

Welcome to *The Entheogen Review*

The following issue of *The Entheogen Review* has been produced as a sample that is available at no charge in electronic form as a PDF at our web site (www.entheogenreview.com). *The Entheogen Review* has been published quarterly since 1992. It was the brainchild of JIM DEKORNE, author of *The Survival Greenhouse* (WALDEN FOUNDATION, 1975), *The Hydroponic Hothouse* (LOOMPANICS, 1992), and *Psychedelic Shamanism: The Cultivation, Preparation and Shamanic Use of Psychotropic Plants* (LOOMPANICS, 1994). DEKORNE acted as editor and publisher through the end of 1997. In 1998, DAVID AARDVARK took over the editing and publishing duties, and enlisted K. TROUT, author of *Sacred Cacti* (BETTER DAYS, 2001) and numerous TROUT'S NOTES folios, as the technical editor.

The Entheogen Review features questions and answers from the cutting edge of unauthorized research into psychoptic plants and drugs. Basement shamanism, kitchen chemistry, visionary gardening, and so much more, are all discussed by underground psychonauts as well as renowned scholars in the field of anthropology, psychopharmacology, ethnobotany, theology, and related disciplines. Past and recent issues have included contributions from experts such as: WILL BEIFUSS, RICHARD GLEN BOIRE, JIM DEKORNE, EARTH EROWID, FRANCISCO FESTI, ROBERT FORTE, ELIZABETH GIPS, ALEX GREY, JON HANNA, ALBERT HOFMANN, ERNST JÜNGER, THOMAS LYTTLE, GWYLLM LLWYDD, TERENCE MCKENNA, DAN MERKUR, J.P. MORGAN, JONATHAN OTT, DALE PENDELL, WILL PENNA, RENÉ RIKKLEMAN, GIORGIO SAMORINI, NICK SAND, ALEXANDER SHULGIN, DANIEL SIEBERT, MYRON STOLAROFF, RICK STRASSMAN, SYLVIA THYSSSEN, K. TROUT, D.M. TURNER, LEANDER J. VALDÉS III, and R. GORDON WASSON.

The articles contained herein have been excerpted, adapted, and in some cases updated, from issues produced during the period from 1998 through 2001, and are representative of the style and focus of our publication. Images have been optimized for screen viewing and will not print out at the higher quality that is used in the published hardcopy version. Citation information is provided, relating what specific issue the selection was extracted from. In many cases the selection has not been presented in full, but back-issues containing the complete selections can be purchased for \$6.00 (USA), \$9.00 (foreign). We also offer photocopied reprints of all of the earlier issues, 1992–1997, for \$5.00 (USA), \$7.00 (foreign). The first year of publication is only available as a bound compilation for \$20.00 (USA), \$25.00 (foreign). In addition, we currently have two single-topic monographs available: *Ayahuasca Analogues and Plant-based Tryptamines—The Best of The Entheogen Review 1992–1999* as well as *Salvia divinorum and Salvinorin A—The Best of The Entheogen Review 1992–2000*. Each of these is \$23.00 (USA), \$26.00 (foreign). Complete descriptions of these books and all back-issues are available at our web site, or send a long self-addressed stamped envelop for our catalog.

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HYPERSPATIAL MAPS

MESCALYSERGIC VISIONS

(Vol. VII, No.1)

Recently the great spirit has blessed me with the opportunity to begin working with what has become my most special entheogenic ally—mescaline sulfate. My first two experiences (at 400 and 500 mg respectively) with this material have easily surpassed my experiences with other “traditional” psychedelics. It is much gentler than LSD, more lucid, and euphoric, without the abrasive psychoanalytical edge that often irritates me on high dose acid trips. I find its energizing qualities preferable to the drowsy, dreamy trance I usually experience with mushrooms. I would also stress that this is far and away the most healing entheogen that I have ever encountered, both physically and psychologically. One hour into my first journey, it was inescapably clear to me why the Indians say that peyote is first and foremost a medicine. I emerged from both trips feeling as though I had productively worked through a substantial amount of psychodynamic baggage, and was physically rejuvenated to boot!

In any event, after these trips I was inspired to start learning as much as I could about my new-found ally. In the impressively thorough “SAN PEDRO FANATIC FAQ” (<http://users.lycaeum.org/~iamklaus/cactindx.htm>), I read that LSD and mescaline could be combined to yield a trip that was longer-lasting and smoother than either alone. When I recently came across a hit of fresh, relatively potent (150–200 mcg) acid, I decided to test this hypothesis, hoping the LSD would function as an amplifier, allowing me to get more mileage out of the frustratingly rare, delicate, needlelike crystals of mescaline. As it turned out, I was in no way disappointed. At approximately 9:00 pm I consumed the LSD and 225 mg of mescaline simultaneously. Initial effects were felt at the forty-five minute point, building to a plateau around the fourth hour, with residual effects persisting well into the following afternoon. My theory about the LSD acting essentially as a potentiator turned out to be correct; the mescaline’s warm, earthy signature was dominant throughout, while the experience felt stronger than my 500 mg mescaline-only trip.

At the peak of this journey I had a totally paradigm-shattering experience that I am at a loss to interpret. I was lying on

my bed, incense and ceremonial candles alight, meditating. The air grew thick, as though pregnant with energy—like a thundercloud about to burst. My visual acuity sharpened at the same time. I looked at my hand and began to make out tiny iridescent curlicues that seemed to be superimposed upon a clear scrim on top of everything that I saw. Then, automatically—as if by instinct, I began to manipulate my eye muscles in a manner similar to the technique used to view those “magic eye” 3-D images (where you unfocus your eyes and attempt to look through the gibberish image to see the real picture). When I did this, the curlicues suddenly sprang into strong three-dimensional relief, and they were revealed to be translucent, iridescent tentacles or tendrils of some sort that looked like they were formed out of ectoplasm. The room was electric with a sense of presence, and I followed the line of these tendrils away from my hand to their source. I was utterly unprepared for what I saw when I did this.

Floating in the corner of my room was an enormous, shimmering, translucent, opalescent, octopod/jellyfish-like creature from which the tentacles protruded! My initial reaction was one of disbelief, mixed with a substantial degree of fear. However, the thing immediately began to caress me with its tendrils—as if to reassure me, and my apprehension completely melted away. Amazingly, I actually perceived a gentle, soothing pressure against my skin as it caressed me like a child! As it touched me I felt its consciousness partially merge with mine, and I was then flooded with a sense of love unlike I have ever experienced before, or even imagined to be possible. Comparing any experience of transcendence that I have previously had to this experience is like trying to compare a candle to the sun. I had the sense that this was a guardian angel or something similar who was always with me, watching over me, and it was absolutely overjoyed that I could finally perceive and communicate with it directly. I was so moved by this that I wept openly with joy for a large portion of the time. I lay there soaking up its affection for nearly half an hour before it eventually vanished. The trip began to gradually, gently decline shortly afterwards.

I have had plenty of entity contacts in the disembodied domain of DMT, but this thing tangibly coexisted...

— *Continued* —

NETWORK FEEDBACK

WILD CUCUMBER?

(VOL. VII, No. 1)

I have heard secondhand reports that the wild cucumber or man-root (*Marah* species) is entheogenic. My informant claims to have made a tea from the root many times, and says it produces an effect very similar to psilocybian mushrooms. *Marah* species are abundant from Southern California to Washington. — B.K., CA

Marah fabaceus is apparently also known as *Echinocystis lobata*. The only reference for “wild cucumber” as a visionary plant that we’re aware of speaks of using the seeds, not the roots. This information comes from *Herbal Highs* by MARY JANE SUPERWEED. Overall, this is an inaccurate little booklet, which discusses smoking tobacco through rotten green peppers, smoking banana peels, and smoking dill weed with monosodium glutamate. I’d take any information presented in this booklet with a big grain of... uh, monosodium glutamate. Published in 1970, it states:

WILD CUCUMBER (*Echinocystis lobata*). In the early 1960s several children in Ojai, California, began conversing with nonexistent persons and showing other symptoms of severe hallucination. Later it was learned that they had been nibbling on the seeds of wild cucumbers. This low crawling vine of the melon family can be found growing among thickets along the coastal slopes of California, Washington and Oregon, as well as in many other places throughout the U.S. It has greenish-white flowers and a spiny, green, oblong fruit containing four large seeds. There is no information available at the present time as to the exact chemical nature of the hallucinogens in wild cucumber (possibly lysergic acid amides), but they are most effective when the seed is not quite ripe, around middle or late spring. One seed should be a good experimental starting dose. Birds eat the seed for food without any harmful results, but since its chemistry is still unknown so are its possible dangers. The trip lasts for eight to ten hours and no harmful side effects have been noted.

From the “conversing with nonexistent persons” comment, we would suspect that belladonna-type alkaloids are present. From the time-frame of the effects reported, it would seem more like ergot-type alkaloids (though this time-frame would also apply to lower doses of belladonna-type alkaloids). Toxic and/or medicinal alkaloids are known from a variety of cucurbits, but neither belladonna- nor ergot-type alkaloids have been reported as far as we know. This report of

the root being used (instead of the seeds), and of it being mushroom-like, is the first that we have heard. We suggest that someone with access to this plant do an extract and send it to DRUG DETECTION LABORATORIES (or whoever else does qualitative analysis of street drugs). — Eds.

GYMNOPIIUS CHEMISTRY?

(VOL. VII, No. 3)

I have been experimenting with “giant laughing mushroom,” and other *Gymnopilus* species. The divine forays into hyperspace are unmistakable, and I can only thank Mother Nature for such a gift or her bounty. Yet, I do have some technical questions. Do these mushrooms contain psilocybin, or some other alkaloid? Are they more or less toxic than *Psilocybe* species? — D.C., PA

Of the *Gymnopilus*, PAUL STAMETS states:

To date, 10 species have been shown to be psilocybin-active, according to a survey of the scientific literature by Allen and Gartz (1992). They are *G. aeruginosus*, *G. braendlei*, *G. intermedius*, *G. luteoviridis*, *G. liquiritiae*, *G. lutes*, *G. purpuratus*, *G. spectabilis*, *G. validipes*, and *G. viridans* (see also Hatfield et al. 1978). I believe an additional species, *G. luteofolius*, is also active. (The analysis of this species has not yet been reported in the literature.) *G. luteofolius* bruises bluish, especially in cold weather. Additionally, a Mexican *Gymnopilus*, *Gymnopilus subpurpuratus*, is also likely to be active, given its green bruising reaction (STAMETS 1996).

It should be noted that JONATHAN OTT takes exception to the list presented by ALLEN and GARTZ, noting:

“...this index of species ‘scientifically determined as psilocybian’ includes 46 species of *Psilocybe*, 3 species of *Gymnopilus* and 2 species of *Copelandia* which have not been chemically determined to contain psilocybin/psilocine, nor reported to be used traditionally as inebriants—they were added to the list because of taxonomic affinity to known psilocybian species and/or the presence of the bluing reaction” (OTT 1996).

OTT more accurately lists “*G. braendlei*, *G. intermedius*, and *G. luteoviridis* (sic)” as “probable psilocybian species” (OTT 1996).



STAMETS points out that, with some of the species in the genus *Gymnopilus*, "There may be compounds other than psilocybin, but closely related, that potentiate the experiences of the consumer" (STAMETS 1996). Small amounts of the active compound baeocystin (.02% to .05%) have been found in *G. purpuratus* (GARTZ 1996). Of *G. spectabilis*, STAMETS (citing TANAKA *et al.* 1993) notes that recent studies of Japanese mushrooms detected no psilocybin, "but identified a new hallucinogen, which they described as belonging to a group of 'neurotoxic' oligoisoprenoids, with depolarizing activity that was demonstrated on rodent neurons. (No human bioassays were conducted.)" (STAMETS 1996). OTT notes that *bis-noryangonin* (a chemical apparently structurally similar to the active pyrones found in *Piper methysticum*) has been found in *G. spectabilis* (OTT 1996, citing HATFIELD & BRADY 1969; HATFIELD & BRADY 1971; and OTT 1976). However, JOCHEN GARTZ points out that this compound is inactive (GARTZ 1996). We are not aware of toxic compounds in *Gymnopilus* (which doesn't mean that there aren't any—we simply haven't found references regarding this). As well, STAMETS warns of the possibility of confusing mushrooms from the deadly poisonous *Galerina* genus with *Gymnopilus* (STAMETS 1996). — DAVID AARDVARK

MUSHROOM NAUSEA

(Vol. VII, No. 3)

I have had a total of fifteen experiences with *Psilocybe cubensis*. The first ten (all from the same source) were very good and positive. I did 3 to 3.5 grams the first nine times and on the tenth I did 5 grams. After a few hours into this trip I got very sick with nausea and the rest of the night was spent over the bowl. I spent the next ten months in abstinence. Two months ago I tried it again, this time with mushrooms from a different source. I did 5 grams and two hours into it the nausea started again. The next time I dropped the dosage to 3.5 grams, and I was sick again. Then I dropped the dosage to three grams; sick again. Then three grams again; sick again. The last time was 2 grams and I did some dramamine one hour before. This experience turned out to be one of the most visually brilliant I have ever had, very intense, and time moved very slowly. It was also the lowest dosage I had ever done. At the two hour mark (I thought that I was at least four hours into it at the time), the nausea started again. My experience with the nausea is that it happens almost always at the two hour mark. I always take the mushrooms alone in silence and darkness, and I fast at least six hours beforehand. If any readers have suggestions or solutions to my problem it would be appreciated. — P.L., NJ

As the nausea first started after a fairly high-dose trip (5 grams), it is possible that this trip unlocked something in your subconscious that wasn't dealt with completely, and that manifested physically as nausea. Now, each time you revisit your subconscious through the use

of mushrooms, this not-yet-dealt-with psychological baggage continues to manifest as nausea. Or, this idea could be a load of arm-chair psychologist horseshit. It is worth noting though, that one of the "psychedelic elders" that I have spoken with feels that nausea and uncomfortable feelings that occur on entheogens are almost always based in the psychological subconscious.

Others feel differently; one of the main thrusts of the C. B. GOLD article, "The Mushroom Entheogen," (mentioned in the VERNAL EQUI-NOX 1998 ER) was to reduce those toxins in psilocybian mushrooms that might be responsible for adverse physical effects. Perhaps the manner that you are preparing the mushrooms is contributing to this adverse effect? Some people use ginger to help control nausea, and a quick-brewed entheogen tea made using PRINCE NEVILLE'S FAMOUS GINGER BEER (Ingredients: ginger root, water, pineapple, honey, and lime) as the liquid has proven quite effective in reducing nausea normally caused when I combine psilocybian mushrooms and *Peganum harmala*. Others find a few tokes of *Cannabis* to be helpful. Readers? — DAVID AARDVARK

STRYCHNOS NUX VOMICA

(Vol. VIII, No. 1)

Very little can be found in the literature and on the 'net about strychnine (*Strychnos nux vomica*) as an entheogenic agent, but here's a quotation from *Plants of Love* by CHRISTIAN RÄTSCH:

In low doses strychnine is one of the most effective aphrodisiacs, in moderate doses, a powerful psychedelic, and in high doses (60 to 90 mg) a deadly poison (RÄTSCH 1997).

I have looked up the drug in *Handbook of Poisoning*, and here it says that the fatal dose of strychnine is 15–30 mg!?! As a contrast, a fatal dose of LSD has not been described precisely, but *Psychedelics Encyclopedia* states that 40 mg was survived and the only case of death by overdose of LSD was a stunning 320 mg intravenously injected (STAFFORD 1992).

Before starting any bioassays with *Strychnos nux vomica*, I would like to know if some of you out there have any experiences with this compound, and perhaps Mr. K. TROUT would like to comment further on this matter? — AMOS, DK

A fatal dose of strychnine in adults has been estimated to be 5–10 mg/kg, while 15 mg is believe capable of killing a child (FLOMENBAUM 1994). It is worth noting that this is an estimated lethal dose, not an LD50. Clearly, however, there is a large difference between this estimate and the comments by RÄTSCH. The Minimum Lethal Dose (MDL; the lowest amount reported to cause death) orally in rats is 5 mg/kg. We don't recommend that anyone experiment at any dose with

strychnine. Onset of effects from strychnine consumption occurs within 10–20 minutes of ingestion. Symptoms of poisoning include anxiety, restlessness, repeated seizures alternating with periods of consciousness, intense pain (as well as hypersensitivity to sensory stimulation, according to the *Merck Manual*), hyperextension alternating with relaxation, wry facial grimacing (known as “risus sardonicus”), lack of ability to swallow & lockjaw symptoms, severe spasms of the back causing arching of the back and head accompanied by rigid flexing of the joints and skeletal fractures caused by the intense muscular contractions. — Eds.

MIMOSA ACTIVE WITHOUT MAOI?

(Vol. VIII, No. 1)

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 Ditrin. 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 *Dutailleya* 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...

— Continued —



EXTRACTION NOTES

(Vol. VIII, No. 1)

COMMON SOLVENTS?

It would be great if someone would write about how to get solvents and acids from common sources like hardware stores. Could someone write a summary that provides brand names and stores that sell methanol and other solvents? It would be great to know the best solvents for the best alkaloids or constituents. I'm particularly interested in highly pure solvents with no additives or poisons. Even lead-rim canned solvents could poison us. Thanks. — TENGU, Japan

EASY EXTRACTIONS?

Some one with chemistry knowledge should present extraction procedures geared towards the viewpoint of the layperson. The chemicals needed would have to be easily available. The most likely sources would be supermarkets and hardware stores.

One approach to extraction, that has not received proper attention, is extraction through precipitation. After first acidic aqueous extracting, then fat extracting, theoretically, one should be able to precipitate the alkaloids by basifying. In this alkaline phase, are the alkaloids in suspension throughout the liquid, or are they gravitating to the bottom of the container? If they are in suspension, one should be able to isolate them through filtration. If they gravitate to the bottom of the container, one could pour off or skim off the liquid, thus leaving the alkaloids on the bottom. This alkaloid layer could have some unwanted matters in it which possibly may be removed by dissolving in an appropriate solvent (polar most likely) then filtering through a fine filter such as lab filters or coffee filters. I have had no luck at any of such extractions. I wish that knowledgeable people would give advice on how to perform this precipitation method such that one gets good results.

There is an urging here for those in the know (in the field of chemistry) to take a *moratorium* on using DMT until the method which laypersons can use is available. *The challenge is made.* The test should be mildly difficult although time consuming.

Methylene chloride, touted as being available from dry cleaners, is *not* available from them. Solvents or anything from metal cans *may* have rust inhibitors mixed in and these rust-inhibitors can be lead-containing compounds. Therefore, only plastic or glass containers are acceptable for chemical tools. Polar solvents available, as I know of presently, are: water, isopropyl alcohol (99%—the 1% water will have to be contended with), alcohol (highest % available from liquor stores—the water will have to be contended with), and acetone (fingernail polish remover). [*Note: Fingernail polish remover often has adulterants that slow its evaporation. If this is the case, it should not be used.* — K. TROUT]

One can buy granulate or powdered ascorbic acid at supermarkets and one can check the brew suppliers for tartaric. Citric acid, as fruit canning color retainer, may be available in some grocery stores. [*Citric acid is also available from brew suppliers.* — K. TROUT] Hydrochloric acid (often labeled muriatic acid) may be available in plastic containers at hardware stores.

Alkaline compounds available are: lye (sodium hydroxide), washing soda (sodium mon carbonate), and generic brands of ammonia water. These are what are available to the layperson. Now, experts, how does one make a smokable DMT extract using these tools? Enjoy your moratorium knowing that you are not alone. — ANONYMOUS

Alkaloid extraction has been dealt with extensively in past issues of *ER*. For extractions of relevance to DMT, see "Some Principles of Alkaloid Extraction" by JIM DEKORNE and "Alkaloid Extraction" by JOHNNY APPELSEED (Vol. 1, No. 2 1992); "A Generic Extraction Formula" by G.W., GA (Vol. 2, No. 1, 1993); "Smokable DMT From Plants, Part II" by JIM DEKORNE (Vol. 3, No. 1, 1994); "Extraction Feedback" (Vol. 3, No. 2, 1994); "Extraction Notes" (Vol. 3, No. 4, 1994); "Extraction Notes" (Vol. 4, No. 3, 1995); "Extraction Notes" (Vol. 5, No. 1, 1996); "Chemistry Matters" (Vol. 5, No. 5, 1996). Also see "Smokable Tryptamines from *Phalaris* Grass Without the Use of Chemicals" by B. GREEN (Vol. 6, No. 3, 1997), which describes a successful "smokable" extraction made using only boiling water. Or see TROUT's NOTES FS-X0 (available from MIND BOOKS, see advert on inside back cover). It is quite clear that many *ER* correspondents have been successful with their kitchen extractions. It is a simple procedure but one that requires the operator adequately understand what they are doing and why, and that the plants actually contain decent amounts of the desired chemical.

Mail-order chemical sources that have been mentioned in past issues of *ER* include:

PYROTEK, P.O. Box 1, Catasauqua, PA 18032 (sells ammonium hydroxide and methylene chloride), catalog \$2.00. Note that these two products should not be ordered together from the same company, nor should any solvent and alkaline compound, as the combination strongly suggests that they will be used together for alkaloid extraction.

HAGENOW LABORATORIES, INC., 1302 Washington Street, Manitowoc, WI 54220. Note that all of the chemicals mentioned in the chart below [not shown] are available from HAGENOW LABS except for ether, heptane, and 95% ethanol (but they do have denatured ethanol).

We have not ordered from PYROTEK, and know nothing about them. We have ordered from HAGENOW LABS; they have been in business for over 45 years and it seems unlikely that they are a DEA sting operation. Nevertheless, anyone ordering chemicals from any mail-order company would be wise to use an untraceable mail drop.

It has been said in a back-issue of *ER* that methylene chloride is "not available in California and [is] no longer use in the dry cleaning industry because [it is] considered [a carcinogen]." While it may not be available from dry cleaners, I have seen methylene chloride offered for sale in CA at a company that sells pool chemicals (and

other chemicals). Other places that I have noticed useful solvents include a latex mold-making supply store, and a plastics supply store. Methylene chloride has been mentioned as a successful chemical for tryptamine extraction. Paint stripper frequently contains methylene chloride, 'though sometimes in combination with methanol, and frequently in combination with a veritable witches' brew of other solvents as well as things like waxes, used to slow down the evaporation rate. In our view paint stripper is totally unsuitable for anything other than a starting material for distilling pure methylene chloride from, which is outside the range of the current question. When allowing pure methylene chloride to evaporate off in a glass dish, we've noticed a white powdery residue. This has caused us and others we know who previously used this solvent for tryptamine extraction to abandon its use. We've no idea what this residue is composed of, but since methylene chloride is a known carcinogen, we have no interest in ingesting products that contain this residue.

This brings up an important, somewhat related point. The industrial grades of solvents that are easily available on a "cash & carry" basis, may well have impurities in them. Prior to using any particular solvent that is being considered for an extraction, it is a good idea to allow a small amount to evaporate off in a glass dish. Check the dish for any residue, such as a white powdery substance or an oily film. (Holding the dish over both a white surface and then a black surface will help one to see any residue that might be present.)

— Continued —

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GROWING *SALVIA DIVINORUM* FROM SEED

by JON HANNA (VOL. VIII, No. 3)

When mature, *Salvia divinorum* seeds (technically mericarps or nutlets) are 1.8–2 mm long, 1(1.2) mm wide, somewhat pyriform, minutely tuberculate, and dark brown (REISFIELD 1993).

At one time it was believed that *Salvia divinorum* did not produce viable seed, and the only manner in which it could be reproduced was by cuttings (EMBODEN 1972; SCHULTES 1972; HEFFERN 1974; MAYER 1977; FOSTER 1984). While this belief is now known to be in error, it is true that *S. divinorum* only rarely sets seed. Those wishing to grow *S. divinorum* from seed face three obstacles: a low seed set, a low germination rate, and a low survival rate.

The first inkling that *Salvia divinorum* did indeed produce viable seed came from the 1973 book *Growing the Hallucinogens*, wherein the author stated that, “This salvia is generally grown from cuttings, but I know of one instance in which it was grown from seed” (GRUBBER 1973).

Then in 1980 while working on his Ph.D. dissertation, LEANDER J. VALDÉS III performed breeding experiments in which he cross-pollinated 14 *Salvia divinorum* flowers (using the “Cerro Quemado” clone and a “WASSON/HOFMANN” clone). 4 flowers were pollinated successfully, and 8 seeds were produced (not 4 as has mistakenly been stated; OTT 1996). A photo of these 8 seeds was published in 1987, the first time that *S. divinorum* seeds had appeared in print (VALDÉS *et al.* 1987). These 8 seeds represent a 14.3% seed set, since each flower has the potential to produce 4 seeds. Unfortunately, these seeds were killed by overheating in a growth chamber, and their viability couldn’t be ascertained (VALDÉS 1983).

AARON REISFIELD was the next person reported to attempt pollination experiments. Self-pollinated plants with 108 flowers produced 11 seeds—a 2.5% seed set, and his cross-pollination of 190 flowers produced 24 seeds—a 3.2% seed set (REISFIELD 1993). Clearly it is difficult to get *Salvia divinorum* to produce seed. It has been noted that since the anthers and the pistils of a single flower appear to mature at different times (a way for a flower to prevent self-pollination), that this must be accounted for when hand-pollinating flowers...

— Continued —

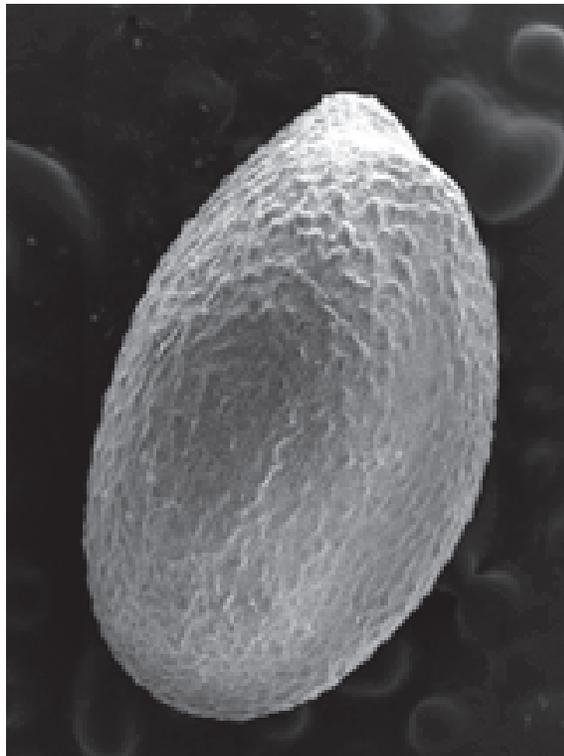


Figure 4: A 200 micrometer shot showing an entire *Salvia divinorum* seed. Photo by Michael Dunlap, University of California Chemical Engineering and Material Science.

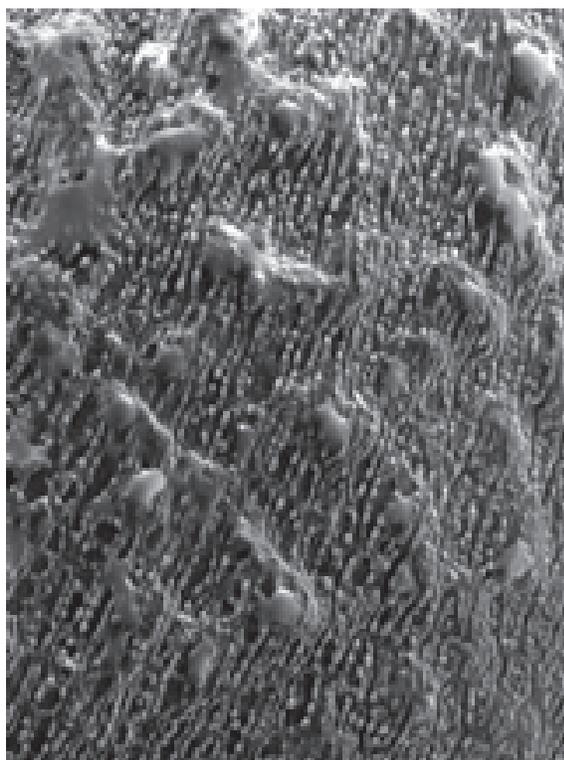


Figure 5: A 50 micrometer section of the surface of a *Salvia divinorum* seed. Photo by Michael Dunlap, University of California Chemical Engineering and Material Science.

TERENCE MCKENNA SPEAKS...

Interviewed by JON HANNA and SYLVIA THYSSEN at the 1999 ALLCHEMICAL ARTS CONFERENCE

(Vol. VIII, No. 4)

Photo by JON HANNA



SYLVIA: Certainly we wanted to ask you first off about the experience you've been through lately with your brain tumor; how that's affected you, and how you feel about it.

TERENCE: Well, it's been an experience. It's not yet defined, so that makes it a little difficult to judge. I mean, is it the bad summer of '99, or is it the end of everything? And it won't be clear for a while. It was *bad* enough as "the bad summer of '99." The good news is that I discovered I don't really think that I'm afraid of death, which I assumed I would be. I am a little concerned about dying, and would like to get a little more clear just what's involved in that. It's a *huge* inconvenience, I have to say...

JON: Do you feel as though your experiences with entheogens have prepared you, or paved the way for an attitude that lacks the fear when facing death?

TERENCE: I assume that must be it. I assume it must be spending so much time in those psychedelic places. The way I think of it, is that the analogy is to physics. I mean biological death is the black hole for organisms. All it means is, you know, when you go into that black hole, no information can be sent back. There is no way of judging what actually happens. Every culture on earth has *assumed* some kind of survival after death in some form. I don't particularly assume that. On

the other hand, given that people exist in this world, embodied, anything could be possible. And these deeper psychedelic cultures—you know the Mayan, Tibetan, and so forth—seem to come up with the *data* that we should assume this kind of survival after death. But to imagine it in any way is pretty difficult. Maybe life is some kind of distillation through higher dimensions. But it certainly is... we are certainly three-dimensional, and it's very hard to imagine us as two-dimensional beings, with a space/time that's three-dimensional...

But, I would assume that *most* psychedelic people, being told they had six to nine months to live, would behave pretty much as I have behaved. I mean, what else? What are you going to do? You can't rant and rail. There are different things to be done on *this* side. What should you do? Should you do everything that you always wanted to do and didn't do? So that means I should be flying to Florida to see a shuttle launch, on my way to see the great pyramids, on my way to Ireland, on my way to somewhere else? Or do you want to become a cure chaser, flying to the arms of JOHN OF GOD in São Paulo, who does psychic surgery on 14,000 people a day? Or do you just want to go home and do "why meism?" And one thing I have learned, or I'm learning—I think I'm learning it—is that your life is not a story. So when something like this happens to you, it's kind of futile to go back through your life and ask, "What did I do wrong? Was it playing with the asbestos dust in the construction yard? Was it the carbon tetrachloride used to kill the butterflies? Was it daily *Cannabis* for 28 years?" (laughs)

JON: Your last point is something that one person on the 'net brought up to me, when discussing your situation. He asked, "Geeze, you don't think that it was the psychedelic drugs that TERENCE used, do you?" And it just doesn't *really* seem like it would be to me. There doesn't seem to be any indication that would point to that. Otherwise there would be a whole lot more of us with brain tumors.

TERENCE: And when I got with these cancer doctors I said, "Look, if you want to guilt-trip me, that's fine. What about the drugs?" And they all said, "No! Oh my God, what..."

— *Continued* —



SOURCES

by WILL BEIFUSS & JON HANNA

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JODY HORD

**1430 Willamette Street, #4
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JODY HORD's main product is a "5x" standardized extraction of *Salvia divinorum* leaves. HORD makes the following claim: "The active principle from five grams of dried *S. divinorum* leaves is extracted and applied to one gram of dried leaf." Both WILL and I have tried this extract, and found it to be quite effective. I've had a hard time feeling any effects from numerous preparations of *S. divinorum*. My most intense effects to date have been from using this extract. \$20.00 per gram, postpaid. HORD also sells dried *S. divinorum* leaves, organically grown in Hawai'i; \$20.00/7 gm, \$30.00/14 gm, \$55.00/oz—postpaid. Payment must be made with cash or a money order with the "pay to" space left blank (no checks are accepted).

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OM-CHI HERB COMPANY

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Eugene, OR 97405

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The OM-CHI HERB COMPANY offers a lot of different herbs as well as some fairly unusual products: antelope horn, buffalo horn shavings, chicken-gizzard skin, cicada fungus, deer antler gelatin, deer tail, donkey hide gelatin, gecko lizard, hornet's nest, scorpion, sea horse, and silkworm excrement. What, no eye of newt?

Nevertheless, there are a few items of interest; betel nut, *Ephedra* herb, *Ginkgo* leaf, *Salvia divinorum* leaf, *S. splendens* seed, and *Voacanga africana* seed. Seed packets are generally \$2.00. Check their web page for their latest offerings and prices.

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PURE LAND ETHNOBOTANICALS

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We are impressed with the huge selection PURE LAND offers, as well as their wide array of extracts, liquid concentrates and essential oils. Their catalog is \$3.00 They do not have a web page yet but are working on it. They only accept payment in postal money orders.

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THE PERUVIAN JOURNEY offers a few seeds and plants of interest, including *Argyrea nervosa* (seeds: 10/\$3.00, 20/\$5.00, 50/\$10.00), *Artemisia absinthium* (seeds: packet/\$3.00, 2 packets/\$5.00; plants: 1/\$7.95, 6/\$29.95), *Brugmansia* sp. (seeds: packet/\$5.00, 10 gm/\$29.95, 100 gm/\$199.95), *Desmanthus illinoensis* (seeds: 1 gm/\$2.50, 5 gm/\$5.00, 20 gm/\$10.00), *Echinacea angustifolia* (plants: 1/\$4.95, 6/\$19.95), *Hypericum perforatum* (seeds: packet/\$3.00, 2 packets/\$5.00; plants: 1/\$7.95, 6/\$29.95), *Ipomoea violacea* (seeds: 50/\$3.00, 100/\$5.00, 500/\$20.00), *Leonurus sibiricus* (seeds: packet/\$5.00), *Lippia dulcis* (plants: 1/\$7.95, 6/\$29.95), *Melaleuca alternifolia* (plants: 1/\$14.95), *Papaver somniferum* (Chinese or Persian seeds: 1 gm/\$2.50, 3 gm/\$5.00, 10 gm/\$10.00), *Peganum harmala* (seeds: 10 gm/\$2.50, 30 gm/\$5.00, 75 gm/\$10.00; plants: 1/\$7.95, 6/\$29.95)...

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