” Like any subjective experience, it depends upon the subject. “Most” people seem to prefer the bizarre colors and alien ambience of DMT to the hydrogen-bomb-in-the-head/white-light blast of 5-MeO-DMT, but I’ve met one person who much prefers the latter. Both experiences are extremely powerful by any standard. — JIM DEKORNE

DMT ENTITIES

Summer 1995

I close my eyes and lean back. I feel and hear a shift as the hyper-express elevator takes me away from my body to my destination and I arrive in a place filled with intense white light where hideous, bodiless, pointed-eared, purple and green entities bound toward me and they laugh, jeer and ridicule me; where these grotesque elf, joker or clown-like caricatures rush at me one at a time and in clusters; where they curl their hideous, clown like mouths and wag their tongues in my face; where I relive every real and imagined humiliation I suffered in childhood; where a great sorrow and disappointment fills me as they come at me faster and faster; where I start to crumble under their onslaught, so I open my eyes but still they come; where I realize I have to face them so I close my eyes and focus on my breathing, and the demonic forces back off and I feel myself coming out of the trip, and I open my eyes and see “D” surrounded by multi-layered, multi-colored grids and he says, “You’re in a good space,” and I ask, “I am?” But his words reassure me and I close my eyes but the elves are gone. I feel humbled, shaken, bewildered and angry but I want to go back in.

Ten minutes later...

“D” loads another hit into the glass pipe. I cast a circle in the Wicca tradition:

*I conjure Thee O circle of power,
That thou beest a boundary between the world of men
And the realms of the Mighty Ones;
A meeting place of love, joy and truth,
A shield against all wickedness and evil;
A rampart of protection that shall contain and preserve
All the power we shall raise this night.
So mote it be.*

Shielded in my psychic armor, I smoke another bowl and chant “OM” with “D.” I close my eyes and a jeweled flower unfolds to the vibration of the “Om” and each “Om” transports me along the grids of hyper-dimensional space like a canoe gliding on a river and entities in different, streamlined forms bow, dance and offer me fractal-like flowers or jewels created from their bodies and I sense that they are smiling and beckoning and I ask, “What are you trying to show me?” But they continue their dance as I travel through hyperspace and I try chanting “Ahh” but it’s too late, my trip is over.
— ANONYMOUS, Canada

Is banishing a bum trip no more complicated than a simple ritual endorsed by millennia of magickal workings? Perhaps our post-modern “sophistication” has transformed us into babes in the woods—what might the sixties have become had we utilized these ancient protections? If there’s anything to this then we’ve just “re-discovered” an amazing principle of human consciousness! — JIM DEKORNE

HEAVY 5-MeO-DMT TRIP

Winter 1995

I ingested about 5 grams of *Peganum harmala* seeds and smoked roughly 9 mg of 5-MeO-DMT at 9:45 pm and discovered at about 11:30 pm that I’d been lying on the floor covered in vomit. I remember being blinded. This lasted longer than anything I’ve ever heard concerning DMT. I didn’t sleep at all that night and finally slept lightly around 2:00 am the second night. It was still a religious experience, only without visions. I am in awe of 5-MeO-DMT, but have no desire to do it again. (I smoked some more a few days later and it lasted an hour.) What can I expect from DMT using this experience as a reference? — D.R.C.

Generally, DMT is much more visual; patterns, colors, weird ambience, often some entities. As editor of *ERI* feel it is my responsibility to emphasize that first-time explor-

ers might prefer to smoke these tryptamines alone before potentiating their effects with *Peganum harmala*. Make sure you really want that much intensity before committing to an hour or more of it! — JIM DEKORNE

To add to Mr. DEKORNE's cautionary note, I would say that anytime someone tries out a new combination of substances, it is a good idea to have a "sitter" present, in case something goes wrong. Passing out while vomiting strikes me as being a potential choking hazard. — DAVID AARDVARK

DMT WEIRDNESS

Winter 1995

OWSLEY "BEAR" STANLEY (creator of the acid eaten by the GRATEFUL DEAD and the MERRY PRANKSTERS) claims that one person smoking DMT in a room will affect the sound quality and the power output of a guitar being played in the room (as perceived by other, "straight" subjects). He claims a guitar already playing at maximum volume, through a maxed-out amplifier, got 6 dB louder (that's 4 times the power output!) when someone smoked DMT. It actually melted the voice coils and burned up the tubes. This is taken from an interview he gave in 1991, in DAVID GAN's book *Conversations With The Dead* (1993 CITADEL PRESS). Have you heard of similar inorganic things being affected? — C.R., IL

This sounds like complete nonsense to me, and I suspect that Mr. STANLEY was either being a bit of a prankster himself when he reported it. Or perhaps he just absorbed a bit too much LSD in all those years of manufacturing it. — DAVID AARDVARK

ENTITY CONTACTS: EXPLORING HYPERSPACE

by D.M. TURNER

Winter 1995

Some of the most enigmatic psychedelic experiences are those in which one meets beings or entities while exploring the realms of consciousness. Experiences of this nature are not uncommon, and are reported frequently by people using DMT, high doses of psilocybin, or ketamine. Some of the more bizarre manifestations of these experiences occur when people meet the same entity on repeated occasions, have dialogue with the entity, or when two or more people separately experience the same entity.

Typically meetings of this type raise many more questions than answers. Are these entities figments of my imagination or do they exist for real? Can I trust/interact with the entity, or is it evil and intent on harming me? Can these entity realms be mapped, are there a limited number? After many

journeys meeting such beings in hyperspace, I've progressively developed some understanding of the dynamics involved in these encounters, which may be of help to other travellers.

I don't believe the entities can be classified as either "real" or "fictional." In the psychedelic dimension, my repeated experience is that consensus reality is no more nor less real than the numerous intersecting realities available in the moment. The distinction of calling one true, and another false, seems to have no relevance at the moment or upon return to base level. The old proverb "everything is possible, nothing is real" seems the closest analogy.

I find it important that the discriminating or censoring portion of the mind be allowed to rest during deep psychedelic journeys. Typically the mind is so active categorizing things as real or false, significant or meaningless, that we miss the magic that is continually passing through us. By not censoring or rationalizing when an event of this nature occurs, one can deepen and lengthen the episode and more fully imbibe the essence of the experience. With practice one can bring certain discriminatory abilities to these occasions without disrupting the flow. For instance, one can distinguish which aspects of an experience are rooted in foreign realities, and which are rooted in one's base reality and will still exist after the psychedelic episode is over. However, there does appear to be a limited ability for entities from outside realms to interact with even the material items of our consensus reality.

The variations on the types of entities one may meet in these dimensions appears to be endless. With psychedelics we are dealing with the dissolving of boundaries: dissolving the boundaries between separate realities, dissolving the boundaries between individual realities and infinity. Yet I frequently have strong impressions that a "higher power" is controlling the events of the universe and the events manifesting in my journeys. The entities of hyperspace usually come halfway to meet the journeyer. Looking back at my many meetings with these beings, it seems that I always experienced what I was ready for, and what was necessary at the time.

There are differing opinions on interacting with these entities. My own feeling is that interacting and developing alliances is a necessary step for those who wish to progress along the shamanic path. While I've at times been terrified of the power and possibilities of the intentions of these entities, I have, over time, become more comfortable in dealing with them. It is my current belief that all I encounter is an aspect of myself. I've found that these entities typically work with and magnify whatever energies or intentions I bring to them, including thoughts in my subconscious. I've found it's important to have a strong connection to my soul, and know the direction in which my soul is polarized. Inner honesty and adherence to one's deepest core is the best way to move through any difficult psychedelic episode. Keep-

ing one's intentions clear and focussed is the best approach to take when dealing with these beings of the unknown.

The following DMT journey occurred subsequent to a journey with salvinorin-A, the potent active chemical in *Salvia divinorum*. I'd returned from the salvinorin-A experience feeling a strong connection with the spirit of the *Salvia* plant, and desired to make the same connection with DMT. As usual, the DMT experience didn't fit my expectations, and was quite a departure from my usual experiences with this substance in that it traversed several clearly defined dimensional boundaries and was remembered in vivid detail.

I smoked 30 mg of DMT in three tokes, entered DMT space, and was greeted with the usual pantheon of young children, elves, Cheshire cats, and intricate geometric objects, which flowed along in the characteristic DMT manner. Recollection of my recent salvinorin-A journey and desire to connect in the same way with DMT was basically forgotten as I watched the elves moving about. They weren't doing anything of particular interest or meaning, and looking past them I saw some doors, behind which came occasional bright flashes of colored light. A couple weeks prior to this journey a friend had remarked that he thought the DMT elves were primarily there to distract one from entering the deeper aspects of DMT experiences, and that he'd been successful in moving beyond them by willing the elves to let him pass. This discussion came into my mind, and I said to the elves, "Let me through, let me through!" I had to repeat this several times with much force of will, even saying it aloud. Eventually the elves reluctantly let me through, and as I passed through a doorway I was admitted to a vast dimensional space. At this point I seemed to be a flying disembodied consciousness, and I scanned this new space to hone-in on any beings that may be present. Soon I came across some angel/guardian type beings. There were about seven of them, and they looked like blobs of light—grayish in color and sort of egg-shaped. They appeared solid from a distance, but on closer examination I saw that their bodies were made of closely packed fibers that could open at any point on the outside of their bodies. They seemed to be part computer, part robot, part flesh/brain matter—all synergized into one living organism. When I came into their territory these beings briefly glanced over at me, as if saying "what's all this commotion," then went back to their tasks seemingly ignoring me. It seemed that they were busy watching over everything that happens in our space-time dimension and occasionally making minor adjustments to keep everything on track. During other DMT journeys one or more of these same beings had sought me out to impart information. During those episodes the being was experienced as a powerful God and protecting ally.

Anyway, my thrust of will that had propelled me past the elves and through

the door into the guardians' space, continued propelling me out through the back of the guardians' realm and into another space-time dimension. When I first entered this new dimension I encountered its guardian beings. They looked similar to, but not exactly like the guardians from our dimension. There were about 50 to 60 of them and their reaction to my appearance was quite different than the first group of guardians I'd passed. These beings were quite surprised to see me, primarily because I had not come from the dimension that they were guarding, but had entered from the back side of hyperspace. They all huddled together as if in conference, to determine if it was okay to let me pass. Eventually they decided, with hesitation, that I could continue on, and I swooped down into a different planetary system. This planet was highly evolved scientifically and technically. The place I entered was some type of research center, and my attention was on some large metallic pods that were being moved in and out of racks by elaborate robotic arms. Each of these pods was something like an isolation chamber. They were shaped like large coffins, although with rounded edges. The oval cross-section was about three feet wide, the length about eight feet. The beings who used these pods looked exactly like humans. The pods were filled with a foam type material with a cutout for a person to lie down. The foam was connected to the sides of the pod and also contacted the entire skin surface area of the person inside the pod. The foam was serrated, and I understood that it served as a conductor of food, water, heat, medicines, *etc.* between the pods' technical systems and the person resting in it. These pods were also cold chambers. They were not for cryogenically freezing a person, but put them into some type of suspended animation. Anyhow, the whole purpose of these pods and this research center, was to increase the level of DMT in the brains of the pod sleepers. This was the only method the people of this planet knew of for obtaining the experience imparted by DMT. These people would basically go into a pod for weeks or months at a time. The DMT levels in their brain would be significantly increased, and they would spend their time having the most fascinating dreams! This research was considered the most important and serious aspect of this society's evolution.

I then went into the mind of a person inside of a pod. It was a woman who appeared to be about 25-years-old. As I went into her mind I became aware of all I've described above, and had a brief view of the DMT "dream" that she was experiencing. As I saw this she simultaneously became aware of much of my world. This was the first time her society had ever had contact with an Earthling. It was quite a shock and also a bit of an embarrassment for her to discover that there were other people who didn't need to go through the elaborate technological process of increasing DMT levels through suspended animation, but simply smoked the stuff, and could collect it from any of several plants. Initially I thought that she must have asked her guardians to let her pass into another dimension as I had done. On further thought it seemed that I had come to her dimension on my own power, and was

quite possibly invading her space. She may have been a bit taken back by that as well. Almost instantly she wanted to leave her pod to announce her discovery to the rest of the research team.

My return to base reality seemed much quicker than usual. I remember feeling that it was very important to remember the scene I had just witnessed as it held much value. And upon returning I felt that the essence and many of the details of the episode remained intact.

If we are seeking a conceptual model for what post-modern shamanism might be like, I suggest it would resemble the above account. D.M. TURNER is the author of *The Essential Psychedelic Guide* (http://www.erowid.org/library/books_online/essential_psychedelic_guide), reviewed in the Winter 1994 issue of *ER*. — JIM DEKORNE

DMT QUESTION

Spring 1996

Is it safe to smoke DMT while on ayahuasca? I was tempted to do this but got nervous because of the MAOI, so I did not try it. — T.W.

Questions about “safety” are always relative when doing any psychonautic experimentation, but all things being equal, this should be safe enough—you already have DMT in your system from the ayahuasca, so smoking more will only increase the dose. Go slowly with it until you find your comfort level. — JIM DEKORNE

When smoking DMT while already on a MAOI, the DMT experience may be more controllable, and probably more appreciated than if it is smoked sans MAOI. Some people report a prolongation of the DMT trip, but we have not personally noticed this to any great extent. — DAVID AARDVARK & K. TROUT

TRYPTAMINES AND CHAKRAS

Summer 1996

I definitely agree that 5-MeO-DMT is a chakra drug—it has to do with the kundalini movement up the spine. Isn't it interesting that both 5-MeO-DMT and DMT are naturally occurring in the brain and spinal fluid? I think it's possible to direct the energy of the 5-MeO-DMT blast to specific chakras using touch. In one experiment I combined vaporized 5-MeO-DMT with masturbation. The timing was tricky but I hit it right on; just as I was rising to orgasm the 5-MeO-DMT kicked in and sent a surge of energy through my heart. This was a painful experience and it felt like my heart chakra was being blown outward in all directions. It is not a gentle drug. It seems to force open the whole flower at once like an energetic roto-rooter. Perhaps by

stimulating specific accupressure points we could direct the 5-MeO-DMT blast into other areas of the body as well.

I just completed another experiment with the Greek strain of *Phalaris brachystachys*. This time I reduced the dosage to 110 mg and had a much milder trip. The effects were very transcendental and several times I found myself disappearing. It felt quite natural and was similar to my own meditative experience. Perhaps the enlightened adepts have simply mastered the art of milking the tryptamine nectar from their own pineal glands. I'm curious about the physiological mechanics of enlightenment. What changes are taking place in the brain chemistry of a mystic? The ayahuasca analogues seem to provide a much more permanent shift in perception than some of the other entheogens I've worked with. As soon as I can source the materials I will begin mixing 5-MeO-DMT and DMT in various proportions to find the most transcendent effects. — TOAD

LOTS OF EXTRACTION QUESTIONS

Summer 1996

Regarding DMT extraction: what are the relative merits between ammonia, sodium bicarbonate, and sodium mono-carbonate as basifiers? Does soaking ground plant material in aqueous acid 24–48 hours allow for oxidation? Does smoking DMT cause some breakdown into 5-MeO-DMT or bufotenine? Could this happen in the presence of carbon ash during combustion? Could storage of dry material at high ambient temperatures cause a conversion as suggested above? Do DMT crystals vaporize without producing smoke? If the temperature is too low, will it oxidize without producing DMT vapor? — J., OR

The carbonates are safe to work with, but they generate gas when neutralized, so they might pose problems for some. Sodium carbonate is preferred over sodium bicarbonate, as it is a better base. Ammonia is harder to get, but works extremely well and also evaporates cleanly (unlike other bases).

Oxidation is not a big concern when extracting DMT for use.

Absolutely nothing can cause DMT to breakdown into 5-MeO-DMT or bufotenine, as both substances are more complex than DMT, not less. There are plant enzymes that can form 5-MeO-DMT from DMT, but this is a biosynthetic process, not a degradative one. DMT-N-oxide can form if there are "extensive manipulations" of DMT solutions exposed to air. Again, this is not an issue with simple extractions or with stored material.

When vaporizing DMT, there is a very visible "smoke" produced. If one heats DMT for prolonged periods in the presence of air, you can get it to oxidize (it goes reddish and

darkens). At least part of this is degraded DMT (i.e., no longer DMT), and not the N-oxide (which is easily converted to DMT by dissolving it in acetic acid, adding an excess of zinc dust, stirring for 30 minutes, then neutralizing with ammonia and extracting the DMT with a good organic solvent). — K. TROUT

THE FINAL WORD ON DMT

Summer 1996

There have always been close ties between the high-tech and psychedelic drug communities. A vocal cross-over, author Terence McKenna has long championed alien languages, the holographic mind, and DMT, a short-acting but powerful hallucinogen. Well, DMT is now on the streets. Only, it's a major disappointment. After sucking on smoke that tastes like burning plastic, you discover that McKenna's singing elves are a lot like the stars you see when conked on the head. Suddenly, his theories about the future singularity look a little less likely. — *Wired Magazine*

5-MeO-DMT AND PURPLE / GREEN SPIT

Fall 1996

I introduced a friend to 9 mg of smoked 5-MeO-DMT. The session went well and he seemed to handle the experience without letting the rush of fear overcome him. After the effects had passed, I turned on a black light and noticed that his tongue, lips and saliva glowed bright purple/green! Have you or anyone else heard of this after glow?

A safe and reasonable dose of 5-MeO-DMT is somewhere between 5 and 20 mg according to most literature on the subject. What would be an overdose? What would happen? Can this kill or leave someone on the "other side?" What's a good rule of thumb for reasonably accurate measurement without a milligram scale? (I have 500 mg and no scale.) Also, I have one ounce of dried *Phalaris arundinacea*. What amount of *Peganum harmala* would be necessary to activate this? — Mr. GRUB, FL

Wonders never cease—purple/green spit? It's news to me! Taking your questions in sequence: Assuming you're working with pure 5-MeO-DMT: 20 mg would be an overdose in my book. Is anybody out there smoking such heroic doses? What's it like? I suspect you'd pass out or go crazy long before you worked your way up to a physically fatal amount. AMERICAN SCIENCE AND SURPLUS, 3605 Howard St., Skokie, IL 60076, sells relatively inexpensive milligram scales—otherwise, with a razor-blade divide by eye your 500 mg into 5 mg or 10 mg piles. One ounce of dried *Phalaris arundinacea*, even if known to be potent, is probably not enough for an ayahuasca trip. Three grams of *Peganum harmala* (or extract from same) is considered one dose. — JIM DEKORNE

Another way to estimate small amounts is to dissolve the chemical into a known quantity of solvent in which it is soluble. For example, 500 mg could be dissolved into 500 "drops" of solvent from an eyedropper. These could then be dosed out as desired. Keep in mind that many solvents evaporate quickly, and hence the latter drops might be more potent than the earlier ones (and you may not get a total of 500 drops out in the end). For this reason it is best to work with solvents that don't evaporate quickly, and you might add a few extra drops into the mix to compensate for any evaporation. Obviously this is not an exact manner in which to measure something, but it may be better than just "eyeballing" it when dealing with potent substances. (Also see the scale information on page 42.) If one's only recourse is to "eyeball" a dose, a comparison could be made to a grain of salt. While one source claims that a grain weighs ± 500 mcg (KEIL 1997), the largest we had weighed was 200 mcg, the average weight of 14 grains was 78.57 mcg, and the smallest grain might have been about 20 mcg.

The lethal dose for 50% of test subjects (LD50) is 115 mg/kg when given to mice via an intraperitoneal injection. (110 mg/kg for DMT in the same situation). The oral LD50 will be even higher than this, but the LD50 for smoking is likely to be less. (Smoking is closer in effects to intravenous injection than to other routes.) Still, this is obviously much more than anyone is going to ingest. (115 mg/kg is a 9.2 gram dose for a 175 pound human.) 32 mg/kg of DMT given intravenously to mice was fatal, but it required more than this to kill monkeys. — DAVID AARDVARK & K. TROUT

TRYPHTAMINE "X"

Unable to Locate Date of Entry

The 5-MeO-DMT fraction does not appear to be the principal entheogenic component in "Turkey red" extract. I did a bulk TLC plate on some extract and scraped off just the 5-MeO-DMT band. I then used just this "relatively pure 5-MeO-DMT" in an oral ayahuasca session at about 30 mg. After an hour and a half no one had more than just a lot of energy. (Normally it comes on in about 45 minutes.) At that point we took a normal dose of the whole extract (60 mg). After another 45 minutes there was the typical experience (group energy, ego boundaries dissolving, etc.). I plan to plate out more extract and try the other bands individually and in combination to see which are active and/or synergistic. — JOHNNY APPLESEED

PURPLE / GREEN SPIT EXPLANATION

Spring 1997

I think I can answer one of the questions in the Fall 1996 issue of *ER* regarding the purple/green spit seen under a black light (UV). The florescence (coloring) is probably due to the alkaloids, as many alkaloids fluoresce under UV, usually with distinctive colors that can help identify them. When smoked generally there seems to be a trace of alkaloids on my lips. In fact,

when I've had a strong experience I usually have quite numbed lips due to the alkaloids. This persists until after the visionary state. I never thought to check it out under black light though. — MULGA, Australia

A DMT SMOKING PRIMER

Spring 1997

In 1984 (revised in 1985), GRACIE and ZARKOV wrote the paper "DMT: How and Why to Get Off." This still is the most extensive paper on the technique of smoking DMT and I am puzzled as to why nothing much more than this has been written in the last eleven years, especially considering the increase in curiosity about experimentation that has been catalyzed by TERENCE MCKENNA. This same article appears on the Internet at <http://www.lycaem.org/drugs/other/gandz/gandz.dmt.html>. I would be interested in hearing about a more efficient method than the one below. A few of the other methods I've heard about require more elaborate equipment, electrically controlled vaporizers, *etc.*

You may wish to consider this article as a starting point. I will only add the most important upgrades to the techniques discussed and clarify inaccuracies, although my outline will stand on its own.

SETTING: A dimly lit room with few as possible distractions, not unlike the surroundings for a strong mushroom journey. Sit on a bed or floor or any comfortable horizontal surface so that you can immediately lie down after your last toke. You will most likely end up in this position anyway if you don't.

METHOD: There is good reason to use a glass pipe, to gauge the amount and form of the vapor produced and consumed. Most glass pipes I have seen used are coal black from DMT burned in them. This usually results in the eventual build up of burnt DMT in the bowl, stem or chamber of the pipe, reducing the advantage of using a glass pipe in the first place. When DMT is heated, it briefly turns into a liquid before vaporizing. If you use any pipe with a single screen, even a fine mesh, some of the DMT will melt through the screen if the pipe is clean, this can, over time be washed out with ethanol and the residue allowed to evaporate back to the free-base or it can be used to soak another substrate for smoking—*Cannabis*, mint leaves, *etc.*

Using 3 fine-mesh stainless screens nested together in a pipe bowl prevents the liquefied DMT from melting through before it can be vaporized. The liquid spreads through capillary action across the screens and vaporizes. Use the heat, not the flame of a butane torch directly on the free-base, only

hot enough to vaporize it. Draw the flame slowly closer at first to establish the distance necessary to reach the correct range for heating the DMT. A butane flame is preferred for its control, and adjusted with a sufficiently long flame will readily burn upside down to be directed into the bowl without burning your hand. A micro-torch or pencil-torch, available from electronic parts and tools suppliers is ideal.

Notice: While these micro-torch lighters do have the advantage of not coating the glass bowl with soot from their flame, they are very hot, and can easily crack even a Pyrex glass pipe. Care must be taken to not overheat the pipe when using these lighters. — DAVID AARDVARK

Even so, with this technique, the smoke has a strong pungent flavor and some find it difficult to consume a sufficient amount of vapor to reveal the full spectrum of possible effects. A glass water pipe to cool the vapor is ideal. A pipe or bong like those used for *Cannabis* will do, just add the additional screens. The use of water greatly reduces the harshness and very little of the DMT is absorbed into solution. A carburetor or hole in the chamber is useful to extract all the vapor. A dedicated “DMT” pipe will remain fairly clear for a long time and will be easy to clean if *Cannabis* isn’t also used in it.

DMT DOSAGE: 5–10 mg affords a pleasant buzz throughout the body, with little or no visual colors. 15–25 mg produces the addition of patterns and simple forms. 25–35 mg causes patterns dissolve into stronger and more distinct images. 35–60 mg provides the full-blown effects. Smoking more than 25–30 mg generally requires two tokes. These should be done efficiently to experience the full effect of the selected dose. Take several deep breaths to slow the breathing down and prepare for the first toke. Exhale completely then hold the first toke briefly, 2–3 seconds, exhale quickly and deeply and immediately draw the second toke. This may be held as long as comfortable. You will notice that as you exhale the first toke, that you are already coming on. Do not let this distract you. It takes a great deal of focused determination and courage to smoke a sufficient amount to produce full effects. Do not be tentative in your technique. Fortunately, focusing intently on techniques has the added benefit of shifting your attention away from the apprehension that accompanies most sessions. With practice, you will only use enough heat to vaporize a first toke without leaving the unused smoke in the chamber. This unused smoke will coat the pipe (and can be reclaimed); or your assistant may choose to consume leftover smoke after the second toke. Ideally, several attempts will be available to refine your timing and approach. If possible, you may wish to start with 10 mg just to create an opening, then go for the committed dose 30–60 minutes later. GRACIE and ZARKOV claim tolerance can be built up if smoked repeatedly within an hour. This is not so—just try. For doses larger than 25 mg, using an assistant is recommended. Someone to remove the pipe and flame is welcomed.

5-MeO-DMT DOSAGE: 1–3 mg affords a body buzz and a pronounced shift in perspective but leaves the ego intact. 4–6 mg and the ego begins to dissolve. 8–12 mg causes boundary-dissolving for most people. 12–15 mg provides a quite remarkable experience, if you can maintain the “witness” at this dosage. 5-MeO-DMT is some 3.5 times stronger by weight than DMT. Because the amount required to experience full effects is so small, a single toke is all that is required. The use of water to cool the vapor is also not as critical.

The most useful strategy is to simply pay attention. Do not try anything other than pay close attention and let go. Resisting in any way will not serve you. It is very easy to be distracted, to be led off on tangents, to wonder whether you are breathing, dying, losing your mind, or are the victim of some impish prankster. Try not to judge the experience in any way while in the thick of it. All of that is for you to decide later. You may console yourself with the knowledge that if you were to die or lose your mind, that you will be making medical history. — LEAF HOPPER

TAKING THE 5-MeO-DMT CHALLENGE

Spring 1997

I misunderstood the differences between DMT and 5-MeO-DMT, and in my mind they were one and the same. 30 mg, being a sufficient dose of DMT, I figured that 30 mg was a good dose of 5-MeO-DMT. Needless to say, 30 mg of 5-MeO-DMT is *very* scary, especially for a first time user. This was the most unnerving and mentally scaring thing to happen to me in my 18 years on this planet.

I have since wised up, and now rarely use more than 5 mg at once. Also, I prefer snorting it; it isn't nearly as intense and lasts longer. This is more of a recreational use. The smoked 30 mg was too much to actually think spiritually at the time. The lower dose snuffs are much easier to interpret, while under the influence.

Imagine that you suddenly have no control of your own body, but you are fully aware of what is going on. Almost like you are trapped watching, but cannot control anything. You run into walls, curl up fetal, and scream to yourself. You don't have any control over yourself any longer! It isn't quite an out-of-body experience; more like you are out of your body, but stuck in your head, your eyes. You become forced to watch your body act very odd, and can do nothing but wait.

Anyhow, I hope the enclosed information about my various 5-MeO-DMT trips can help *ER* readers understand what a high-dose trip is like, and that

they should never try it, unless they are very stupid. Unless one wants to have semi-seizures and behave schizophrenic, stay away from doses over 15 mg!

I placed approximately 30 mg of 5-MeO-DMT into a pipe, and smoked it in one toke, without a second thought. An instant later, I was curled up on my bed in the fetal position with eyes closed, squirming around, screaming (in my head) “Fuck! You killed yourself!” I repeated this several times, very fearful of death. I didn’t see anything, while my eyes were shut, except for a bright white light, like that which you see after staring at the sun. If this is indeed the bright light seen in near death experiences, then something was very wrong, as this light was menacing, evil, mean. The only other “vision” was one in my mind, I came to the realization that my life would be wasted if I died there. I pictured all of my work being discarded and nothing good happening ever again. This was a glimpse into my future, if I died.

Some say that the bright light is soft and welcoming, however, I was deathly afraid of the whole experience (up to that point).

I have read that the key to getting through a 5-MeO-DMT trip is to concentrate on breathing. This I did, and that helped me survive (mentally). I kicked my shoes off while lying on the bed, and felt as though I couldn’t touch the ground. (I have since noticed that one can be much more comfortable on 5-MeO-DMT if you stand up, or sit in a chair, with your feet touching the ground.) My cat jumped onto the bed and started walking around my head, seemingly worried. His eyes were scared, perhaps for me. His mouth was moving as though he was meowing, but I could not hear him. I opened my eyes and reached out to pet him, and he felt as soft as anything. The feeling was not a softness I have ever felt before. As soon as he started to look less worried, I too felt better.

After about 3 minutes from the first inhaling, I had no doubts that I would survive, so I got up from the bed and started to stumble around. My mouth felt strange, as if full of cat hair, which I am certain was in my mouth, but I couldn’t get the feeling out! My throat was burning also, ever since inhaling, it burnt like I just downed a shot of tequila, but the burn stayed in my throat for around an hour. — M.A.P.

DIMINISHED APPETITE FOR DMT

Spring 1997

Of all the people I have known who get into DMT (or at least the alkaloids from *Acacia*), none—including myself—have continued smoking the extrac-

tions on a regular basis. If you have a big dose it's like you don't need to go near the stuff for a while, if ever again. Generally, a few weeks or months of experimentation is enough, at least for smoking extracted alkaloids. This is in a situation where the supply is effectively unlimited or at least large. So perhaps it won't go down the same track as *coca*, where the extracted alkaloids produce a strong desire to continue using them. I do continue to use the alkaloids and plants in ayahuasca brews, as I find that this is not only a healing medicine but also generally not so hard on the mind and body. I still have the rare smoke, but haven't had a pipe for quite some time now.
— MULGA, Australia

BLACK LIGHT ALKALOID TESTING

Fall 1997

In response to the “purple/green spit” seen under UV light (Fall 1996 *ER*): I've seen several alkaloids fluoresce. For example, yohimbe will glow a vibrant yellow even under fluorescent white tubes. An old method to check if blotter paper is impregnated with LSD is to hold it under a banknote checking tube. It will show a mild fluorescence over the whole surface if it was dipped, or just a spot with frayed edges if it was put on in drops.
— DISTORTED, Australia

MORE DIMINISHED APPETITE FOR DMT

Fall 1997

I was amazed by MULGA's observation (Spring 1997 *ER*) about his diminished appetite for DMT, as it is exactly the same with my friends and myself. After several months of experimenting, the desire becomes less and less, to the point where I haven't wanted any for about three months, and even though I'm slowly becoming interested again, there is no real desire for it.
— DISTORTED, Australia

I confess I haven't done much DMT for a while either—the experience settled into a comic book kind of reality in which my surroundings turned into very cheap plastic (the kind that kewpie dolls are made of). Nothing particularly entheogenic there, 'though the utter weirdness of it is always a mystery. Since I honestly can't relate it to anything in either my conscious or dreaming mind, where does such a reality originate? I stopped doing *Salvia divinorum* for much the same reason—meaningless weirdness is ultimately boring. If I want plastic, I'll go to DISNEYLAND. — JIM DEKORNE

TRYPHTAMINES' PURPOSE

Fall 1998

Bufotenine, 5-MeO-DMT, and DMT are endogenous cerebral compounds. My view, regarding the purpose of these, follows. DMT is a main compound—perhaps *the* main compound—involved in imagination and dreams. 5-MeO-DMT is involved in *maintaining* fear in the face of danger. Certainly, when faced with danger, one needs fear. Not “pure” fear, but a design-filled fear in which one can plan a way out of the dangerous situation. Bufotenine is involved in the feeling we experience called “stunned.” Bufotenine causes no big stimulation—actually it causes tranquillization. And it causes no visuals—only minor optical disturbances. It causes a “zapped out” feeling. A feeling of being “neither here, nor there.” Being as how you ask for opinions and experiential revelations, I thought I would put in my small piece. Even though the effects of bufotenine wear off in about 30 minutes, I find that continued use over a two to four day period causes a buildup of effects. Good luck on your further adventures. I am pleased to see *ER* survive a fall and still carry on. — ANONYMOUS, OR

NATURAL VS. SYNTHETIC

FALL 1998

Although you can fool the mind, you cannot fool the body. This is how I feel about most synthetic entheogens.

I cannot perceive very much, if any difference at all between chromatographed DMT from plant sources, and chemically manufactured DMT. However, the chemical DMT has toxic breakdown products that have a decidedly unpleasant effect on me for a couple of days. I do not experience this with the natural materials.

A warning to “would be” chemists. Anyone deciding to chemically extract tryptamines from plant materials using an acid, a base, and a solvent, should be aware of certain dangers. The danger of inhaling methylene chloride is well-known. Another hazard of using *any* solvent to extract plant alkaloids is that traces of the solvent are often remaining in the final product. These are not easily removed. Theoretically—with regard to chemical procedures—solvents and acids separate out 100%, leaving behind only pure products. Not so in the real world, and this is where non-chemists can really get into a lot of trouble. Individuals who use sulfuric acid to acidify and process *Phalaris* grass extracts are an example. I tried one of these extracts once, and never again, as it burned my esophagus and stomach. I realize how dangerous amateur chemical preparations can be. Why not use something safer, such

as ascorbic acid or vinegar? The safest base to use would be ammonia, because it is effectively removed by evaporation, thusly bypassing "toxic residuals" problems. — B. GREEN

There is no reason why synthetic DMT would have breakdown products that are any different from those produced from extracted DMT. However, it is possible that incomplete "kitchen" extractions of natural plant sources of DMT may contain other alkaloids that could cause side-effects. It is also possible, as your letter points out, that solvents, acids, or bases might not be completely removed from the extraction, and these can cause problems. In these cases, DMT extracted from plant sources would be worse!

It is possible for lab-created DMT to be inadequately purified, and hence have toxic impurities. Perhaps this is what you are talking about?

If the DMT is pure, the effects and side-effects should be identical, regardless of whether it is extracted or synthesized. Those who perform extractions should consider using citric acid (a food-safe acid) in their procedures. Besides being readily available in citrus juices, it is also easy to obtain in pure crystalline form. No one should attempt drug manufacture of any sort if they are not experienced or at least adequately understand what they are doing. The fact that sulfuric acid may have ended up in a final product of DMT extract indicates that whoever made this was either incredibly careless or grossly underinformed. The "safest" base for DMT extraction would be a carbonate although ammonia is a lot simpler to use if adequate caution is employed. It should also be stressed that any and all organic solvents are dangerous to breathe or to allow any degree or frequency of skin contact. There are several potential sources of toxic components from synthetic DMT. One arises from inadequate purification of the DMT from other possible products arising during the synthesis; the other from residuals from solvent removal (usually impurities that were originally dissolved in the solvents). This latter point is also just as likely to affect DMT of natural origin. The easiest way to avoid this is to use only analytical grade reagents. As well, depending on the plant it originated from, there can be a wide variety of potential toxins in natural DMT if purification is inadequate.

K. TROUT comments:

Going farther afield, the most common toxins arising from *smoking* DMT are nitrogen oxides produced from overheating the material during the act of smoking. They can be easily distinguished from the white DMT smoke as they are yellow or brown in color. They add a bad taste and subjectively seem to introduce more of an unpleasant character to the experience. This seems to be even more pronounced with darker colored material that has been repeatedly recovered after smoking and reheated. This leads me to wonder if there are not neutral indoles present in the partially degraded brown material that is often encountered after a couple of recyclings or the black oily gunk that eventually results from smoking large pipe-loads. If so this material may represent a serious threat to lung tissue both on account of nitrogen oxides and on account of the neutral indoles. While lacking any hard data, I would urge that the partially charred residue of DMT be discarded if chromatographic separations are not available. A good precau-

tion is to carefully measure dosages, evenly heat the material and not over-heat it. Cleaning the pipe between doses and not attempting to completely consume dark material that remains after smoking may also be a good idea.

5-MeO-DMT WARNING

Winter 1999

I know someone who had a severe and prolonged response to a vaporized 20 mg dose of 5-MeO-DMT. This person had done all the usual entheogenic substances for some years and was careful and intelligent. She had done her research and when offered this dose by a good friend, she agreed to do it but questioned the amount, as she felt that it should be 5–10 mg. Her friend assured her that he had done it, and others too, many times without problem.

Immediately on ingesting, she became unconscious for half-an-hour, then came 'round groggy and remembering nothing. The sitter encouraged her to walk and eat something, however this was difficult for her. From that time on she experienced difficulty in sleeping, fear upon closing her eyes, and three nights later awoke at 3:30 am in the grip of a very severe, intense, and frightening panic attack. These attacks continued nightly, with nausea, vertigo, and heart palpitations during the day. Ativan® (lorazepam) was prescribed and later Klonopin® (clonazepam). Her doctor did a full check and said that her blood pressure was elevated, but that she had no apparent physical problems.

Her symptoms persisted for eight weeks. Normally this person has slight, intermittent asthmatic symptoms around cats and mold. On coming 'round from the 5-MeO-DMT overdose, and for the eight weeks following it, she experienced breathing difficulties that usually occurred at night and when having panic attacks. This person is not unduly sensitive, was taking no medications, and had not eaten or drunk anything untoward. In fact, she had fasted the day before. Acupuncture was useful in the latter part of the eight weeks, but the Klonopin® was essential in controlling the symptoms.

I have read many things about this material and even spoke with CHARLES GROB, who I know. No one had heard of such a prolonged reaction (until now) and it occurred to me that *The Entheogen Review* might like to let readers know that great care should be taken with the dosage of 5-MeO-DMT. Dr. GROB did say that if the blood pressure goes up too much during the session, it could precipitate a stroke. My friend was a very healthy woman of 59. I do hope this may be of help to others; information and warnings should be made available, and I feel that this is a volatile and unpredictable material. — A.S., CA

People do seem to have quite varied reactions to 5-MeO-DMT, from mild to severe, but this is the first time that I have heard of after-effects lasting for eight weeks. When trying any new compound it is advisable to start with a low dose, and gradually work one's way up. In the case of very potent materials, such as 5-MeO-DMT, great care must be taken to make sure that the dose is accurately weighed, and this can be difficult if one doesn't own a scale that weighs with a 1–2 mg accuracy. 20 mg would definitely be an overdose for most people, and I agree that it is important to report the situation that you described as a warning to others to be extremely careful with dosing. — DAVID AARDVARK

PIPES & VAPORIZERS

THE VAPORIZER

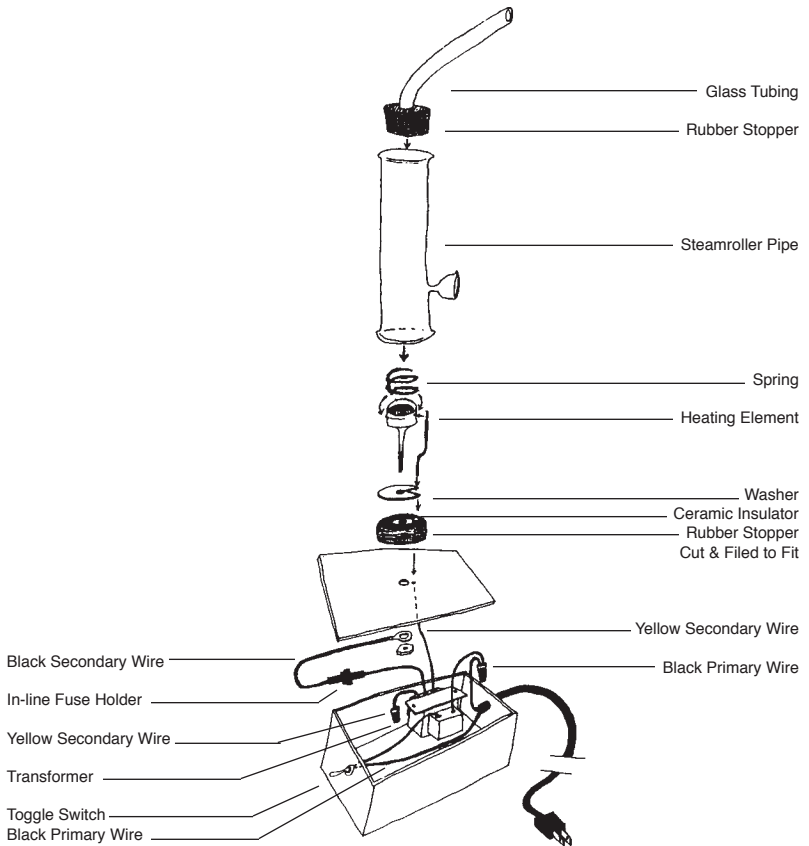
Design by I. LOVELUNGS
Original Concept by Dr. LUNGLIFE
Winter 1995

The vaporizer allows you to heat up any substance and vaporize the psychoactive content without actually burning the extract or plant material. Effects produced by vaporizing may be nearly twice as potent as smoking, because none of the active ingredients are wasted in the flame. Vaporizing also eliminates carbon monoxide and other toxic by-products created from burning, making it a more user-friendly method of ingestion. No entheogen enthusiast should be without a vaporizer!

MATERIALS NEEDED

- 1) An 8" length of glass tubing bent at a 45 degree angle (chemical/laboratory supply store or head shop).
- 2) Two #6 rubber stoppers (chemical/laboratory supply store or head shop).
- 3) A large 9" long 1¹/₄" diameter glass Steamroller pipe (head shop).
- 4) An automobile cigarette lighter heating element made by VICTOR #V-5146 or CASCO #212146 (auto parts store).
- 5) A spring. Buy the heating element #V-5144 made by VICTOR and remove the spring that's inside (auto parts store).
- 6) A couple of small bolts, hex nuts, machine screws, and various washers.
- 7) An in-line fuse holder (RADIO SHACK #270-1281A).
- 8) A box of fuses rated at 5 AGA 5 amp (auto parts store).

- 9) A small decorative wooden box about 4" x 7" x 3" (import shop or crafts store).
- 10) Small gauge wire, ring connectors and some small wire caps (hardware store or RADIO SHACK).
- 11) A 12.6 volt 3-amp AC power transformer (RADIO SHACK #273-1511B).
- 12) A 6-foot-long power cord with plug (RADIO SHACK).
- 13) A toggle switch rated for at least 5-amps. I found that the motor sized toggles work best (RADIO SHACK or auto parts store).
- 14) Rubber bumper feet to keep the box from scratching your table (RADIO SHACK).



TOOLS REQUIRED

You will need a drill with various bits, some screwdrivers, a hammer, a chisel, wire cutters, a soldering iron, a small torch and other assorted tools for rigging your vaporizer. If you are good at working with your hands and letting your creative juices flow, building the vaporizer will be a snap.

TO BUILD

Begin by drilling a hole in the wooden box for the main power cord. Pull the cord through the hole and tie it in a knot so that it can't pull back through. Select a position for your toggle switch and drill the appropriate sized hole. You may need to chisel out some of the inside of the box to make it fit. Place the toggle switch through the hole and tighten down the hex ring on the outside of the box. Find the appropriate placement for the transformer and secure it with small bolts or wood screws. Make all of the necessary wire connections, then solder and cap them. Drill a hole for the heating element rod on the top of the box. Drill a smaller hole for the yellow secondary wire on the top of the box next to the first hole. Cut a #6 stopper in half and drill a hole in the center of it for the ceramic insulator (it comes in the package with the heating element), and drill a small hole for the yellow secondary wire. Place the ceramic insulator inside the rubber stopper. Select the appropriate sized washer that will cover at least $\frac{3}{4}$ of the rubber stopper. Cut away a section of the washer for the yellow secondary wire. Make sure the hole is big enough so that this wire is not touching the metal washer. Pull the yellow wire through the small hole in the top of the box and then through the entire heating assembly. Place the bottom rod of the heating element through the lid of the box. Then place the ring connector over the rod and secure the entire assembly to the lid with a hex nut and washer. File down the rubber stopper as necessary for a perfect fit in the Steamroller. Secure the yellow wire to the outside of the heating element. Take apart the second heating element (part #V-5144) as it contains the perfect spring for this connection. Place the yellow secondary wire along the side of the bowl (strip off $\frac{1}{2}$ " of the insulation) and wrap the spring around it. Heat the 8" glass tubing with a torch at one end and bend to a 45 degree angle. Drill a hole in a new #6 rubber stopper and insert the tube; this all plugs into the top of the Steamroller. Insert the fuse into its holder and you are ready for a test run. You should see the heating element get red hot in about 30 seconds.

TECHNIQUES

The vaporizer works best with relatively pure crystalline materials. Any impurities in your extract will not vaporize properly and tend to gum up the heating element. If you purify your extracts down to a dry crystalline

form you will have consistently incredible results. Using the vaporizer takes some practice, but once you've worked with it for a while it's easy to get a perfect hit every time. Turn on the switch for a few seconds and heat up the material until you see it melting with a small trail of vapor rising. Turn off the switch and inhale *very* slowly through the tubing while also inhaling some air through the side of your mouth. The substance will literally explode into vapor as the fresh air flows across the bowl. This can create a big hit very fast (perfect for DMT and the like). You can also vaporize dried plant material such as *Cannabis* without extracting it—just be sure not to overheat the element or you'll get smoke instead of vapor. The plant material should look toasty brown when the hit is done. The vaporizer works great for all kinds of plant extracts and most dried plant material. So far, dried *Salvia divinorum* is the only one that hasn't worked for me.

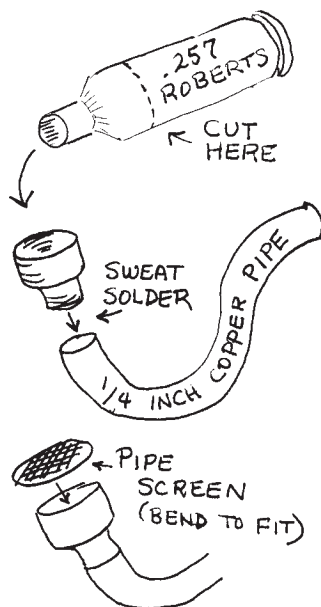
After each session it is important to clean out any residue remaining in the heating element. To clean the element, turn on the power until it's red hot, then place it in front of a fan. Within a minute or so all of the residue should burn off and leave a perfectly clean bowl. If the vaporizer starts blowing fuses you will need to replace the heating element, as they wear out over time and begin to short-circuit. The transformer may also wear out, as the heating element demands slightly more power than the transformer is rated for. However, with proper care your vaporizer should last a long time, and the cost of replacing the transformer and heating element is minimal. Once you have vaporized you are destined to become an aficionado, and you may never want to smoke again. I hope you enjoy this high-tech tool as much as I do.

EASY TRYPTAMINE PIPE

Fall 1996

An easy way to smoke synthetic tryptamines or *Phalaris* extract is to dissolve the crystals or tar in just enough ethyl alcohol for them to go completely into solution, then stir in about 20 one-toke increments of crushed mint leaves per gram—you can do it all in a standard shot-glass. (The pipe described below makes a good measuring device for the mint leaves.) After the alcohol evaporates you should wind up with 20 tokes—enough to last quite a while, unless you have lots of curious friends. In this form, it's much easier to smoke DMT in a hash pipe than going through the glass-pipe vaporization routine. If you're particularly adventurous, *Cannabis* can be used instead of mint, though one should work one's way up to using this combination. Botanical extractions vary in potency, so experimentation is in order to find the best concentration ratio.

A quick and easy way to make a tryptamine pipe is to cut an empty .257 ROBERT'S cartridge casing about $\frac{1}{4}$ inch from where it expands from the bullet end. Use a standard tubing cutter (used by plumbers to cut copper pipe)—it takes about 10 seconds and results in a clean edge. A six or eight-inch length of standard $\frac{1}{4}$ inch copper tubing is then sweat-soldered onto the bullet end. Actually the fit is usually so snug that soldering is not absolutely essential, though it makes a much firmer pipe. Bend it carefully into pipe-shape (you don't want to crimp the tubing), add a pipe screen (any tobacco shop sells them), and you're in business.



Any .25 caliber cartridge casing will work, since that's the decimal equivalent of $\frac{1}{4}$ inch: a common copper tubing diameter. I prefer to cut the casing-bowl so that it will hold only a two or three toke amount of material. Sweat-soldering is a common plumbing technique and extremely easy to do. Sand the outside surface of the tubing and the inside surface of the cartridge with emery paper until they're shiny; smear both surfaces with soldering flux, then assemble them; heat the outside surface of the cartridge where the tubing enters it with a propane torch, and touch some wire-solder to the joint—when it's hot enough, you'll see melted solder being sucked into the joint by capillary action. That's it. Don't apply too much solder, as very little is needed. Once set up with the tools and materials, anyone could turn out hundreds of these pipes in a very short time. Use your imagination as to decoration. — BILLY BUD, CA

We have concerns about people using soft solder to assemble a pipe that they are going to smoke from. Any alloy metal that melts at these low temperatures is going to present toxic fumes when heated. Even if lead isn't present (and a lot of people are likely to use lead solder to make this pipe, simply because it is what is on their workbench), antimony, tin, and other metals are not good materials to have in a pipe. Even hard solders contain toxic metals.

If one omits the soldering step, we can see nothing wrong with the pipe plans described above. However, we can't see anything that particularly lends them to being called "tryptamine pipes." Anything could be smoked out of such pipes, and the tryptamine-on-dried-leaf concoction could be smoked out of any pipe. Many people prefer to vaporize pure compounds (or even fairly impure compounds), as there is less material to inhale when they are volatilized in this manner. There are currently a

variety of "vaporizers" that are commercially produced. Most of these use a soldering iron as the heating element and have fairly large "dome-shaped" glass coverings that appear to be inefficient for use with tryptamines. (For more information see "Vaporized; a Users' Guide to Vaporizers" by JON HANNA, The Resonance Project Vol. 1, No. 3, 1998 and "Vapour Capers" by PETE BRADY, Cannabis Canada No. 17, Mar/Apr. 1999.) Apparently, those commercially-produced vaporizers that work best with tryptamines are the ones that have the smallest glass domes, since there is a lower volume of air that needs to be displaced to get all of the vapor. The following copyright-free vaporizer design is excerpted and adapted from TROUT'S NOTES #A-3.
— DAVID AARDVARK & K. TROUT

A SIMPLE ALKALOID VOLATIZER

by JUSTIN CASE

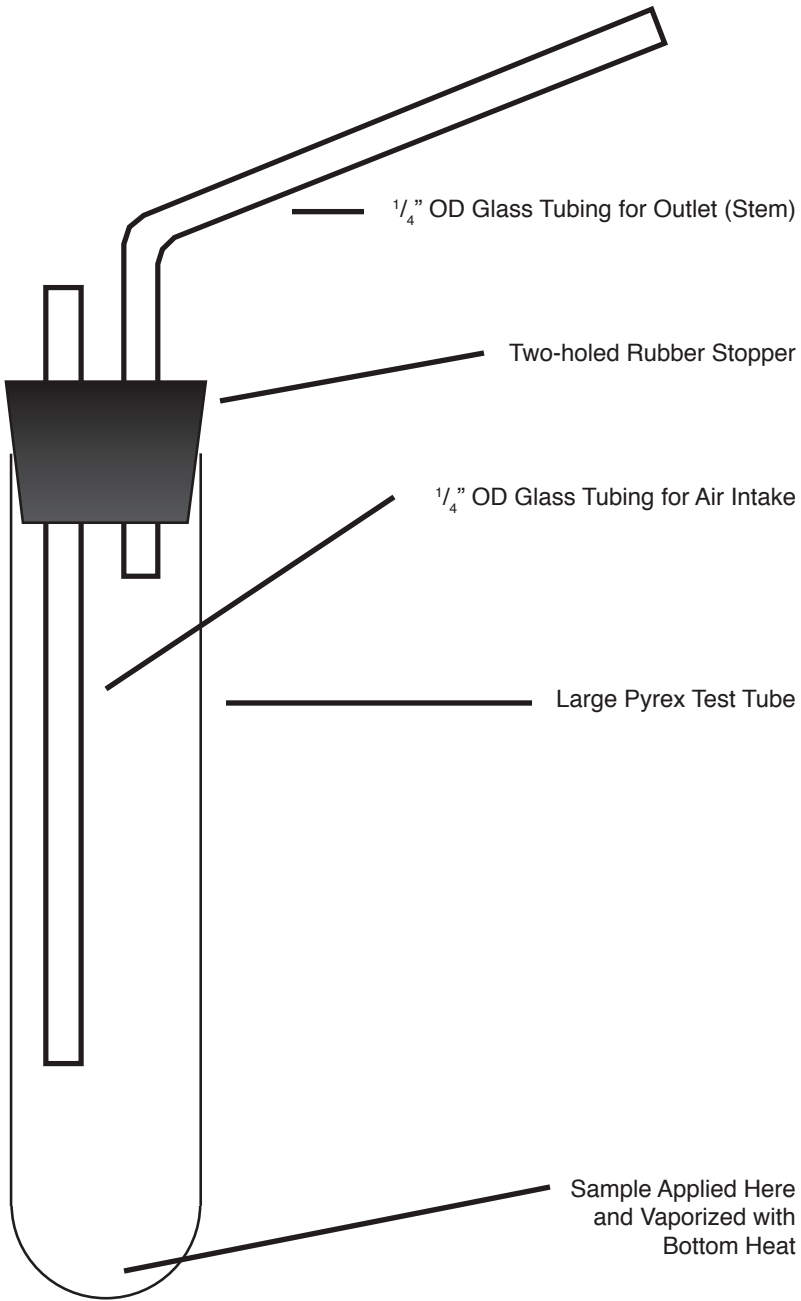
It recently has been brought to our attention that our high court has decided it is against the law to sell any obviously non-tobacco smoking paraphernalia. Ignoring for the moment the inherent conflict of interest and drug monopoly involved, we are disturbed by the potential limitations on personal religious and spiritual freedoms. In response, we would like to offer the following:

The volatizer can be a large (8 inch) Pyrex test tube or small Pyrex Erlenmeyer flask. It will need a two holed rubber stopper (a #4 stopper in the case of an 8 inch test tube), and two short pieces of $\frac{1}{4}$ O.D. heavy wall glass tubing.

One, 6 to 8 inch straight piece, will extend through the stopper and go about three-quarters of the way to the bottom of the flask or test tube. This will serve as the air intake.

The other 6 to 8 inch piece should be slightly bent (somewhere between 30 and 60 degrees) near one end. The end of the tube nearest the bend should be inserted into the rubber stopper so that it protrudes slightly out the bottom of the stopper (the long portion staying above the stopper). This is the stem/mouthpiece of the volatizer.

The straight piece should be inserted first and the bent stem second. When one inserts glass tubing through rubber stoppers, wet the outside of the tubing with water first. Then, being certain to grasp the tubing very close to the end being inserted, gradually feed the tube through the stopper with a gentle rotating or twisting motion. It will slip through quickly and easily. Holding the tubing any distance from the stopper and attempting to simply push it through can cause very serious puncture wounds if the tubing breaks.



A major problem with DMT pipes is the accumulation of DMT condensing in the stem over time. Eventually it can get in one's mouth during inhalation. DMT has a burning, strongly basic taste so this is not pleasant. This pipe can be readily disassembled to have the stem cleaned without losing the accumulated condensate on the vessel walls. (The material cleaned out of the stem can be recovered if one so desires.) Ethyl alcohol (95% or 190 proof; *i.e.*, EVERCLEAR, CLEAR SPRINGS, or other brands of pure grain alcohol) can be used to rinse (or soak) the stem clean. Warming will speed the process. The alcohol can then simply be evaporated in the test tube itself for recovery.

Once the glass tubes are in place and the device assembled to ensure a good fit, the stopper should be removed and everything allowed to dry before use.

After careful measuring of the dosage, the sample-to-be-volatilized is placed in the bottom of the test tube or flask, and the stopper replaced. In the case of DMT, 15–30 mg is well liked by most novices, (1 to 2 match-head sized portions) and 50 mg is not. (For 5-MeO-DMT; divide these amounts by three.)

The test tube or flask is now gently heated with an alcohol lamp or micro-torch until the sample melts, boils up and collapses, forming a mist that then begins to fill the chamber with smokey vapor. A micro-torch will volatilize it much faster.

Only when the chamber begins to fill with vapor should the inhalation begin. Beginning to inhale while the mist is still present wastes both lung space and material as a lot will condense on the cooler sections of the glass walls.

One needs to inhale slowly and fully (like a long sip through a very small straw); trying to get every bit of the harsh vapor into the lungs. (It actually has a pleasant taste for something so reminiscent of burning plastic or moth-balls.) If there is more than can be taken as one hit, remove heat when half-way through the inhalation as the heat retained by the glass will keep making vapor for a short while. Overheating rapidly destroys the material; producing a foul taste and nitrogen oxides.

If one has done it correctly there will be no need to take a second hit or to hold it in for more than a few seconds (DMT absorbs rapidly). If one doesn't get in with one hit, they can try again rapidly.

TERENCE MCKENNA has recommended taking three rapid lungfuls of DMT in quick succession when smoking DMT. This always works.

If a couple of rapid hits don't do it, or if more than a minute or two have

elapsed since first beginning to inhale, do not smoke any more for at least an hour (if not longer), as the rapidly developing tolerance will prevent one from full access and cause a great waste of material without optimum results. The tolerance disappears rapidly as well. (Tolerance in the *true* sense has not been proven to develop to DMT. While repeated administrations of DMT can and do produce effects, optimum results will be had if one allows time between doses.) Best results come from allowing a day to a week between doses but access can be achieved with as little as an hour between doses (even less with 5-MeO-DMT). Nausea and somatic distress may become progressively more pronounced each time DMT is repeated; often exceedingly so, if administered more frequently than recommended.

Have a surface such as a folded-up towel, hot pad or piece of wood handy for placing the pipe on. If hot glass is placed on a metal, tile or other cool surface it may cause it to break. Another approach is to use a clamp and a ring stand.

This is such a simple idea and the parts are so easy to find that we can't imagine that it hasn't been thought of before. If we, somehow, are the first; we freely give this idea over into the public domain and grant permission for anyone to use this idea in any way that serves their purposes so long as no copyright is attempted and we are held blameless for the outcome of their actions. We do not advocate the breaking of laws but rather a redress of unjust laws.

Enjoy and be careful. For those who have never experienced DMT or 5-MeO-DMT, read everything that you can before proceeding.

The following points cannot be stressed enough: make sure this is done in a safe and protected spot. Be aware that you will be incapacitated and usually unable to interact with your surroundings during the peak. (You may not even be aware of them.) These are not recreational drugs, and their use must not be taken lightly. People who attempt to use large amounts will often never try the alkaloid again. This is not an experience for everyone. Many individuals would be happier not having it at all. (In one study evaluating the effects of DMT, only 17 out of 40 volunteers were willing to repeat the experience.) A friend once remarked that, "Perhaps the best way to reduce the growing demand for DMT would be to make it readily available!"

A couple of comments about vaporizing DMT or 5-MeO-DMT:

Vaporizing DMT is not like smoking *Cannabis*. You do not want to puff, trying to get it lit (even if it is on *Cannabis*) nor do you want to try and hold in the vapor for long periods. The idea is not one of attaining a chosen level by gauging it as you go. It is one of administering an effective dosage.

One can either cross the “effective” line or not cross it. The two experiences are very different states. If you do not cross the line, you stay here, perhaps in an extremely altered and entheogenic state, but conscious of all somatic distress. The ideal is to reach a state where you are no longer aware of your body. To do this, you must get enough DMT into your system to enable you to break through and make the trip before the brief-lived tolerance can build up and prevent full access. Within a very short time, a person will be physically incapable of anything. Inhale the most possible into your system in as short of a time as possible. The shorter the time of administration is, the more effective the experience.

Even larger amounts taken more slowly can have less effects. A rapid series of several deep inhalations, none being held in for more than a couple seconds, is the most efficient way for most people to experience full effects. (As mentioned earlier, a slow, deep, full lungful can accomplish the same thing if breath control is used.)

If larger amounts are smoked by holding in the hits (like smoking DMT on *Cannabis*) the subsequent experience lasts longer but can never quite reach the same intensity of a full blown DMT adventure.

Smoking tryptamines on herbs also enables them to be used in places where smoking a free-base pipe is not feasible. We actually would recommend this as a good approach for dealing with 5-MeO-DMT. If a fairly large amount is administered repeatedly over a period of some minutes (smoking it suspended on *Cannabis*) it can positively break some reality barriers without the overwhelming distress of smoking the same amount all at once.

Smoking it with *Cannabis* does cause a marked enhancement of the visual field with eyes closed, but 5-MeO-DMT does not cause the appearance of patterns-and-colors or any of the striking visuals associated with DMT.

On the other hand, *true* auditory and visual hallucinations have not been uncommon for us with 5-MeO-DMT. A “true hallucination” is one that appears to be something that is really there with the cognitive senses seemingly clear. (A vision believed to be real at the time; at least momentarily.) In our experience the most likely time that such hallucinations might appear is accompanying or just after the return to (seemingly) normal consciousness.

We have often wondered if its difference from DMT is due to its similarity to serotonin. In serotonin the side-chain is close to being in the same generalized plane as the rest of the molecule. Similarly with 5-MeO-DMT. With DMT, however, the side chain approaches a 90 degree angle vertical from the generalized plane of the indole.

When heating DMT, care should be taken not to heat it too rapidly or to overheat it. It will take on a foul taste and may change the character of the experience. Heating to decomposition produces toxic nitrogen oxides (brown smoke), so it is not a good idea to smoke the charred remains.

Another point that is extremely important. When vaporizing DMT do not try to see how far it can take you (unless well experienced). If you do not already know this, DMT will take you farther than you can possibly imagine. The use of large doses will not physically hurt someone, but many times it will be the last time that person ever does DMT.

As the intensity can be quite overwhelming at normal dosages, it is suggested that a person first familiarize him- or herself with effective levels before attempting to turn up the volume. (The intensity of effects does not increase in a linear manner.)

5-MeO-DMT can be overwhelmingly distressing, both physically and mentally, if the optimal dosage is exceeded.

Both of these drugs have been shown to occur in human cerebrospinal fluid naturally. These drugs demand respect; this cannot be stressed enough. (We agree completely with TERENCE McKENNA, who has noted that the "potential of abuse" for DMT is minimal to non-existent.)

Results from an animal studies might be helpful for the uninitiated (although it should be noted that the cases described below are extreme overdoses):

Using a mongrel dog, at 5 mg/kg iv (an amount comparable to intravenously injecting an 80 kg human with 400 mg of DMT): Panting and muscular rigidity began before the needle was withdrawn. Dog was howling and baying within 1 minute.

It assumed a spread-eagle stance, with its abdomen pressed to the floor, and resisted efforts to disturb its equilibrium. The hair did not stand erect. Pulse and respiration were rapid, pupils dilated and eyes were open but the animal did not appear to see.

Urination and defecation occurred immediately after the injection. The symptoms became less severe after an hour and "the dog howled only occasionally." The dog was weak but apparently normal two hours later.

In monkeys doses up to 36 mg/kg intravenously [*i.e.* 2.88 grams iv in an 80 kg human] caused clonic spasms followed by loss of equilibrium, erection of hair, mild ptialism, loss of perception with no loss of consciousness. A dose of 53 mg/kg [*i.e.* 4.24 grams iv in an 80 kg human] was fatal.

The above quotes come from HEINZELMAN & SZMUSZKOWICZ 1963, citing unpublished results of W.A. FREYBURGER & B.E. GRAHAM at the UPJOHN COMPANY.

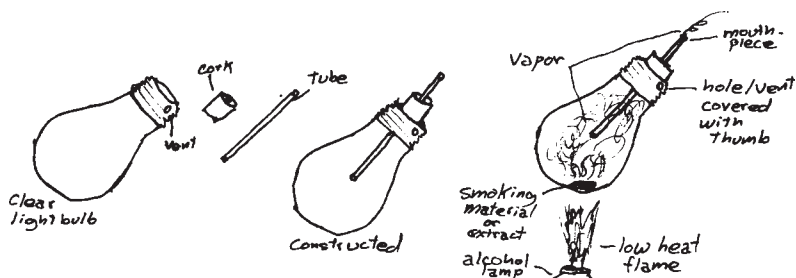
EASY VAPORIZER PIPE FROM OLD LIGHT BULB

Winter 1997

I took a clear, burned-out light bulb and with a pair of needle-nose pliers I pried the metal tip off of the socket. Then I carefully broke out the thick blue glass under the tip. Below that was a small glass tube with two small wires going into it. I carefully snapped the tube with the pliers, causing a small "pop," which equalized the pressure in the bulb. After that, I simply gutted and washed out the light bulb. Next, I drilled a small hole into the side of the aluminum socket, careful not to hit any glass. This provided a vent that acts like a supercharger hole ("carb") on a bong. I took a holed cork (that fits into the socket of the bulb) and a six inch length of quarter-inch glass tubing. Put the tubing into the cork and the cork into the socket-hole of the bulb, with the tube extending to about the middle: approximately where the former filament was. I had a vaporizer pipe!

Put the material to be vaporized into the bulb, replace the tube and cork. Heat the bulb with a lighter or alcohol lamp right under the material. Vapor fills the bulb and you inhale through the tube, while the vent hole provides fresh air into the bulb. Awesome! — PRAIRIE DRAGON

Be certain that the bulb used is clear, and not coated with some sort of phosphorous inside. This sort of pipe is known to be used for smoking crack cocaine. While it will work, the glass on a light bulb is pretty thin, and likely to be broken fairly easily. This would seem to be especially true if using a flame that was too hot. A similar "light bulb" style pipe is sold in many head shops for about \$15.00 to \$25.00 under the name "The Smoke Bubble." Unfortunately, this pipe is also said to break quite easily. The "volatizer" described earlier (see page 207) is a sturdier tryptamine vaporizer pipe, that is also easy-to-make. — DAVID AARDVARK



BOOK REVIEWS

AYAHUASCA VISIONS

Reviewed by JIM DEKORNE
Spring 1993

Ayahuasca Visions: The Religious Iconography of a Peruvian Shaman, LUIS EDUARDO LUNA and PABLO AMARINGO, 1991/1993. NORTH ATLANTIC BOOKS [POB 12327 (Dept. ER), Berkeley, CA 94701] ISBN 1-55643-064-7 [Sewn-and-glued hard-cover, \$60.00], 160 pp; 5 page index, 10 page bibliography, 49 full-color images.

I suspect that most readers of *The Entheogen Review* are already aware of this amazing book—if not, I consider it, despite the price, a landmark document and eventual collector's item. You can't lose on this one—once it goes out of print, it will grow in value year after year. For some perspective: most of R. GORDON WASSON'S works are only available from rare book dealers at premium prices—if you can find them. (Which is not the real reason anyone should obtain this volume—only my rationalization for coughing up sixty bucks for a book.) *Ayahuasca Visions* consists of 49 vividly reproduced, highly surrealistic paintings by PABLO AMARINGO, a former shaman living in Amazonia. Each painting depicts a specific ayahuasca trip experienced by the artist during his career. The book's introduction, and commentary on each painting by EDUARDO LUNA, presents invaluable perspectives on the ayahuasca-accessed realms of the human psyche. Truly, we know practically nothing about the depths of our own awareness—the whole of Western psychology seems like an irrelevancy when compared to phenomena experienced daily by the Amazonian shaman. No one interested in this subject should deprive him or herself of this amazing volume.

The book reviewed above is now also available in a paperback version, for about \$25.00. — DAVID AARDVARK

AYAHUASCA ANALOGUES

Reviewed by JIM DEKORNE
Summer 1994

Ayahuasca Analogues: Pangæan Entheogens, JONATHAN OTT, 1994. NATURAL PRODUCTS Co., [POB 1251 (Dept. ER), Occidental, CA 95465] ISBN 0-9614234-4-7 (hardcover), ISBN 0-9614234-5-5 (paperback) [\$30.00 hardback, \$60.00 for a limited signed and numbered slipcased version. \$3.00 S/H], 128 pp; 8 page index, 19 page bibliography.

This slim volume, by the author of *Pharmactheon* (reviewed in the Winter 1993 issue of *The Entheogen Review*), has been eagerly awaited by most people experimenting with the non-rain forest sources of ayahuasca admixtures. Unfortunately, it offers little that does not already appear in the ayahuasca chapter of his previous book, and is not a definitive work on this subject. *Phalaris arundinacea*, for example—perhaps our most promising non-jungle source of DMT and 5-MeO-DMT—appears only on a long list of obscure tryptamine-containing plants and is not discussed at all in the text—a glaring omission in a work bearing a title like this one.

The one item seeming to break new ground is the author's observation that the harmala alkaloids, as short-term reversible MAO inhibitors, may be used safely with phenethylamines such as mescaline. Conventional wisdom until now (based upon the characteristics of synthetic, irreversible MAO inhibiting drugs), said that such combinations were dangerous, if not life-threatening. The new information suggests that one could without risk combine *Peganum harmala* extract with *Trichocereus pachanoi* (or any mescaline-containing brew) to intensify the experience. Unfortunately, this information seems to be based upon the experience of only one anonymous experimenter with threshold doses. After making a strong point that such combinations are safe and that beliefs to the contrary are "curious myths," OTT proceeds to tell us not to "jump to conclusions" and condescendingly advises the reader to leave such experimentation to "the experts." One is left wondering what the exact message is here; is it safe or isn't it? Given our culture's penchant for leaping before it looks, this kind of intelligence is confusing and suggests that the material might have been more appropriate as a journal article rather than part of a book intended to be a practical resource for non-specialists. 'Though other sources have also confirmed the safety of this combination of entheogens, the subject certainly deserves more discussion than the two rather enigmatic paragraphs devoted to it in this book. — JIM DEKORNE

THE COSMIC SERPENT

Reviewed by ROBERT FORTE
Fall 1998

JEREMY NARBY, 1998. TARCHER/PUTNAM [a member of PENGUIN PUTNAM, INC., 200 Madison Avenue (DEPT. ER), New York, NY 10016] ISBN 0-87477-911-1 [Sewn-and-glued hardcover, \$22.95], 257 pp; 2 page index, 5 page bibliographic index; 23 page bibliography, plus 58 pages of notes.

The Cosmic Serpent: DNA and the Origins of Knowledge is a major breakthrough for not only the field of entheogens but for all science and perhaps religion too. Originally published in French as *Serpent Cosmique*, this book presents the journey of a Western scientist who ventures past the primitive superstitions of modern anthropology and takes part in a millennia-long scientific research program of Amazonian shamanism; wherein he learns of their seers' profound communication with other species via experiential access to DNA.

In 1985 JEREMY NARBY, a STANFORD-trained anthropologist, was doing fieldwork for his dissertation in the Amazon Pichis Valley among the Ashaninca people. Inquiring how their extensive botanical-medicinal knowledge was derived he heard from a shaman that "one learns these things by drinking ayahuasca." NARBY thought the shaman was joking, and he had intended to leave that finding out of his report: "For me, in 1985, the ayahuasqueros' world represented a gray area that was taboo for the research I was conducting." But an "unexpected setback" caused NARBY to move to the neighboring community of Cajonari where he was invited to partake of ayahuasca himself. Like a modern Adam he writes:

Deep hallucinations submerged me. I suddenly found myself surrounded by two gigantic boa constrictors that seemed fifty feet long... I see a spectacular world of brilliant lights, and in the middle of these hazy thoughts, the snakes start talking to me without words. They explain to me that I am just a human being. I feel my mind crack, and in the fissures, I see the bottomless arrogance of my presuppositions. It is profoundly true that I am just a human being, and, most of the time, I have the impression of understanding everything, whereas here I find myself in a more powerful reality that I do not understand at all and that, in my arrogance, I did not even suspect existed. I feel like crying in view of the enormity of these revelations. Then it dawns on me that this self pity is a part of my arrogance. I feel so ashamed that I no longer dare feel ashamed. Nevertheless, I have to throw up again... I have never felt so completely humble as I did in that moment.

From here Dr. NARBY soars past the methodological limitations of modern anthropology and deciphers "the main enigma:" "the Ashaninca's extensive botanical knowledge comes from plant induced hallucinations" via a sophisticated interdisciplinary study that includes direct personal experi-

ence of ancient shamanic mysteries, extensive comparative structural analysis of cross-cultural symbolism, and molecular biology. The result is the testable hypothesis “that the human mind can communicate in a defocalized consciousness with the global network of DNA based life.”

Deftly written, one hopes this book will cause quite a stir. It has already been reviewed in *The New York Times*. It is a major step toward Western science’s reconsideration of the validity of shamanic states. The book’s neutral tone transcends the reactionary politics that infect entheogens within medical research, while avoiding tiresome theological questions. Here is pure exploratory science. Entheogens as heuristic.

Let us note that direct communication with DNA is not groundbreaking news in the psychedelic literature and it is remarkable that NARBY, in his extensive scholarship, missed this. “To my knowledge,” he writes, “the only other mention of a link between hallucinogens and DNA is by Lamb (1985) who suggests in passing: ‘perhaps on some unknown unconscious level the genetic encoder DNA provides a bridge to biological memories of all living things...’.” NARBY has completely missed Dr. TIMOTHY LEARY’S *Info-Psychology* wherein the subject is first presented:

When the seventh circuit of the nervous system is activated, the signals from DNA become conscious. This experience is chaotic and confusing to the unprepared person—thousands of genetic memories flash by, the molecular family-picture-album of species consciousness and evolution. This experience provides glimpses and samples of the broad design of the multi-billion year old genetic panorama. ...genetic engineers will use as their basic instrument their own brains, open to and conscious of neurogenetic signals. Only the DNA neuron link up can produce the immortality and symbiotic linkage with other species... The key to higher intelligence is direct DNA-RNA neural communication among species.

And although the ayahuasca art of PABLO AMARINGO is a frequent guide in NARBY’S proof, he misses where JONATHAN OTT presents AMARINGO’S painting of the double helix of DNA on the cover of *Pharmactheon*:

The serpentine phantasmagoria of the visionary realm is dominated by the universal archetype of the Tree of Life... as well as the universal chemical liana of life on this planet—the double helix of DNA. The magical phlegm, azure essence of *logos*, the magical song or *icaro* of the *yachaj* made manifest, flows forth... like the serpents of creation from the woman’s womb; like the spermatozoa, human serpents of fecundity rising.

NARBY’S efforts expand and clarify LEARY’S assertions and OTT’S poetic insight in such a way that should reach many skeptical readers outside the entheogen community. The example has been set for how entheogenic

visions can elucidate other mysteries of creation: the appearance of matter, the incarnation of the soul, the destiny of our planet...

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AYAHUASCA

Reviewed by JON HANNA
Winter 1999

Ayahuasca: Hallucinogens, Consciousness, and the Spirit of Nature, RALPH METZNER (Ed.), 1999 (THUNDER'S MOUTH PRESS, 841 Broadway, Fourth Floor (Dept. ER), New York, NY 10003), ISBN 1-56025-160-3 [Perfect-bound paperback \$13.95]. 294 pp; no index, chapter end-note bibliographies.

OSCAR JANIGER has been noted to say, "Nothing is more boring than an individual's personal account of his LSD experience" (STAFFORD 1990), and one might presume by this comment that JANIGER would also find trip stories related to any other entheogen, including ayahuasca, equally dull. Those who agree with this viewpoint won't be too impressed with the latest offering by RALPH METZNER, *Ayahuasca: Hallucinogens, Consciousness, and the Spirit of Nature*, as it is largely composed of numerous personal accounts of ayahuasca experiences.

In considering JANIGER'S attitude, I am reminded of the different reactions that my mother and father had towards the retelling of dreams at the breakfast table. Dad couldn't stand these stories, and would frequently exit to the kitchen to fix more coffee, so as not to be subject to the wandering illogical dreamscapes of the rest of us. On the other hand, my mother and brothers sat enthralled by tales of flying, or realizing that one was naked in public, or losing one's teeth, or suddenly back in school taking a test that hadn't been studied for. I suspect that entheogenic "trip stories" are similar to dream descriptions; some people can't stand them, while others sit spellbound.

Most readers of *The Entheogen Review* probably fall into the latter category, like me. And I thoroughly enjoyed the numerous "hyperspatial maps" that those cartographers-of-mind described in METZNER'S compilation. 24 psychonauts shared their experiences with ayahuasca in the first half of this book. These tales are told predominately by Western non-native explorers and set in the USA, although there are a few voyages that took place in the Amazon, some within the syncretic religious traditions of the *UDV* and the *Santo Daime*. For the most part, those who shared their experiences with ayahuasca, participated in ritualistic group settings that combined psycho-

therapy and spiritual-searching in what might be termed a “neo-shamanistic” approach. There are a number of elements to these rituals that are common to several of the reports. Some of these included fasting, sitting in a circle, opening/closing ceremonies related to the four directions, passing a “talking stick” (that allows each person in turn to sing or speak), sitting or lying down, periods of silence, periods of music and/or drumming, dancing, and breaking the fast. In some cases the participants wore earplugs and eyeshades. Most ceremonies are held at night, either in darkness or by the light of a fire. Voyages reported on in this compendium run the full gamut. Some types of experiences included:

1) Returning to past times, such as Nazi Germany concentration camp scenes, Native American Indian scenes, and Egyptian ritual scenes, or specific past-life regression experiences.

2) Contacting ethereal or other-dimensional beings such as dead relatives, energy parasites, plant teachers or spirits, animal spirit guides, jungle elves (“little green guys”), or specific gods/goddesses from Egyptian, Mayan, Hindu, Buddhist, and earth-worship cultures.

3) Comparison of ayahuasca to other entheogens, such as LSD, MDMA, psilocybin, mescaline, *etc.*

4) Specific types of energy contact and interaction, such as kundalini energy, healing energy, grief energy, chakra energy, crystal gazing, channeling, direction of visions through shamanic *icaros*, telepathy, prophetic visions of the future, out-of-body experiences, ego fragmentation, physical dismemberment, planetary consciousness, simultaneously experienced duality, and awareness of the law of karma.

5) Reliving one’s birth or experiencing one’s own death.

6) Experiencing psychological, spiritual, or physical healing.

7) Relating to the experience through various philosophical/religious ideation, such as CASTANEDA’S “warrior’s impeccability,” PABLO AMARINGO’S painted visions, GURDJIEFFIAN or JUNGIAN concepts, Christianity, Hinduism, Buddhism, Sufism, Taoism, yoga, and meditation practices.

Normally I might wince at some of the “new age” beliefs reported on. But somehow, within the context of ayahuasca voyaging, I became more open to the various modes in which people related to and interpreted their experiences.

One thing that I found quite striking was the large number of people who

reported snakes or serpents as integral parts of their ayahuasca experience. METZNER touches on this a bit in the book's introduction, when he mentions *The Cosmic Serpent* by Canadian anthropologist JEREMY NARBY. The ayahuasqueros "told Narby that the serpent spirit is the mother of ayahuasca." The serpent image is quite prevalent in the art of PABLO AMARINGO, and apparently other Amazonian Indian art as well. Of the 24 people whose experiences are related in this book, just over half of them mention snakes or serpents. Specific imagery of this type strikes me as being fascinating, as I don't believe that it is so frequently reported with other entheogens. Which got me to wondering *why* this imagery turns up so commonly with ayahuasca voyages?

CLAUDIO NARANJO has noted that naive Westerners dosed with harmaline tended to have visions of snakes, as well as jungle cats and large birds of prey; imagery that is consistent with the cultural context of traditional ayahuasca use. He has proposed that these animals seen together comprise a "dragon" symbol, which is produced through the ayahuasca alkaloids allowing one to experience kundalini energy (NARANJO 1987).

There is also the thought that those areas accessed when one takes certain drugs may have a reality *beyond* the mind of the subject. If this is true, it wouldn't be surprising that when using a specific drug, one opens a specific door to a realm that is populated with specific discarnate entities or imagery—in this case, with snakes. A related idea—that is only given brief mention by METZNER, when he lists RUPERT SHELDRAKE among a number of individuals whose theories jive with subjective psychonautical experiences—is that specific "morphogenic fields" of energy might be created by the repeated ritual use of an entheogen. Since ayahuasca has been used for hundreds if not thousands of years in the Amazon, it might not be surprising if those new to this realm have visions of Amazonian snakes, especially when this has been reported as a traditional component of the experience. An interesting story was recently told to me by a woman who noticed that her ayahuasca visions were always mirror images; the same visions reflected above and below. She was consuming ayahuasca in the USA. It was only when she finally went to the Amazon and was floating down the river in a canoe that she was hit by the fact that the entire view of the jungle was reflected in a manner similar to her ayahuasca visions. The "morphogenic field" of her ayahuasca visions seemed to have been showing her their home turf! While entirely subjective, this experience could be seen by some to lend credence to the idea that snakes are seen by modern psychonauts because they have long been a traditional element in archaic shamanic Amazonian visions, and hence have built up a resonant field of non-corporal visual energy.

There is, perhaps, another more mundane explanation for visions of snakes. 19 of the 24 psychonautical reports in *Ayahuasca* describe gastro-intestinal

distress experienced while the person was on ayahuasca; nausea, vomiting and/or diarrhea are all commonly mentioned. It has been said that ayahuasca “can feel like a boa entering one’s mouth and chewing through to the other end with involuntary defecation and emesis” (MU 1988). Reports presented in *Ayahuasca* from different psychonauts noted:

Then I met another serpent in my vision... it entered my body through my mouth and started to slowly wind its way through my stomach and intestines over the next two or three hours... the form of the snake is more or less a long intestinal tract, with a head and a tail end; and conversely, our gut is serpentine, with its twists and turns and its peristaltic movement. (p 48)

I began to hear the “swoosh” of a large snake. I felt my abdomen crackle as if the skin of a snake were being shed... I physically purged into the bowl. (p 95)

Once in my stomach, it felt as if I had swallowed a live boa who was inching through the acid labyrinth of my guts, pausing to squeeze them tight in sequential spasms. (p 109)

A huge serpentine roto-rooter moving through my systems, sparing nothing, unearthing everything... The ayahuasca medicine seems to have a special affinity for the gastrointestinal system: it snakes its way through the body, seeking out an eliminating obstructions to life energy flow. I sometimes think of it as a form of kundalini, a Liquid Plum’r for the soul. (pp. 117 & 123)

People speak of becoming snakes, of eating snakes, and of being eaten by snakes. Certainly all of these states of being could relate directly to the intestinal havoc that ayahuasca reeks on one’s system. Visions of snakes, while undergoing this sort of a physical assault (in the particular mind state that ayahuasca produces), don’t seem too surprising. Considering that ayahuasca produces nausea, vomiting and diarrhea in many (a combination of physical effects that, in totality, is rarely seen with other entheogens), it doesn’t seem too odd that people commonly see snakes on ayahuasca, and not as frequently when on other drugs.

The second half of *Ayahuasca* contains objective scientific papers by DENNIS MCKENNA, CHARLES GROB, and JACE CALLAWAY, as well as a summation by METZNER. As each paper was written independently, there is some repetitively information presented related to ayahuasca’s history and chemistry.

MCKENNA predominately deals with ayahuasca’s history, from its prehistoric roots, to its scientific discovery in the 19th Century, taxonomic and chemical discoveries of the early 20th Century, and more modern research and developments, noting the 1967 U.S. DEPARTMENT OF HEALTH, EDUCATION,

AND WELFARE symposium "Ethnopharmacologic Search for Psychoactive Drugs." MCKENNA also mentions the Brazilian syncretic religion *União do Vegetal*, some members of whom were subjects in the HOASCA PROJECT study that MCKENNA participated in to investigate the chemistry, psychological effects, and psychopharmacology of ayahuasca.

GROB discusses the context in which traditional visionary plant medicines have been used, and presents information on contemporary ayahuasca use as well, including another Brazilian religious group, the *Santo Daime*. The use of ayahuasca analogues by modern psychonauts is briefly mentioned. GROB presents an outline describing psychological characteristics common to the type of altered awareness brought on by entheogenic plants, and also shows those commonalities reported relating to ayahuasca specifically, noting that snakes, jaguars, and other predatory animals of the rain forest are prevalent visions.

CALLAWAY's paper was the most technical but also the most interesting, as the information presented was less redundant than the previous two papers. Phytochemistry of a few visionary plants is presented, and a comparison is made to several neurochemicals responsible for primary human brain function. The neuropharmacology of ayahuasca in particular is discussed, both from the perspective of how the β -carboline monoamine oxidase inhibitors work, and what systems the tryptamines plug into. CALLAWAY briefly notes his theory suggesting that DMT might be responsible for the visual aspect of dreams. He also quite importantly warns readers of the possible hazards of combining SSRI drugs and ayahuasca. CALLAWAY provides more detailed information related to specific findings by the HOASCA PROJECT, including the variation of harmala alkaloids found in different samples (and types) of *Banisteriopsis caapi*, the variation of DMT found in different samples of *Psychotria viridis*, and variations in individual metabolism of ayahuasca, as well as physiological changes produced from the ingestion of ayahuasca.

METZNER is to be commended for putting together a solid collection of subjective and objective information that illuminates the potential healing quality of ayahuasca. The stories of personal growth are compelling, and the scientific evidence presented speaks to the relative safety of ayahuasca when properly consumed. While there are sure to be a multitude of books published on the topic in years to come, *Ayahuasca* should stand the test of time as an historically significant contribution on contemporary psychonautical therapy.

APPENDIX A:
DEGREE OF
INTENSITY SCALE

THE “SHULGIN SCALE”

The “Degree of Intensity Scale” (or “Quantitative Scale of Potency”) is a protocol for establishing the characteristics of a new psychoactive compound (SHULGIN *et al.* 1986). Having gained notoriety following the publication of *Phenethylamines I Have Known And Loved: A Chemical Love Story* by ALEXANDER T. SHULGIN and ANN SHULGIN, it is now popularly referred to as the “SHULGIN scale.” It has been reprinted below with permission, as it is frequently referred to by psychonauts describing their experiences within the pages of this book.

(—) or *Minus*: There is no effect noted, of any nature, that can be ascribed to the drug in question. This condition has also been called “baseline,” representing the status of psychological and physical homeostasis called “normal” by the particular individual. “I am exactly the same state of mind and body that I was before I entered into this experiment.”

(+/-) or *Plus-Minus*: There is a move away from baseline, but there is not necessarily a conviction that it is drug-related. This condition has also been called “alert” (if this is the prelude to further development) or being “aware” (if this is the extent of the development). Each subject has his own individual signal—one experiences decongestion of the sinuses, another notes a runny nose; one researcher reports paraesthesia, another perceives an absence of chronic tinnitus. Often it is a reminder to the subject (by whatever internal signal) that he has indeed taken a compound; strange as it may seem to anyone not involved in this form of research, it often happens that an experienced researcher can be distracted by something of interest, such as an important phone call, and can indeed forget a few moments that he is participating in an experiment. His own form of the so-called alert serves to remind him. This category is replete with false positives; it is common for such a report to be summarized with a final (—), as the subject concludes that whatever he interpreted as signs of activity must have been, in fact, products of his imagination.

(+) or *Plus-One*: There is a real effect, and the duration but not the nature of the content can be discerned. The "alert" has progressed into something unmistakable. There may be nausea or even active vomiting, or light-headedness, or compulsive yawning, or restlessness, or a wish to remain motionless. But there is a real effect. There are rarely false positives here. This is a level that will give the first real indication of the duration of action. As a rule, the more common physical complaints are dissipated within the first hour, and the subject is left with the first suggestion as to the nature and quality of the effect of the drug on the central nervous system (CNS), and is able to note the duration of effect and its ebbing, e.g., "It will be long-lasting, but I can't say yet just what kind of experience it will be."

(+ +) *Plus-Two*: There is an unmistakable effect, and both the duration and the nature of the effect can be stated. It is at this level that the first attempts at classification can be made, e.g., "There is considerable visual enhancement, and much tactile sensitivity, despite a light anaesthesia." At a plus-two, one might still be able to answer a telephone sensibly, but would most probably choose not to attempt to do so. One could drive a car with much care, but would wisely choose to do so only in a life-and-death emergency. Cognitive faculties are largely intact, and much of the drug's effects could be suppressed if the need should arise. When this level of drug activity has been confirmed, a second experimental subject is usually brought into the protocol scheme.

(+ + +) *Plus-Three*: This is the level of maximum intensity of the drug effect. The full potential of the drug has been realized. Its character can be spelled out (assuming that amnesia is not one of its properties) and the chronological patterns to be expected are defined. With experienced subjects, there can be a surprising subtlety attempted in splitting categories—"I was pushing a plus two and a half, but felt that it hadn't quite hit its full activity!" It is the area between + + and + + + that is used in the definition of the "active level," and it is the dosage that leads to this level of activity that is considered the "active dose."

One additional symbol is occasionally needed, this for the "peak experience" in the terminology of Abe Maslow. This is a serene and magical state which is largely independent of what drug is used if a drug is used at all, and moreover, the state can not be repeated at will with a repetition of the experiment. It is the extraordinary place, that one-of-a-kind, mystical or religious experience which will never be forgotten. It has, within this coding system, been given the name + + + +, or *Plus-Four*, but this is not to imply in any way that it is more than, or comparable to, the + + +. It is simply in a class by itself, and has no suggestion of quantitative value.

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