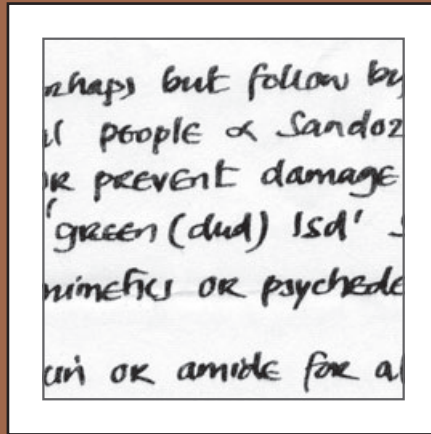


# Erowid Extracts

DOCUMENTING THE COMPLEX RELATIONSHIP BETWEEN HUMANS AND PSYCHOACTIVES

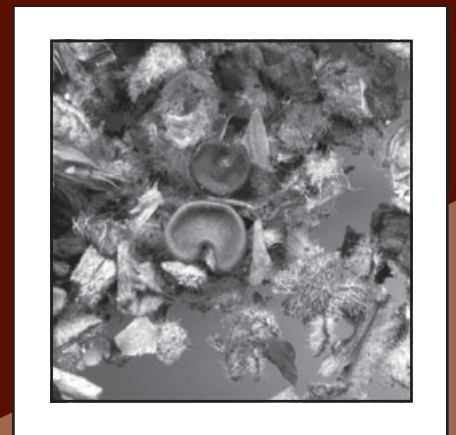
June 2009

Number 16



*"To achieve great things,  
two things are needed;  
a plan, and not quite  
enough time."*

*—Leonard Bernstein*



Spice and Spin-Offs • Fundamentals of Responsible Psychoactive Use  
The Stolaroff Collection: A First Look • *Salvia divinorum* and Vaporizers

Thank you for the awesome site, the wonderful philosophy, and the great work. I have to say that I'm not the type of person to donate to much of anything, but you truly do things the right way and that should be supported.

— J.S.N.  
*Erowid Member*

Thank you so much for all that you do. Last semester I started a graduate program in drug chemistry and I've found it all but impossible to find unbiased information on the subject matter outside of your site. I can never repay your contribution to my educational success. I'm the only person in any of my classes representing a non-fascist orientation to these topics. Thanks so much!

— K.K.  
*Erowid Member*

Your work is incredible, an essential part of bringing knowledge to a field that was once only populated with rumor and superstition—the most dangerous places to make policy from. Thank you for everything you do.

— M.V.  
*Erowid Member*

I'm currently studying for a degree in medicinal chemistry, which I hope to eventually turn into a PhD in psychopharmacology. What do I want to do with that? I'd like to critique medicines for their actions on so-called "mental illnesses", and hopefully create better drugs. An alternative to that would be to develop better therapeutic tools to reduce the use of drugs that are currently far over-prescribed in my opinion. I'm all for the recreational use of drugs, but I prefer to use them as a chance to improve myself and my ideas of the world around me rather than just "getting high". I'd like to take the time to say, you guys do an amazing job with Erowid, and if it weren't for the Internet and the vast amounts of knowledge available to us these days in such an easily available format I'd probably be spending my time doing something amazingly boring, like accounting.

— PHILIP LAWSON  
*Email to Erowid*

Thank you, from the bottom of my pulsating, four-chambered heart.

— E.J.B.  
*Erowid Member*

Will we ever be free? The availability of knowledge is our greatest defense against those who would take our freedoms. Thank you.

— D.P.  
*Erowid Member*

I think you guys are doing a wonderful thing with Erowid, it's been my bible for the past few years. I think people should definitely have access to such extensive, impartial information on the subject of psychoactives; I honestly believe you guys are doing the world a huge favor. Keep up the good work!

— TONY CORTESE  
*Email to Erowid*

Think about how many young people's lives you have destroyed due to your bold escapades. My son is in a mental hospital tonight and I am sure it is not coincidental that he was on your site all last night and into the morning.

You will rot in hell of that I am sure  
Your spirit is evil not pure  
I despise you  
and vomit your entire being  
into the toilet of infinite chaos

You will pay for your sins  
Not through any violence  
But by bad karma  
that will come home to roost

I have opened up a can  
of whoopas for you  
And there is nothing for you to do  
Except wait for it to arrive  
Not a threat  
Just the truth

— R.M.  
*Email to Erowid*

Erowid is an excellent informative and objective encyclopedia of psychoactives, and I support the continued operation of Erowid entirely.

— D.R.  
*Erowid Member*

As a new member I was thrilled to find *Erowid Extracts* as level, intelligent, and informative as the website I have come to rely on and enjoy so much over the last six years or so. I am a firm believer that the pursuit and communication of knowledge is the most noble of human objectives, and that any knowledge contributes to the collective and individual wisdom that gives our lives purpose.

So good for you! I really respect and admire your gutsy contribution to our collective wisdom; you deserve to take great pleasure in the addition you make to the growth, experience, comfort, and fun of others (even if they don't know it, like our angry friend in the Letters page!). It is impossible to do harm by sharing wisdom...

— ALEX LINEGAR  
*Email to Erowid*

Send correspondence to:  
**[extracts@erowid.org](mailto:extracts@erowid.org)**

Please include your name,  
title, and city/state/country of origin  
to be published with your letter.  
Letters may be edited  
for length and clarity.

## ERRATA

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In the November 2008 issue of *Erowid Extracts*, the article about Energy Control erroneously gave the group's founder's name as Josep Roura; the correct spelling is Josep Rovira (page 16). On the same page, the statement "The '2C-B' was usually 2C-B, but sometimes it was LSD" should have read "The '2C-B' was usually 2C-B, but sometimes it was MDMA." Also, Madrid should have been included among the governments that have given small grants to Energy Control (page 17).

In the June 2008 issue, the date of publication on the masthead was inaccurately printed as "November 2008" (page 1), and the title of the article "In Memoriam" was misspelled "In Memorium" (pages 1 & 21). Ouch.

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EROWID CENTER is a non-profit educational organization working to provide free, reliable, and accurate information about psychoactive plants, chemicals, practices, and technologies.

The information on the site is a compilation of the experiences, words, and efforts of thousands of individuals including educators, researchers, doctors and other health professionals, therapists, chemists, parents, lawyers, and others who choose to use psychoactives. Erowid acts as a publisher of new information and as a library archiving documents published elsewhere. The collection spans the spectrum from solid peer-reviewed research to creative writing and fiction.

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## Erowid Extracts

Number 16, June 2009

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Know Your Body  
Know Your Mind  
Know Your Substance  
Know Your Source

# Recent News & Updates

## Possible Mephedrone Deaths

At least two deaths in Scandinavia have been speculatively linked to “mephedrone” (4-methylmethcathinone) in the last fourteen months. In April 2008, 18-year-old Kenneth Nielson, from Denmark, went into convulsions and was taken to the hospital, after taking an unknown substance. After a week in a coma, he died. Police originally believed Nielsen’s death was the result of a methamphetamine overdose, but began to suspect 4-methylmethcathinone may have been involved after learning that he had been in possession of the chemical. Toxicology reports were inconclusive.

In December 2008, an 18-year-old Swedish woman reportedly under the effects of cannabis (hash) and 4-methylmethcathinone began to convulse, lost consciousness, and stopped breathing. The media reported cardiopulmonary and mouth-to-mouth resuscitation were initiated until she could be transported by ambulance to the hospital, where she died two days later. Toxicology results have not been publicly released.

4-methylmethcathinone is similar in structure to cathinone (found in the *Catha edulis* plant) and methcathinone, both Schedule I chemicals in the United States. Its effects have been likened to cocaine, MDMA, and amphetamines, and it can elicit compulsive redosing in some users.

In the United Kingdom, mephedrone and two related chemicals (methyloone and butylone) have been sold as “plant food” in head shops and online, sometimes with the ingredients listed simply as “ketones”.

A variety of novel research chemicals with a short history of use and little information about their potential adverse effects will continue to be available to the public for the foreseeable future. Hopefully, drug education efforts can focus on measures to improve safety and protect users. ●

[Erowid.org/4\\_methylmethcathinone/](http://Erowid.org/4_methylmethcathinone/)

## New Dutch Mushroom Law

On December 1, 2008, new restrictions on psychoactive mushrooms were enacted in the Netherlands. The list of regulated species appears to have been sourced from a decade-old article, by psychoactive mushroom experts Guzmán, Allen, and Gartz, which attempted to list all species that contain psilocybin or psilocin.<sup>1</sup>

In their article, Guzmán et al. speculatively included species that are now known to be inactive. In addition, over a dozen known psychoactive species were not named, in some cases because they had not yet been discovered. This means that Dutch mushroom growers could be prosecuted for cultivating certain inactive species, while other psychoactive species remain legal. According to the Dutch department of public health, grow-kits, sclerotia, and spores are not illegal, and the minister of health has no plans to legislate against such products.

In one curious twist to the regulations, while *Psilocybe cyanescens* are illegal to possess, they are also a protected species, which means that they are illegal to remove from a property if they are growing wild. Another strange facet of the new law is that it includes *Amanita muscaria* and *A. pantherina* mushrooms, but does not restrict their active chemicals. This is one of the few examples in the world of legislation where a psychoactive is legal as an extract or pure compound, but illegal in its natural form.

Dried mushrooms are now considered “hard drugs” and possession of more than 0.5 grams can be prosecuted; fresh mushrooms are now considered “soft drugs” and possession of more than 5 grams can be prosecuted. ●

[Erowid.org/mushrooms/law](http://Erowid.org/mushrooms/law)

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## Women’s Visionary Council

The Women’s Visionary Council (WVC), a new organization focused on women and entheogens, has received IRS approval as a tax-exempt non-profit. This status solidifies the vision of the six-year-old Women’s Entheogen Fund, and represents a big step in its work promoting discourse on and research into nonordinary states of consciousness. The scope of the WVC’s charitable mission includes the preservation of culture and knowledge about entheogenic substances, educational efforts toward a more sensible societal relationship with entheogens, and research into protocols and practices that harness the power of visionary states. The organization’s focus on women working in related fields addresses a niche that has previously received little attention. Annie Harrison, Carolyn (Mountain Girl) Garcia, and Mariavittoria Mangini are its founding board members.

The second annual Women’s Visionary Congress, hosted by the WVC, was held at Wilbur Hot Springs, CA, in October 2008. Its theme, “Descending the Mountaintop: Visionary Insight in Action”, reflects the organization’s founding ideals. Speakers included Allyson Grey, Cindy Palmer, Val Corral, Annie Mithoefer, and many others. A third Congress is scheduled to take place at Black Oak Ranch in Laytonville, California, October 2–4, 2009. Information about the conferences can be found at [VisionaryCongress.org](http://VisionaryCongress.org).

Approval as a 501(c)(3) non-profit organization permits donors to make tax-deductible contributions, and lends institutional weight to the founders’ vision. The Women’s Visionary Council invites those who value its mission to donate financially, or simply to take time to honor and acknowledge the important contributions of contemporary women working in the field of entheogens and visionary states of consciousness. ●



# Salvia divinorum and Vaporizers



Do vaporizers work with *Salvia divinorum*? One friend of mine swears that they are effective, and another friend says that they don't work at all.

Numerous vaporizers, designed to minimize smoke inhalation and health risks, have been marketed in recent years. Models include the electric Volcano and Easy-Vap, as well as the flame-powered VaporGenie. Detailed analysis of cannabis vapor produced by the Volcano confirmed that it vaporizes cannabinoids while generating significantly fewer toxins than burning.<sup>1</sup>

Vaporizers are able to release THC from cannabis without creating smoke because the boiling point of THC—about 200° C (392° F)—is significantly

might be the result of pyrolytic decomposition rather than the actual boiling of salvinorin A. To vaporize salvinorin A, it need only be heated to just past its melting point, and with sufficient airflow, it will completely vaporize with no significant decomposition. Based on my own experiments using an adjustable thermocouple-controlled heat gun, I found that the ideal airstream temperature for vaporizing salvinorin A from dried leaves is approximately 277° C.<sup>5</sup>

Unfortunately, 277° C is well beyond the maximum temperature of the VaporGenie's advertised range of 107–190° C (225–375° F),<sup>6</sup> and also above the Volcano's advertised maximum of 230° C (446° F).<sup>7</sup> The Volcano runs hotter than some other electronic vaporizers, such as the Easy-Vap, which advertises a maximum temperature of only 204° C (400° F).

Nevertheless, a small informal poll of vaporizer users indicates that the Volcano is able to at least partially vaporize salvinorin A, with most users achieving effects by setting the unit to its maximum temperature. It may be that the actual maximum temperature exceeds what the manufacturer advertises.

The commercial vaporizers most effective with *Salvia divinorum* are those that employ a variable temperature heat gun as the heat source. One example is the Steinel HG 3002, which has an LCD temperature control adjustable in 10° F increments (120–1100 °F). Such heat guns allow the appropriate vaporization temperature for salvinorin A to be selected.

Two important safety notes: Because it can be easier to obtain strong effects when vaporizing instead of burning, extra care must be taken

when selecting and measuring doses. And, Siebert cautions that inhaling hot air can be irritating and potentially damaging to the lungs.<sup>5</sup> Vapor produced by a heat gun needs to be cooled by running it through a water pipe or cooling chamber before inhalation.

The failure of most commercial cannabis vaporizers to successfully vaporize salvinorin A was described to Erowid as a challenge by one lab considering human research into the effects of *Salvia divinorum*. After looking into this issue, it appears that this challenge could be overcome by using a variable temperature heat gun, although additional testing would be required to show that temperatures are consistent enough for research purposes. ●

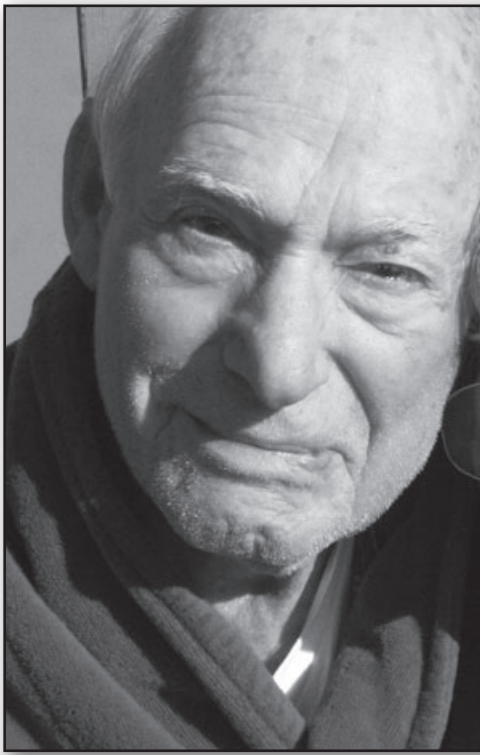
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## The commercial vaporizers most effective with *Salvia divinorum* are those that employ a variable temperature heat gun...

lower than the combustion temperature of the plant material.<sup>2</sup> However, the melting point of salvinorin A, the principal psychoactive chemical in *Salvia divinorum*, is significantly higher at 238–244° C (460–464° F).<sup>3,4</sup> According to *S. divinorum* expert Daniel Siebert, the boiling temperature has not yet been conclusively determined. He notes:

When this compound is heated beyond its melting point, it gradually evaporates. The rate of evaporation increases with temperature. It can evaporate quickly and completely without ever actually boiling—a process known as sublimation. When rapidly heated at high temperatures, bubbling does occur, but the compound quickly discolors, turning brown. This bubbling



# A TRIP INTO PSYCHEDELIC HISTORY

## through the archive of Myron Stolaroff

by Jon Hanna

MARCH 2009, LAFAYETTE TO LONE PINE — During the eight-hour drive, radio selections eventually trickled to a “choice” between Spanish accordion stylings and the rantings of born-again preachers. Unfortunately, I had not brought any music cassette tapes with me. Fortunately, Sasha Shulgin rode shotgun, regaling me with chemical musings, rattling off countries’ names in alphabetical order (when possible) from north to south, and cracking wise. Next time I’ll know to read *The Merck Index*, an atlas, and a few joke books before we depart in order to keep up. Earth recently commented to me—and I agree it is quite true—that a key part of Sasha’s

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**We were off to spend time with a couple of psychedelic pioneers: Myron and Jean Stolaroff.**

---

personality, missed out on by people who have never met him, is his sense of humor. Those looking for a quick lesson are a mere thumb-pull away. Traveling with Sasha is a hoot.

Two vans transported Sasha and Ann, their assistant Tania, a long-time friend, me, and coolers full of wine and food. We were off to spend time with a couple of psychedelic pioneers: Myron and Jean

Stolaroff. While the Shulgins said it had been only a few years for them, it had been twelve years since I’d last made my way to the incredibly surreal landscape near the Alabama Hills of California where the Stolaroffs live. Comprised of ninety-million-year-old rounded granite boulders and red-orange volcanic rock, the Alabama Hills look like ancient entities guarding an otherwise deserted landscape. Spring wildflowers were just starting to bloom. Nearby, a drying-up lakebed glowed with a white band of salt. Snow-capped mountains loomed surprisingly close, topping off an environment of mystical extremes.

Tania and I have wanted to interview the Stolaroffs and the Shulgins together on video for a while now. But this trip, and our oversized vehicles, also had another purpose: to collect for scanning—and eventual publishing through Erowid—

Myron’s vast archive of letters, writings, and ephemera related to his research into the effects of psychoactive drugs on human consciousness. As

we sorted through the papers housed in a dilapidated outbuilding (photo at right), Tania and I felt like kids in a candy store. While flipping through the documents was a trip down memory lane for the Shulgins, for us younger folks, it was history coming alive.

An engineer by training, Myron was a fastidious record keeper. Not only were the letters he had received from research

colleagues all saved and filed (including quite a number of missives between others that had been forwarded to him), but there were also carbon copies of what he had written to others tucked in beside these. He even went so far as to print out his sent and received emails! Communications regarding psychedelics stretched back as far as the late 1950s. A bounty of correspondence relates the inner workings of Myron’s International Foundation for Advanced Study (IFAS) in Menlo Park, where, in the early 1960s, carbogen, LSD, and mescaline were given to hundreds of subjects, and studies into the effect of psychedelics on creative problem solving showed great promise.

One of the first boxes of materials that we began to read through was a series of letters between Myron and his main compatriot in the IFAS project: the mysterious and controversial Al Hubbard. Considered by many to be the “Johnny Appleseed of LSD”, Hubbard was infamous for jet-setting around the world to introduce people to LSD, and known for his promotion of carbogen as a pre-psychedelic “fitness test”. The communications between Myron and Al, as well as their letters to others working with psychedelics, present a chronology of initial enthusiasm, struggles for legitimacy, and eventual disappointments.

### Questions...

Surprisingly, even early on, concerns about the purity of their chemicals surfaced:

“We are now using some of the most recent stuff that we last received. When you open the ampoules, a white precipitate forms, which makes it very difficult to extract with a syringe. I hope there is nothing wrong with the material” [*Myron to Al and Rita Hubbard, October 10, 1961*].

### ...and Conflicts

Over time, conflicts between assorted personalities in the scene began to appear in communications: “[Michael Hollingshead] is thoroughly dishonest, and a most convincing liar” [*Al Hubbard to Humphry Osmond, February 19, 1963*].

Differences in approach are highlighted in a February 28, 1963 letter, wherein Myron thanks Timothy Leary for his hospitality during a visit, and for the use of Dick Alpert’s “excellent bed,” before castigating Leary for the approach that he planned to take with his International Federation for Internal Freedom (IFIF). Many have, in retrospect, bemoaned that Leary’s actions brought an end to the above-ground study of psychedelics. Myron’s comments, however, hit this target before scandal erupted at Harvard:

Having had a chance to more carefully gather my thoughts...I thought it best to dash them off to you, so as to leave no doubt whatever as to my position. Not that I have any ideas that this will

accomplish anything, as I am convinced that you will go ahead and proceed with your program regardless of what anyone else thinks.

I already told you when I saw you that I thought the moves you were contemplating with IFIF are insane, and would wreak tremendous havoc on all of us doing LSD work all over the nation. Now after a few days of reviewing the data in my own mind, and weighing out the relative consequences of various moves, I wonder how you ever got any data anywhere that would indicate any possibility of success?

The letter continues in a similar vein. In just over two months from the time Myron wrote those words, Leary was fired from Harvard for failing to keep his classroom appointments. Later, a June 6, 1963 letter from Humphry Osmond to Al Hubbard remarks:

My concern that you [should] inform Leary is to ensure that he gets every opportunity not to use his dud LSD25. I doubt whether he will take any notice of you or me, but he must have the chance & those around him may at least hear, & someone might avoid a nasty accident. By telling him[,] it will be clear that you have given him every chance to stop. This might be important at a later date. Aldous [Huxley] tells me that he has passed on the content of my letter. (to Tim Leary) He is going to inform anyone he comes across to steer clear. The result of some of these dud substances used by inept people can be so serious that even if only one such misfortune is avoided it will be worthwhile. Leary’s mail order drug scene suggests the very poorest judgement & can only do harm.

The “dud” LSD to which Osmond refers was an early underground preparation that was heavily diluted, strangely green in color, and of unknown purity. Osmond, Hubbard, and others

were concerned that it may have been responsible for an exaggerated number of bad trips that had been reported since it appeared on the market. Regarding this material, Hubbard remarks in a June 17, 1963 letter to Osmond:

...we knew that the black market material was indeed questionable, and [Alan] Watts was using it and giving it to others. Now in my opinion he is no more worthy of consideration than anyone else.

---

### Over time, conflicts between assorted personalities in the scene began to appear in communications...

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### Black Market LSD Prices

A later letter, from Hubbard to Albert Hofmann, informs LSD’s inventor of the diversion of some Sandoz material that had been sent to the researcher John Beresford. A portion of the 20 grams of acid that Beresford purchased was later sold into the black market at a price of \$70,000 per gram. Around that time, IFAS was paying \$5 each for ampoules containing 0.1 mg in 1 ml of solution (or \$50,000 per gram).

Eventually, IFAS itself began looking for sources of LSD other than Sandoz to supply its ongoing research efforts. Hubbard first turned to the Spacet Corporation in Italy. But after investors put up \$350,000 for an LSD purchase from Spacet, an IFAS chemist determined in 1964 that the material was “not LSD nor anything like LSD.” Later, Hubbard sourced pure LSD from Chemapol in Czechoslovakia, placing a \$2,300 order for 5,000 ampoules; in the process, he secured an appointment for himself as Chemapol’s representative in Canada.

### Hubbard Jumps Ship

In February of 1965, Al Hubbard submitted his resignation from his position as consultant to IFAS—largely due to personality conflicts with IFAS’s medical doctor, Charles Savage. Hubbard left the organization owing Myron nearly \$100,000 (after Myron had *already* contributed over \$200,000 toward Hubbard’s work with LSD). Al owed





others additional money as well. As time passed, bank notices to Myron about Al's outstanding debts started to trickle in, asking for help in obtaining the funds from Hubbard.

Although he had left IFAS, Hubbard continued to work in the field, keeping up a correspondence with Myron and other notable individuals. Also in Myron's collection of papers is a January 20, 1967 letter from Hubbard to Governor Ronald Reagan, thanking Reagan for inviting him to a ball where they spent time together and briefly touching on the topic of the illegal drug trade, opining that students who are dealing dope can certainly afford to pay their university fees.

As the 1960s drew to a close, legal restrictions worldwide put an end to research involving scheduled psychedelics. Eventually realizing that Hubbard had no intention of repaying what he owed, Myron assumed an \$83,000 debt that Hubbard had borrowed from their mutual friend and project investor, Bob Morris. In doing so, Myron cut his ties with Al. In a final letter, dated December 3, 1975, Myron writes:

If you are wondering why in the world I would assume your rightful debt, the answer comes in recognizing the depth of repugnance I feel for having been so utterly gullible, and having been a party to some of the awful abominations that were perpetuated on other people. I hope to leave this plane with a clear conscience.

Al Hubbard died in August of 1982. At dinner one night during our visit to the Stolaroffs, Sasha revealed that he had actually hesitated in getting to know Myron at first, because of Myron's association with Hubbard, whom Sasha distrusted from the start. Yet even though Myron described Al as "an expert in discerning one's weaknesses, and playing upon them to advantage," and despite the harsh words quoted above, Myron clearly also remembered Al fondly. He has remarked that, "Hubbard made a deeper impression on me than anyone I

had ever met. It was an impression that radically altered my whole value-belief system,

LSD ampules: 1574  
 at \$5 ea. = 7,870  
 LSD pills: 450 @ \$1.25 = 562.50  
 Mescaline Sulfate:  
 144 grams  
 186 200g Capsules  
 89 1g Capsules  
 25 1g Capsules  
 192.6 grams @ \$25/g = \$4,815.  
 \$13,247.50

and completely changed the course of my life." Myron's fond feelings about Al are a reminder that even after friends have a serious falling out, they may still recall the good parts of their relationship as well.

### A Varied Collection

Along with some handwritten notes detailing how much money the IFAS spent on what quantity of which psychedelics, a few choice photographs were scattered among the letters and postcards: a handsome young Myron in a white shirt (below left), a shot of Myron and Al Hubbard mowing a lawn (below center), and some pictures with Al's wife Rita (above right).



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 BOX 1000  
 PRINCETON, NEW JERSEY  
 20 May 63  
 cc. MR. Myron Stolaroff

My dear Al,  
 Delighted to have news of you from Myron just now & to hear that you are safely home. I had been hoping you might be in New York on your way back.  
 You seem to have done a fine job in getting Albert Hoffman to take a look at the "green LSD" from these birds. I see that adrenalin-like compounds were found with the LSD - very curious.  
 I suppose that we should ask ourselves what were these birds up to?  
 There is one obvious thing - making some money - but we have to account for the adulterated product. Myron suggested a "hooking" device for naecotics which is possible. But there is another possibility which we might try with, & see where it leads us.  
 Sandoz says that few people can make LSD & they probably know. The military have certainly been engineering into LSD & if they have would be interested in a "stable LSD". Myron tells me:  
 i) that Albert Hoffman is quite sure that his LSD does deteriorate after prolonged exposure to the air  
 ii) that the LSD peddlers who sold the "green LSD" were sure theirs did not. In other words they had a "stable LSD".  
 This would suggest - no more - that the man who made  
 I must congratulate you & urge you to warn Leary, Jane & all the family, should well. Seemly from soon  
 Cuz Humphrey





One file folder in Myron's collection contained nothing but newspaper clippings from June of 1962 describing a lawsuit instigated by a 52-year-old man, Don McCullum, against his church pastor, Rev. Ray C. Jarman, and Myron. At the pastor's suggestion, Myron had administered LSD to McCullum to treat him for emotional disturbances that he had been complaining about. After taking LSD, McCullum first became suicidal and then became litigious, slapping Jarman and Stolaroff with a \$500,000 lawsuit. Unfortunately, none of the clippings detailed how the suit turned out in the end—though perhaps we will find out more in the many reams of documents that have yet to be perused and scanned.

Myron's collection includes a wide variety of materials: brochures, IRS filing information, organizational financial statements, book drafts, conference catalogs, off-prints of IFAS articles (and postcards requesting off-prints),



assorted magazines (*The Psychedelic Review*, *IONS*, *Noetic Sciences Review*, *The Entheogen Review*, to name a few), numerous books, and a box with reel-to-reel cans filled—at least in some cases—with recordings made during IFAS clients' psychedelic experiences. One exciting find was a couple of boxes that used to contain ampoules of Sandoz Delysid LSD (below left).

A more bulky artifact was Myron's old carbogen tank; only a trickle of gas remained (below right). We came across several drafts of an unpublished fictional manuscript titled *To Foil Armageddon* that Myron wrote under the pseudonym Rudyard Abrams. And, Sasha got a laugh out of a condom slingshot stuffed in among the papers.

Leafing through Myron's files, moving from the 1960s into the 1990s, I was tickled to see some of the first letters that I had ever written to him. As I came across these and more recent missives from other Erowid editors and colleagues, my initial instinct was to dismiss them as less important than the material from the 1960s. But then it occurred to me that this contemporary correspondence is also a part of psychedelic history. Some day, for someone, these letters could hold the same sort of intrigue that the earlier materials hold for me. Years may pass, but the interest in psychedelics, as well as the interpersonal drama surrounding the shifting cast of characters, continues.

### Bringing it Home

Tania and I loaded my van full of boxes of papers, sad that the time had come to leave. We thanked Myron and Jean, wished them well, and expressed our hope to return for another visit in the not-too-

distant future. The trip back home seemed to go a bit faster, despite stopping at the Andersen's Split Pea Soup restaurant for a bite to eat.

A few days later at my house, Earth and Fire joined Tania and me to rough-sort the documents from the Stolaroff Collection, filling 14 plastic file boxes. Four additional file boxes were filled, marked for return to Myron and Jean after determining that the materials were either duplicates or not of interest. Erowid's shipping goddess, Bläk, then prepared a small "first batch" of items for scanning by placing the letters into chronological order, tagging each with a unique identifying number, and creating a catalog of short descriptions for each item.

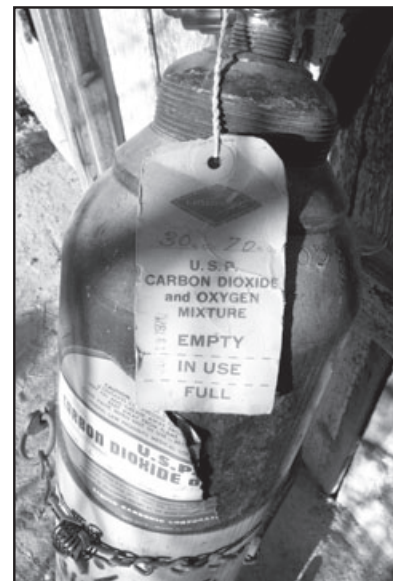
There is an immense amount of work left to do, to catalog, scan, and archive the Stolaroff Collection. Erowid is seeking

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**There's an immense amount of work left to do, to catalog, scan, and archive the Stolaroff Collection.**

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targeted donations to support this project so that we can make this fascinating slice of psychedelic history available to the public. If you would like to help, please see [Erowid.org/donations/stolaroff](http://Erowid.org/donations/stolaroff). As the project continues, we will publish updates in future issues of *Erowid Extracts*. ●



# Fantastic

by Lynskey

## An Experience with *Anadenanthera* spp. Seeds

After a good eight-year break I suddenly got the itch to have a psychedelic experience again. Not being able to get anything nefarious, I looked online to see what was available legally. I decided on yopo [see sidebar], although I was very nervous about the nose burn and vomiting. I received a package of seeds and some edible lime (calcium hydroxide) in the morning and decided to have a test-run in the afternoon. I had eaten a bacon sandwich and had a cup of coffee in the morning and had no lunch, so I was pretty close to having fasted beforehand.

I read a lot of information online and found a report on Erowid from YopoYoyo who claimed to never have any nausea. I roughly followed his method. For my first try I wanted to see if they worked, which was a bit stupid; of course they work. I chose one of the smallest seeds in the packet. Instead of heating it on the stove, I put it in a covered bowl in the microwave for one minute. I presumed this to be enough, I couldn't hear if the seed popped or not due to the noise from the microwave. When I got it out the shell came off really easily. I separated

the inner material from the shell, not being too concerned if some of the inner material was lost, as this was going to be a trial run.

I didn't have a mortar and pestle or coffee grinder, so I used the back of a teaspoon, which seemed to work okay. I added enough edible lime to what looked to be a third of the yopo material. I worked this together with the spoon. I then added a couple of drops of water to the mix. This seemed to be too little, so I tried again and overdid it, leaving it very wet indeed. I put the wet mixture back in the bowl and microwaved it for thirty seconds. It looked dry enough but to be sure I gave it another thirty. I then let the mixture sit for ten minutes, just to be sure it was completely dry.

The mixture was now completely dry so I took it upstairs into the small room where I have my computer and music instruments and prepared to snort it. Looking down at the brown grey powder, I had second thoughts about snorting it. Frankly, I completely chickened out. I then Googled to see if you could smoke the fine powder and decided to get out my wooden pipe, which hadn't seen any use in years. I reasoned that, since this was a test dose, any possible failure wouldn't matter too much.

I made a gauze [screen] from kitchen foil and found the smallest width pin I could from my girlfriend's collection (thank heavens for having a girlfriend

who's really into crafts). Thinking that the powder would fall through, I made most of the holes around the top of the gauze. I put the powder inside and then took a toke whilst sitting at my computer desk. It was a very small and nervous toke. I wrote down what I was feeling at the time. Those writings I'll put in parentheses.

**T +00.01** (*definite legs heavy—heartbeat fast—slight momentary pressure on chest*)

I remained sitting at my computer. Something was definitely happening but

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**Looking down at the brown grey powder, I had second thoughts about snorting it. Frankly, I completely chickened out.**

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the effects were physical and mixed with my nervousness.

**T+00.02** (*slight vision vibration—brighter colours*)

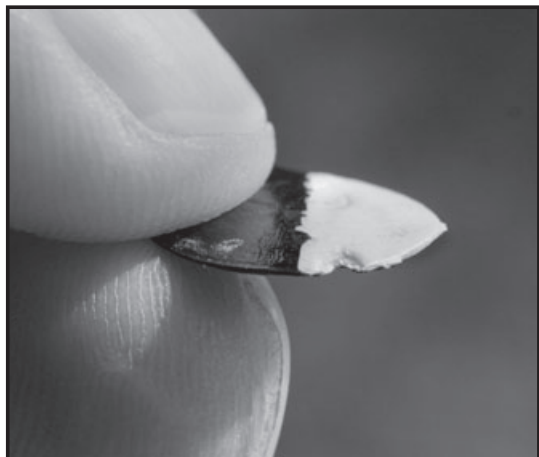
I was definitely feeling an effect. I had slight vision distortion, a slight brightening of colours, a bit of body load and an increased heart rate. I stuck on some music and a visualisation program (Milkdrop).

**T+00.05** (*decide to smoke rest—Milkdrop ace—restlessness—much larger toke—ear burn—prickly face*)

I took another toke with more confidence and immediately realised how small my first one was. This one felt like at least twice as much. Blood rushed to my face, making it seem prickly. The visual effects became more pronounced. I couldn't find any music I liked and didn't like wearing headphones. I took them off but kept the visualisations on.

**T+00.06** (*CEVs*)

I tried shutting my eyes and got some intense typical psychedelic effects. I was very restless and was opening and shutting windows on my PC, unable to settle on doing anything. Very quickly



*Anadenanthera colubrina* Seed, Photo by Erowid

my computer screen image was being repeated about six times in my peripheral vision. These repetitions would be in a constant state of motion and colour change, and although intense, they were not threatening.

**T+00.07** (*added at T+00.30—forgot I was writing this—full blown OEV*)

I quickly became lost in the visual effects I was experiencing. I got a full open-eyed psychedelic lightshow. At no point, however, did the visuals turn into objects or anything like that; it was purely a thriving mass of swirling patterns. I forgot I was writing a report (and added later that this was the point when I became engrossed). I still had a good handle on myself and what was going on. I could sense the real world beyond what I was seeing if I needed to. I felt very euphoric and astonished that the effects were this pronounced off of less than one small seed. My train of thought was very much still my own and mostly just concerned with how incredible this all was. At some point I left my computer and went to one of my keyboards. I set it to a grand piano sound, laughing and seemingly unable to do anything but play the same chord over and over.

**T+00.12**

I took a final toke and cleared what was in the pipe as soon as I felt the effects begin to weaken. The experience then came back to full intensity once more.

**T+00.20** (*getting weaker—no nausea at all*)

The effects appeared to be fading, although they were still very strong. I was wondering a lot about if I was going to become nauseated, but other than a mild body load I felt fine.

**T+00.30** (*tired—yawned—seem to sink into my thoughts—stomach slightly gassy*)

The drug took on a more sedative effect, which I noticed as I yawned, something that seemed to surprise me at the time. My stomach bubbled a bit but that was all. I seemed to lose myself in my train of thought a few times and decided I should lie down. I went to my bed with my limbs feeling quite heavy as I walked.

**T+00.31** (*added later—nice CEVs—different—good mood*)

I lay down in bed and shut my

eyes. I hadn't shut my eyes for the intense part of my experience. To my surprise I experienced intense closed-eye visuals. These seemed to be of a very different character than my prior ones, slower and less colourful but far more defined and detailed. I first saw six or so undulating shapes that somehow had a human quality to them coming towards me. Then after opening my eyes and closing them again I saw a similar thing, except with a shape that seemed to be a cross between a banana and a Hula girl. It was very odd but very enjoyable. My mood was extremely good and I had a permanent grin. I felt very tired and very glad I was in bed.

**T+01.00** (*got up—still tired a bit—stomach very slightly bubbly—very jolly and happy*)

The closed-eyed visuals faded and I decided to get up. The effects were rapidly declining. My mood was still very good. I went downstairs for the first time since smoking the powder and had a cigarette outside. My limbs felt heavy but not uncomfortably so. I was still getting lost in my train of thought. I realised I had finished my cigarette a few minutes prior but I was still pacing up and down outside, completely engrossed in whatever I was thinking about. Around this time was the only point where the trip became meditative, I told myself a few home truths during my wandering thoughts, but they were semi-ironic jokes to myself and mostly part of my euphoria.

After a couple of hours the effects were barely noticeable. I remained in a fantastic mood and found myself laughing a great deal.

The experience was genuinely fantastic. I was hugely surprised with its intensity, how pleasurable it was and how I didn't get any nausea—or horrible plant matter and pain stuck in my nose. I think I did well reading so much about yopo before I tried it, and I also think I got a bit lucky deciding to smoke it rather than snort it. ●

*Yopo* is one of several ethnographic names given to snuff made from *Anadenanthera peregrina* seeds. Psychoactive chemicals that have been found in *yopo* seeds include *N,N*-DMT (DMT), 5-MeO-DMT, and 5-HO-DMT (bufotenin); however, the amounts reported in different seed analyses vary substantially, and all of these chemicals are not always detected.<sup>1</sup>

*Anadenanthera colubrina* is a closely related species known as *cebíl* or *vilca*. The psychoactive effects of *A. colubrina* are sometimes, mistakenly, attributed to DMT. However, most analyses of seeds have identified bufotenin to be the sole or primary active alkaloid.<sup>1,2,3</sup> Seeds from *A. colubrina* var. *cebíl* have been found to contain up to 12.4% bufotenin along with *N*-methylserotonine, DMT,<sup>4</sup> and DMT-*N*-oxide (detected in one batch of seeds).<sup>2</sup> Analysis of snuff believed to have been made from *A. colubrina* has shown the presence of 5-MeO-DMT,<sup>3</sup> but so far 5-MeO-DMT has not been found via direct testing of seeds.

Seeds for the two *Anadenanthera* species look virtually identical, and one knowledgeable botanical vendor has stated that he believes seeds sold as *A. peregrina* may often be *A. colubrina* instead. In addition, it is easy to believe that end-users may confuse the various common names associated with *Anadenanthera* species when writing experience reports. For these reasons, the species of seeds used in experience reports that identify the ingested substance only as “yopo” can not be definitively determined.

1. Trout K. *Some Simple Tryptamines*, second edition. 2007.
2. Fish MS, et al. “Piptadenia Alkaloids. Indole Bases of *P. peregrina* (L.) Benth. and Related Species.” *J Am Chem Soc.* 1955;77(22):5892–5.
3. Torres CM, Repke DB. “The Use of *Anadenanthera colubrina* var. *Cebil* by Wichi (Mataco) Shamans of the Chaco Central, Argentina.” *Yearbk Ethnomed Study Consc.* 1996;5:41–58.
4. Torres CM, et al. “Snuff Powders from Pre-Hispanic San Pedro de Atacama: Chemical and Contextual Analysis.” *Curr Anthropol.* 1991;32(5):640–9.



# THE PLEASURES OF READING

## Book Recommendations for the Drug Geek

by Sylvia Thyssen

*As for me, I am an inveterate pharmacophile, but would have to acknowledge that the habituation which most rules my life, is my lifelong addiction to books—reading them, writing them, even handling and smelling them! Some might rebel at this notion of ‘book addiction,’ but in fact one of the earliest uses of this word in English [in 1675], was “His own proper Industry and Addiction to Books,” and a century passed before addiction was used in reference to drugs—to tobacco, at first [vide: Oxford English Dictionary, page 26].*

— Jonathan Ott, *Pharmacophilia or the Natural Paradises*

**T**he proliferation of digital media in the last 15 years can sometimes make us forget that books form the foundation of much of the knowledge about psychoactives that we take for granted. Erowid is interested in learning what top books other drug geeks would recommend, whether as introductory texts, or picks covering a focused topic.

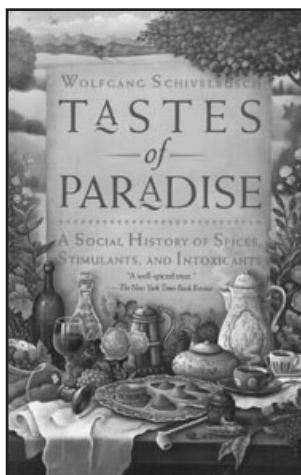
When it came time to highlight my favorite psychoactive-oriented titles, I decided to follow a simple pleasure principle: I chose books that compel me to sit down, ignore the computer and all the distractions that it brings, and immerse myself in the story that an author has assembled. And while I do occasionally get frustrated that I can't pick them up from the shelf and query them with a search term, the slower cognitive pace that books demand provides a much-needed respite from the quicker, Internet-centric information processing that dominates my working hours.

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The following three books about psychoactive drugs stand out for the sheer joy of reading they give, as well as their insights into culture, politics, and pharmacology.



**Tastes of Paradise: A Social History of Spices, Stimulants, and Intoxicants** by Wolfgang Schivelbusch (1993)

**THE HISTORICAL NUGGET.** Originally published in German in 1980, translated into English in 1992, and then released in a 1993 American edition, *Tastes of Paradise* presents a great deal of historical detail in an abundantly (black & white) illustrated 239 pages. Even before the first chapter, which begins with salt and pepper,

the book's translator reflects on the limits and possibilities of language itself: in the original German, the book's topic is *Genusmittel*, “a group of substances for human consumption which are eaten,

drunk, or inhaled to created pleasures of the senses, as opposed to those foods and beverages consumed as necessities.” In *Pharmactheon*, Jonathan Ott describes a number of words that we use in English to refer to inebriating substances, and none of them fits quite the same delicious niche as “Genusmittel”, a term carrying a sensual connotation that includes consumables one would not consider inebriants. Unfortunately, unlike the extremely well-indexed *Pharmactheon*, *Tastes of Paradise* offends geek sensibilities with its lack of an index (although there is a bibliography, at least).

Schivelbusch places the fruits of colonial conquest in the context of cultural history, delving into topics such as the impact that the introduction of coffee had on Europe. He describes tensions in the seventeenth century when coffee emerged as the ingestible embodiment of the Protestant ethic. At the time, coffee was not universally accepted, and the manipulation of wakefulness that it allowed was regarded with suspicion by many. In eighteenth-century Germany, a prohibition on coffee was temporarily enacted in an attempt to curb the consumption of an imported commodity and to help return domestically produced beer to its hallowed role.

*Tastes of Paradise* offers refreshingly succinct social analyses of the roles that spices, coffee, tea, chocolate, tobacco, and alcohol have played in Western

culture, and complements longer works that cover similar territory, such as Dale Pendell's *Pharmako~* trilogy.



### On Drugs

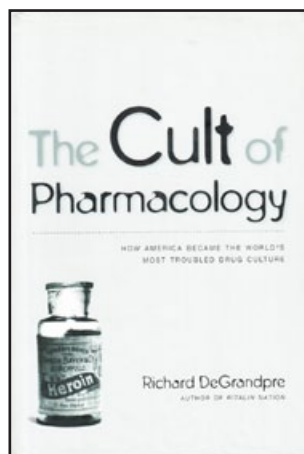
by David Lenson (1995)

METADISCIPLINARY MIND CANDY. “I have undertaken this project precisely because I am unqualified to do so.” In possibly my favorite line in the entire book, Lenson, a professor of comparative literature, describes in the Preface how nothing in his professional background qualifies him to write about drugs. Noting that the war on drugs has codified types of allowable discourse on psychoactives, he applies his literary training to describing roughly seven genres into which writings on drugs fall, and exploring the conventions of each. Then, in a series of essays seeking “that forbidden focus, the *user’s point of view*”, he invites the reader to transcend these categories. The essays are potent, well referenced, and annotated. “What is ‘Straight’ Consciousness?” and “Toward a Diversity of Consciousness” are worth the cost of the book alone.

Among many other topics, Lenson discusses the problems with medicalizing the impulse to seek euphoria, and how the rampant Consumerism (yes, he capitalizes it) that requires that something perpetually be desired paves the way for the “spiritual illness” that engenders addiction, as posited by Alcoholics Anonymous. My second favorite sentence comes from the book’s concluding chapter:

The silence wrought by the “Just Say No” campaign must be replaced by words, many, many words. And these words must come not only from police, doctors, sociologists, criminologists, and the usual experts, but from gang members, drugs users, drug dealers, and underground manufacturers.

Yeah! Fourteen years after its publication, *On Drugs* still feels fresh in its call to move beyond divisive posturing and verbal constructions that quell discourse on one of the most significant questions we should be asking: how do drug-taking behaviors reflect and shape personal and societal consciousness? An intellectually invigorating yet down-to-earth pharmacography.



### The Cult of Pharmacology: How America Became the World's Most Troubled Drug Culture

by Richard DeGrandpre (2006)

AN INFORMED JOURNALISTIC TOUR. *The Cult of Pharmacology* is a great companion to *Tastes of Paradise* and *On Drugs*, in part because it also brings scientific research to the table, thanks to the author’s background in psychopharmacology. The connection between morality and psychoactive substances that appeared during the Protestant Reformation, discussed in *Tastes of Paradise*, reappears in DeGrandpre’s examination of America’s

legacy of vilifying some substances and deifying others. In an exhaustive series of well-referenced examples, the author updates the concept, discussing recent developments such as congressional hearings on tobacco and the troubling state of the antidepressant industry. He explores how the reputation of a drug, as well as its effects, are often heavily

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**One common thread among these three titles is that they show there are no simple answers when it comes to psychoactives.**

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dependent on contextual factors distinct from its pharmacological action. As in *On Drugs*, DeGrandpre assesses psychoactive substances as verbal constructions, complete with their own mythologies, which he refers to as “placebo texts”. He proposes that knowledge or ignorance of the pharmacological action of a drug may even dictate how it is experienced by users and viewed by society. The medicalization of euphorants is illustrated with historical vignettes, such as the huge revenues generated from whiskey prescriptions written by physicians during alcohol Prohibition. The unpacking of so many fascinating stories about “drugs” in America is enough to recommend *The Cult of Pharmacology*.

One common thread among all three titles is that they show that there are no simple answers when it comes to psychoactive substances. Knowledge evolves as new data becomes available, and understanding changes as questions and answers become more complex, often restricting the kinds of things we can truly claim to “know”.

The range of opinion on psychoactives is staggeringly diverse, and requires critical examination of historical and scientific data. If you’re looking for additions to your bookshelf that match the non-ideological, information-dense variety of the Erowid site itself, then I highly recommend *Tastes of Paradise*, *On Drugs*, and *The Cult of Pharmacology*. If I had to compile an “informed drug-geek starter library”, they would be early additions to the collection. ●

# SPICE & SPIN-OFFS

## Prohibition's High-Tech Cannabis Substitutes

by Earth & Fire Erowid



A new generation of recreational psychoactives emerged in 2006, with the arrival of a smoking blend named “Spice”. The only ingredients listed on the label of Spice, as well as the labels of numerous similar blends, are various herbs. However, these products have recently been found to also contain synthetic chemicals with effects similar to THC. Although sold in the same contexts as the mostly ineffective “legal buds” (in headshops and by online vendors), Spice and its relatives are ostensibly marketed as “incense” rather than smoking material.

These products are one of the most interesting developments in grey-market recreational drugs since the “research chemical” phenomenon of the early 2000s. This new evolution in psychoactives is made possible by sophisticated knowledge of chemistry, pharmacology, scientific research, drug detection methods,

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**...the described effects seemed too strong and too similar to cannabis to be the result of the listed ingredients...**

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marketing, and international drug laws. The trend involves the sale of novel, putatively legal, functional psychoactives packaged in such a way as to hide the identity of the active compounds from both governmental agencies *and* from other manufacturers, since candidly marketing a new recreational chemical would shorten the period before it is copied or banned.

### Spice: The Template

When we first read about Spice in online forums in early 2007, we immediately suspected that this “herbal” concoction might be something more novel than merely another smoking blend claiming cannabis-like effects. Though we had little to go on other than informed speculation and a few first-hand reports, the described effects seemed too strong and too similar to cannabis to be the result of the listed ingredients, none of which was known for having any noteworthy psychoactivity.

We were unable to find a U.S. vendor that sold Spice, and multiple European suppliers told us that the manufacturer stipulated that it not be sold into the United States. (Later packaging specifically states “Not for sale in the USA”.) We ordered a package from a British vendor in March 2007, and quickly verified our suspicions via bioassay; the effects

were obviously the result of a THC-like compound. We have been following the Spice phenomenon ever since.

The original small (3” x 3.75”) foil packets feature a distinctive eye logo atop a stylized leaf and contain what appears to be a blend of different dried and ground plant materials. The package lists 13 herbs and spices: baybean, blue lotus, dwarf scullcap, indian warrior, lion’s tail, maconha brava, marshmallow, pink lotus, red clover, rose, Siberian motherwort, vanilla, and honey.

Though distributors characterize Spice as “incense” or an “aromatic potpourri”, and the 2007 packaging describes it as “an exotic herbal blend” that “releases a rich fragrance when burned”, it also states that the product is “Tobacco and Nicotine free”, implying it could be smoked. If the bold text on the front of the package noting that it contains “an eighth” doesn’t remind one strongly enough of cannabis, then the original distributor’s name, “The Psyche Deli”, helps solidify this association.

Spice has been available in a number of variations including Spice Silver (called simply Spice in 2007), Spice Gold (said to be twice as strong as Silver), and Spice Diamond (said to be twice as strong as Gold), as well as flavors/aromas called Tropical Synergy and Arctic Synergy.

Although the 2008/2009 packaging clearly states that it is “not for human consumption”, a claim repeated by many of the online vendors who sell it, The Psyche Deli tellingly trademarked Spice in Britain both as incense and as an herbal smoking product/tobacco substitute.<sup>1</sup>

### Spice: Effects

We interviewed a number of people who had smoked the original Spice and some Erowid crew also reported on their experiences. Everyone agreed with web forum postings that the Spice smoke is harsh compared to good quality cannabis or hash, with a pleasant vanilla aroma reminiscent of flavored tobaccos. Although one person described experiencing no significant effects from Spice, most reported that the effects were very similar



to those of cannabis, and nothing like the “maybe I feel something, maybe I don’t”—type effects of most herbal cannabis replacements. Spice smokers reported feeling “stoned” or a “cannabis-like high”, yet also consistently reported that the effects were not quite the same as cannabis. While specific differences have not been clearly identified, many descriptions suggest that Spice’s effects have a stronger physical component at a given level of mental high.

Though some of the herbs listed on the Spice packaging are known to have mild psychoactive effects, it was obvious to the Erowid crew that none of the herbs by themselves could be responsible for the level of effects that were reported. The only listed herb with which we were not familiar was indian warrior, presumably *Pedicularis densiflora*, which we later confirmed does not have effects similar to Spice when smoked.

It seems that the effects of Spice are so similar to natural cannabis that even experienced smokers might not be able to reliably tell them apart outside of the differences in smoke quality and aroma. This represents a truly new feat in the world of quasi-legal psychoactive drugs, and one that apparently has made the producers of the material a lot of money.

## Cannabinoid Combination?

The consistency with which Spice was described as having effects very similar to cannabis quickly led us (and others) to suspect that these products contained at least one unnamed synthetic or extracted psychoactive chemical. The most likely candidates seemed to be synthetic cannabinoids. We had heard rumblings for nearly a decade about the idea of selling novel synthetic cannabinoids on the grey market. These discussions included talk of intentionally crafting combinations of two (or more) synthetic cannabinoids, in order to achieve the most pleasant or desirable cannabis-like high possible.

It has long been theorized that the combination of cannabinoids present in the plant produces a unique effect that is different from the effect caused by any of its pure chemicals in isolation, and some research has supported this theory.<sup>2</sup> Many people who are prescribed Marinol

(synthetic THC) report that they don’t like Marinol’s effects as much as those of cannabis itself. In cannabis-using subcultures, it is widely discussed that there are at least two distinct effects of cannabis: the sedating (“stoney” / body high) and the stimulating (“trippy” / mental high). Different strains of cannabis are said to have more of one quality or the other.

There are hundreds of uncommon synthetic cannabinoid receptor agonists with effects that are not well documented. As early as September 2006, Internet forum rumors claimed that Spice contained a synthetic cannabinoid called HU-210,<sup>3</sup> a chemical 50–400 times more potent than THC.<sup>4</sup> Some who had tried HU-210 argued it *couldn’t* be that chemical because HU-210’s effects last much longer than cannabis.

One pharmacologist speculated that a combination of an extremely low level of HU-210 and another cannabinoid might effectively mimic cannabis, with a shorter duration than a higher dose of HU-210 alone.

Regardless of the exact details, it was not difficult to imagine that, in theory, a chemist or company would be able to add one or more similar chemicals to a complex blend of herbs, creating an apparently herbal product with effects similar to cannabis.

## In the Lab

In April 2007, we sent a sample of basic Spice to Drug Detection Laboratories (DDL), the laboratory we work with for EcstasyData testing of street ecstasy tablets. We asked them to look for any identifiable chemicals, but also to specifically look for cannabinoids. DDL conducted GC/MS testing on the material, but their computerized matching system could not identify any known chemicals other than tocopherol (vitamin E, not a

Albino Rhino Buds, Aroma, Bombay Blue, Caneff 5 star, Chillin XXX, D-Raw, Dark Matter, Dream, Everlast, Ex-ses (Platinum), Experience: Chill, Experience: Ignite, Experience: Red Ball, Fusion, Galaxy, Genie, Gorilla, Herb Dream, Ice Bud Extra Cold, Kronik, Krypto Buds, Magic, Mojo, Moon Rocks, Pep Spice, Sence, Smoke, Solar Flare, Space, Space Truckin’, Spice, Spice Arctic Synergy, Spice Tropical Synergy, Spice Diamond, Spice Gold, Spice Gold Spirit, Spice Silver, Spicey XXX, SpiceWorld420, Spice99 (Ultra), Spike99, Smoke, Splice Platinum, Star Fire, Yucatan Fire, Zohai, Zohai SX.



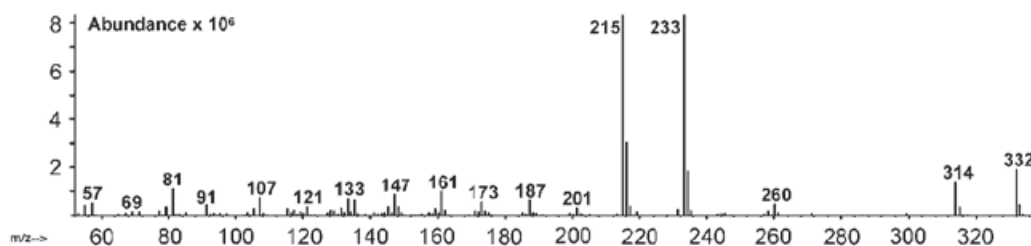
listed ingredient). The sample did not test positive for cannabinoids and the lab asserted that “no scheduled drugs [were] present”.

The mass spectrums, which could be thought of as the “chemical fingerprints” of the compound, included several major “peaks” that the lab was not able to identify. We asked other analytical chemists to look at the results, but had no luck discovering the identity of the mystery chemicals.

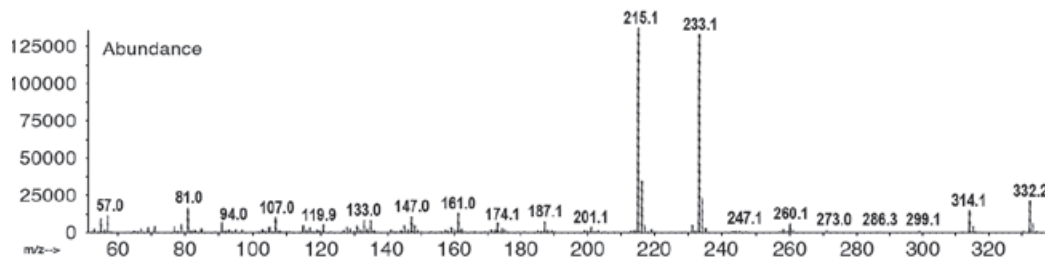
## Difficulty of Detection

A common misconception about drug testing is that one can put an unidentified plant or mixture of chemicals in one end of an analytical machine, such as GC/MS or LC/MS, and the identities of its component substances will pop out the other end. When the analytical profile of a substance is not in a lab’s database or if there are substances in a sample that have overlapping profiles, interpreting the results of GC/MS requires time and expertise. It is entirely possible

Auwärter et al. Mass Spectrum of Compound 2. *JMS*, 2009.



Erowid / DDL Mass Spectrum of Compound from Spice. 2007.



Comparison of Mass Spectrums from Auwärter et al. and Erowid for a Homolog of CP 47,497 Found in Spice

for someone with knowledge of chemical analysis techniques to intentionally obscure the identity of the chemicals in a product. The most obvious way to do this would be to add a plant or chemical because it looks very similar in testing results to a chemical that the producers want to hide. When interpreting the results, many chemists would simply identify the presence of the plant ingredient without seeing that it obscured another chemical. It may be that the choices made about the ingredient profile in Spice were based, in part, on preventing easy detection.

### Eureka: Identification

The same suspicions that we'd had about Spice led a number of organizations in various countries to do their own chemical testing. To date, a handful of synthetic chemicals have been identified in Spice-type products. In December 2008, the city of Frankfurt, Germany was the first to reveal definitive identification of a synthetic cannabinoid agonist in Spice products. They contracted with a specialized laboratory named THC Pharm to do an in-depth chemical analysis. THC Pharm found that Spice contained JWH-018, a cannabinoid agonist. In January 2009, U.S. Customs agents reported that seized

Spice products contained HU-210, though theirs is the only lab to have found HU-210 and this finding has not yet been verified elsewhere.<sup>5</sup>

In January 2009, the *Journal of Mass Spectrometry* published a letter by Auwärter, Dresen, et al. from the University of Freiburg that included mass spectrums (the "fingerprints") for several compounds found in Spice and related products. The authors identified the primary substance as an unnamed homolog of the cannabinoid agonist CP 47,497, with one more carbon atom on its "tail" than CP 47,497.<sup>6</sup>

We were excited to find that the mass spectrums of the compounds that were identified in the Auwärter paper as the primary cannabinoid agonists in Spice, Spice Gold, and Spice Diamond, nearly exactly matched the results of our 2007 analysis. The CP 47,497 homolog was clearly the same chemical that our laboratory analysis had been unable to identify in the Spice we purchased and had analyzed some 20 months before Auwärter et al. purchased the Spice they analyzed.<sup>5</sup>

Some open questions remain: Might extremely low doses of HU-210 or other chemicals be present in products where they have not yet been found? What variations

in combinations or levels are currently being sold? Are there other analytical issues preventing detection in some instances? What chemicals will be discovered in future products of this type?

### Popularity

In May 2009, a search on "Spice Gold" yielded 521,000 hits on Google and dozens of vendors selling related products on Ebay.com. With prices for a packet sometimes exceeding the local price of cannabis (\$35 to \$45 per 3-gram packet, with one Romanian web site listing packets for \$115 USD), there is clearly substantial interest in these products.

They have been popular in Britain, Germany, and Romania, and have been distribution in other European countries and the United States. While Erowid has been unable to find solid numbers on sales, we've received unconfirmed reports that many head shops were selling thousands of dollars worth of Spice-type products per day in 2008; and the distributor, The Psyche Deli, reportedly increased its assets by over \$1,000,000 between 2006 and 2007.<sup>7</sup>

The success of Spice in 2007 and 2008 has led to a proliferation of more than 40 copycats, some with blatant knock-off names such as "Spicey", "Pep Spice", "Spike 99", or "Splice Platinum". Several of these even feature variations on the Spice logo, such as a monster eye or an eye in a triangle.

Stories in mainstream news sources, including a notable article in the British *Financial Times*, as well as alternative publications like *The Entheogen Review* and forums such as Bluelight.ru, have publicly broadcast the existence of Spice. The DEA included a story about Spice products in its March 2009 issue of *Microgram*, and European governments have made moves to control these materials.

## A Foxy Dilemma

For Erowid, the most difficult aspect of the Spice explosion has been deciding how to handle information about these products before they were verified to contain novel synthetic additives. When we first learned of Spice, we didn't know whether its effects were due to a relatively safe set of herbs with a surprising synergy; a relatively safe and known chemical; a harmful chemical added by producers simply intent on making profits; or an unknown chemical with an unknown safety profile. The fine line between describing a new psychoactive and acting as an unintended promoter of a potentially harmful and/or scam product presented a familiar dilemma.

In 2000, Erowid began publishing experience reports about the grey-market research chemical 5-MeO-DiPT ("Foxy"). By posting information about the substance before its use had spread to a large number of users, we were inadvertently advertising for a chemical few people had been exposed to. Erowid was also accused of accelerating law enforcement interest and media attention on this new drug. That experience has informed our choices around when and how to begin publishing information related to novel compounds.

Speculating publicly that Spice might contain synthetic cannabinoids, before there was direct evidence, seemed premature on two counts. We didn't want to be an unwitting advertiser for products of unknown safety. We also didn't want to direct law enforcement attention toward the products by postulating the presence of hidden synthetic chemical ingredients.

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### Because Spice products are used as cannabis replacements, their safety must be compared with that of smoked cannabis.

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We concluded that publishing about theoretical synthetic ingredients would likely increase sales *and* increase law enforcement attention. It is a strange bind, knowing that—due to the current state of prohibition—dispersing information that should be considered cautionary would likely have the opposite effect.<sup>8</sup>

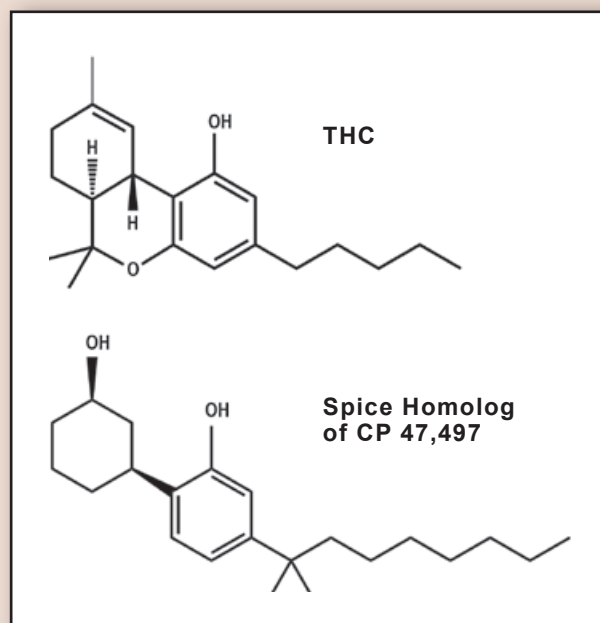
## Safe as Weed?

Because Spice products are used as cannabis replacements, their safety must be compared with that of smoked cannabis. Unlike Ecstasy alternatives, which might offer more benign safety profiles than MDMA (lower risk of death or less neurotoxicity), Spice-type products are up against a mountain of historical and scientific evidence that establishes the safety of cannabis.

Large epidemiological studies and experimental data have shown cannabis smoking does not involve many acute risks other than those of general inebriation.<sup>9</sup> Even extended, heavy cannabis use does not appear to cause brain damage,<sup>10</sup> nor substantial increases in risks of lung cancer<sup>11</sup> or heart disease in healthy users;<sup>12</sup> and it causes only moderate increases in respiratory illnesses.<sup>13</sup> Further, THC has been shown to have anti-cancer properties in a number of experiments<sup>14,15</sup> and has even been shown to be neuroprotective.<sup>10</sup>

Cannabis is, however, well known for causing some people to experience paranoid ideation and feelings of anxiety. The possibility of triggering psychosis is perhaps the top cannabis-related health issue receiving research attention in the last decade. Some psychoactive cannabinoid agonists other than THC might not cause paranoia effects or might be less likely to trigger latent psychoses, though there is little evidence that Spice products have either of those benefits.

What are the health risks of smoking Spice-type products, with their somewhat random assortment of herbal ingredients and largely untested synthetic additives? Even if one formulation is safe, another might not be. At least one of the cannabinoid receptor agonists has reportedly caused a frightening period (8 hours) of unconsciousness followed by a long period (48 hours) of strong intoxication at a dose far



under 1 mg.<sup>16</sup> Another caused over two days of on-and-off twilight consciousness at around 1 mg.<sup>17</sup> While cannabinoid receptor agonists are not known to be associated with fatal suppression of either breathing or the cardiovascular system,<sup>18</sup> and a number of the synthetic research cannabinoids have been evaluated by pharmaceutical companies such as Pfizer, widespread use may turn up other risks.

There is an unmet public health need for government-sponsored testing of black- and grey-market recreational drugs. The producers of those products will never do adequate safety testing. Given that this is a persistent, long-term problem, public health organizations must step up to fund the development and administration of a standardized battery of tests for novel compounds. Such tests would ideally look for carcinogenicity, cardiovascular risks, and interactions with common recreational and medical drugs, and would also assess whether new compounds present other mental and physical health issues.

## Hazards of Prohibition

Prohibition of widely used recreational drugs creates profitable markets for novel psychoactives. The unwillingness of governments around the world to authorize new recreational drugs means that such products will necessarily be unregulated. The UNODC estimates that there are over 150 million current cannabis users in the world, virtually all of whom use



it illegally,<sup>19</sup> suggesting that the market for effective cannabis replacements is hundreds of millions of dollars per year.

Drug prohibition creates a pressure to develop new substances that are active at low doses, because they are easier to transport and more difficult to detect. Prohibition also drives illicit drug manufacturers to lie about the ingredients of newly designed products.

Incentives to disguise and misrepresent the contents of products arise not only from the threat of criminal penalty, but also from the realities of an unregulated marketplace. Producers who invest time and money in the development of new grey-market products must hide the details of their product from competitors (and thus from the public), in order to maximize their profit. Without the protections afforded by patents and governmental approvals, cheap knock offs hit the market as soon as the nature of Spice came to light.

Camouflaged drugs are not unique to markets for recreational psychoactives. Synthetic chemicals and pharmaceuticals have been discovered in ostensibly “herbal” medications and dietary supplements; some Chinese “herbal” patent medicines have contained barbiturates,<sup>20</sup> and analyses of products sold as “herbal Viagra” have revealed the presence of synthetic erectile dysfunction drugs, such as sildenafil (Viagra) and several analogues.<sup>21</sup>

The modern industrial product cycle can be extremely rapid, churning out new

packaging and products in a matter of weeks. Manufacturers can not only vary the chemical profile of different product varieties, but also vary what chemicals are included in a product over time, shifting from one to another to stay ahead of the law and their competitors. Imagine the difficulty for customs agents trying to block importation of dozens or hundreds of professional-looking products whose packaging, marketing copy, and listed ingredients change seasonally.

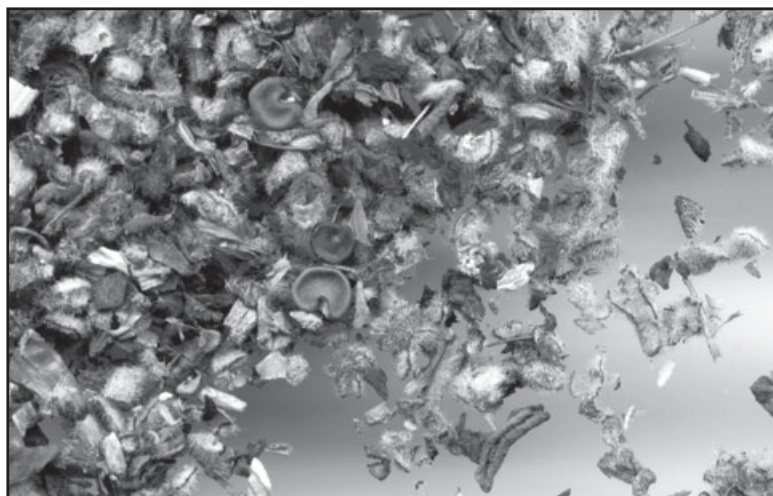
### A Taste of the Future

Spice is a fascinating test case for unusually potent drugs of the future. The Spice story is part sci-fi, part Prohibition-style bootlegging, and part crass commercial venture. This new generation of recreational “research chemical” cannabinoids and cannabinomimetics are in the first wave of high-tech crypto drugs, more of which may be just around the corner.

The evolutionary pressures of the last century have created a climate where new potent drugs are not only obscured, but obfuscated using specialized technical knowledge that even expert laboratories have difficulty sorting through. The Spice phenomenon gives us a glimpse of the complexities to be faced in the future when providing harm-reduction and health information for an ever-shifting, ever-expanding profusion of psychoactive drugs, drug combinations, and technologies. ●

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Close-up of Spice Showing Mixed Herbal Material. Photo by Erowid.

# SPICE EXPERIENCE REPORT EXCERPTS

## Spiced Up My Life! by Shruming Human

I have smoked Spice Gold at least 100 times in the last eight months. I worry about the health risks, as well as aspects of psychological addiction that arise, and I will limit my smoking in the coming year.

I find Spice Gold quite similar to marijuana, with maybe 70 percent overlapping effects. It definitely doesn't give me the energy that I used to get from marijuana. Like pot, it's a bit cloudy, and I even get a similar feeling in my body.

Spice provides good mental energy, focused and creative, but doesn't seem to provide much of a mood lift. I don't feel bad, but I'm certainly not blowing smoke rings of happiness as I experienced at times with pot. In some way, I feel immune to depressed feelings, but I also feel resistant to ecstatic feelings, as if Spice heightens my mood but also limits the possibilities.

I can take three to four hits and get the full experience. When I have smoked almost double this amount, the effects were only slightly stronger, but lasted a long time. It took me hours to fall asleep after smoking it. Just like when I used to get very high on marijuana, my mind raced uncontrollably, forbidding sleep, and it wasn't especially fun. The lethargy the following day was nasty.

**Similarities to Marijuana:** "Stony" effect, dreamy/wavy feelings, impairment of short-term memory, change in subjective experience of time duration, mental energy, creativity enhanced, music enhanced, some tactile enhancement, anti-nausea (though not as strong as pot), inability to sleep.

**Differences from Marijuana:** Longer duration, less mood enhancement, less physical energy, slightly less distance from consensus reality, less obviously altered; a lazier overall feeling.

Marijuana tears me open, emotionally and spiritually, in some ways that Spice doesn't touch. But Spice may touch some areas that marijuana doesn't touch. It certainly seems worth exploring in an effort to reap some deeper rewards. ●

## Spiced Out in a Drought by PippUK

I had found Spice Gold too mild, so I ordered the strongest formulation of the product line that I could find. Assuming that the chemical(s) in Spice must be weaker than THC, and thus with a measure of bravado, I rolled a couple of big joints one night and proceeded to smoke them while reading before bed.

I was three-quarters through the second joint when I had to acknowledge that I was extremely stoned. It was not the familiar ground of THC that I found myself in, though. It was a colder and less welcoming vista. Minor hallucinatory visuals seemed to give things a shimmer, but in a naturalistic way, rather than a phosphorescent way. All euphoric properties of THC seemed to be suppressed, and the dysphoria seemed intensified, though I had some interesting trains of thought.

I have never experienced intrusive paranoid thoughts on cannabis. But this substance gave me a dose of paranoia, and my mouth was as dry as the inside of Ghandi's flip-flop. As I lay in bed, I had a full-on panic attack. I took control of my breathing and calmed myself. But this conscious control was not connected directly to my autonomic nervous system, whose response lagged by 30 seconds. My heartbeat began to ramp up frighteningly, I could feel the sudden strong jerks of that poor muscle in my chest, and I felt that each breath was scarcely enough to deliver the oxygen I needed. I was really quite scared. I was able to eventually get some sleep, but not great sleep.

There is a connection between the feel of this and good old herb, but the duration of effects seem drawn out. Like it hits me mentally full-on half an hour after smoking, and then leaves me in a state of mild confusion and anxiety for up to eight hours afterwards.

I can't say that I will never re-order Spice, because during a drought I have a tendency to clutch at straws. However, it did well and truly whup this hardened weed smoker most surprisingly. ●

## More Potent Than Mary Jane by Dude 5ht2c

I am a 30-year-old male, slightly overweight. I quit smoking cannabis in college, primarily because of the rapid heartbeat and chest pains I developed. It was no longer a "kind buzz" for me.

13:15—Loaded a very small bowl of Spice Diamond. Took one medium hit and held it in for 20 seconds before exhaling. Unlit, it has a vanilla scent, but lit, it smells like burnt herbs, not a pleasant smell.

13:17—Began to feel the altered consciousness, almost identical to the feeling that cannabis initially produces.

13:25—Realized that this stuff *really* works, and was excited that I didn't yet feel any panic.

13:40—Started having problems concentrating. I was zoning in and out like I do on cannabis, but more pronounced.

13:50—My heart started beating rapidly: I mean, freaking light speed. Panic set in and I started pacing. I'm guessing that my heart rate was 140 to 160 bpm. All physical sensation was enhanced, but delayed.

14:00—Contemplated calling 911. For a moment, I felt as if I was waiting to die and that my heart would pop at any moment.

14:15—I decided to take a shower and try to sober up. After a while, I finally was at a good place mentally.

14:35—I was still having uncomfortable sensations in my chest and rapid heartbeat, which came and went.

15:00 to 18:00—Maintained cannabis-like high. Felt LSD-like coldness, a little psychedelic feeling. Heartbeat still fairly erratic, but not at a dangerous level.

18:00 to 21:00—Very gradual come-down. I was able to sleep around 22:30 or so.

The Next Day—No major fatigue. Still a little spacey.

### Conclusion & Opinion

This level of panic and heart rate trumped any cannabis effects I've ever had. The "high" feelings were the same as those from cannabis, other than the lack of warm/fuzzy feeling. ●

# Last Saturdays Club

## Group Psychedelic Experiences

by the Teafærie

I LOVE TO TRIP BY MYSELF. It's refreshing to be able to let it all hang out once in a while without having to factor in the reactions of baffled witnesses. I also like tripping à deux with a friend or a lover. It's always good to have a buddy, and I'm kinky for the multiverse. Likewise I enjoy taking psychedelics at big events, providing that the venue meets my fairly high standards. It can be liberating to take my private practice out in public in an environment like Burning Man, and there are certain effects that only occur or only become visible on a large scale, when hundreds of trippers are running around and bouncing off of one another in a chaotic milieu.

I think small groups are my favorite, though. Like many of us, I started out tripping with a crew of close friends, and time and broad experience have deepened my appreciation for this mode.

I still consider myself a member of the Last Saturdays Club, though there has not been a formal meeting in many years due to geographical incompatibility issues. It came about when a European documentary crew wanted to film some folks taking mushrooms. They hoped to show how it might be a salubrious and enlightening practice, so they were looking for subjects who could be counted on to say something

reasonably intelligent whilst in the throes of the effects. Consequently, they called upon a psychedelic luminary (whose good name I shall not sully by association with yours truly) and asked him to round up some suitable volunteers. My husband and I were lucky enough to be amongst the

last Saturday of every month—a delightful practice in which some of us still occasionally indulge with a wistful nostalgia.

Working with the same group regularly over a number of years is intense, to say the least. It's also quite illuminating.

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**Given the blind choice of having to have sex with a random stranger or having to trip hard in an elevator with said stranger for six whole hours, I'd be inclined to sacrifice my virtue.**

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chosen. We decided as a group that we really ought to trip together a few times before the cameras started rolling, and so we met for a number of consecutive Saturdays to practice and prepare. Long story short, the documentary didn't actually happen (or anyway we weren't in it); but surprise surprise, we ended up having so much fun that we established a regular tradition of taking a variety of psychedelics together on the

Psychedelics can magnify or distort familiar character traits and bring up unexpected material. You find out an awful lot about yourself, and about the members of your adventure party. They find things out about you, too. It's incredibly intimate and it pays to choose one's companions wisely. Given the blind choice of having to have sex with a random stranger or having to trip hard in an elevator with said stranger for six whole hours, I'd be inclined to sacrifice my virtue. Transpersonal effects, such as the perception of shared consciousness, can be quite dramatic in my experience—and I don't want just anybody in my head with me, thank you very much. Who knows what kind of cooties I might catch? I also don't want to worry about people messing with me, or casting judgment, or freaking out all the time and needing constant attention.

We found that it was helpful to set some ground rules, which I've detailed extensively in "Ground Control: A Sitter's Primer" (on Erowid). No violence is an obvious rule. Some people also like to be confident that they won't be hit on while they're under the influence. Others want to know that they can comfortably veto a musical selection that isn't working for them, or nix a proposed activity such as



*Different Waves* by Olly Gloomleage



a stroll to the neighborhood park. A few questions are best answered before the fun begins, and synced with a sitter, if you have one. Is there a strong intention to stay together? When is it okay to leave the target area? At what point will emergency services be called in, if the unexpected should occur?

On a personal level, I like to know where my podmates are coming from. What are the relative experience levels in the group? What is each person's set like, and what are they hoping to get out of out of the coming encounter? What's everybody taking? Sometimes the members of the Last Saturdays Club would all drop the same balm, other times we would each team up with a different ally and let them all play together.

My friend Honest John, who was also a member of Last Saturdays, throws a recurring party called Geisscream. There have been maybe a dozen or so installments since the turn of the millennium. The cast has shifted around a central core of dedicated explorers, but the game is always played the same way. To wit, each person is required to bring an eighth of mushrooms, a pint of ice cream, and however many minutes worth of music you get when you divide six hours by the number of participants. Then John throws all the music into shuffle play and turns on the LCD projector. (Geiss was one of the early awesome screensaver visualizations.) All the survivors get a copy of the playlist as a souvenir.

It's interesting to note how Geisscream has evolved over almost a decade. For one thing, we've all gotten better at it as we gained experience. We know now when a companion's apparent insanity is cause for concern and when to step back and let it run its natural course. Problems often become magnified by well-meaning attempts at intervention. I work with preschoolers, and I find that many of the same principles apply. Simple distraction is often the best remedy for sudden shifts in mood or tone. Occasional ripples of dissonance are fairly manageable, though once in a while a situation becomes contagiously out of phase with the gestalt and someone has to take a time-out. If there is a sitter, they can take temporary custody of the troublemaker with a view

towards reintegration. If no chaperone is available, it's up to whoever is most able to keep a warm and watchful eye on the developing scenario. Seuss and I once sat in the bottom of a darkened shower for several hours because the rest of the party was less than amused by his conviction that he could control their actions at a distance. I still don't know what was really going on there, but I recall that they did keep poking their heads in right on his cue.

It's always more fun to travel with good friends, and inner journeys are no exception. The atmosphere of camaraderie and high adventure allows me to draw courage from the communal well and helps me keep my set positive. I find humor is essential to the enterprise, and sometimes a passing reference to an inside joke or the stench of an abominable multi-level pun can be the best possible medicine when things are touch-and-go. Besides, people are fun to play with! Transpersonal effects, like apparent shared visions, are fascinating to me, and I've spent countless happy hours trying to devise games and tests to prove or disprove our perceptions of internal

congruity. Also, when the game is over, it's nice to have people to share memories with. It's sometimes hard to figure out how to file this stuff when there are no other observers to corroborate my experience and bear witness to my transformation.

The friendships I've forged in the heart of the Mystery have stood the test of time. There is nothing more

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**Seuss and I once sat in the bottom of a darkened shower for several hours because the rest of the party was less than amused by his conviction that he could control their actions at a distance.**

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bonding than sharing a peak experience, and psychedelics have a tendency to produce that sort of thing. People who trip together are often privileged to witness one another's finest moments, and they also get to see their pals literally munching the carpet now and again. It requires a lot of trust to really go there; and, assuming everyone takes care of each other, that trust continues to grow over time and becomes a safe foundation from which to communally investigate the fascinating universe between our ears. It's pretty bizarre in there, folks. I'm glad that we have each other to explore it with. ●



Geiss Screenshot

# Human Hallucinogen Research: Guidelines for Safety

by the Erowid Crew

Photos by Matthew Johnson

In August 2008, the *Journal of Psychopharmacology* published “Human hallucinogen research: guidelines for safety”, proposing recommendations for the safe administration of classic psychedelics and the minimization of potential adverse reactions within a research context.<sup>1</sup> Written by three researchers from the landmark Johns Hopkins psilocybin and mysticism study, the paper provides a detailed history of human research with psychedelics and an assessment of the risks involved. It was published coincident with the release of the 14-month follow-up to their mysticism study,<sup>2</sup> and it describes protocols developed for that research.

While physiological safety considerations pertaining to psychedelics research have received attention in recent years,<sup>3</sup> Johnson et al. do an admirable job of examining the unique psychological and contextual factors (“set and setting”) inherent with their use. The importance

of volunteer selection and preparation, interactions between the volunteer and study personnel, and the careful creation of the study site are all discussed. Creating a context of safety, trust, and rapport between the researchers and subjects is emphasized as a strategy for preventing and counteracting adverse reactions. Reviewing previous research giving psychedelics to human subjects, the authors found that extensive preparation and interpersonal support led to “fewer adverse psychological reactions, such as panic reactions and paranoid episodes, and increased reports of positively valued experiences”.<sup>1</sup>

Despite being very rare, bad trips leading to dangerous behavior and the even less likely possibility of prolonged psychosis or hallucinogen persisting perceptual disorder (HPPD) are identified as the most concerning risks that a researcher must prepare for. A milder but more common risk is that of the

subject leaving the study site during the session.

Written in a clear prose that should be accessible to most Erowid members, this article is the most up-to-date peer-reviewed overview of the physical and mental risks associated with psychedelics. Well worth reading for anyone interested in this field of research, it includes practical information about preparing for and conducting sessions that are also applicable for the deliberate use of psychedelics outside of a research setting. ●

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The researchers argue that an aesthetically pleasing setting for the session “may decrease the probability of acute psychological distress.”

Videotaping of sessions was well tolerated by study participants.



Two monitors were present during study sessions, preferably with both genders represented in the team. Study volunteers met with monitors in this room prior to sessions to familiarize themselves with the physical environment.

The volunteers wore eyeshades and used headphones for music during sessions to support inward attention. Volunteers were encouraged to “collect experiences” for later examination, post-session.



# Fundamentals of Responsible Psychoactive Use

by Fire and Earth Erowid

When “Towards a Culture of Responsible Psychoactive Drug Use” appeared in the September 2008 issue of *Cato Unbound*, the Cato Institute’s online publication, we introduced a list of principles called the Fundamentals of Responsible Psychoactive Use. Similar to the “set and setting” meme introduced in the 1960s to bring attention to the importance of context when using psychedelics, the Fundamentals highlight additional factors to consider when using psychoactives. Based on one of Erowid’s earliest documents, the “Individual Code of Conduct for Primary Religious Practices”, first drafted in 1996, the Fundamentals of Responsible Psychoactive Use have been gleaned from the insights and experiences of thousands of people, and are a work in progress. Since publication in *Cato Unbound*, a new point has been added about awareness of legal issues.

## Fundamentals of Responsible Psychoactive Use (v2.1)

1. Investigate the health risks and dangers of the specific psychoactive and of the class of drugs to which it belongs.
2. Learn about interactions and contraindications with other recreational drugs, medications, supplements, and activities.
3. Review individual health concerns, predispositions, and family health history.
4. Be aware of relevant laws and penalties.
5. Choose a source or product carefully to help ensure correct identification and purity. (Try to avoid materials with an unknown source or of unknown quality.)
6. Know whether the drug is likely to impair the ability to drive, operate equipment, or pay attention to necessary tasks.
7. Take oneself “off duty” from responsibilities that might be interfered with (job, child care, etc.), and arrange for someone else to be “on duty”.
8. Anticipate reasonably foreseeable risks to oneself and others, and employ safeguards to minimize those risks.
9. Choose an appropriate occasion and location for use.
10. Decide how much to use and measure dosages carefully.
11. Begin with a low dose until individual reactions are known and thereafter use the minimum dose necessary to achieve the desired effects: lower doses are safer doses.
12. Reflect on and adjust use to minimize physical and mental health problems.
13. Note changes in health over time that may be related to use.
14. Modify use if it interferes with work or personal goals.
15. Check in with peers and family, and accept feedback about one’s use.
16. Track reactions to specific drugs and dosages in order to avoid repeating mistakes.
17. Seek treatment if needed.
18. Decide not to use if the time isn’t right, the material is suspect, or the situation is otherwise problematic.

As discussed in the *Cato Unbound* essay, this list applies not only to people who consider themselves “drug users”, but also to the vast majority of the population who at one time or another use any psychoactive substance. We live in a world filled with materials and technologies that affect the mind, including alcohol or coffee, over-the-counter DXM-containing cough medicines, prescription antidepressants, legal plants and herbs such as *Piper methysticum* (kava), and illegal chemicals like LSD. Users of any of these could benefit from following the guidelines above.

Regardless of legal status or societal acceptance, responsible psychoactive use requires access to accurate, detailed, and practical information. ●



# The Distillation

*The Distillation includes updates, statistics, and information that we hope will offer insight into the ongoing site additions, traffic, and projects currently underway at Erowid.*

## Summary

General Content Pages	14,661
Archived Site Pages	4,663
Experience Reports	18,617
References	7,101
Ask Erowid	559
The Erowid Review	215
Content Images	5,132
Visionary Art	1,969
Total	52,917

Erowid Files on Server	138,578
Erowid Disk Footprint	37.9 GB

Current Members	1,225
Daily Visitors	61,037

## Content Details

General Content Pages	14,661
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Number of Substances Vaults	319
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Most Popular Substance Vaults (with change)

MDMA (↑); Cannabis (↓); LSD (↔); Mushrooms (↓); DMT (↑); Cocaine (↔); Salvia divinorum (↓); Morning Glory (↔); Oxycodone (↔); DXM (↔); Methamphetamine (↔); Ketamine (↔); Heroin (↑); Amanitas (↔); Opiates (↓); 2C-B (↑); Datura (↓); Cacti (↓); Amphetamine (↓); Peyote (↓); Ayahuasca (↑).

Most Accessed Documents

Drug Testing Basics; Mushroom Effects; MDMA Effects; Cannabis Effects; Psychedelic Resource List; LSD Effects; Cannabis Drug Testing; LSD FAQ; MDMA Trick Tract; Mushroom Basics; Cocaine Effects.

## A Peek at the Erowid Offices

*All photos by Erowid crew.*



Erowid HQ — Library



Erowid Central — Jon's Desk



Erowid HQ — Earth & Fire's Desk



Erowid HQ — Shipping Room



Erowid North — Sylvia's Desk

## Experience Reports

Published Reports	18,617
Published in Last 6 Mo.	589
Fully Triaged Reports	25,322
Partially Triaged Reports	1,078
Un-triaged Reports	13,296
Viewed Each Day	108,162
Submitted Each Day	17
Substances Included	486
Active Triagers/Reviewers	27

## The New Logo and “EroLogo” T-shirt

After a long design process, we have finalized a new Erowid logo. The first place we're using it is on the “EroLogo” t-shirt (below), where it forms the “O” in “EROWID”.

One of the guiding ideas behind the logo design was the integration of science and nature. We've always considered this an important intersection in Erowid's work: studying pure chemicals as well as plants; discussing scientific research as well as spirituality.

With the help of dozens of volunteers, we came up with some interesting ideas for merging these concepts in a single graphic. Eventually we honed in on a core theme from chemistry: the benzene ring, a basic structure of many organic compounds, including a variety of psychoactives. It can be drawn as a hexagonal shape, with circles at the apexes representing carbon atoms. Bringing in the botanical world, we worked out a stylized flower-like form that is based on this essential chemical structure.

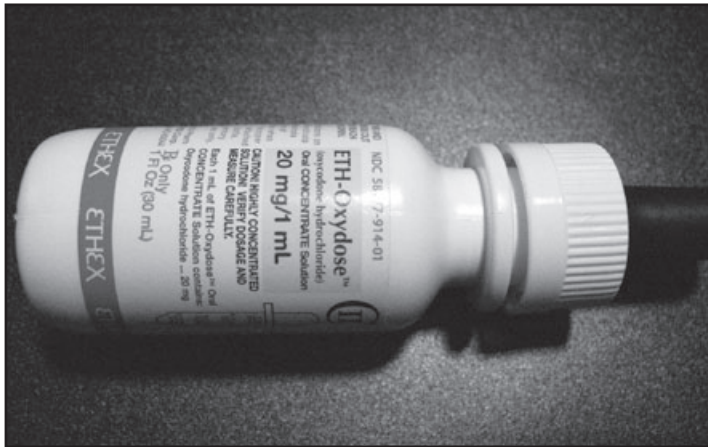
The new design is very scalable, working well at different sizes, and also allows for many variations in color and graphical elements. We're happy with the results, and will be integrating this logo into the site and Erowid literature over the coming months.



# Image Vaults

Published Images	5,132	New in Last 6 Mo.	46
Image Vaults	289	Submitted Each Day	3.2
Viewed Per Day	53,520	Awaiting Processing	9,373

*Datura metel* var. *fastuosa*, Photo by Glorgonash



Oral Oxycodone Concentrate, Photo by Dirty Soul

## It's Final (and Ahead of Schedule)

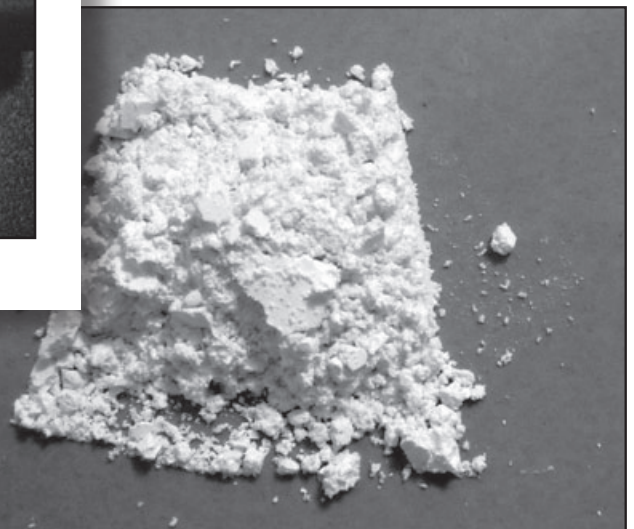
In a pleasantly surprising development, we recently received notification from the Internal Revenue Service (IRS) that Erowid Center no longer needs to go through the process of applying for “final approval” as a 501(c)(3) non-profit organization. We had previously been in a five-year probationary period (from the point that the Erowid Center corporation was first formed), after which we would need to prove that we met the “public support” requirements showing that the organization had the broad base of support required of non-profits. 2009 qualified as the fifth year of the probationary stage, so we were looking to complete the “final approval” process near the end of the year.

However, the IRS has informed us that it has changed its model, and 501(c)(3) organizations that are currently in their probationary period are now being automatically granted final approval (and new non-profits generally won't have a probationary period). Instead, we will need to provide a bit of additional information on our annual 990 tax forms. Presumably, that will be a fairly simple calculation that shows that we meet the public support test.

While this is a minor milestone, it's also one less new IRS form we'll need to figure out, and we can now close that bureaucratic chapter of Erowid Center's founding. Huzzah!

## The Erowid Review

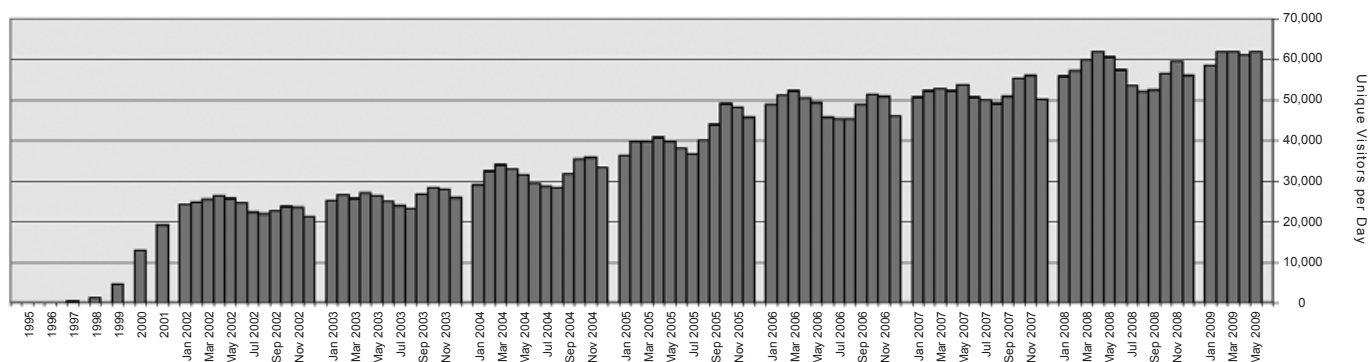
Published Reviews	215
Published in Last 6 Mo.	8
Viewed Each Day	2,725



One Gram bk-MBDB Powder, Photo by J.P.



Daily Erowid Visitors (1995–2009)



### What's New with the Crew

We've recently lost one crew member and gained another. Lux, who worked with Erowid for two years, has left the team for greener pastures. Through his focus on site updates and content creation—including writing, research, and corrections—Lux made an important contribution to Erowid during a crucial time in the organization's transition to non-profit status. We're sad to see him go and wish him all the best.

In a completely different department, Bläk has joined the team in the mission-critical role of shipping goddess. If specialization among the staff is any indication of an organization's healthy growth, Erowid is right on track in its development. Over the last nine months, the job of shipping newsletters, shirts, and other membership gifts to members has largely transitioned from Fire to Bläk, and is flourishing under her watchful eye. She has also started to help with additional projects such as the cataloging of documents from the Stolaroff Collection. Outside of Erowid, she is a para-educator (third and fourth grades), an avid gardener, and a collector of fine cats.

### EcstasyData Summary

<b>2009</b>	Daily Visitors	4,404	Daily Page Hits	31,040
	Results Posted	21	Daily File Hits	352,820
<b>BY YEAR</b>	Results Posted		Testing Results (1999–2008)	
	2009	21	Total Results Posted	1,661
	2008	20	MDMA Only (36%)	605
	2007	59	MDMA + something (20%)	331
	2006	46	No MDMA (44%)	725
	2005	136	- Nothing	98
1996–2004	1382	- Unidentified	73	



### Membership

Current Members	1,227
Recently Expired Members (0–6 mo.)	447
Older Expired Members (6+ mo.)	3,813
Members in the United States	859 (70%)
Members in Other Countries	368 (30%)
Countries with Members	39
Top Membership Countries	
USA (859); UK (64); Canada (63); Australia (54); Germany (28); Netherlands (15); France (15); Norway (10); Switzerland (10); Denmark (9); Finland (9); Sweden (9); Belgium (8); Spain (8); Ireland (7); South Africa (6); Brazil (6); Italy (5); Portugal (5).	

### Erowid Traffic Statistics

<b>DAILY</b>	Visitors	61,037	File Hits	3,901,293
	Transfer	26.08 GB	Page Hits	393,172
<b>BY MONTH</b>		Avg Daily File Hits	Avg Daily Page Hits	Avg Daily Visitors
	Apr 2009	3,822,050	387,394	60,909
	Mar 2009	3,961,004	394,125	61,943
	Feb 2009	3,963,106	399,952	61,789
	Jan 2009	3,799,299	389,890	58,600
	Dec 2008	3,613,660	373,859	55,947
<b>BY YEAR</b>	2008	3,812,410	418,918	57,012
	2007	3,559,761	439,501	51,979
	2006	3,025,185	409,796	48,755
	2004	1,799,694	405,528	31,241
	2002	1,206,855	283,541	23,042
	2000	462,000	126,000	12,000
1998	31,200	8,500	1,000	

# VERBATIM

**“The surest way to corrupt a youth is to instruct him to hold in higher esteem those who think alike than those who think differently.”**

—Friedrich Nietzsche (1844–1900)

**“Nobody realizes that some people expend tremendous energy merely to be normal.”**

—Albert Camus (1913–1960)

**“Remember, we are all affecting the world every moment, whether we mean to or not. Our actions and states of mind matter, because we are so deeply interconnected with one another. Working on our own consciousness is the most important thing that we are doing at any moment, and being love is a supreme creative act.”**

—Ram Dass (b. 1931)

**“Divine chaos is a course corrector, a way of bringing down the systems that distraction built in order that they can be replaced with systems or structures designed with conscious thought.”**

—Caroline Myss (b. 1952)

**“Experience is that marvelous thing that enables you to recognize a mistake when you make it again.”**

—Franklin P. Jones (1887–1929)

**“One of the keys to happiness is a bad memory.”**

—Rita Mae Brown (b. 1944)

**“Character cannot be developed in ease and quiet. Only through experience of trial and suffering can the soul be strengthened, vision cleared, ambition inspired, and success achieved.”**

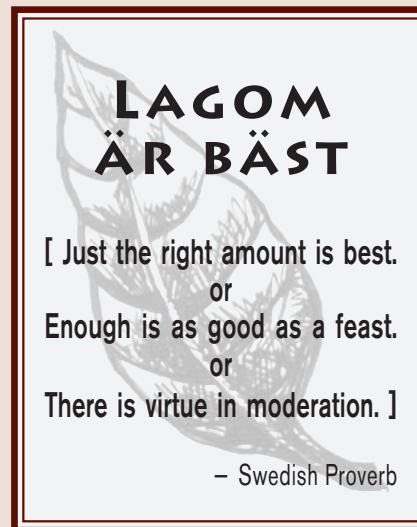
—Helen Adams Keller (1880–1968)

**“The most difficult thing in the world is to know how to do a thing and to watch someone else do it wrong, without comment.”**

—Theodore H. White (1915–1986)

**“There is no one, no matter how wise he is, who has not in his youth said things or done things that are so unpleasant to recall in later life that he would expunge them entirely from his memory if that were possible.”**

—Marcel Proust (1871–1922)



**“When I was young, I admired clever people. Now that I am old, I admire kind people.”**

—Abraham J. Heschel (1907–1972)

**“By the age of six the average child will have completed the basic American education. ... From television, the child will have learned how to pick a lock, commit a fairly elaborate bank holdup, prevent wetness all day long, get the laundry twice as white, and kill people with a variety of sophisticated armaments.”**

—Russell Baker (b. 1925)

**“The difference between the right word and the almost right word is the difference between lightning and the lightning bug.”**

—Mark Twain (1835–1910)

**“Take time to deliberate, but when the time for action arrives, stop thinking and go in.”**

—Andrew Jackson (1767–1845)

**“Speech is conveniently located midway between thought and action, where it often substitutes for both.”**

—John Andrew Holmes (1773–1843)

**“Knowing ignorance is strength. Ignoring knowledge is sickness.”**

—Lao-Tzu (6th century BCE)

**“The fundamental cause of trouble in the world today is that the stupid are cocksure while the intelligent are full of doubt.”**

—Bertrand Russell (1872–1970)

**“If some people do not understand these terms it is of little consequence, for they will come into use in time, and then they will be generally understood; for that is the way to enrich the language, which depends upon custom and the common people.”**

—Don Quixote, by Miguel de Cervantes Saavedra (1547–1616)

**“Dreaming permits each and every one of us to be quietly and safely insane every night of our lives.”**

—William C. Dement (b. 1928)

**“Experience is not what happens to a man; it is what a man does with what happens to him.”**

—Aldous Huxley (1894–1963)