

# Erowid Extracts

A Psychoactive Plants and Chemicals Newsletter

November 2004

Number 7

Erowid.org is a member-supported organization working to provide free, reliable and accurate information about psychoactive plants and chemicals.

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

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**O**axaca (wa-HA-ka) is a Mexican state stretching from the Pacific Ocean along its southern coast to mountainous highlands in the north and tropical lowlands to the east. We recently had the opportunity to visit the Oaxacan highlands for a two week trip that included a week-long conference (Mind States) and a week of travelling in the area.

These two weeks were the longest we had been away from our work on Erowid in the last nine years of its development from an obscure home page to whatever it is today.

For nearly a decade we've spent our "vacation", if one could really call it that, at Burning Man in Nevada. Although certainly different than our daily work, Burning Man had become about as restful as a week of hard work at a psychedelic trade show: enjoyable, but not relaxing. This year, we wanted to do something different.

We left things in the capable hands of trusted crew members and went on our merry way. We did a surprisingly good job of letting go while we were gone: no logging in from internet cafés to tinker or check email. (OK, Earth checked a couple of times to make sure the site was still up and running, but that doesn't count.)

Simply put, our trip was fantastic and satisfying. In addition to attending the conference, our reasons for going included taking a breather from our desk work on Erowid, getting away from the rattling U.S. political situation, and getting a chance to do some travelling. Although hardly a surprise, it's clear that the concept of a vacation is a little alien to us. Offered the choice between a few days relaxing on a sunny tropical beach and taking photos of *Agave* fields and *cacao* vendors, there wasn't a moment's hesitation for either of us.

This issue of *Erowid Extracts* is a little different than usual. We decided to share some of our adventures and the results of our research from Oaxaca.

Like many cultures around the world, Mexico has a long, rich history of psychoactive use, stretching back millennia to the earliest records and archaeological artifacts. Mexico and Central America have a much more varied array of native psychoactives than Europe. These include powerful entheogens such as *Psilocybe* mushrooms, peyote, and *Salvia divinorum* as well as the more everyday psychoactives like *Agave*-based alcohols, chocolate drinks, hot chiles, and a number of as-yet-undocumented plants and herbs. Two weeks was barely enough to scratch the surface, but we had such fun trying!

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**"Not to know what has been transacted in former times is to be always a child. If no use is made of the labors of past ages, the world must remain always in the infancy of knowledge."**

— Cicero (106–43 BCE)

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The day-to-day psychoactives are often overshadowed by their more forceful cousins and yet they constitute so much of the world's experience with intentional mind alterants. We wanted to take this opportunity to spend a little time collecting and summarizing information about them.

Aside from the several thousand emails waiting in our inboxes for replies, everything ran smoothly while we were gone. Thanks for being patient if we were slow to respond.

We hope the articles about Oaxaca in this issue help give a sense both of our trip and of some everyday psychoactives available in the region.

Fire & Earth

# RECENT NEWS AND UPDATES

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## Ecstasy's Perceived Safety

A forthcoming article that seems worth noting is Gamma, Jerome, Liechti, and Sumnall's "Is ecstasy perceived to be safe? A critical survey", to be published in *Drug and Alcohol Dependence*. The article describes the results of an online survey—which we coded, helped author, and conducted on Erowid—about perceived safety of ecstasy and perceived reliability of different sources of information. The paper came, in part, out of annoyance that ecstasy research and news often state, without supporting references, that ecstasy users believe it is a "safe drug". The assumption is that if people use ecstasy, they must, by definition, believe it to be without risk.

The survey ran on Erowid for a few weeks and resulted in 923 valid responses. The primary findings were that most ecstasy users who responded to the survey recognize that there is risk associated with the use of the drug and, not surprisingly, tended to say that Erowid was the most reliable of the information sources.

Survey respondent rankings of the relative health risks of a dozen different psychoactive drugs, including cigarettes and alcohol, showed they were well informed. As Gamma *et al.* describe, "[These results show] that the perceived relative risk of ecstasy does not substantially diverge from its scientifically recognized risks relative to other drugs."

For more information, see:

[Erowid.org/extracts/n7/ecstasy\\_safety.shtml](http://Erowid.org/extracts/n7/ecstasy_safety.shtml)

## Novel PTSD Pharmacotherapy

A study underway at Jerusalem's Hebrew University is investigating THC in the treatment of PTSD. In research approved by military and civilian review boards, Israeli soldiers are being administered THC dissolved in olive oil under the tongue. Animal studies performed in Israel and elsewhere have demonstrated that both cannabinoids and endocannabinoids modulate memory. Research published earlier this year in the journal *Psychopharmacology* found that the administration of THC and cannabidiol made rats forget prior conditioning. The effects of

THC on stress (in mice) were first discovered by Germany's Max Planck Institute of Psychiatry in 2002.

## MAPS PTSD Study

Five subjects have completed their experimental sessions in the MAPS-sponsored study investigating MDMA therapy in the treatment of post-traumatic stress disorder. In several weeks, all five will also have completed their final follow-up evaluations, scheduled for two months after the second and final experimental sessions. No significant adverse reactions have occurred and the initial results seem promising.

## Free Speech Anniversary

On Saturday, October 9th, Earth and Fire spoke at the 40th Anniversary of the Free Speech Movement on the UC Berkeley campus. They participated in a panel discussion about the impact of the Drug War on civil liberties along with Dale Gieringer of CA NORML and John Gilmore of the Electronic Frontier Foundation (EFF).

The theme of their talk was that acting on one's beliefs naturally works to protect civil liberties. They observed that people often give up their own civil liberties out of fear rather than making the government actually step up and take them away. They discussed other dangers to free speech related to psychoactive drugs, including the more practical problem of copyright restrictions that put the ownership of publicly funded research in the hands of profit-driven companies. They also touched on how the last century of prohibition has shifted expectations about the reasonable powers of the federal government. This shift in expectations directly affects civil liberties because courts decide what is and what is not a constitutionally protected right on the basis of cultural norms and "reasonable" expectations.

Turnout for the event was lower than expected, but the participants included some very interesting people, including men who spoke from personal experience about how important and complicated cannabis and psychedelics were to the free speech movement of the 1960s. Thanks to Michael Rossman for organizing the discussion.

## Reason Magazine Mention

Earlier this fall, an article in *Reason Magazine* generated some discussion. "Open Secrets: how the government lost the drug war in cyberspace", by Michael Erard, focused on the DEA's decision to publish its newsletter *Microgram*, online. The article describes how sites like Erowid, Bluelight, and others have changed the drug information landscape so that prohibitionist government agencies are having to reconsider what and how they publish.

Erard writes: "Ultimately, DEA officials say, they recognized that the spread of information via the Internet had made the law enforcement restriction on *Microgram* obsolete, so they decided to end it. 'A lot of the information that was previously sensitive is now very common knowledge that's available to anybody,' says Bob Klein. 'It's basically made moot many of the previous reasons for keeping [*Microgram*] law enforcement restricted.'"

It is quite satisfying to have the DEA confirm that one of Erowid's primary missions—to turn important information about psychoactive plants and chemicals into "common knowledge"—has been successful.

Erowid filed a Freedom of Information (FOIA) request in 2002 for a 1995 issue of *Microgram*. The request was flatly turned down because, we were told, the information was too sensitive for public release. Fortunately, we now have a nearly complete set of *Microgram* issues from 1967 through the early 1990s. We should have the collection of these scanned PDFs ready for release in the next few months.

The *Microgram* editor also admitted what everyone in our field knows all too well: the government has no interest in improving drug information. "Bob Klein acknowledges that the government allowed drug myths to circulate. 'A lot of information [passed among drug users] was flat-out bogus,' he says. 'A huge amount of material circulating around the chemical underground,' such as smoking dried banana peels or making amphetamine from chicken feed, 'was just bullshit. And the government wasn't going to correct those misconceptions for obvious reasons.'" Perhaps obvious to him. ●

I currently work for the National Health Service in Great Britain employed in a drug support agency, working with people under the age of nineteen. I have been directly involved in harm reduction work for three years as a social worker, and it has played a major part in other work I have undertaken. Since approximately 1999 (when I first came across Erowid.org), I have found it to be a great resource for working with clients on all issues relating to substance use.

Whilst in this position, I have never found anything that has come close to giving me as accurate and up-to-date information on such a wide range of drugs (both legal and illegal) as Erowid. I, my work colleagues, and more importantly my clients and their families appreciate the work that is put into making such a valuable resource. I strongly recommend this site to anyone who has an interest in the topics covered by Erowid, be it for personal or professional use.

— DAVE WILSON  
*Email to Erowid*

Lots of useful information here, however the site does get its fair share of the uninformed submitting reports. I get annoyed when someone misuses a substance and blames not their irresponsibility and ignorance, but the substance. I also notice many factual errors in the reports, however the blame lies not with Erowid, but with those writing the reports. I feel that a better system of screening reports is needed. No complaints, just suggestions...

— REVEREND S.W. RHEINHOLD  
*Submitted to Guestbook*

I love your website and strongly agree with the necessity for a record of this aspect of human society.

— JAMES  
*Erowid Member*

Thank you for creating a site with such generous information on topics most people would shy away from even discussing on the phone. Thank you for your courage and using your right to free speech to educate the public. I am PROUD to support you!

— DR. KIMBROUGH  
*Submitted to Guestbook*

Thank you for providing factual information about what is otherwise an indoctrination of propaganda. Your valuable facts have saved countless lives...

— CHARLES  
*Erowid Member*

I partly understand your decision to voice your opinion on the choice to partake in mind-altering drugs, who cares if nobody gets hurt, right? Hey, I've done my fair share of partying too, who hasn't? But what you fail to realize is that the choice to do heroin is most certainly a death sentence.

— LONG COOL WOMAN  
*Submitted to Guestbook*

You guys answer all kinds of really stupid questions and I have one that could be life saving and you won't give me the time of day. I'm very disappointed. I've been loyal to you guys for a while now and you can't even dignify my loyalty with an answer!?! I only wanted to know if *Amanitas* contain MAOI because I take anti-depressants and wanted to be safe, but fuck it. I'll just give them a try without the proper info and hope I don't die. If I do die then blame yourself.

— ANONYMOUS  
*Submitted to Ask Erowid*

Oh my god! This is how information should be! So much of the internet's 'information' on drugs of any kind is complete bullshit, but here is a site where the truth is paraded with pride and dignity. Your work is an inspiration to us all.

— THE TOAD  
*Submitted to Guestbook*

I think this site is absolutely horrid, and you ppl are so pathetic. It absolutely disgusts me to read other entries and see that ppl reference this site for info on using drugs and all that mess, it's wrong and you ppl make me sick. On another note, when my friends were first getting in to taking crap, it would have been nice if I had known this site was here so I could see just what all I should expect; I would have appreciated it more then...

— AMANDA  
*Submitted to Guestbook*

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ISSN 1548-8071  
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**Know Your Body**  
**Know Your Mind**  
**Know Your Substance**  
**Know Your Source**

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# The Origins of CHOCOLATE

*Theobroma cacao* - Xocolatl - Chocolatl - Cacahuatl - Chocolate

By Earth & Fire Erowid

In the United States and Europe, chocolate is almost synonymous with decadent pleasure. A nearly ubiquitous sensory delight, it can be purchased at every grocery store, convenience store and gas station, not to mention impulse-buy racks at clothing and electronics stores. It is found in solid bars, candy flavorings, elaborate desserts, and hot or cold beverages; available as milk chocolate, dark chocolate, semi-sweet chocolate, Swiss chocolate, chocolate nibs, and endless other varieties.

Yet, despite its seeming integration into our lives, visiting one of chocolate's traditional homes highlights that it is not a native part of Euro-American culture. How many people know what a *cacao* tree looks like or have any sense of how *cacao* beans are turned into the chocolate they eat? How many have tasted the sharp-tasting beans before they have been transformed into the sweet candy?

Chocolate has a long history of use in Mexico and the incorporation of *cacao* into modern ritual, culture, and religion is preceded by a rich narrative of over 2,000 years of mythology and tradition. This history provides a context for the modern consumption of chocolate a perspective that is largely lacking in other parts of the world. It also contributes to the local perception of what chocolate is.

In Oaxaca, Mexico, chocolate occupies a different niche in the diet than it does in the United States and Europe. Though not much *cacao* is grown in Oaxaca these days—most of the beans are imported from Tabasco or Chiapas—it is regularly consumed there and, if possible, it is even more omnipresent than in the U.S. While North Americans generally use chocolate in candy or dessert, in Oaxaca chocolate is a staple food, purchased whole or freshly ground as a cooking ingredient rather than as a highly-processed final product. In open air shops and markets, whole *cacao* beans are found in large piles or sacks alongside dried pinto beans, cornmeal, chiles, and flour. The coarsely ground meal can be found alongside the meat and vegetables. It is used regularly as an ingredient in cooking and drunk daily as a hot and cold beverage. Restaurants and families alike order it in bulk for all their cooking needs. Travelers learning of Oaxaca's renowned chocolate moles and its many chocolate shops will discover that not everyone shares the same idea about what constitutes proper use of the *cacao* bean.

The difference between the world view of chocolate as candy and the highland Mexico view of chocolate as staple raw material elicits a comparison with other products that were subject to colonial resource extraction. Comparing the purchase of freshly ground *cacao* beans with buying a Reese's Peanut Butter Cup® in the checkout line at a gas station brings to mind the gulf between the use of raw *coca* leaf in South America and the

modern use of refined cocaine in Europe and the United States. Their parallel problems of compulsive over-consumption highlight the risks of extraction and processing, and the loss of traditional context and customs.

## Basics

*Theobroma cacao* (family Sterculiaceae) is a small 20–40 foot tall understory tree native to Central and South America. It grows best in hot humid lowlands with plenty of rainfall.

Its oblong, melon-sized fruit grow directly out of the trunk or main branches and turn from green to yellow to red as they mature. Each fruit contains a viscous, sticky goo that encases about 30–50 ivory-colored, almond-sized beans that are the source of chocolate.

After the fruit is harvested, the beans and their surrounding pulp are scooped out and left to ferment for five to six days. During this time, the mass heats up, the pulp turns to liquid and drains away, and the beans turn brown and begin to develop a richer flavor with less astringency. After fermentation, the beans are allowed to dry in the sun for about two weeks and which they are briefly roasted to augment their flavor. At this point, the *cacao* beans are ready for processing into chocolate.

## Processing

Until only a few decades ago, *cacao* beans were processed in the home, ground by hand on a 3-legged grinding stone, or *metate*. Today, most chocolate processing in Oaxaca takes place in small storefronts located in all but the smallest of towns. In Oaxaca City, these shops are concentrated on Calle de Mina, a few blocks south of the *zocolo* (city center), and in the large market area on the west side of town. Open to the street, most of the shops are just large enough to house a set of grinding machines,



Whole *cacao* beans

a small counter, and a shelf full of packaged chocolate for sale.

Shelled *cacao* beans are poured by the bucketful into the grinders, emerging as a thick dark paste called “cacao liquor” or “chocolate mass”. To most batches, copious amounts of sugar are added and the mass is passed through the grinder again, which mixes the sugar with the ground *cacao* beans, creating “chocolate”. Depending on the desires of the purchaser, almonds, chiles, or cinnamon might also be added. The resulting chocolate is a coarse, grainy material with the consistency of brown sugar. In some shops, the same grinders are used to grind chiles and tomatoes into salsa—just a quick rinse with a hose and the grinder is ready for the next job. Standing nearby when they’re grinding chiles is like standing in a cloud of pepper spray.

During peak hours, salespeople stand in the doorways of these shops, ready to dump a pile of the warm, freshly-ground chocolate into the hands of passing shoppers. Walking by, the nutty, warm smell of *cacao* combines with the comforting smell of vanilla and the spicy aromas of cinnamon and chile to create a uniquely pleasant sensorial experience.

### Modern Oaxacan Preparations

Most of the chocolate processed in Oaxaca will never make it into a bar or candy; instead it is used in traditional chocolate-based preparations such as *mole* sauces and beverages believed to be closely related to those used by the Aztecs.

### Champurrado

Perhaps the most familiar of these beverages is hot chocolate. Every café and restaurant has Oaxacan-style hot chocolate, often including vanilla, cinnamon, or other spices, most of which are quite tasty. A variation of this is *champurrado*, a warm thick drink made with chocolate and *atole* (a corn gruel made from corn meal and water).

### Tejate

To the uninitiated, *tejate* might appear unappealing; it looks most like a bowl of dirty dishwater with globs of soap foam floating on top. But to the locals, it is a refreshing, invigorating beverage once said to have medicinal and aphrodisiacal properties.

Tejate is made from toasted corn, *cacao*, cinnamon, mamey seed, and the flowers of *Quararibea funebris* (also called the “cacao flower”), which act as a thickener.<sup>1</sup> This cold, and spicy drink is plentiful in the markets and food stands, where local women sell homemade batches from large tubs. Its foamy consistency is most often achieved with the use of a *molinillo*, or chocolate whisk. So common is this drink that molinillos are widely sold on street corners as souvenirs.

Although wary travelers may avoid *tejate* for fear of drinking the local water (or anything made from it), they may miss out on the drink of kings. *Tejate* is a signature beverage of the Mexican highlands that is believed to have changed little in the past 1,000 years.<sup>2</sup>

### Chocolate Bars

Oaxacan chocolate bars are another matter. Those used to the smooth, creamy texture of a

high-quality Swiss chocolate bar, or the waxier pleasure of a Hershey bar, might have a hard time accepting the Oaxacan variety. Though *cacao* beans contain about 50% cocoa butter (the fatty part of the *cacao* bean), the chocolate bars we are accustomed to contain extra cocoa butter and milk to make them smoother.<sup>3</sup> U.S. and European chocolate is also “conched”, a process of heated mixing which increases creaminess. Oaxacan-style chocolate bars are not conched or creamed, and, when first tasted may seem old and stale. Dry, brittle, grainy, and full of undissolved sugar, they taste like chunky hot-cocoa mix in a bar.

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**“Well made chocolate is such a noble invention that it, rather than nectar and ambrosia, should be known as the food of the gods.”**

— Dr. Bachot (1662)  
17th century Sorbonne scholar

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### Mole Negro

Though Oaxacan chocolate may not compare to more refined chocolates for use in bars and candies, it is perfectly suited for this delightful local dish. Oaxaca is well-known for its moles and nearly every restaurant offers a *mole negro* (“black mole”) that includes chocolate and chiles as main ingredients.

Some moles are smooth and very chocolaty, while others are spicy with only a hint of chocolate earthiness. They range from mediocre to fantastic (a majority are good) and are most often served atop chicken dishes, although they are equally well suited to a cheese enchilada for the vegetarian.

These uninspiring chocolate bars, delicious chile-chocolate sauces, and unfamiliar chocolate drinks reinforce the notion that chocolate’s history is more alien than familiar.

### Food of the Gods

The beans of the *cacao* tree have been used to make chocolate for more than 2,600 years. Archaeological evidence for this is found in the form of *cacao* residue in Mayan cooking vessels from approximately 600 BCE.<sup>4</sup> Later chocolate vessels have also been found that bear the Mayan glyph for *cacao*. Some chocolate scholars argue that *cacao* was cultivated and consumed earlier than 1000 BCE.<sup>5</sup>



**Left:** Cacao grinders in La Soledad chocolate shop.

**Above:** Freshly ground cacao beans mixed with sugar and spices.



**Aztec sculpture of man with cacao pod (c. 1200-1521) Brooklyn Museum of Art**

The Latin name for the plant—*Theobroma cacao*—literally means “food of the gods”, a name given by Swedish naturalist Linnaeus in the seventeenth century. This reflects the myth that Quetzalcoatl, one of the most important gods of the Aztecs, stole a cacao tree (called *cacahoauauitl* in Náhuatl)<sup>6</sup> from his fellow gods, the “sons of the Sun”, in paradise. He then traveled to earth on a beam of the morning star and gave cacao beans (*cacahuatl*) as a gift to the people of Mexico.<sup>6</sup> Quetzalcoatl specifically taught women (not men) to roast and press the cacao beans and prepare a beverage that was believed to bring knowledge and wisdom.

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**“The divine drink, which builds up resistance and fights fatigue. A cup of this precious drink permits a man to walk for a whole day without food.”**

**— Hernando Cortés (c. 1520)**

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Several other Aztec gods are also associated with cacao. Tlaloc, the Aztec god of rain and fertility, was asked by Quetzalcoatl to nourish the cacao tree with water after it was planted. And Xochiquetzal, the Aztec goddess of love, was tasked with adorning the cacao with flowers; some depictions of her include a vessel of cacao beverage, adorned with flowers.<sup>7</sup>

Unfortunately, because most of the pre-Columbian writings of southern Mexico were destroyed by the Spanish, much of what is known about early uses of chocolate is based on cryptic archaeological evidence (such as

the residue in early pottery) and writings from the sixteenth century. Images of cacao trees, cacao pods, and cacao-related glyphs appear on Olmec, Mayan, and Aztec frescos, pottery, and stone carvings from the late pre-Classic period (250 CE) onward.<sup>8</sup>

### **The Spanish Meet Cacao**

Christopher Columbus ran across cacao beans on his fourth voyage in 1502, when he captured a trading canoe carrying cacao beans among its cargo. The beans were valued so highly that they were used as a form of currency by the Aztecs.<sup>4</sup> According to Spanish historian Francisco Oviedo y Valdés, in 1513 a slave could be purchased in “New Spain” for 100 cacao beans and a rabbit for ten.<sup>9</sup> These numbers suggest the extraordinary value of cacao beans; cacao did not grow well in the Mexican highlands and the beans are thought to have been mostly imported from other areas. Although the value of cacao beans certainly varied dramatically over time and from places to place, evidence of counterfeit cacao beans also reflects their value. According to Sahagún’s *Florentine Codex*:

“The bad cacao seller [...] counterfeits cacao. [...] With] amaranth seed dough, wax, avocado pits he counterfeits cacao; he covers this over with cacao bean hulls, he places this in the cacao bean shells. The whitish, the fresh cacao beans he intermixes [...] Indeed he throws in with them wild cacao beans to deceive the people.”<sup>10</sup>

Though Columbus was aware of the existence of cacao beans as a valuable commodity, it was Hernando Cortés and his crew who first documented their consumption. In 1519, they observed Moctezuma II, emperor of the Aztecs (“Montezuma” in English), drinking a thick and foamy dark red beverage, mixed with spices and served cold, called *cacahuatl* (“cacao water”).

“The emperor took no other beverage than the chocolatl, a potation of chocolate, flavored with vanilla and other spices, and so prepared as to be reduced to a froth of the consistency of honey, which gradually dissolved in the mouth and was taken cold. This beverage, if so it could be called, was served in golden goblets, with spoons of the same metal or of tortoise-shell finely wrought.”<sup>11</sup>

The Aztec leader was said to drink more than 50 cups a day of *chocolatl*, as the beverage was also called, often reportedly before adjourning to his harem, a practice that helped distinguish chocolate as an aphrodisiac.

This chocolate drink was a sacred brew in southern Mexico. In Aztec society it may have been reserved for royalty, priests, and honored soldiers, or perhaps it was simply too expensive for commoners to afford. The beans were used as offerings to the gods and the drink was incorporated into religious ceremonies.

### **Drink or Mousse?**

There is evidence that a number of different preparations for cacao drinks were in use before the arrival of the Spanish, though no documented recipes have survived.<sup>6,10,12</sup> What is clear is that many different herbs and spices were used as admixture plants, including hot chiles, vanilla, and others that rendered the drinks unpalatable to the Europeans who first wrote about them. Virolano Benzoni, author of *La Historia del Mondo Nuovo* (Venice, 1572), for example, opined that cacahuatl was “a beverage fit more for pigs than for men”.<sup>6</sup>

Many modern texts say the chocolate drinks were never sweetened, but this is disputed by Ott and seems to contradict the venerable *Florentine Codex*, which states that the seller of fine chocolate mixed it “with wild bee honey”.

The thick foam was made by frothing the watery cacao, flowers, and spice mixture. Before Spanish contact, this was achieved by pouring the drink back and forth between two vessels. In the sixteenth century the Spanish invented and introduced the use of the *molinillo*, or chocolate whisk, used to more effectively froth the drink (see photo). It is said that the froth is the best part of the drink: The higher the froth, the better the drink, and the cook.

Tejate, the whipped and foam-topped cacao drink of modern Oaxaca, bears a striking resemblance to Moctezuma’s “beverage”. The major exception is that tejate is liquid with a foam topping, while cacahuatl is





"The seller of fine chocolate [is] one who grinds, who provides people with drink... She grinds cacao; she crushes, breaks, pulverizes them. She chooses, selects, separates them. She drenches, soaks, steeps them. She adds water sparingly, conservatively; aerates it; she makes it form a head, makes it foam; she removes the head, makes it thicken, makes it dry, pours water in, stirs water into it.

She sells good, superior, potable chocolate: the privilege, the drink of nobles, of rulers—finely ground, soft, foamy, reddish, bitter; [with] chili water, with flowers, with *ui nacaztli*, with *teonacaztli*, with vanilla, with *mecaxochitl*, with wild bee honey, with powdered aromatic flowers. Inferior chocolate has maize flour and water; lime water; it is pale; the froth bubbles burst. [It is chocolate] with water added—Chontal water... [fit for] water flies."

— Florentine Codex

described solely as a froth. The similarities are so strong that we pondered whether perhaps the early European chroniclers, put off as they were by the strange new taste, merely failed to get through the thick layer of floating foam to reach the actual beverage underneath.

### Cacahuatl Psychoactive?

At least some of the cacahuatl imbibed by the Aztecs was a psychoactive intoxicant. This is reported by several European chroniclers, including Sahagún:

"This cacao, when much is drunk, when much is consumed, especially that which is green, which is tender, makes one drunk, takes effect on one, makes one dizzy, confuses one, makes one sick, deranges one. When an ordinary amount is drunk, it gladdens one, refreshes one, consoles one, invigorates one. Thus it is said: 'I take cacao. I wet my lips. I refresh myself.'"<sup>10</sup>

According to Jonathan Ott, many of the reported psychoactive properties were due to the inclusion of psychoactive admixture plants. Along with the more common spices, chocolate beverages were used as the vehicle for other ingredients including

psilocybin mushrooms and *Datura* species.<sup>1</sup> It is difficult to take enough chocolate to make one "dizzy" or "confused", so it is an intriguing question as to what Sahagún's Nahuatl informants had in mind when they described it this way.

During a presentation at the Mind States Oaxaca conference, Ott presented an updated version of his thesis that some traditional cacahuatl potions contained other psychoactives. Using the Spanish codices and the few extant Mayan and Aztec glyph codices, Ott posited that the symbols used in the depictions of cacahuatl suggest a wide variety of admixture plants, including *Datura stramonium*, a plant from the genus *Solandra*, a plant from the genus *Hypericum*, possibly DMT-containing *Virola* barks, a *Piper* genus plant, psilocybin mushrooms, and many others.

The question of what was mixed with *cacao* to make intoxicating drinks could overshadow the fact that *cacao* itself contains active levels of caffeine and theobromine, both stimulants. The actual amounts vary by *cacao* source and preparation method (fermentation and cooking seem to increase caffeine and theobromine content), but the beans hover around 0.2–0.29% caffeine and 1.2–2.5% theobromine content by weight. Twenty fermented, dried beans weigh about 20 grams (including the shells) and contain 40–60 mg of caffeine and 240–500 mg of theobromine, quantities definitely above perceptible threshold.<sup>13</sup> Apart from whatever effects the various admixture plants may have had, any strong *cacao* drink would have been a psychoactive stimulant in its own right.

### Introduction to Europe

It is unclear whether Cortés himself ever introduced anyone in Spain to *cacao*. The treasures he brought home no doubt included some *cacao* beans, but the first record of a cacahuatl beverage in Spain dates to 1544. In that year, a group of Dominican friars brought a delegation of Kekchi Mayan nobles to visit Prince Philip of Spain. The Mayans presented gifts of beaten *cacao*, mixed and ready to drink.<sup>14</sup>

Before American contact, Europe was badly in need of stimulants. During the first century after contact, Europe was introduced to tobacco, coffee, and chocolate, and around the same time, the tea trade began and grew rapidly. Very quickly, "chocolaté" became a popular drink for the Spanish

upper class, but *cacao* drinks required some changes before they could become popular in Europe. As Joseph Acosta noted in his *Historie of the East and West Indies* in 1604:

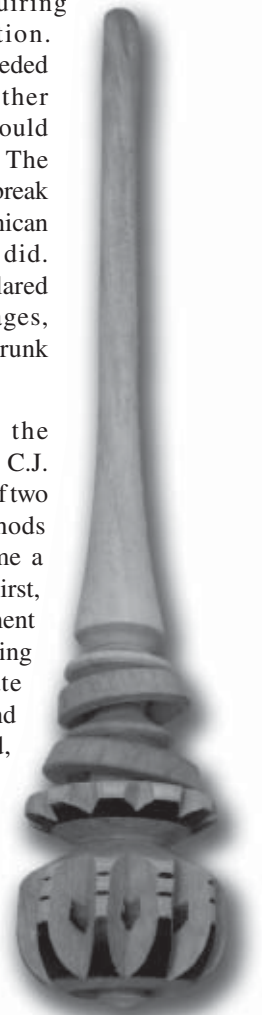
"The chief use of this cocoa is in a drinke which they call chocholaté, whereof they make great account, foolishly and without reason; for it is loathesome to such as are not acquainted with it, having a skumme or frothe that is very unpleasent to taste."<sup>15</sup>

To make it more palatable, the Spanish prepared their *cacao* with vanilla and added sugar.<sup>16</sup> *Cacao* was kept a relative secret by the Spanish royal court for some time after they began to enjoy it, an interesting mirror of the restrictions on the use of *cacao* in Aztec culture.

### Cacao Goes Global

As *cacao* use grew in Europe over the next several centuries, it was involved in the growing pains of a culture attempting to integrate all of the imported products it was acquiring through colonialization. Important questions needed answering, like whether drinking chocolate would break a Lenten fast. The Jesuits argued it did not break the fast, while the Dominican Order argued that it did. Pope Gregory XII declared that chocolate beverages, like coffee, could be drunk during fasts.<sup>14</sup>

It was not until the nineteenth century and C.J. Van Houten's invention of two major processing methods for *cacao* that it became a world-wide favorite. First, Van Houten's development of high-pressure expelling made it easy to isolate cocoa butter for food and cosmetic use. Second, his "dutching" process of treating the *cacao* with alkali allowed for cocoa drinks that were readily water-soluble and which did not result in large amount of "skumme".



## Moctezuma's Return

Shelled and unshelled *cacao* beans are now increasingly present in the U.S. and European market and there is a growing interest in non-candied *cacao* as a "health food". The burgeoning "raw food" trend touts chocolate as one of its discovered gems and in October 2004, an article in *The New York Times Magazine* points out that the M&M/Mars company has recently patented certain health applications of chocolate including its use "in the maintenance of vascular health" and as an "anti-platelet therapy".<sup>17</sup> They appear poised to bring chocolate products full-circle by marketing them as healthful.

As a global commodity, chocolate is so tightly linked to luxuriously high fat and sugar contents that it is primarily associated with sensual decadence. Moctezuma II's fifty cups per day may seem absurd, but chocolate

addiction is common enough to warrant frequent jokes about "chocoloholism" and research into its etiology. One journal article by W. Michener and P. Rozin even suggests that "chocolate craving [is] the most common craving in North America".<sup>18</sup> It is, of course, difficult to separate culture from business sales interests, but chocolate, far from the bitter inebriant and sacred wisdom-food of the Aztecs, still has an evocative, almost magical, mystique.

In modern Mexico, *cacao* has maintained its place of respect. It not only occupies a regular place in the highland Mexican diet and found in U.S.-style candy bars, but *cacao* beans are still involved in birth, marriage and death ceremonies and are frequently used as altar offerings. Although often belittled and poorly understood outside its native lands, *cacao* still deserves its title of Food of the Gods. ●

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## A Brief Timeline of Early Chocolate History

1500–400 BCE	Olmecs believed to have cultivated <i>Theobroma cacao</i> .
600 BCE	<i>Cacao</i> beans are used to make a warm beverage in pre-Columbian America.
350–650 BCE	<i>Cacao</i> tree painted in murals in Teotihuacan near Mexico City. <sup>4</sup>
300–600 CE	<i>Cacao</i> beans are used as currency.
600–900	Nobles buried with ceramic <i>cacao</i> vessels.
c. 1550	Popul Vuh mentions <i>cacao</i> .
1502	Columbus encounters <i>cacao</i> beans.
1519	Cortés witnesses Moctezuma II drinking a <i>cacao</i> beverage
1544	A group of Dominican friars brings a delegation of Kekchi people to Spain who present Prince Philip with a chocolate beverage. Chocolate begins to gain popularity amongst Spanish nobles.
1569	Pope Pius V declares that chocolate beverages are not a food and therefore may be drunk during religious fasting. This ruling was later confirmed by Cardinal Brancaccio in 1664.
1585	The first official shipments of <i>cacao</i> beans began to arrive in Seville from Mexico.
1600–1700	Chocolate use spreads outside of the Spanish nobility and throughout Europe.
1712	European-style chocolate makes its way back to North America.
c. 1750	Linnaeus names the plant <i>Theobroma cacao</i> .
1828	C.J. van Houten patents "dutching", an extraction process, creating modern "cocoa powder".
present	An estimated one billion people worldwide eat some form of chocolate every day.



# PUSHING THE CLOUD OF CONSCIOUSNESS

*Experiences with Meditation, by Lunafisk*

After a very intense and terrifying experience with cannabis cookies, I started to suffer flashback-like panic attacks, in which I felt like I was getting uncontrollably high for no reason. I've used relaxation techniques for years because I occasionally suffer from insomnia, so I tried these same techniques when I felt panicky.

The feeling would start with a pressure building in the front of my head. With controlled breathing and emptying my mind of thoughts about being high or scared, I could lessen the panic a bit, but the pressure would stay for an hour, or maybe the rest of the day. I tried relaxing further, settling into a slightly deeper, more meditative state, about the level where my body feels very heavy and warm. I realised that in this state I could pull the pressure from the front of my head into the back or down my spine into my chest (this was very much like an experience with a "cloud" in my head that I'd had on cookies once before). Moving the pressure into the back of my head brought on an intense pleasurable high. It was a two-tiered feeling of high buzzing ecstasy, and low, content bliss that pervaded everything. I moved it back to the front of my head and realised that I could control it there too; although it was an edgier and less pleasant high, it was also more action-packed, more mushroom-like. I experimented with lots of meditation techniques over the next few months. None of these are things I "imagined" or convinced myself I was feeling. The high was instant and as real as any drug.

The first feeling, the bliss & ecstasy, is my favourite. I now use it automatically when I'm in a stressful situation, or bored. I've never taken ecstasy and don't plan to, but descriptions of that sound a lot like this feeling. The feeling has a very strong sensual element to it that is enhanced if I concentrate on it. If I push this feeling past a point, I reach a state best described as a lasting orgasm (half an hour or more), but it is far more a mental feeling than a physical one.

"Pushing" the "cloud" to the front of my head changes the feeling a lot, lending it a

nervous energy. Concentrating it forwards, almost to the bridge of my nose, I get visuals when I look at things. Nothing very extreme: clocks elongating or rotating, things "breathing", patterns moving, things glowing and pulsating. There is also a very drugged mental feeling, a "whee-this-is-high-up" kind of buzz, which I don't like. This is a fun state. There is nothing spiritual about it and it doesn't really lead anywhere.

Different combinations of these two states, and moving the cloud around my head, down my spine, and elsewhere, lead to lots of other variations. There's a "cokey" one, a feeling like a clear high note and a deep sense of strength and clarity. That one I reach from the first feeling by doing a meditation

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**I can reach a deeply relaxed state with a rapidly fading ego and no consciousness of my physical self, just by concentrating on the bliss and channeling the extra ecstasy energy into relaxation.**

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practice that involves listening for a ringing in my head and then following it upward as the note gets higher. Then there's different ways to experience the orgasmic state, whether it's entirely mental, or physical as well, at different levels of intensity. And there are the very deep states of meditation that normally take forever to get to; for those the first state works as a shortcut. In about twenty minutes I can reach a deeply relaxed state with a rapidly fading ego and no consciousness of my physical self, just by concentrating on the bliss and channeling the extra ecstasy energy into relaxation.

There are a few "grounding" methods and states that I use. Pulling pressure down from my head into my chest makes the "bliss" feeling more of a "love" feeling. I also discovered an interesting experiment recently—standing still, increase the pressure in your head, then drain it down into your

arms and body. Feel your skin getting more tingly and full of blood. Let your arms move and try to enter a trance-like state where you are half-dancing, waving your arms around in twirly patterns but without actually concentrating on doing it yourself. When I did this the first time I was a little scared, as my arm seemed to be twisting further than was natural. But it's easy to stop and leaves me feeling as if I've had a massage. Again this is fun, not spiritual. But it is a lot of fun, and I feel more connected to my body, more real and athletic, after doing it.

There are many other variations, and things I haven't tried yet, but these are the ones I find most interesting and the ones I do most often. I realise that much of this sounds bollocksy, but there isn't much of a vocabulary for talking about meditation, and I don't like the connotations of words like "chakra".

These aren't all entirely positive experiences. The states I induced did help me cope with panic attacks and I could end the high at any time, but I often had some problems feeling disconnected from the world and myself, and also saw "bugs" for a while after an intense experience. It is also hard to do what seems good for me, rather than just explore, and see how high I can get. I have quite frequently actually induced panic attacks that border on psychotic episodes through over-meditation. I am not going to meditate hard for a long while after a bad experience I had the other day. I was feeling a bit edgy from meditating too much and then had an argument with someone; I began to hallucinate smoke curls and animals and thought that he had set fire to the house, although I never lost touch with the fact that I was panicking and paranoid. So maybe these experiences are just a slightly controlled onset of schizophrenia, or maybe being able to switch between mental states at will is just a dangerous tool. But I do think that the state of contentment and bliss is one worth pursuing, and that a lot of people could reach through meditation alone. ●

[Erowid.org/experiences/exp.php?ID=36933](http://Erowid.org/experiences/exp.php?ID=36933)

## British Use of “Data-safe Quotes”

by Earth Erowid & Sylvia Thyssen

After the publication of “Erowid Punctuation Policy: Data-safe Quotes” in *Erowid Extracts* No. 4 (May 2003), it was pointed out to us that the concept of “data-safe quotes” exists as part of the standard British punctuation convention. The British too appear to regard the practice of placing punctuation inside quotes, regardless of the sense of the original quoted material, as illogical. The arguments against the British/Erowid “logical” style are mainly aesthetic: U.S. detractors claim that periods and commas outside quotes look awkward.

The British policy is documented in Fowler’s canonical *Dictionary of Modern English Usage*, first published in 1927 with updated versions that are still used as guides today.<sup>1</sup> More recent rewrites of Fowler’s dictionary describe both British and American styles, strongly favoring the British.

Although we have been unable to find even the barest substantiation, one explanation for the American rule is that early American typesetters, using cast metal letters, found periods were too fragile when placed outside quotation marks and the use of ” instead of ”. arose to avoid accidental breakage. This unreferenced story is given in Mark Israel’s 1997 alt.usage.english FAQ, which also says that the British-style quote policy “has gained ground, and is especially popular among computer users, and others who wish to make clear exactly what is and what is not being quoted.”<sup>2</sup>

In trying to nail down how this difference arose, we spent time driving to distant libraries and digging through books to track down such thrillers as *Pause and Effect: An Introduction to the History of Punctuation in the West*<sup>3</sup> and *You Have a Point There: A Guide to Punctuation and Its Allies*.<sup>4</sup> Partridge’s book even has a chapter by Jonathan Clark on “American Usage” that acknowledges and describes the differences. Clark opines “Here there can be no doubt, to my mind, of the logical superiority of the British practice: it is more sensible to be guided, in this matter, entirely and consistently by logic, as British practice is and American is not.”<sup>4</sup> Unfortunately, despite a noble and tedious hunt, we found nothing describing when or where the cross-Atlantic difference came to be.

Perhaps the most interesting information about this issue comes from Parkes, who describes the development of quotation marks in some detail. Apparently, a variety of competing and inconsistent methods had been used to denote spoken passages and dialog including lines breaks, dashes, italics, parentheses, and dipes, until:

“At the beginning of the eighteenth century English printers [began to use] a new punctuation symbol we may properly call ‘quotation marks’. As a first stage in this new development they [inserted] inverted commas in the text immediately before the passage of direct speech or quotation to ‘open’ it. The second stage was to insert raised commas in the text at the end of the passage to ‘close’ it... The use of graphic devices to indicate dialogue became stabilized in the nineteenth century... [and]... the convention that spoken discourse should be indicated by inverted commas had become... firmly established by the twentieth century.”<sup>3</sup>

So, because the American convention for periods inside quotation marks was recognized by grammar books from the

early twentieth century and it was in the late 1700s or early 1800s that “inverted commas” became common, there is only a hundred year or so span during which the two standards differentiated themselves. Perhaps punctuation fetishists who know of written documentation for the genesis of the “illogical” American policy can step forward and let us know how we got into this pickle.

We were pleased to learn that “data-safe quotes” are not unique to Erowid. Perhaps what is strangest is that we had no idea that this was normal use in Britain, and it has equally surprised just about every U.S. person we describe it to. ●

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## NEW BOOKS

### 1 *Hideous Absinthe: A History of the Devil in a Bottle*, by Jad Adams

Adams offers a critical look at the absinthe mythos with a well-referenced, balanced, and in-depth study of the roots of absinthe’s reputation. (Univ. Wisconsin Press)

### 2 *The Handbook of Clinically Tested Herbal Remedies*, by Marilyn Barrett

Extensive collection of summaries of research looking into the effectiveness and safety of herbal supplements. Two volumes of well presented hard data about herbs and clinically-tested herbal products. (Haworth Press)

### 3 *Dangerous Garden*, by David Stuart

An illustrated history of botanical medicine, as recounted by a gardener and botanist. Covers the spice trade to global bioprospecting and how the human relationship with plants has shaped civilizations. (Harvard Univ. Press)

# Mind States Oaxaca

In September, we attended the fifth Mind States conference, held in Oaxaca, Mexico. Oaxaca City was chosen as the site for the second non-U.S. event because of its rich psychoactive history, the amazing ruins within a short distance of the city, and the relatively modest costs of traveling to this part of Mexico.

Unlike past Mind States events, producer Jon Hanna went out of his way to schedule and encourage group activities and lectures about the local culture. Being within walking distance of the center of town made it easy to get a sense of life in Oaxaca City. Several day trips were organized to surrounding areas and nearly every night saw groups of various sizes heading out into the city for dinner or drinks. One group trip visited one of the best known artists from Oaxaca, Manuel Jiménez, famous for his fanciful, brightly-painted wooden *animales*. Truly amazing.

There was also a day trip to the ruins at Monte Albán, only 20 minutes west and a couple thousand feet above Oaxaca City. The ruins of the Toltecs are a forceful reminder of

how long an urban civilization has existed in the central Mexican highlands. Monte Albán is not to be missed on a visit to Oaxaca.

Because of scheduling problems, the conference was held in two different hotels. In the middle of the week, everyone packed up and moved to a different hotel on the other side of town. This provided some novelty, but also made it a little harder to settle in. It also highlighted how much hotel choice can impact a conference of this type. For 80–100 person conferences, smaller, more intimate hotels with centrally-located gathering places can help foster community building. The second hotel, with a private café and pool just outside the conference room, was preferred by nearly everyone, despite the smaller rooms.

Presenters included some favorites such as the revered Ann & Sasha Shulgin, the data-slinging Jonathan Ott, and the ever-stellar Alex Grey. Allyson Grey, Alex's partner, showed her amazing art and Zena Grey, their daughter, participated in a discussion on openly psychedelic families.

Deirdre Barrett gave two lectures on dreaming and Allan Snyder spoke about transcranial magnetic stimulation research. Other illustrious speakers included Erik Davis, Bruce Damer, Daniel Siebert, Martha Toledo, and Jon Hanna himself. There was not a single speaker at this conference we didn't enjoy getting a chance to meet and spend time with.

The main problem with this Mind States was that, after the first day, talks rarely started on time, sometimes hours late, largely due to late-returning group tours, meals, and related cattle-management. As with all such events, we find the main value is in the incredibly interesting people who attend, most of whom are as knowledgeable about their own particular niche as the speakers. Although some people complain about the exclusivity and expense of non-U.S. events, it is hard to dispute that the people who attend are there because they love the topics and are excited to get a chance to spend a week with 100 others who feel the same. ●

*For more information, see [Mindstates.org](http://Mindstates.org)*

## ORGANIZATIONAL UPDATES

### MAPS ([maps.org](http://maps.org))

As a result of a FOIA request made earlier this year, MAPS now has information on NIDA funding awarded to Dr. George Ricaurte and Dr. Una McCann in 2003 for the study of MDMA (Ecstasy) neurotoxicity. The researchers were awarded over \$1.8 million dollars during 2003. On October 13, 2004, MAPS filed an expanded *amicus curiae* brief for the upcoming Supreme Court case, Raich v. Ashcroft, which will examine whether interstate commerce is involved when a patient or a caregiver grows cannabis for medical use in a state that has approved its medical use.

### Flex Your Rights ([flexyourrights.org](http://flexyourrights.org))

Since January 2004, Flex Your Rights has distributed about 3,000 copies of its original instructional video, BUSTED: The Citizen's Guide to Surviving Police Encounters. BUSTED vividly illustrates how drug users—and non-drug users—can assert their constitutional rights in order to avoid being searched, arrested, and jailed. FYR is now devoting the majority of its staff time and resources toward promoting and distributing BUSTED to target audiences. They've provided support for over 40 public screenings, which have been sponsored by nearly a dozen different organizations, including all of the leading drug policy reform groups.

### SSDP ([ssdp.org](http://ssdp.org))

Students and activists from across the country will convene at the Students for Sensible Drug Policy's Sixth Annual National Conference, November 18–21, 2004 at the University of Maryland, College Park.

### Bluelight ([bluelight.nu](http://bluelight.nu))

Bluelight has continued to grow and add new features such as blogs and image galleries, and has seen an increasing presence in news and research articles over the past year. Management changes earlier in the year resulted in some long-term moderators and administrators leaving.

### DanceSafe ([dancesafe.org](http://dancesafe.org))

Dancesafe has increased its outreach efforts beyond the nightclub and rave communities to institutions like YMCAs, free clinics and student health centers. Its biggest challenge has been to revitalize existing chapters and to help local activists found new chapters where there are none. Dancesafe has applied for a grant with SSDP to update and expand its harm reduction literature. The hope is that by working with SSDP, the organization can reach hundreds of colleges and universities across the country that have an SSDP chapter.



# THE SPIRITS OF MAGUEY

by Fire Erowid

*It's nearly impossible to visit Oaxaca and not encounter one of the many small shops selling mezcal, a distilled alcoholic beverage made from plants of the genus *Agave*, which has a long history of use in Mexico.*

*A young woman usually stands near the open doorway of the shop, tucked behind a small counter displaying four or five varieties of the house brand. These are lined up carefully next to a stack of small cups, a clear invitation for free samples. Behind her is a wall full of bottles ready for purchase.*

*This scene is repeated over and over throughout Oaxaca City and the surrounding villages. In the city itself, the shops are most heavily concentrated in an area south of the city center, while a highway to the southeast of the town acts as the main location of small production "factories".*

*Part of our explicit purpose in visiting Mexico was to learn about the local psychoactives. Since we were attending a conference in Oaxaca City, our first week would be spent in and around the busy town. Jonathan Ott*



Fig 1. Agave plant at Mitla ruins, Oaxaca

*would be presenting a talk about mezcal later in the week, so in preparation, we delved into the history of the drink and began our quest for the perfect bottle.*

## Agave

*Agave* (uh-GAH-vay) plants resemble spiky spheres with long, thick, fleshy leaves growing in a rosette pattern. They range from a few inches to more than 12 feet in diameter. *Agave* are sometimes confused with cacti or succulents, but they belong to their own family called Agavaceae.

With only a few exceptions, *Agave* plants flower only once, after which they die. Their English common name, "century plant", comes from the mistaken belief that the plant grows for 100 years before flowering. In truth, smaller *Agave* species may flower after only 3–4 years, while larger species may take 40–50 years. The flowers grow on a single large stalk that sprouts out of the middle of the plant and may grow up to 15 feet tall.

*Agave* are native to Central and North America. They are found from Alberta, Canada in the north to Venezuela and Columbia in the south,<sup>1</sup> but grow best at 4000–8000 feet above sea level. Experts seem to disagree on exactly how many species of *Agave* exist, but there are over 130 that grow in Mexico alone.<sup>1,2,3</sup>

In the Náhuatl language of the Aztec, the *Agave* plant was known as *metl* or *mexcalmetl*, the latter being the origin of the word mezcal. The term *maguey* (mah-GAY)—believed to have originated in the Greater Antilles but introduced into Mexico by the Spanish—is still the common name used throughout Mexico today.<sup>4</sup>

*Agave*, like hemp, is touted as a "miracle plant" for its many uses. Its fibers were used by the Aztec to make clothing, rope, and other textiles; it was a source of food, water, intoxicating beverage, medicine, soap, glue, paper,



Fig 2. Mayahuel, Goddess of the Maguey

and thread; its leaves were used in roofs and fences; and its spines were turned into weapons, tools, and sewing needles.<sup>5</sup>

Because of its utility, *Agave* holds a place of esteem in traditional Mexican culture. Baron Alexander von Humboldt, a Prussian explorer and naturalist of the early nineteenth century, described maguey as "the most useful of all the crops that nature has granted the people of North America", and Linnaeus granted it the Latin name "*Agave*" meaning "admirable" or "noble".<sup>6</sup>

*The first full day of conference talks fell on September 15th, the day before Mexican Independence Day. Mexican Independence Day is similar to the 4th of July in the United States, with the celebration beginning at 11 PM the evening before. The city was decorated with colored lights and flags for the event, and after a short ceremony in the zocolo (town center), the crowd erupted into a rowdy fiesta with fireworks, confetti, whistles, and colored shaving cream that was sprayed aggressively on everything and everyone in sight.*

*A group of conference attendees met up in a sidewalk bar/café at the edge of the zocolo where we sat to watch the chaos. We ordered several shots of mezcal each (between \$1.50 and \$4.00 for a shot), experimenting with different brands and styles. They varied significantly from one to the next: some were sharp and nearly undrinkable, some smooth with an almost silky mouth-feel, and perhaps the best had a distinct smoky taste.*

*Everyone got appropriately tipsy during our first encounter, but we wondered where this stuff came from. We knew what *Agave* plants looked like, but it wasn't at all obvious how one would produce alcohol from such a plant.*

## Aguamiel

The leaves of the *Agave* grow on a short stalk, the base of which is called a *piña*—picture a huge pineapple growing underground with only the top leaves emerging from the surface. The species used most frequently in the production of alcohol grow for 8 to 15 years before they show signs of flowering.<sup>3</sup> At this point, the leaves are cut from one side of the plant to allow access to the heart. In a process called “castration”, a hole is carved into the top of the *piña* where the flower would have grown and the heart of the plant is removed.

The hole is left full of plant material and scrapings for a month or more before it is cleaned out and the sides of the hole re-scraped.<sup>3</sup> The nourishment which the plant would have used for the huge flower then begins to seep from the sides and gather in the newly created depression as a sweet sap called *aguamiel* (*necutli* in Náhuatl).<sup>1</sup>

The *aguamiel* is collected from the *piña* by the *tlachiquero*, who scoops or sucks it out with a long tube up to three times a day for several months.<sup>3,7</sup> During that time, the plant produces three to four liters of this nectar each day.<sup>3</sup>

*Aguamiel* can be harvested and consumed straight or used as the source of a number of beverages. *Atole*, for example, is a non-alcoholic beverage made from hot cornmeal and unfermented *aguamiel*.

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*Late one evening, after the conference had ended for the day, we hopped into a cab and asked the driver to take us to an open bar. We were dropped off in front of a small, dimly-lit establishment called Tabuki. Several small tables were spaced along the edges of the dark room occupied by groups of two or three patrons. One couple danced to loud techno music spun by a DJ at the other end of the room.*

*We sat down at the bar and asked the bartender for a drink menu. After somewhat randomly selecting a collection of mezcals from the menu we ordered one “con chile”, one “reposado” and two “escorpion”. All were reasonably good, but we preferred the escorpion. The next round we tried “con limon” and “gusano” and found a preference for the gusano; the third round we decided to try a “cedron”.*

*As the bartender pulled down the cedron bottle we saw that it contained an herb-like stick inside, much as a bottle of specialty olive oil might contain a rosemary branch. Looking up at the shelf behind the bar we*

*realized that each of the bottles contained something: the “gusano” contained a worm, the “con chile” had two small hot looking chile peppers, the “limon” had a full half of a lemon, and...oh shit...the “escorpion” bottle contained two large, black, nasty-looking scorpions.*

*With only one Spanish speaker in our group (and a non-native speaker at that) the titles had seemed more like brand names than descriptions. It took us a few minutes to get used to the idea of drinking liquor with scorpions soaking in it, but with mezcal-reinforced courage, we proceeded to polish off the bottle. When asked whether anyone ever ate the scorpions, the bartender answered, “sometimes, if they’re drunk enough.”*

## Pulque

Several intoxicating liquors are made from *Agave*. The most traditional was called *octli poliqhui* in Náhuatl, which became *pulque* (POOL-kay) in Spanish. The finest quality pulque was called *teooctli* or “the octli of the Gods”.<sup>1</sup>

Pulque is a milky, foamy and viscous beverage created by fermenting the *aguamiel* of the *Agave*. It is sometimes called “maguey wine” or “agave wine” and can be produced from a number of different *Agave* species.

After *aguamiel* is collected, it is allowed to ferment for about 10 days with naturally occurring yeasts. The resulting material is then used as a starter for further batches of pulque. A small amount is added to fresh *aguamiel*, kickstarting the fermentation process and allowing ready-to-drink pulque to be created in a day or two.

Young pulque is called *Tlachique*, or pulque dulce, a sweet beverage with an alcohol content of only 2–4%. Regular pulque is 4–8% alcohol. Waiting a little longer produces Pulque fuerte, which is stronger and more sour. Pulque lasts only a few days before becoming too sour to drink.

Pulque is believed to have been used for 2,000 years or more in the central highlands of Mexico.<sup>8</sup> During this time, the beverage became an important social and cultural force. It is a nutritious beverage, rich in vitamins, that had many medicinal uses.<sup>5</sup> According to the *Florentine Codex*, it was also used ceremonially during harvests, marriages, births, and burials and is linked to many myths and deities.

According to one such myth, the woman who discovered the method of cutting the

*Agave piña*, collecting the *aguamiel* and fermenting it was named *Mayahuel*. One day, *Mayahuel*, a farmer’s wife, was chasing rabbits away from a field of *Agave*. As she was doing this, she noticed that one rabbit didn’t run and instead staggered in circles around her, acting as though it were happy and not afraid. The rabbit had been eating from the heart of an *Agave* plant and drinking

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**“I break up the maguey. I pierce the center. I pierce the stalk. I clean the surface. I scrape it. [...] I remove the maguey syrup from each one. I heat the maguey syrup. I make wine.”**

— The *Florentine Codex* (c. 1580)

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its juice. She told her husband about this and they collected some of the *aguamiel* in a jar, which they put in their house as they went back to work. After finishing for the day they returned home and drank the juice, which made them feel like the rabbit had: happy, fearless, and then sleepy. Because of this discovery, *Mayahuel* was made the goddess of the maguey and is depicted by the Aztecs sitting in the middle of a maguey plant, often with a rabbit nearby.

Pulque was considered a gift from the gods, and as such it honored the gods to drink it. On holy days such as the Day of the Dead, people were expected to drink pulque and become intoxicated, but aside from these special occasions public drunkenness was forbidden. This rule was strictly enforced; public intoxication could be severely punished with stoning or hanging except in the case of the elderly.<sup>9</sup>

Other intoxicating plants and herbs were sometimes added to pulque; the word *ocpatli* was used to describe these mixtures.<sup>1</sup> The Spanish are said to have banned at least one of the admixture components, a bark (possibly *Acacia*) that made the pulque more intoxicating. In more recent times, pulque

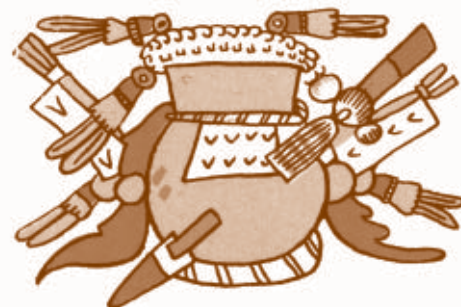


Fig 3. Stylized Aztec pulque pot



drinking centered around the *pulquería*, a community establishment where people gathered to drink. At one time pulquerías were an integral part of local culture, yet they have diminished in popularity over the last 100 years. In 1870 there were more than 822 pulquerías in Mexico City alone, while in 1998 there were fewer than 80.<sup>3</sup>

*At the end of the conference, a day-trip was organized for 50 or so participants who piled into a bus and headed out on a tour of local sights. After visiting the ruins at Mitla and stopping at the “world’s largest tree” in Tule, we arrived at a small mezcal factory that sat directly alongside the main road. Though the term “factory” brings to mind large warehouses filled with expensive specialized equipment, this, like most in Oaxaca, was a small operation.*

*We were taken on a quick tour of the production process in the yard out behind the building, where we had the opportunity to taste a little of the unfermented Agave piña, wet with aguamiel. It was sweet and candy-like—in fact we were told it is often given to children as a sweet treat. After the tour we were brought up to the tasting bar and encouraged to buy a bottle or two.*

*Though the visit was rather rushed and the large crowd made it difficult to ask questions, it whetted our appetite for learning more about production.*

## Mezcal

Mezcal (from the Náhuatl *mexcalmetl*) is considered a “*mestizo*” drink, a combination of the indigenous pulque and the distillation process brought by the Spanish. Distillation was unknown in Mexico before the Spanish conquest.

Mezcal is traditionally a single distillation of pulque (its more famous cousin, tequila, is a double-distilled variety of mezcal made from a specific type of Agave: see sidebar.) But rather than using aguamiel, the modern production process involves chopping the leaves from the piña and removing the entire thing from the ground. The piña is cut into halves or quarters and placed into a rock-lined conical pit (called a *palenque*) about 12 feet in diameter and 8 feet deep. The piñas are then covered with glowing rocks that have been heated in a wood fire. The entire pile is covered with plant fibers and a layer of earth, then left to bake for two to three days, adding a distinct smoky flavor to the final product.

After baking, the piñas are removed from the pit and placed in a large stone circle, where they are ground with a horse- or donkey-pulled millstone. Once they are ground to a fibrous pulp, they are placed in large uncovered wooden vats, where they sit fermenting with their own natural yeasts for several days. At this point, water is added and the mixture is allowed to sit for another several days.

The mash is then transferred in small quantities to a nearby still, where it undergoes the distillation process; the resulting liquid is mezcal, an 80 proof (40%) alcohol. Some mezcal is single distilled while some manufacturers perform a second distillation. Single-distilled varieties retain more of the signature smoky flavor.

This production process was developed during the early sixteenth century. Unfortunately, the introduction of distilled alcohol in the sixteenth century, combined with the changes brought about by the conquest, resulted in rampant alcoholism among the Aztec. In 1785, the Spanish banned the manufacture of alcoholic beverages in “New Spain”, a ban which lasted 10 years.

*During our second week in Oaxaca we took a day to drive out to the mezcal producing area southeast of Oaxaca City. We spent some time photographing fields of Agave and visited a second mezcal factory as well as a handful of small mezcal shops.*

*There we learned more about the types of mezcal. We tasted four different varieties and decided we liked the second most expensive one the best. We tried to haggle with the shopkeeper, but his response was “If you want it to be cheap, then buy the cheap stuff.” The “cheap stuff” was a clear harsh alcohol that tasted like moonshine—not the smooth variety we were seeking.*

## Varieties

Once the mezcal has been distilled, there are several different varieties that can be produced. “*Blanco*”, “*silver*” or “*white*” (the cheap stuff) is either not cask-aged or aged for only a short period. It has a sharper and simpler flavor. “*Reposado*” is cask-aged for between two months and one year, while “*añejo*” is cask-aged for more than a year. Cask aging darkens the color and adds an oakey flavor that tempers the harshness of a young mezcal.

## Gusanito – the “worm”

Another common variety is *gusanito*, or “the little worm”. There are plenty of rumors about the worm in mezcal (or tequila) bottles. Actually, it’s not technically a worm, but a caterpillar—the larval stage of the *Hipopta agavis* butterfly. The larvae are a common pest in the Agave piña. Because piñas are used whole (including the larvae inside), the larvae are a common, incidental ingredient.

The larvae (or *gusanos* in Spanish) are a source of protein that has been eaten by the people of Mexico since before the Spanish conquest. They are still eaten today as a fried snack. It wasn’t until the 1940s, though, that a mezcal producer named Jacobo Losano Paez, realizing that the larvae imparted a smoother taste to the mezcal, decided to market a specific “*gusanito*” variety.<sup>10</sup>



Fig 4. Agave piñas ready for baking.  
Fig 5. Pit for baking piñas.



There are two types of larvae; the red, which inhabit the piña of the *Agave*, and the white, which inhabit the leaves. Both are used in modern mezcal production. These days, dozens of larvae may be added to reposado or añejo mezcal as they age in oak casks, imparting even more of their flavor-smoothing qualities. In the end, a single larva is then added to the bottle to help identify it as *gusanito*.

However, contrary to popular lore, there are no worms or larvae in bottles of Mexican tequila. There are strict Mexican laws about what substances are allowed in tequila, and worms are not one of them.

There are also stories about mezcal or tequila “worms” being psychoactive. Some mistakenly claim they lend extra psychoactive properties, while others insist there is no effect on the mezcal at all. Most experts agree that the larvae have a distinct effect on taste, but no mind-altering properties.

*The idea of a worm in the bottle was a little repulsive, especially to our delicate vegetarian palettes. But after learning that the larva is actually a native inhabitant of the plant that also serves to add flavor and smoothness, we were able to agree that the gusanito was our favorite.*

*We bought several bottles to bring home before deciding that the scorpion was too novel to pass up. We returned to the bar to buy a bottle and now have our very own pickled scorpion in the cabinet.*

*We were a little afraid about the reaction of customs officials to these unsealed bottles of amber liquid with scorpions in the bottom, but happily we never found out.*

*Spending a couple of days learning about mezcal left us with a desire to visit Oaxaca again when we could devote more time to studying pulque, Agave cultivation, and the finer details of the mezcal production process. Even this would barely scratch the surface of the many ways that Agave has impacted the people and culture of Mexico. We look forward to our next trip. ●*

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Fig 6. Mezcal emerging from distiller.  
Fig 7. Millstone used for pressing *Agave*.

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## Photo Credits

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5. Pit for baking piñas. Photo by Erowid. Tlacolula, Mexico. Sep 2004.
6. Mezcal after distillation. Photo by Erowid. Tlacolula, Mexico. Sep 2004.
7. Millstone. Photo by Erowid. Tlacolula, Mexico. Sep 2004.

## TEQUILA VS MEZCAL

Tequila and mezcal are very similar beverages that are distinguished by production process and taste. Mezcal is the broader term for a distilled alcoholic beverage made from the juice of the *Agave* plant. Though tequila is better known outside of Mexico, it is technically a type of mezcal.

There are a few differences between tequila and mezcal:

- 1) Mezcal is made primarily from *Agave angustifolia* Haw, but may be made from several different species of *Agave*. By law, tequila is made only from *Agave tequilana* Weber var. azul (the “blue agave”).
- 2) By law, tequila may only be made within a specific region in the state of Jalisco, in West-Central Mexico. Mezcal is produced primarily in the state of Oaxaca.
- 3) By law, Mexican-produced tequila is not allowed to contain larvae (worms).
- 4) Mezcal is usually made from 100% *Agave*. Tequila is allowed to contain up to 20% non-*Agave* sugars.
- 5) *Agave* piñas are steamed in the process of making tequila rather than fire-roasted as they are in the production of mezcal.
- 6) Tequila is more heavily exported and therefore is produced in a more industrial fashion. Mezcal is primarily a locally processed product.



# Hot Chiles

## Surfing the Burn

by Earth & Fire Erowid



From crimson reds and magma browns to lively yellows, bright purples, and unripe greens, chiles of various colors, shapes, and sizes are abundant in Mexico. Many Mexicans eat chile peppers or chile-based sauces at every meal and many snacks include chile powder. For some people, food just doesn't taste right without chiles.

In Oaxaca, Mexico, dried and fresh chiles and chile powder are piled high in virtually every store and market. Oaxacan cuisine, like many in Mexico, is permeated with the bite of the abundant chile varieties available there. Most restaurants have chile-based sauces on each table or serve them with meals. For those who don't love this family of fiery fruits, it can be a little difficult to find edible food at a restaurant.

There are more than twenty species of chiles, but almost all of the domesticated forms belong to one of five: *Capsicum annuum*, *C. baccatum*, *C. chinense*, *C. frutescens*, and *C. pubescens*.<sup>1</sup> Within these five species are hundreds of varieties, all native to the Americas, many with long histories of human use. Archaeological evidence from the Tehuacán Valley in Mexico suggests that wild *Capsicum* species have been used for nearly 9,000 years and cultivated for more than 6,000.<sup>2</sup>

*Capsicum* species didn't enter European pharmacognosy until Columbus and his crew encountered them on the island of Hispaniola (modern Greater Antilles) in 1494. Columbus's voyages were spurred by the desire for a better route to the East Indies for the spice trade. While he didn't find the East Indies, he did find spices.

The unfamiliar chile plant was at first misidentified as a relative of black pepper (*Piper nigrum*). The common term "chile pepper" comes from this mis-identification combined with the Náhuatl (Aztec) word for the plant, *chilli*.

Diego Alvarez Chanca, a physician on Columbus' second voyage, first documented their New World use in a letter to the town council of Seville.<sup>3</sup> He also brought samples back to Spain and it wasn't long before chiles spread through Europe and beyond, including Asia, where they changed the face of many national cuisines.

The pungent chemicals in chiles responsible for sensations of heat and pain are called capsaicinoids—the primary being capsaicin, an extremely potent material detectable to the taste in the milligram range. The capsaicinoid content of different chile peppers varies greatly, ranging by as much as a factor of 30,000 as measured by the Scoville Scale,

the most popular method of measurement for chile "heat" (see sidebar).

When a hot chile is ingested, the capsaicinoids stimulate nerve receptors in the mouth, nose, and throat that detect heat. The stimulation of these receptors (called vanilloid receptors subtype 1 or "VR1") causes the release of the neuropeptide "substance P", which acts as a neurotransmitter for pain messages, into the bloodstream. The brain then interprets this signal as burning, although there is largely no actual chemical burn. Instead, the perceived pain is the result of a direct stimulation of the pain-sensing neuromechanism, the effects of which are an intense burning sensation in the mouth, teary eyes, runny nose, sweating, and increased blood flow to the exposed areas.

Chiles have been used in war to take advantage of this physiological response. The Maya burned chiles upwind from their enemies in battle and threw chile extract to blind them (and of course modern pepper spray is made using capsaicin). Chiles were also used by the Maya to punish disobedient children. The sixteenth century *Mendocino Codex* shows a father punishing his son by forcing him to inhale the smoke from roasting chiles. The modern Poplocán Indians near Oaxaca reportedly still use this method of punishment.<sup>4</sup>

Capsaicin-based medicines are also now being used to treat pain associated with arthritis, cystitis, human immunodeficiency virus, and diabetic neuropathy.

Peppers with high capsaicin content are not only important as foods, medicines, inspirations for weapons and macho chile-eating games, they are also a commonly available and widely used short-acting psychoactive.

## THE SCOVILLE SCALE

The Scoville Scale measures the heat of chile peppers. It was invented in 1912 by Wilbur Scoville, a pharmacologist working to develop a capsaicin-based muscle salve for the Parke Davis pharmaceutical company.

The design of the original test—named the Scoville Organoleptic Test—called for a solution of chile extract to be diluted in sugar water until three out of five human tasters were no longer able to detect the heat of the chile. The ratio of sugar water to extract became the chile's heat ranking. The more sugar water required, the hotter the chile and the higher its heat ranking. Heat rankings—recorded in "Scoville heat units"—range from 0 SHU for a sweet bell pepper to more than 855,000 SHU for the recently tested Naga Jolokia from India (this result has yet to be verified).

Though Scoville's Scale is still used, his original testing methodology has been replaced by HPLC (High Pressure Liquid Chromatography), which is able to directly measure the amount of capsaicin present in chile extract.



# CONSCIOUSNESS UNDULATED, BY FER



The body releases endorphins in response to substance P. Endorphins are a class of endogenous neurotransmitter that are produced as natural painkillers; they bind to opioid receptors in the brain, acting as a strong analgesic and psychoactive alterant.

While smaller doses of chiles result primarily in an uncomfortably hot mouth, they can hint at the more powerful effects lurking within the full experience; a subtle clarity of mind or unexpected giddiness may follow. While lower intensity effects are better suited for chronic, daily use, many who enjoy chile peppers find themselves compelled to add capsaicin to their food, becoming increasingly tolerated to its effects and finding meals without them boring or unsatisfying. It is the reaction to higher doses that most people reference when discussing chile's mental effects. Perhaps the Jesuit priest Jose de Acosta was aware of this when he warned in 1590 that the chile was "prejudicial to the health of young folks, chiefly the soul, for it provokes to lust".<sup>4</sup>

The pain and endorphin release triggered by eating chiles can cause a slowly building but powerful rush with a duration similar to that of smoked DMT (5–20 minutes). The impact on the mental state of the hot chile eater is undisputable, causing a short-lived but intense altered state that can include increased heart rate, physical and mental stimulation, detachment and dissociation, increased or decreased ability to concentrate, and euphoria. The combination of these effects puts chiles squarely into the pantheon of psychoactive plants.

Experienced users share stories and techniques for how to achieve the desired results. One common technique, called "mouth-surfing" by Andrew Weil, is designed

I drank a lot in Oaxaca, and that meant eating a lot of peanuts. As a standard practice, bars serve free plates of salted Spanish peanuts mixed with garlic and whole dried chiles, accompanied by wedges of lime to squeeze on top. I enjoyed one of my first plates of peanuts sitting in the zocolo (main square) on the eve of Mexican Independence Day, a festive unto chaotic free-for-all of rowdy partiers blowing cardboard horns and spraying shaving cream.

With eight of us crowded around a table meant for two, I launched into my third hearty glass of mezcal, reaching again for the peanuts but instead picking up a chile. I examined it closely—whole, dried, red, seeds still intact—and touched my tongue to its surface—ouch! Wow, that's hot! Then I nibbled the end. Wow, damn! That's really hot!

Chalk it up to the mezcal, or the riotous atmosphere, or the siren song of the altered state, but that's when I determined to eat the entire chile. Another small nibble, and sweat began to bead on my

to maximize the psychoactive experience. By continuing to eat small quantities of chiles at a constant rate, the user can maintain a "steady burn" that leads to a continuous, long-term endorphin release. According to Weil, this technique "brings about a high state of consciousness".<sup>5</sup>

Users also share recommendations for favorite chile varieties. One might be hotter, but another might have longer-lasting effects. New products are regularly marketed to chile lovers, from endless varieties of salsas and chile sauces—with names like "Endorphin Rush" and "Molten Lava"—to capsaicin nasal spray (!), which is touted for its medicinal uses but also used by athletes and endorphin addicts for its mental effects.<sup>6</sup>

Looking at chiles through the Erowid lens, it is interesting and more than a little amusing that in chile-loving parts of the world such as Mexico, nearly every house and every restaurant comes equipped with a bowlful of psychoactive sauce. Easily grown and readily available, chiles are a household staple as well as a powerful psychoactive, putting burning, sweaty, dissociative, altered states within arm's reach at any moment. ●

forehead. A third, and a fourth, in quick succession, crazy spicy capsaicin heat spreading through my mouth, rendering me unable to speak. My friends noticed I'd started to drift off into some distant world of my own, realized my intent with the chile, and laughed heartily at the red-faced shock into which my face had contorted. My mouth on fire, tongue numb, lips burning, water only a reminder of the lava-like intensity permeating my entire consciousness, I realized that the only path toward achieving my goal lay in quick, decisive action. And so—chomp, chomp, chomp—I finished the thing off before my reasoning mind took hold.

Everything shimmered, the world a chimera, like watery looking heat rising off midsummer too-hot-to-walk-on concrete. My consciousness undulated painfully, and the raucous, festive scene, my friends' conversation, and the bustling restaurant faded into the distance, there but not there. With the edge of my awareness, I knew that my friends watched and laughed, knew the revelry continued around me, knew a world existed outside the inferno in my mouth.

Sitting as still as I possibly could, lips rounded, I blew quickly in and out, attempting to circulate air through the fiery tidbit of hell I'd created, that action and the shimmer of internal heat my only points of existence. After several minutes (or was it years?), I felt the outside world returning in slow, pulsating, burning waves. Almost as painful as leaving my body, returning meant feeling the chile's full force again.

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# NAVIGATING THROUGH K-SPACE

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## AN EXPERIENCE WITH KETAMINE

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by Lungfish

**I**t was in medical school that I first encountered ketamine. My friend and I were both gloved and gowned up in the operating theater, waiting to assist on a case. The time began to drag and he nudged my arm and drew my attention to a multi-dose vial of ketamine hydrochloride in the anaesthesia trolley. He asked me if we should take it; I told him he was crazy—what were we supposed to do with it anyway? I knew very little about ketamine in those days. It was hardly the most well known drug outside anaesthesia circles. I knew from pharmacology classes that it was a “dissociative anaesthetic”, but did not have much of a concept of what exactly this meant. I had heard from friends-of-friends who had tried snorting it and steam inhaling it, but it seemed a little extreme. In those days we smoked a lot of pot, but that was it—we didn’t see the point of taking other drugs, nor did we have access to other drugs (or so we thought) should we have plucked up the courage to take them.

Several years later, sometime during my internship, I began experimenting with a variety of drugs during the little free time I had—everything from morphine and inhalants to amphetamine and MDMA. I did a lot of internet and journal research

distorted. All this lasted a few minutes, and when she came out she wouldn’t allow me to give myself a shot. Once again I forgot all about ketamine.

About three months later I read about renegade neurologist John C. Lilly and his book *Programming and Meta-programming the Human Biocomputer*. I decided to give ketamine another try. At first I tried snorting it. I evaporated about 3 ml (150 mg) on a spoon and inhaled the fine white crystals. I felt a burning pain in my nostrils that made me wince. About five minutes later I began to feel weird in the head and body. It was more of a daze than anything else. The atmosphere of the room around me seemed different, although it had not changed significantly. I started to walk around and my movement was clumsy and robotic. It seemed like my movement was causing vapour trails, as if I was lit by a strobe light. This made me want to move my arms around. I began to feel nauseous and dizzy. I needed to lie down. I had a dim light on in my room at the time. I experienced no visual hallucinations, though speech coming from the adjacent apartment sounded highly distorted and unintelligible. My thinking was fairly clear though it required immense effort to follow a line of thought completely. I fell asleep.

chopped noisily as well, and also increased its intensity. Minutes later the “carrier wave” aspect of the trip decreased and stopped entirely. The heady rush into new worlds and states of non-ordinary reality became more of a gentle transition. But during my early trips this heart-pounding whizzy ride was the most prominent aspect of the trip. There was also a characteristic “cyber” or “cyberish” quality to these early experiments.

The trip was everything and nothing—hard to describe in words. It seemed that the texture of my body and that of the world around me had changed. During the initial rush phase, I was whizzing through narrow corridors lined by complicated patterns, the corridors branching out in Byzantine complexity. The colours were sometimes muted, sometimes vibrant, always deep and rich. There were immense fluted columns, castles and massive edifices—colossal, majestic, beautiful and very strikingly dark and gothic.

During later trips, even though the content changed dramatically, one thing that remained constant was the dark, beautiful, gothic nature of the trip filled with beautiful and complex textures. This initial rush was always followed by a much longer post-ket state of quiet bliss, where ghostly shapes roamed the room and my mind followed long trains of thought (often nonsensical) accompanied by visual and auditory hallucinations of steadily diminishing intensity.

I found that with practice, I could control the flow of hallucinations to an extent. This involved an arbitrary mix of will power, imagination and the use of cues in each “scenario” to jump to another. For example, focusing on the headlight of a moving vehicle while simultaneously imagining the sun might take me to a beautiful sun-drenched beach.

The cyberpunk nature of the hallucinations, straight out of *The Matrix*, gradually disappeared altogether over months of near-daily ketamine use until it was replaced by visual imagery that was more the fiction of Clive Barker, the “body-tech” films of David Cronenberg, the paintings of Salvador Dali.

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**The colours were sometimes muted, sometimes vibrant, always deep and rich. There were immense fluted columns, castles and massive edifices. Colossal, majestic, beautiful and very strikingly dark and gothic.**

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about the drugs I was doing, both before and after the trips. I was researching a drug when I stumbled on ketamine once again. I decided to give it a try. I did some reading in a drug manual and arrived at a dose, recommended for use in certain outpatient procedures, like wound dressings. It was 0.4 mg/kg or so—basically (as I later found out) an extremely small dose. I administered it to my girlfriend intravenously—she became disoriented and experienced some fear and confusion. She said that my face looked all

The following day I injected myself in the buttocks with 75 mg of ketamine HCl (the intramuscular injection is practically painless and I find it to be the best route of administration). I felt numb in the head and body. I lay down and remained perfectly still—a good idea when you’re on a ketamine trip if you don’t like nausea and dizziness. I heard the drone of a motor—exactly like the sound of a motorcycle—increasing steadily in intensity until it was almost a roar. The “carrier wave” had arrived; my ceiling fan

Blood red carpets, ornate textures, fleshy forms sometimes hideously deformed and distorted. Everything was pure thanatos—chaos, blood and darkness, but breathtaking in beauty and grandeur. In a ketamine state or “K-hole” one’s baser emotions are often (though not always) blunted; desire, fear, lust, jealousy and greed are replaced by feelings of benevolence and power. The ketamine trip is very predictable and apart from being overcome with feelings of sentimentality or lust, I’ve never experienced a bad trip. Occasionally I was caught in an endless nonsensical reverie that tended to get boring, but that was about it.

Tripping with a friend can be fun as long as I’m not with someone who gets excitable or over-sentimental; for me the trip is usually highly personal so trip buddies are usually immaterial. Sex on ketamine can be frustrating, disorienting, even downright weird and eerie. My body is entirely numb, my head is spinning, I’m horny, and my partner looks like a denizen of the planet Zylonxxi and feels like a rubbery lizard. If I’m well into the post-ket stage though, it can be strange and wonderful.

My attempts at meta-programming tend to go awry for two reasons. One, I am rarely able to visualize myself or my body and this tends to get distracting—I lose objective sight of my target (i.e. myself) during the exercise when I see a huge pink elephant floating across the room. Two, I tend to drift into a pattern of nonsensical thought that at that moment seems a lot more fun than trying to reprogram myself. I find it hard to stay focused. I suspect it would be interesting and beneficial to explore therapy with a friend or therapist taking the lead. But new methods will have to be devised.

As for the addictive potential of ketamine; I agree that it can cause a lot of psychological dependence. If my case is any indication, then if you have easy access to the drug and your life is definitely not a blast, you could easily fall into a habitual pattern of usage.

Lately I’ve noticed that my ketamine trips have lost much of the sheen they had in the early days. Trips are fun, but I remember very little afterward. There is no early rush. I have stopped using it as often for these reasons. I have always restricted my intake to about 100–150 mg a trip because amounts in excess of 200 mg tend to give me vomiting and diarrhea. ●

[Erowid.org/experiences/exp.php?ID=20082](http://Erowid.org/experiences/exp.php?ID=20082)



Untitled, Rotring pen drawing. © Sukant Saran

## Erowid Extracts' New ISSN Number

The internationally recognized system for identification of serial publications requires an International Standard Serial Number (ISSN). The National Serials Data Program (NSDP) within the Library of Congress is the U.S. Center of the ISSN Network.

### Why Obtain an ISSN Number?

A single ISSN uniquely identifies a publication issued in parts, regardless of language or country in which published, without the burden of a complex bibliographic description. This is useful for trade distribution because it facilitates efficient communications between publishers and suppliers. ISSNs also have a variety of corporate and governmental

applications, such as the U.S. Postal Service's use of ISSNs in tracking special periodical postage rates. However, the advantages for Erowid lie principally in the potential for more accurate citation by scholars, researchers, abstracters, and librarians, and easing the acquisition process for libraries that require an ISSN for identifying titles, ordering and checking in, and claiming serials.

### Get Erowid into a Library

If you are in a position to order publications for libraries, research centers, or other institutions, the ISSN number for Erowid is 1548-8071. Let us know at [sage@erowid.org](mailto:sage@erowid.org) if you set a library acquisition in motion!



# A Journey to Huautla

## THE CACAPHONOUS CROSSROADS BETWEEN OLD AND NEW

by Fire & Earth Erowid

**H**uautla de Jiménez is best known as the Mexican town where R. Gordon Wasson re-discovered the indigenous use of psilocybin mushrooms in the mid-1950s. In a ceremony led by María Sabina, now one of Mexico's most famous curanderas, Wasson confirmed speculation that the mushrooms used were powerfully psychoactive. Both he and the local Mazatec people gained world-wide notoriety when his experience was published in a groundbreaking *Life Magazine* article in 1957.

Part of the reason we wanted to attend the Mind States conference in Oaxaca was for the chance to travel to Huautla. We were particularly interested in getting a sense of the town and what the impact had been of 47 years of entheo-tourism.

drug geeks, our fate was sealed from the moment we made our reservations to fly to Oaxaca; we decided to take the plunge and make our pilgrimage to Huautla.

### The Journey

Huautla is a little over six hours drive north of Oaxaca City. Once outside of the city, the road quickly turns into a two lane highway with almost no identifying street signs. Following our terrible map—the butt of non-stop jokes for our overtired crew—turned out to be a challenge. We spent the first several hours of the trip with only a general sense of whether or not we were on the correct road: sometimes we were and sometimes we weren't (*Yes, you need to take a hard right before Heitzo and drive through that little town to get on 135 north!*).

It was a beautiful drive through small villages and varied terrain, including steep desert hills covered in magnificent cacti overlooking a verdant river valley.

To reach Huautla, we ascended from the valley up into the high Sierra Madre mountains. Before we set out, we'd been warned about how dangerous the road to Huautla was, but we found it paved and in good repair. As we climbed, we entered the clouds that

had been obscuring the mountain peaks. The environment changed immediately into lush, green cloud-forest. Small waterfalls splashed onto the road as we wound our way past thatch-roofed cinder block homes and metal-topped wooden shacks. Plots of maize, precariously farmed on the steep hillsides, were the most obvious sign of local industry.

The drive had a magical quality, as we had no idea what would be around each bend: new vistas, rustic towns, novel plant life, grazing donkeys and other majestic

features abounded. Locals walked along the road carrying loads of wood, herding goats, or leading burros as they worked. Women wore colorful dresses with their hair tied up in functional, decorative ribbons. We determined along the way that the power animal for our journey must be the donkey, as it appeared everywhere we went: we knew we were on the right path if there was a donkey in view.

### Our Arrival

The enchanting drive had us all in a mellow mood as we arrived at our destination. Unfortunately, that mood didn't last.

Huautla is a somewhat remote, rural town that has attracted a lot of outside attention and tourism because of one small part of its cultural heritage. Though we had spoken with several people who had been to Huautla, we had only the vaguest expectations of what the historic town would be like. To us gringos, it felt surprisingly like a low rent boom-town built on psychoactive tourism.

Immediately after stepping out of our car, we were offered *hongos* (psychedelic mushrooms) by an elderly gentleman. It turned out to be only the first of many such encounters; the rest of our stay was punctuated by frequent offers by all manner of locals, from a six-year-old girl to an elderly woman. Men and women of every age matched steps with us in the street to make their offer or shouted to us from balconies as we passed by.

From the moment we arrived in Huautla, we were confronted with images of María Sabina and mushrooms in both commercial and residential settings, from the very cheesy to the sincere. As we sat in the blocked traffic on a one-lane street heading towards the town center, we noticed that the local taxis all bore María Sabina's name on their trunks. T-shirts with a low-quality photo of María Sabina hung outside storefronts, as did shirts and dresses with hand-embroidered mushroom adornments. Building walls were painted with brightly colored mushrooms.

It wasn't clear to our little group whether we had come at a particularly raucous time



Secondary aspirations included enjoying the mountain scenery, talking to locals about *Salvia divinorum*, meeting people who use psilocybin mushrooms as part of a local healing tradition, and, if everything worked out, possibly participating in a traditional ceremony.

Although our group of four had concerns about the potential impact of our own entheo-tourism, faced with the (jarring) reality of Mexico, those concerns seemed oversensitive. Looking back now, as mycophiles and



or whether it was always this noisy. The central market overflowed with the stalls and tables of locals selling vegetables, crafts, and miscellaneous products. A bank overlooking the market had a huge, overdriven stereo system set up in front blasting shockingly-loud, harsh, Mexican techno-music; bank employees accompanied this by honking the horn of a pickup truck (almost) in time with the beat. Much to our chagrin, the recommended hotel, El Rinconcito, was directly adjacent to the repellant bank and, in an error that defined our stay in Huautla, we believed the hotel manager's claim that the music would end soon.

Fleeing the din, we ran into friends from the recent Mind States conference. We shared stories of mushroom encounters and discussed contacts that had been made with local curanderas. The rumor was that mushroom season was mostly over and the available mushrooms were weak and in limited supply. One friend described asking to buy hongos and being shown moldy mushrooms that had decomposed past any chance of identification to a point where they would NEVER eat them. Others described receiving promises that if they paid now, they could come back the next day to collect the mushrooms.

We spoke to several Norte Americanos who had already taken part in ceremonies, with mixed results. One described a wonderful, healing experience with a sense of connection to a deep local tradition. Another described being underdosed and having an unsettling evening while acquaintances (not taking part in the ceremony) watched.

After another failed attempt to brave the nerve-shattering music outside our hotel, we decided to wander up the steep hillside of the town, away from the market. The further we got from the center of town, the more friendly and open the people of Huautla became. A man in his mid 50s gregariously attempted to teach us basic words and vulgar greetings in Náhuatl. We passed beautiful gardens with flower-heavy *Brugmansia* and morning glory before eventually finding a quiet spot that served us beer and toasted squash seeds on a patio overlooking the town and valley below.

We spent the evening embroiled in a goose chase that seemed like it might be common for the ceremony seeker in Huautla: find person X to get an introduction to person Y who person Z said is a good curandero. The chase was colored by the fact that a couple of documentary filmmakers were in town trying to get footage of a traditional mushroom

healing ceremony. They had filmed a young healer running a ceremony for a gringo the night before, and the healer was now having second thoughts. We happened to be standing nearby when he confronted the filmmakers, saying he no longer gave his permission for the footage to be used.

At this point, our priorities shifted and we focused on finding someone to talk with about *Salvia divinorum*. We wondered what the surge in worldwide popularity had meant for the plant in Huautla. Had it increased attention from the tourist trade or the government? One man told us that, earlier in 2004, the army had carried out a *S. divinorum* eradication program in the mountains around Huautla. We were unable to find anyone else who could confirm or deny this rumor.

We finally got word that the curandera who had been recommended was out of town that week. It became obvious that we could find opportunities to participate in mushroom ceremonies, and might even be able to find a curandera with knowledge of *S. divinorum*, but to do this in the three days we had available would require forceful pushing on our part. Everything that had happened since we arrived in Huautla was sending the message that we should let go of the idea of finding a traditional curandera. We made the decision not to force things, and said no to the nice man who wanted to charge us \$100 (USD) to chat with him about mushrooms.

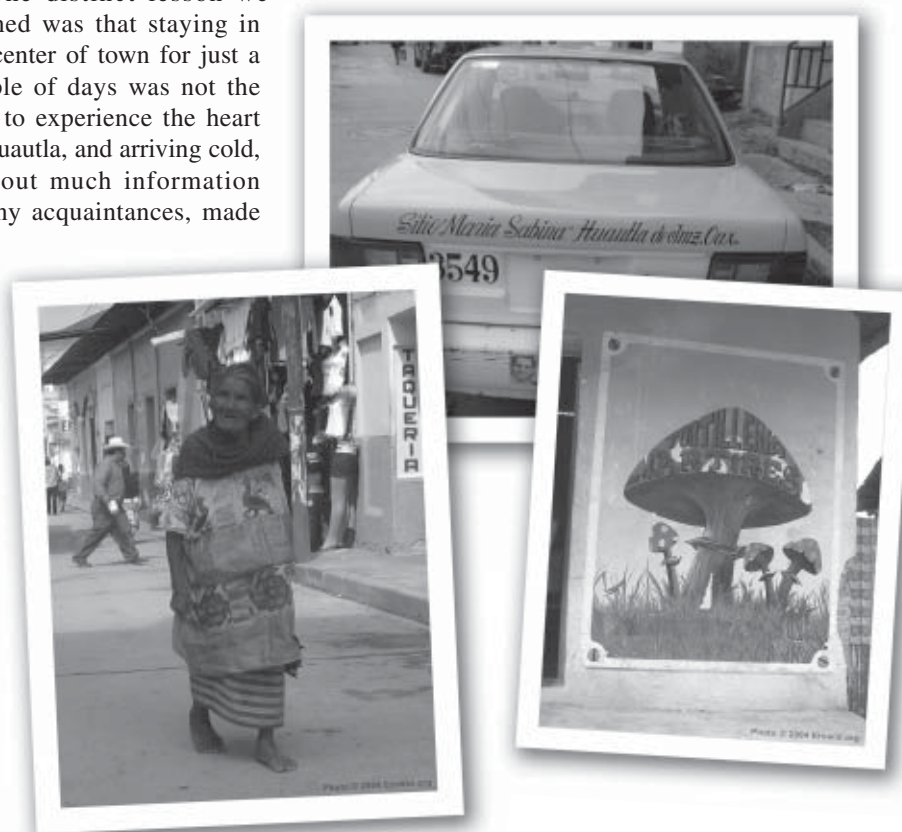
The distinct lesson we learned was that staying in the center of town for just a couple of days was not the way to experience the heart of Huautla, and arriving cold, without much information or any acquaintances, made

it difficult to do our research in the right spirit. The tide of other travelers who had preceded us that week, along with the short duration of our stay, had made it easy to find the omnipresent, crass side of the local mushroom culture—from the hotel keychain in the shape of a mushroom, to the busts of María Sabina for sale in the lobby—but somewhat difficult to find the spiritual and traditional side. If we returned, we would try to make contacts before we arrived, or would plan on spending a full week or more to allow time to develop connections.

We felt we were successful in achieving our primary goal, that of getting a taste of modern Huautla. Unfortunately, the rest of our goals went unfulfilled. It may have been the wrong time and circumstances for us to explore more deeply, but we look forward to another visit. As we left Huautla, we all breathed a sigh of relief as the weight of the town lifted, and the beautiful countryside engulfed our attention.

Remote, yet on a paved road with high-speed internet; sacred, yet burdened by the profane—Huautla remains a bridge between the traditions of spirit and the realities of modern life, with all the attendant difficulties and rough edges that seem somehow fitting for the home of the mushroom. ●

For more photos of Huautla de Jiménez, see: [Erowid.org/extracts/n7/huautla.shtml](http://Erowid.org/extracts/n7/huautla.shtml)



# ESCOTTOLOGY

## A Desperate Cry For Help

By Scott O. Moore

Many years ago, FM radio waves across this great nation were overtaken by a desperate cry for help, masquerading as a “pop hit” of the day. I was young then, far too young to understand that this catchy pop gem was not simply a clever love song, like so much of the radio fodder of the day. No, this was a clear and potent plea by a man who had seen too much, felt too much, and needed to be rescued. As the years went by, I almost forgot the words of that song. But then, as an array of drug experiences piled up in my own personal history, nagging questions began to plague me. What could have happened to that singer to cause such an outpouring? Where had his path taken him, and where was he begging to be taken next? Recently I undertook a studied analysis of the song, the results of which are presented here for the first time anywhere. I only hope there is still time to reach that wretched man.

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**It's clear from the very first lyric that the singer is desperate for some kind of novel intoxication.**

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It's clear from the very first lyric that the singer is desperate for some kind of novel intoxication; the old methods no longer suit him. Almost immediately, he seeks to clarify his intentions—to truly be a novel intoxicant, it must not share many of the unfortunate side effects he has already experienced, perhaps too many times to count. For instance, he is seeking an experience that “won't make me sick”; nausea, vomiting, and diarrhea are common to a great array of drug experiences, but perhaps he is seeking this novel intoxication as a replacement for the heroin sickness from which he so recently escaped. Perhaps he knew even then what many of us know now, that regular AMT abuse is a surefire way to assault the digestive tract, no matter how shiny things might get afterwards.

As his story progresses, however, the picture becomes more desperate. He is adamant that whatever he takes must not “make me crash my car”, indicating a possible pattern of alcohol abuse in his history, perhaps with tragic consequences. But when he states that it must not “make me

feel three feet thick”, the situation becomes murkier. Did he abuse DXM, to the point where he was physically impaired, perhaps permanently? Is he referring to some form of harrowing ketamine hallucination that twisted his interaction with three-dimensional space, compressing his form into a horrible distortion of matter and energy?

The emerging picture, indeed, is one of a rash over-consumer, a man who has taken his poor body to its limits. He insists that the drug must not “make my head hurt”, perhaps unaware that his poly-drug abuse has led to severe dehydration. He protests that it cannot “make my mouth too dry, or make my eyes too red”, indicating quite clearly that he knows the burden of a daily breakfast of cannabis. He cannot bear a substance that “makes me nervous, wonderin' what to do”—who does not know the terror of being on a subway platform, suddenly realizing that the acid is kicking in, and not knowing who among the teeming throngs are harmless innocents and who have been sent to apprehend us? Can we not empathize with this man's plight?

And then, in a moment of heartfelt clarity, he begins to describe what he wants more directly, no longer simply listing what it cannot be. He is looking for something “that makes me feel like I feel when I'm with you”. Perhaps he simply needs a good tab of Ecstasy. Ah, but wait! A further clarification: “when I'm *alone* with you”. Perhaps what he *really* needs is GHB.

But as his narrative gains momentum, we learn that his requirements are more complex. It must not come in liquid form (“one that won't spill”) and it must not “come in a pill”, suggesting that, unless he prefers the taste of bitter powder in his mouth, inhalation, insufflation, or injection are possible methods of administration. He has clearly experienced the dangerous and degrading cycle of stimulant abuse followed by downers to smooth his jagged psyche into sleep (“one that won't keep me up all night, one that won't make me sleep all day”). And his perhaps naïve insistence that it must not “cost too much” indicates that, depending on his insurance, he hopes to purchase this new substance from Canada.

The experience he seeks must not deceive him with promises of pleasure left unfulfilled (“one that does what it should”). It must not “make me feel too bad”, but more importantly, it must not “make me feel too good”, indicating that Ecstasy should probably be taken off the list. But what, *what* is the actual essential quality of the substance that he seeks, its shining core? He leaves us only a cryptic clue: “One with no doubt”. Perhaps what he seeks is the *mysterium tremendum* inherent in a powerful dose of ayahuasca, administered in a sacred setting, a dose that will shatter the hold his previous addictions maintain on him, and prime his psyche and soul for a new life.

And then, once more, the refrain: “One that makes me feel like I feel when I'm with you, when I'm alone with you.”

Perhaps ayahuasca is overkill. GHB might very well suffice.

But there is a hidden edge remaining to the singer's tale. The song's message is disguised as a love song, suggesting that the man wants a substance that makes him feel like he's alone with the object of his affections, presumably because being alone with that person is pleasurable in some fashion. But what, I wonder with ominous apprehension, if the singer *detested* that person's presence? What if he is seeking a substance that will make him feel a murderous rage, like PCP? What if he is seeking a substance that will make him feel *nothing at all*, like certain antidepressants? What if being alone with that wretched soul is akin to being suffocated, in which case carbon monoxide is his only recourse?

I can only hope and pray the members of The News got to poor Huey Lewis before he did something drastic. ●

*Huey Lewis & The News scored a #6 hit on the Billboard charts in 1984 with their clever long song, “I Want A New Drug”, from their #1 album Sports, which sold over 7,000,000 copies and was nominated for a Grammy. Recent investigation reveals that the heart of rock and roll is indeed still beating, despite decades of drug abuse.*

[Erowid.org/columns/scotto](http://Erowid.org/columns/scotto)

# THE DISTILLATION

Aside from the daily maintenance and upkeep of the site, we are always working on a variety of projects. Below is a list of notes about some of these projects.

## Erowid 3.0

Migrating the site over to Erowid 3.0 design is progressing more or less on schedule. The About Erowid, Donations, Law and Effects sections have recently been completed. We welcome feedback about the design changes.

## Art Vaults

Curator Christopher Barnaby spent seven weeks traveling in August and September and the Art Vaults were on hold during his absence. We met him for the first time (after working together on the project for four years!) as he passed through San Francisco on his way to Burning Man. The Art Vaults continue to be an integral part of Erowid and we are once again accepting submissions.

## Experience Reports

In the last six months, the beta test of the triage system has gone well. Seventeen volunteers have been trained to check submitted experience reports. A core of 6-8 triagers have exercised the system and made heroic progress in separating wheat from chaff. With input from these volunteers we are about to launch the next version of the design, for which we hope to involve at least 50-100 new triagers.

We are looking for more volunteers who have four hours per week to offer reading unedited reports. If you are interested and have the time, please contact [volunteers@erowid.org](mailto:volunteers@erowid.org). We are enormously appreciative of our first set of triagers, who have been very patient throughout the beta phase. Thanks to Oliver, LaMalice, Blinkidiot, Shiny, K-rock, BicyclePhysics, Veek, Jerv, Papyrus, Spotman, Oberone, Melanie, Eschaton, 3lf, SugarMagnoliaGirl, Psykey, and Scruffels.

## Search

As the site has grown, the internal search engine has become less and less useful. Stu has led the development to improve searches on Erowid by adding suggested matching topics and recording search statistics that identify what searches are failing.

## Erowid in Media & Research

We've recently added a new section to the site called Erowid Mentions ([Erowid.org/general/mentions/](http://erowid.org/general/mentions/)). This is a list of media and journal articles that have mentioned Erowid, including positive reviews, criticisms, and simple mentions of the name. In some cases we respond to these articles. If you come across an article that isn't listed, whether in print or online, please let us know at [submissions@erowid.org](mailto:submissions@erowid.org).

## EcstasyData.org

EcstasyData continues to struggle to find funding. In order to stretch the balance of EcstasyData's funding through the end of the one-year period it was intended to cover, we've increased the required co-pay to \$30. This serves the dual purpose of reducing the number of tablet submissions as well as helping to offset testing costs.

ECSTASYDATA STATISTICS				
2004	Daily Visitors	2112	Daily Page Hits	17,798
	Daily File Hits	314,680	Tablets Tested	127
	Tablets Tested		Testing Results (1999-2003)	
	2003	148	Total Tablets Tested	1336
	2002	301	MDMA Only	(40%) 527
	2001	332	MDMA + Something	(15%) 202
	2000	333	No MDMA	(51%) 607
	1999	69	- Nothing	92

## Sperowider / Mirrors

The first Erowid mirror has been set up. It is a static mirror located in Germany and can be reached at <http://de1.erowid.org>. Many thanks to jl for donating the space and bandwidth.

## Fundraising

This summer we held a successful matching campaign for contributions of \$200 or more. One group, the "TCC Goons", raised \$775, which they contributed and had fully matched. Another group organized to give their donation through a corporate matching program, so it would be effectively quadrupled!

Starting October 15th, we began a new matching campaign to try to reach our goal of 1,000 members by the end of 2004. This grant gives Erowid \$67 for each new or expired member who donates at a special \$33 level before January 31. This is a great opportunity for students and others who want to make the most of their contribution.

Thanks to both Erowid supporters who offered the matching donations. We couldn't do it without you. We continue to seek donors interested in backing challenge grants.

[http://www.erowid.org/donations/donations\\_matching.shtml](http://www.erowid.org/donations/donations_matching.shtml)

EROWID SITE STATISTICS				
CURRENT	Content Pages	25,664	Daily Visitors	34,546
	Archived Images	5190	Daily Page Hits	421,285
	Current Members	873	Daily File Hits	2,013,115
BY MONTH		Avg Daily File Hits	Avg Daily Page Hits	Avg Daily Visitors
	Oct 2004	2,013,115	421,285	34,546
	Sep 2004	1,869,256	381,251	31,696
	Aug 2004	1,662,148	349,791	28,356
	Jul 2004	1,477,360	379,944	28,616
	Jun 2004	1,637,737	387,122	29,333
BY YEAR	2004	1,783,592	406,116	31,244
	2003	1,421,815	349,530	25,997
	2002	1,206,855	283,541	23,042
	2001	798,400	207,427	17,300
	2000	462,000	126,000	12,000



# VERBATIM

**“We don’t receive wisdom; we must discover it for ourselves after a journey that no one can take for us or spare us.”**

— Marcel Proust (1871–1922), author

**“Everyone should carefully observe which way his heart draws him and then choose that way with all his strength.”**

— Hasidic saying

**“Sleep is good. It took me some time to realize that a lot of the feeling you get from being up all night on chemicals is just from being up all night.”**

— E.B. (b.1970), tech writer

**“People don’t listen to understand. They listen to reply. The collective monologue is everyone talking and no one listening.”**

— Stephen Covey (b.1932), author

**“Everything you’ve learned in school as ‘obvious’ becomes less and less obvious as you begin to study the universe. For example, there are no solids in the universe. There’s not even a suggestion of a solid. There are no absolute continuums. There are no surfaces. There are no straight lines.”**

— R. Buckminster Fuller (1895–1983), inventor, engineer, philosopher

**“Chaotic action is preferable to orderly inaction.”**

— Will Rogers (1879–1935), actor and humorist

**“Remember that there is nothing stable in human affairs; therefore avoid undue elation in prosperity, or undue depression in adversity.”**

— Socrates (~470–399 BCE)

**“Woman is by nature a shaman.”**

— Siberian Proverb

**“I tore myself away from the safe comfort of certainties through my love for the truth; and truth rewarded me.”**

— Simone de Beauvoir (1908–1986), philosopher, feminist, and author

**“Creative minds have always been known to survive any kind of bad training.”**

— Anna Freud (1895–1982), psychoanalyst

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**mijtoa teunanacatl. In aqujn  
mjec qujqva mjec tlamätli  
qujtta temamauhti, anoço  
tevetzqujti: choloa, momecanja  
motepexivia, tzatzi, momauhtia.**

**[It is called teonacatl. He who takes many of them sees many things which make him afraid, or make him laugh. He flees, hangs himself, hurls himself from a cliff, cries out, takes fright.]**

— Aztec (Náhuatl) quote about psilocybin mushrooms from the *Florentine Codex*

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**“It is the characteristic of the most stringent censorships that they give credibility to the opinions they attack.”**

— Voltaire (1694–1778), philosopher, historian and dramatist

**“I refuse to be intimidated by reality anymore. What is reality? Nothing but a collective hunch.”**

— Lily Tomlin (b. 1939), actress, film producer and writer

**“It has bothered me all my life that I do not paint like everybody else.”**

— Henri Matisse (1869–1954), painter

**“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 Harold White (1915–1986), journalist

**“Always and never are two words you should always remember never to use.”**

— Wendell Johnson (1906–1965), speech therapist

**“Chocolate is a divine, celestial drink, the sweat of the stars, the vital seed, divine nectar, the drink of the gods, panacea and universal medicine.”**

— Geronimo Piperni, surgeon in the Spanish army, 1796

**“The great mass of people... will more easily fall victim to a big lie than to a small one.”**

— Adolf Hitler (1889–1945), dictator

**“Let yourself be open and life will be easier. A spoon of salt in a glass of water makes the water undrinkable. A spoon of salt in a lake is almost unnoticed.”**

— the Buddha (624–544 BCE)

**“Never vote for the best candidate, vote for the one who will do the least harm.”**

— Frank Dane, author

**“Too much consistency is as bad for the mind as for the body.”**

— Aldous Huxley (1894–1963), writer

**“I’ve always felt that a person’s intelligence is directly reflected by the number of conflicting points of view he can entertain simultaneously on the same topic.”**

— Abigail Adams (1744–1818), American first lady