Salvinorin - The Psychedelic Essence of Salvia Divinorum

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Notice: The information contained herein is a report on the latest experimental research with a recently discovered compound, and is presented for informational purposes only. The author, publisher, and website curator do not advocate the use of salvinorin A or any other substance.

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Introduction

Salvinorin A is the primary psychoactive component of Salvia divinorum, a member of the sage family found in the Mexican state of Oaxaca. Salvinorin A is the most potent naturally occurring psychedelic known, and in many ways the most enigmatic. Those using salvinorin A find it frequently induces experiences of an intensity level which is an order of magnitude beyond those experienced with any other psychedelic, even DMT. The dimensions visited under the influence of salvinorin A are described as extremely bizarre and varied, with several aspects not common to other psychedelic experiences.

Many who have used salvinorin A find the experience extremely unnerving, frightening and overly intense. Most have no desire to repeat the experience. although there are a few who have taken a liking to this entheogen and are working to develop a relationship with it. Early experiments by pioneering psychonauts suggest that access to benignly expansive realms, as well as new and very real dangers. are possible with this material. Salvinorin A also presents us with an entirely novel chemical structure for a psychedelic drug. It's the first psychedelic diterpene to be discovered, while nearly all other known psychedelics are alkaloids.

The following pages discuss the history and botany of the rare and little-known plant. Salvia divinorum, and the recent isolation of its immensely powerful active principal, salvinorin A. Since the first human experiment with this substance three years ago. salvinorin A has generated significant interest within the psychedelic community, and promises to challenge our basic understanding of consciousness and the functioning of the mind. Presented here are results of the early human experiments with salvinorin A, many in the form of first-hand reports which give lucid descriptions of the bizarre and multifaceted worlds of Salvia divinorum.
Salvia Divinorum: The Plant and its History

Salvia divinorum is used by the Mazatec Indians living in remote regions of Oaxaca, where it first came to the awareness of western researchers in the first half of this century. Little is known regarding the plant's use before this period, although there is some indication that it may have been used by the Aztecs in earlier times. The first description of this plant in western literature was made by Swedish anthropologist Jean Basset Johnson in 1939. Johnson, who was investigating psilocybe mushroom use amongst the Mazatecs, also noted their use of Salvia divinorum in healing ceremonies.

Salvia divinorum is a very rare plant, being found in only a few ravine locations in the Sierra Mazateca mountains. The plant is easily propagated by cuttings, and during the past few decades it has made its way into numerous botanical gardens and private collections around the world. Virtually all of the Salvia divinorum in circulation has been vegetatively propagated from two parent clones of this species. The first specimen was collected by R. Gordon Wasson in 1962. A second, so called "palatable" strain was collected by Bret Blosser in 1991. The "palatable" variety is actually still quite bitter, although less so than the Wasson clone. There are a few other strains being maintained, some of which were grown from seed, but these are not in general circulation.

Cuttings of Salvia divinorum placed in a jar of water will begin rooting within two to three weeks. When the roots have reached about 1", the cuttings may be transferred to pots. Salvia divinorum likes humidity and moisture, moderate but indirect sunlight and warm temperatures. In most parts of the United States it will grow best in a greenhouse and appreciates frequent misting. Too much sunlight will turn the leaves a pale green. If the leaves curl up and dry at the edges, it is a sign that the temperature is too warm for the amount of humidity they are receiving. The plants should be kept from freezing at all times, although they may grow back after a light frost that does not freeze the roots.

Salvia divinorum grows into a vine-like bush with branches frequently reaching 7 to 10 feet in height before bending over under their own weight, often rooting where they fall. The plant has jagged-edged leaves that reach 4" to 6" in length. The amount of leaf is typically sparse in proportion to the stems, and often the plants have a slightly straggle appearance. The stems are
square-shaped and hollow with winged edges. Under proper growing conditions the leaves have a beautifully deep, rich, almost velvet-like sheen, and appear quite sensuous. In the fall Salvia divinorum produces delicate flowers with white corollas and purple calyxes. Salvia divinorum sets seed rather infrequently, and only on rare occasions have these seeds proven to be viable.

It is thought by many botanists that Salvia divinorum is a cultigen. It is not known to exist in the wild, and the few patches that are known in the Sierra Mazateca appear to be the result of deliberate planting. A Mazatec shaman informed Wasson that the Indians believe the plant is foreign to their region and do not know from where it came. And if Salvia divinorum is a hybrid, there are no commonly held theories on what its prospective parents may be.

Amongst the Mazatecs, Salvia divinorum (Diviner's sage) is known under such names as ska Maria Pastora and Hierba Maria, which translate as "the herb of Mary" or "leaves of Mary the Shepherdess". In a recent paper, Jonathan Ott has noted that the Mazatecs lack an indigenous name for Salvia divinorum, both the Christian theme of Mary, as well as sheep, having been introduced to the region during the Spanish conquest. The Mazatecs also list a method of consuming this plant that does not efficiently utilize its psychoactive content, and seem to be generally unaware of its tremendous potency. Based on this information, and the likelihood of its being a cultigen, Ott has suggested that Salvia divinorum may be a post-conquest introduction to the Sierra Mazateca. However, it has also been suggested, initially by R. Gordon Wasson, that Salvia divinorum may be the Aztec plant Pipiltzintzintli, an entheogen that was briefly described by a 17th century Spanish friar. Ott has found that the little information available regarding Pipiltzintzintli supports this hypothesis, while ruling out several other plants that have been suggested as candidates for this Aztec sacrament.

R. Gordon Wasson, the famed ethnobotanist who introduced psilocybe mushrooms to western society, was also the first to personally describe an experience with Salvia divinorum. In July of 1961 he participated in a healing ceremony performed by a Mazatecan curandera. Wasson ingested the squeezed juice of 34 pairs of leaves, and described the results as "coming on sooner (than the mushrooms), being less sweeping, and lasting a shorter time. It did not go beyond the initial effects of the mushrooms - dancing colors in elaborate, three- dimensional designs." In 1962 Wasson was joined in Oaxaca by Swiss pharmacologist Albert Hofmann, inventor of LSD, who also first isolated psilocybin from mushrooms gathered in this same region. Hofmann brought an alcohol extract of Salvia divinorum back to Switzerland where he attempted to isolate the active component. He was unsuccessful, finding the extract to no longer be active, and suggested that the plant's active principal was unstable.
The Discovery of Salvinorin A

There was little research performed on Salvia divinorum during the following two decades. Salvinorin A was first isolated in 1982 by Alfredo Ortega, while performing a systematic chemical search for novel terpenoid compounds within the genus salvia. Ortega's search was not related to, and did not investigate, this plant's psychoactive properties. A group led by Leander Valdes, who was attempting to discover the psychoactive component of Salvia divinorum, separately isolated the same compound in 39g. The Valdes group, however, only tested salvinorin A by administering injections to mice. Although these experiments suggested that salvinorin A was the main psychoactive component of the plant, the Valdes group remained unaware of its extraordinarily potent effects in humans.

In June of 1993 Daniel Siebert discovered the strikingly powerful effects of salvinorin A, following the smoking of an extract which he had produced. Prior to producing the extract Siebert had been experimenting with ingestion of Salvia divinorum and smoking the dried leaves. Although these experiments allowed him to enter a psychedelic world, he felt that a much vaster dimension was waiting beyond the state produced by these methods of consumption. He began a series of experiments producing concentrated extracts and trying various methods of administration. During his experiments, Siebert felt the plant's spirit was issuing a kind of intuitional guidance, encouraging him to continue with the extraction process and discover a means of achieving a full Salvia experience.

Pure salvinorin A is desirable because it permits one to experience intense psychedelic effects which are often elusive when using the whole plant material. In particular, when smoking dried Salvia divinorum leaf, many people fail to achieve more than a mild effect, although a few find this method quite satisfactory.

Upon his discovery of two terpenoid compounds, Valdes named them divinorin A and divinorin B. However, since Ortega had previously discovered and named the first of these compounds, the name salvinorin A is currently used for the plants primary terpenoid component. Salvinorin B, which represents about 4% of the plant's terpenoids, did not turn out to be psychoactive in Valdes' animal studies, however, it has yet to be tested in humans. Valdes has also isolated other terpenoids from Salvia divinorum.
In his book, *Pharmako/Poeia*, Dale Pendell indicates that one may need to work with the plant for some time before feeling its effects.

"The Ally - She can be shy. Sometimes she has to get to know you for a while before she will come out and say hello. But once she appears, are there any who are more direct?"

When smoking dried Salvia divinorum leaf it is important that the entire quantity be consumed in one or two large inhalations if one hopes to obtain significant effects. Smoking it in the manner one normally smokes a joint usually produces no more than a mild buzz.

Siebert found that leaves harvested during the warmer months of the year were at least twice as potent as those harvested during the winter. John Gruber of the Philadelphia College of Pharmacy and Science recently performed HPLC tests which yielded between 1.5 and 2.2 mg. salvinorin A per gram of dried Salvia divinorum leaf with lower amounts appearing in the stems and traces in the roots. Earlier experiments by Siebert have yielded up to 4.4 mg. salvinorin A per gram of dried leaf. The dried leaf equals approximately 13% of the fresh weight.

Siebert also discovered that when ingesting Salvia divinorum, its active components are absorbed primarily through contact with the oral mucosa. His experiments showed that significant entheogenic experiences were produced by chewing 8 to 10 large fresh leaves (3 grams each, fresh weight) and holding them in the mouth for 10 minutes, while quickly swallowing the same amount of material produced no noticeable effects. In sessions where Salvia divinorum was administered by Mazatecan shamans, most westerners who reported definite psychoactive effects were given 50 to 100 leaves. Reports on the plant’s psychoactivity were inconsistent, and much of what was absorbed by those who felt its effects may have been through the oral mucosa during the process of chewing and consuming the leaves.

Shortly after discovering salvinorin A's effects, Siebert sent a sample to David Nichols who initiated a NovaScreen™ receptor site screening. The screening results were in contrast to those of all previously tested psychedelics. Salvinorin A did not affect any of the receptor sites tested, which included all of the likely known receptor sites for other psychedelics.
Dosage and Method of Administration

Salvinorin A can be efficiently consumed by inhaling the vaporized crystalline powder, or by smoking, providing the crystalline powder has been placed on a substrate such as dried Salvia divinorum leaf. Used in this manner, the effects of salvinorin A can be distinctly felt from as little as 200 to 500 mcg. Most who have tried salvinorin A have reported "full" effects at a range between 800 and 1200 mcg. The distinction of "full" effects is arbitrary, as the intensity and diversity of the experience increases with the dosage. It should also be noted that as with any substance, there are a few people who will be unusually sensitive to salvinorin A, and will require a smaller amount to produce the same level of effects.

Ott has indicated that salvinorin A can also be taken sublingually, and is active in even smaller doses, with as little as 100 to 250 mcg. producing noticeable effects. Ott used a solution of salvinorin A in acetone in his sublingual tests, and also reported that DMSO can be used as a solvent for this purpose. By comparison, the most potent previously known natural psychedelics, 5-MeO-DMT and psilocin, are typically used in doses of 5 to 10 mg. Salvinorin A is approximately 10 times the potency of these compounds, and nearly as potent as the semi-synthetic psychedelic, LSD.

The effects of salvinorin A intensify sharply as the dose is increased, as has been noted by several people who have used over 1 mg. A few have tried doses around 2 mg., and had experiences of ferocious intensity which they had no desire to repeat. The largest single dose reported is Siebert's initial smoking of approximately 2 mg. of salvinorin A.

Most of the early experiments with salvinorin A were performed by inhaling the vaporized crystal using the following technique. The salvinorin A was placed on the center of a piece of thick aluminum foil, which was heated from below with a butane micro-torch or "jet flame" lighten As the salvinorin A turned to a white vapor, the vapors were inhaled through a 15mm diameter glass tube. This technique requires careful performance. If one inhales before the crystal has been melted, the solid material will be taken into the mouth and will not produce the desired effects. However, if one waits more than a moment after the vapor begins to appear, it will disperse and be lost to the atmosphere. There were several reported misfires from people who were not successful in this procedure. Some of these people suspected the substance was not very potent, increased the dose, and were quite shocked by the intensity of what they were subsequently propelled into.
I came across a simpler procedure for this process, which is to use a conventional hash oil pipe. A hash oil pipe is made by creating a bubble or bowl at one end of a glass tube, with an opening at the top. Although hash oil is no longer commonly available in stores, these pipes can occasionally be found. A hash oil pipe allows better visibility of the melting and vaporization, and better confinement of the vaporized material against escaping without being inhaled. Even with a hash oil pipe the technique requires precision. The use of a micro-torch or "jet flame" lighter is essential, not only due to salvinorin A's high boiling point, but also because a conventional lighter will coat the outside of the pipe in carbon, obscuring visibility of the melting/vaporization process. I found that the flame must be continually moved over the bottom of the bowl until the material has melted. These torches are hot enough to cause the bowl to quickly expand and buckle if the flame is kept at one point on the bowl. This causes the solid salvinorin A crystals to disperse over a large area inside the bowl, which does not allow for efficient vaporization. It is important that only self-extinguishing torches or lighters are used in this process, as salvinorin A takes effect very rapidly. One does not want to be traveling through hyperspace while a lit torch is burning at their side.

Recently salvinorin A has been distributed in another form which is much easier to use. The material I've used contains 1 mg. of salvinorin A, dissolved onto 25 mg. of dried and powdered Salvia divinorum leaf. This concentrate formulation is much easier to handle than the pure crystalline form. The concentrate formulation may be smoked in a regular pipe using a regular lighter. However, a dedicated pipe should be used for smoking salvinorin A, as subsequent smoking of other herbs in the same pipe may induce an unwanted journey. Individual doses can now be reasonably measured on a scale with 10 mg. (1/100 of a gram) resolution, such as the Ohaus Centogram quad-beam balance. I've prepared 1 mg. doses of salvinorin A by first weighing 50 mg. of the salvinorin A on Salvia divinorum leaf concentrate, and then visually dividing this amount into two equal piles. Anyone working with this material should be acutely aware that even small variations in the dose size can produce dramatic increases in the intensity of the experience. Pure crystalline salvinorin A requires a sophisticated analytical balance for the measurement of individual doses. I have used the salvinorin A on Salvia divinorum leaf formulation several times now, and have noticed no difference between this and vaporizing the same amount of material in pure crystalline form.

Siebert also performed tests using other methods of administering pure salvinorin A. This included placing salvinorin A in the mouth, and dissolving salvinorin A in a solvent and spraying into the nose. The effectiveness of these methods varied widely with repeated applications of the same method. In some cases a large percentage of the material taken seemed to make its way into the bloodstream, at other times only minimal effects were produced. This presented a significant risk. If the dose was increased to the point where one would normally achieve "full" effects, (equivalent to smoking 1 mg.) there was a risk of absorbing a larger percentage of the material which could produce an experience of shocking intensity. This possibility led Siebert to suspend his research in this area.

There are currently a number of people in the psychedelic community experimenting with different methods of ingesting Salvia divinorum, including
the oral administration of a crude extract. It is likely that a reliable method will soon be developed which allows one to experience fuller effects than can be easily obtained through chewing the whole leaves, but without the intensity and sudden onset of smoked salvinorin A.
Warnings

As mentioned earlier, most who have tried salvinorin A find its effects extremely unsettling, and have no desire to repeat the experience. This response comes from people who are highly experienced in the use of entheogens, including many who are writers or leaders in the psychedelic community, from the 1960's to present. It is unlikely that salvinorin A will ever become a popular substance, and many will find using the non-extracted plant material more to their liking. In contrast to using pure salvinorin A, use of the whole plant material, particularly by ingestion, produces a gentler, longer-lasting experience, that many have found easier to absorb and have derived greater benefit from. Used in this manner, Salvia divinorum is also much less overwhelming, and is not likely to present many of the dangers described below. Currently salvinorin A has been used by a relatively small group of people. Information regarding its possible effects on humans is still quite limited, and there is little known regarding the possible toxicity of this substance, particularly at higher doses. Information on the experience of about 50 users has been informally gathered and summarized here. Also presented are some insights I've obtained during approximately 30 sessions using salvinorin A.

The use of salvinorin A presents some extreme dangers which are not encountered on other psychedelics. After smoking salvinorin A, some users will stand up and begin walking or moving around, running into objects that are in their path. People in this state typically move in an agitated manner and seem to be struggling with the experience. Apparently they have no recognition of their surroundings when this is taking place. This response has been noted in only a few people, about 5% of the first 50 subjects.

A more common occurrence is for one who has just smoked salvinorin A to not recognize that they are heavily inebriated, and begin to walk around. In these instances the user is able to perceive his or her surroundings, and moves around without bumping into objects. Several people in this situation have wanted to leave the premises where they were conducting their journey, desiring to either drive or walk to another location, and needed to be dissuaded from doing so. Often people who walk around during the journey do not recall doing so once the effects wear off. The presence of a sober person to act as sitter during the sessions has proven very important in dealing with situations such as those described above. Siebert has witnessed reactions of this type and stated:

"When the dose goes above 500 to 1000 mcg the effects can be very alarming. I have seen people get up and lunge around the room, falling over furniture, babbling incomprehensible nonsense and knocking their
heads into walls. Several people have tried to wander out of the house. When the experience is over, they have no memory of any of this. In fact, they usually remember very different events. To an outside observer, people in this condition have a blank look in their eyes as if no one is present. It is also common for people to have a facial expression which is probably best described as being like that of a frightened animal."

There is also potential psychological danger with salvinorin A. I can confirm from my own experience that it can instantly obliterate any reference to sanity, logic, or even the idea of existing, and make one feel that either one's self or the entire universe has gone entirely and permanently crazy. Occasionally people who have been given salvinorin A, even highly experienced psychedelic users, feel that a bad joke has been played on them by whoever gave them the substance. One person who tried salvinorin A, who is quite experienced with DMT and most other psychedelics, remarked "It made DMT look like a water pistol, at a dose 50-100 times less."

The intensity of a salvinorin A journey is often experienced as being an order of magnitude more potent than smoked DMT, in much the same way that DMT seems an order of magnitude more potent than a typical LSD journey. A large percentage of salvinorin A users also report that the fear factor is much greater than with DMT, which is saying a lot. I feel that no person, no matter how experienced with other psychedelics or altered states of mind, can be prepared for the intensity of a full-strength salvinorin A journey. It is common for users to be shocked, amazed and frightened, at finding themselves in a state they could not possibly conceive of being induced by any psychedelic substance. Certainly the most cautious way for one to approach this substance is to work with the whole plant material before attempting to use its active principal.
Effects and Experiences

Many who use salvinorin A spend the peak of their journey lying down or reclining, apparently engrossed in an internal world. At the onset of the experience there is often a complete separation of consciousness from the body and personality, similar to what occurs with Ketamine. What is experienced after this is quite variable, possibly more so than with other psychedelics. The visions seen with salvinorin A seem particularly real and convincing. Quite often people accept these visions as reality and forget they are under the influence of a psychedelic substance. Siebert has reported on a number of themes which are frequently experienced with salvinorin A.

1. Becoming objects (yellow plaid French fries, fresh paint on a drawer, a pant leg, a Ferris wheel, etc.)
2. Visions of various two-dimensional surfaces, films and membranes.
3. Revisiting places from the past, especially childhood
4. Loss of the body and/or identity.
5. Various sensations of motion, or being pulled or twisted by forces of some kind.
6. Uncontrollable hysterical laughter.
7. Overlapping realities. The perception that one is in several locations at once.

There has been little written regarding first-hand experiences with Salvia divinorum or salvinorin A. Although recently reports from individuals have appeared in publications such as The Entheogen Review and on internet BBS such as alt.drugs.

Dale Pendell is one or the few to have taken a liking to Salvia divinorum. His book, Pharmako/Poeia, devotes an entire chapter to it and offers many poetic insights into the nature of this mysterious ally.

"Some say it is a sensual and tactile thing. Some say it's about temporality and dimensionality, that it's about time travel. Some say it's about the Root Energy Network, or that it's about becoming a plant...it's like a mirror with no frame: some don't see it at all; some do, but don't like what they see... Consciousness has to do with energy and light. It is really very simple, neither animals nor people have consciousness. It is plants that have consciousness. Animals get consciousness by eating plants."
These poems may seem arcane to those not familiar with the Salvia divinorum experience, but are likely to be easily grasped by those who are. An experimenter who chewed Salvia divinorum leaf reports in *The Entheogen Review*; five minutes of uncontrollable laughter, followed by visions "similar to those in fantasy paintings or ancient oriental palaces: the Alhambra of Grenada. A large, almost endless empty hall with beautiful arches and hundreds of columns: all in a strange, gloomy, blue-gray light with colors of deep magic and majesty." This person later went on to feel as if he'd become a tree, similar to an Oak. He experienced his bark as a sense organ, and remarked "while it was happening I had no doubt that a tree feels that way." Subsequent to this his experience changed from entheogen to aphrodisiac.

An excellent description of encounters with Salvia divinorum can be found in a tape by Bret Blosser. While on a cave hunting expedition in the Sierra Mazateca in the late 70's, Blosser quite accidentally came upon Mazatecs who use this plant, and was able to participate in several sessions with native shamans. He had the opportunity to receive instruction and learn about the plant’s use over a span of several years, during which he periodically revisited the area. In his tape, Blosser discusses the uses for Salvia divinorum within the Mazatec culture, which includes; medicinally - to treat both physical and "psychic" illnesses, and in divining - the future, the cause or cure for an illness, and information about friends, family, and enemies. He provides insightful descriptions of his journeys, and of the preparation and guidance of his sessions. The curandero who administered Blosser's journeys works with psilocybe mushrooms more frequently than Salvia divinorum, and indicated that Salvia divinorum is "too fast" for most people.

Prior to his extraction research with Salvia divinorum, Leander Valdes, together with Jose Diaz, had taken part in ceremonies conducted by a Mazatecan shaman during which they ingested leaves from the plant. Valdes reported the following visions in an article appearing in the *Journal of Ethnopharmacology*:

"I see something between a cross and a sword which is covered with gold and has many jewels... It has everything inside, lights, animals, people, plants. Everything, of many colors. like a picture. Very very vivid colors." Valdes characterized his experiences with Salvia divinorum as involving sensations of "flying, floating, traveling rapidly through space, twisting and spinning. as well as a heaviness or lightness of the body." Later that evening Valdes’ visions continued. He saw a purplish light that changed into a bee or moth like shape which became a pulsating sea anemone. The imagery expanded into a desert landscape full of moving prickly pear cactus shapes. Suddenly he found himself standing in a bizarre landscape with brightly colored flowers, talking to a man wearing a shining white robe who was either shaking or holding his hand. Next to them was something that resembled the skeleton of a giant stick-model airplane made from rainbow colored inner-tubing. The "reality" of what he was seeing amazed him.

The following experience was reported on the internet from a person who had smoked two deep bong hits of dried Salvia divinorum leaf.

"There was an edge, made of something between plastic and flesh, set
about a foot in front of my face, running diagonally, upward to the right. I could touch this edge. and it had resistance when I did so. It's visual qualities were a bit less intense initially, pastel colors, some glistening. I started to pull at it, peeling it back, and it seemed then that the 'stuff' was simply "reality". I collapsed into a couch, closed my eyes, and unfolded the folds of this "stuff" (or rather it unfolded me; you know how it goes, very reflexive,) a very sensual, sexual experience, moist, son and hard all at once. Or, a distinct sense of losing my "mental faculties one by one, in very specific levels, until I could not form a thought. Space had become very peculiar, rich with crevices, stretching far down past what I could see. At this point I felt uneasy. A voice called up from one of the crevices "Do you want to stay like this forever?" I called out "No!", and the voice replied, "Then stop doing that!" "That" I took to mean the Salvia. Then I fused with a piece of furniture. A very odd experience, like I was simply the hidden other leg of the furniture, completing the gestalt, but in a very immediate bodily way."

A recent issue of *The EntheogenReview* reports on one person's journey following the smoking of two dried Salvia divinorum leaves, consumed in two large hits from a water pipe:

"I felt like and saw myself as a tree. Branches began growing out of my body, filling up the room, and I felt, and saw, my roots growing all over the floor and out beneath the door. At this point I could no longer remember if I had smoked anything, or if my mind had just flipped on me. My room had turned into artwork from Where the Wild Things Are, a kid's book. The room was a garden of geometric twines and leaves from my own body." This trip was much more intense than any previous Salvia divinorum journeys of this person, who also reported seeing entities, including, "one who was pushing a wheelbarrow along one of my vines while smiling at me."

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Salvinorin A Journeys

My own experiments with salvinorin A began in December 1994, following a highly coincidental meeting with Daniel Siebert. I first learned of salvinorin A when a copy of *The Entheogen Review* arrived in the mail containing Siebert's article. The following day I went to Los Angeles on business matters and to visit friends, and quite out of the blue was introduced to Siebert by someone I'd just met that day. The occasion of this unlikely meeting gave me assurance that I was meant to work with this powerful entheogen, despite Siebert's numerous reports of those who found the journey harrowingly unpleasant.

My journeys with salvinorin A (hereafter called salvinorin) are more varied than those of any other psychedelic I've used, and include both my best and worst psychedelic journeys. My understanding and the content of these journeys has evolved with repeated use. Certain ideas and perceptions have become clearer as I've become familiar with the territory, although the entire experience still remains largely incomprehensible, and there exists a feeling of having just stepped over the threshold into an immensely vast dimension. A description of the general framework of most of my salvinorin journeys is given below, followed by excerpts of notes from my journeys. Also presented are reports from other experimenter's journeys, which will assist in offering a more comprehensive view of the realms available through *Salvia divinorum*.

My experiences with salvinorin can be divided into three phases or periods, the onset, trance, and return. These periods closely match the unfolding of a smoked DMT experience. Initial effects are felt within 10-20 seconds, with the peak being reached in another 30 seconds or so. I usually stay at this peak, in trance, for 3 to 10 minutes, after which there is a 10 to 20 minute decline to baseline. When used with another psychedelic the duration of a salvinorin experience can be increased several fold. Salvinorin comes on with an irresistibly powerful, spiraling force which is much stronger than that felt on any other psychedelic. During the onset I quickly fall into a trance, while my body feels permeated by "needle-like" anesthetic sensations. Both of these sensations are quite similar to what I feel during the onset of smoked N.N. DMT. Within seconds of this first phase, the salvinorin separates my awareness from my body, similarly to what occurs with 5-MeO-DMT or Ketamine. Salvinorin is quite distinct from Ketamine, however, in that like DMT, salvinorin exudes a strongly life-positive energy, where Ketamine does not necessarily have this
Following this, I go on an internal journey while my body is lying down in trance. My experience, or recollection, of this second phase varies greatly. Sometimes I perceive the most cosmic, wondrous, and detailed of universes. while at other times I recall absolutely nothing. In these moments of recalling nothing, I've often felt as though I only smoked the salvinorin a few moments ago and have retained consciousness the entire time. I then look at a clock and realize five or ten minutes have passed that I can not account for. I've developed a theory for this vast difference in the experiences which I'll discuss later.

The amount of time I spend in the trance, and how high I am upon returning to bodily awareness, varies with each journey. It seems that I am normally pulled out of the trance by some type of sound. At home this may be a car passing by, while out in nature it seems that a bird will chirp or a bug will fly around my head. In most instances, the sound which pulls me out of the trance seems like a distraction which is interfering with the experience. It is not surprising that the Mazatecs recommend that it be done in quiet. There is a tendency for awareness to lock onto individual perceptions during the return phase, and for these perceptions to appear to fill the entire universe. This has been particularly noted by Siebert and myself when music was being played during the trip. The portion of the journey immediately following the trance is often the most intense and leaves the strongest impressions.

While coming out of the trance the bodily anesthetic sensations often persist, and are stronger when I come out of the trance prematurely. These feelings can be compared to the "needles and pins" sensation of trying to move an arm or leg which has fallen asleep. Following one journey I wrote "I must have willed myself to move, and felt the anesthesia sensations gripping me firmly, with an almost cutting sensation. It was not exactly painful. It felt as though I was tightly gripped by millions of sharp fingernails applying minimal pressure, but if I moved I would be cut to shreds." This can also be experienced as a "tearing" sensation over the entire surface of the body. Siebert has described intensified feelings of this type as "various sensations of motion, or being pulled or twisted by forces of some kind." On occasion these sensations have been very pleasant, closer to Pendell's "like soft cat paws pressing, or like a bunch of bird tongues lapping the mind. Or like tiny fingers, the way ivy fingers reach out to climb a wall..."

The most constant internal experience in my salvinorin journeys is a drastic shift in my sense of identity and conscious perception. At the onset of the experience my identity is completely dislodged from my body and familiar self. Following this I experience myself as existing, but not as a body, human, or personality. I usually find myself in some alternate dimension, which can either closely resemble earth, or be entirely alien. Quite often the worlds visited under the influence of salvinorin do not obey the laws of physics which we are typically accustomed to. The action of the forces of gravity and momentum, the dimension of time, and the geometric construction of these worlds, can be rather bizarre.

There is also an apparent reduction in boundaries, and the sensation that
my "being" can literally enter and inhabit various objects, including inanimate ones. There have been numerous reports from people who have had quite vivid and convincing experiences of becoming objects such as a dresser drawer. As I begin traversing these unusual dimensions I feel driven by forces which I don't fully understand, but which I believe to be influenced by my set and setting. At the point I come out of the trance, external reality begins making an imprint on my experience and accelerates the return to normal awareness. Some of my more interesting journeys are described below.

1. **D.M. Turner- 1.3 mg. salvinorin**
2. **D.M. Turner - 400 to 800 mcg. salvinorin**
3. **Anonymous - approximately 1.7 mg salvinorin**
4. **D.M. Turner - 350 mcg. salvinorin with 300 mcg. LSD**
5. **D.M. Turner - 650 mcg. Salvinorin with 500 mcg. LSD**
6. **D.M. Turner - Salvinorin with LSD**
7. **D.M. Turner - 850 mcg. Salvinorin with 40 mg. 2C-B**
8. **D.M. Turner - 30 mg. N.N. DMT** (subsequent to smoking Salvinorin)
10. **D.M. Turner - 750 mcg. Salvinorin with 600 mcg. LSD**
11. **B. Schuldes - 2 "bong hits" Salvia leaf with 350-450 mcg.**
12. **Daniel Siebert - June 6, 1993: The Breakthrough**
13. **Mantid - one water-pipe hit of Salvia divinorum leaf**
14. **D.M. Turner - Salvia divinorum leaf, smoked outdoors**
15. **D.M. Turner - unspecified quantity Salvinorin with LSD**
16. **D.M. Turner - 10 chewed Salvia divinorum leaves**

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Conclusions

The experiences described above are a representative sampling of both my own and other’s encounters with Salvia divinorum. I consider these to be the most diverse and inexplicable of any of my psychedelic adventures. Although I’ve now used Salvinorin over 30 times it still has the ability to feel completely novel, fresh, and unpredictable with each use. The results reported by the small group who have tried this mysterious substance show a wide and diverse range of effects and experiences, and suggest a greater potential for both dangers and revelatory insights than exists with other entheogens. Many have found the experience of pure Salvinorin A to be alarmingly intense, and feel working with the whole plant material to be safer and more assimilable. Salvia divinorum appears to be a plant in possession of a vast treasury of knowledge and experience, which is just beginning to make acquaintance with and be noticed by humans. Those who have connected with her sublime and fantastic realm feel Salvia divinorum has something very precious to offer us.
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Website - Daniel Siebert's WWW Salvia divinorum information pages

Related Reading - The Entheogen Review 564 Mission Street, Box 808, San Francisco, CA 94105-2918. Subscriptions -$35.00 for 4 quarterly issues.

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Appendix A

Salvia divinorum Cultivation
by Will Beifuss, courtesy of The Resonance Project

Salvia divinorum is a member of the mint family (Labiatae), along with such familiar herbs as oregano and basil. There are dozens of Salvia species, but Salvia divinorum is the only one known to contain the diterpenes salvinorin A (at 96%) and salvinorin B (at 4%).

The plant has hollow, square stems with winged edges. It has opposed sets of ovate leaves that are finely dentate along the edges and grow to 8" in length. The stems are not very sturdy, but with support, the plant can grow to 8' tall. Filtered sunlight is best, and the plant likes plenty of water and humidity. It rarely sets seed, and when it does the seeds are usually not viable. In the wild, the plant propagates by falling over, and sending out roots where it touches the ground. In a high humidity environment, it is not uncommon to see roots forming on the stem even before the plant has fallen over. In cultivation, cuttings can be taken and this is very easy to do. Using scissors, cut off a branch tip that has 4 to 6 sets of leaves on it and about 4" of stalk below that. Place the cutting in water so most of the bare stalk is covered; tap water is fine and you don't need to add any nutrients. The cutting may wilt for a day or two, but should be fine after that. Mist the cutting frequently or keep it in a high humidity environment to ease the shock of being cut. When taking cuttings in summer, wait until the evening when cooler temperatures prevent excessive wilting.

In about one week, nodes appear on the stalk where the roots will emerge. In another week, roots will grow out to a length of 1/4 to 3/4" long - this is the time to transplant into soil. Keeping the cutting in water beyond this point will deprive it of nutrients, and longer roots are more susceptible to damage during transplanting.

Transplant into a 4"-6" pot using commercial potting soil or formulate your own. I make a mixture of 1 part compost, 1 part peat moss, 1 part sandy loam and 1/2 part perlite. Salvia divinorum likes a friable soil rich in humus and with good drainage, avoid heavy soils with clay in them. The plant likes a lot of root space; repot often for maximum growth. When you see growth start to slow down, or the plant starting to look ragged, it's time to repot.
The ideal temperature range is in the 60s, but my plants have survived hot spells of 100° and night time temps as low as 35°. In hot weather, make sure the plants have enough shade and plenty of water with frequent misting. In the summer when my plants are outside on my deck, I keep them under 60% shade cloth. I have misters that come on six times a day for one minute, which is long enough to wet all the foliage. The misters are controlled by an electronic timer that screws onto my outside faucet.

My plants can put on 4'-5' of growth during the 6 months they are outside. I have heard that the Salvinorin content is higher in the summer, but this is anecdotal information.

In the fall, growth slows as temperature and light levels decrease. If the temperature falls below freezing, the plant will immediately turn black and die. If the root ball has not frozen, the plant can grow back - often quite prolifically because it has a large root system supporting the new growth. I know it's time to bring my plants inside when the leaves start to blush red from the cold nights - this disappears in a few weeks after being indoors.

Plants will flower in the fall when day length falls to about 10-12 hours of light a day. If you are bringing your plants inside under artificial light, you can abort flowering by increasing the light to 14-16 hours a day. The plants will then go back to vegetative growth and put their energy into leaf production. I enjoy the flowers, so I keep my lights on for only 12 hours a day and let the plants go through their cycle. Each plant sends up a spike that can grow to be a foot in length, filled with many small blue and white flowers. The flowers have a very delicate, spicy scent. Each flower spike will last about a month, but if you have many plants all in different phases of flowering, the whole process will last 2-3 months. I know people who have grown Salvia divinorum for years and it has never flowered for them, even though the plants go through a period of shortened day length. The plants tend to get leggy during flowering, and lose some of their lower leaves, and in general look a little ragged. Once flowering is over, I start increasing the light cycle and the plants return to vegetative growth. Light can be increased up to 18 hours a day for maximum growth, beyond this can be detrimental to the plants.

I am not a big fan of the high priced fluorescent grow lights marketed under names such as Vita Lite, Agro Lite and Grolux. One of these 4' bulbs costs about $15 - you could buy 5-6 standard fluorescent bulbs for this price and they are almost as good. Compared to sunlight, fluorescent bulbs emit light predominantly in the blue spectrum which encourage leaf and stem growth. These bulbs are low in red wavelength light which promotes flower development. Unlike Cannabis where the goal is flower production, the aim with Salvia divinorum is leaf production, so fluorescent lights are fine. Of course natural sunlight is best, but unless you have a greenhouse or a sunny location indoors, fluorescent bulbs will maintain your plants through the winter until you can get them back outside in the spring.

High Pressure Sodium (HPS) or Metal Halide (MH) lights can also be used. They come in 400w and 1000w sizes, and unless you have a large area to cover, the 400w is plenty. A 400w MH system costs about $200 and puts out as many lumens as 20 fluorescent bulbs. This fixture would provide enough light for an 8'x8' growing space. You need to be sure to keep the light 2' above the tops of the plants; if the leaves start to blush red, the light is too close.
Leaves will lighten in color when exposed to high light levels; this is fine and does not effect potency. Using one of these lights will require more humidity as the extra heat they give off will dry out the leaves quicker. HPS lights are higher in the red spectrum and emit a golden light, MH are a more balanced light and would be better for use with Salvia divinorum.

The main thing you hear about Salvia divinorum is how much humidity they need, but this is not true. Yes, the plants enjoy high humidity, and will achieve optimum growth in high humidity, but they can grow just fine in much less humid conditions. The trick is to slowly acclimate the plant to a lower humidity environment over the course of several weeks. If you have ordered a cutting by mail, chances are good it came from a high humidity environment in a greenhouse. Give it high humidity initially by misting it often or placing it in a tent with a humidifier, but slowly reduce the humidity over the course of the next month and the plant will do just fine, and with much less hassle for you. In the winter when my plants are indoors, I cover the walls with plastic sheeting and spray the plants 3 times a day with a pump-style tank sprayer. This takes less than 5 minutes every time I spray them and I never have a problem with leaf edges turning brown, which is the typical sign that the humidity is too low.

If you are going to grow your plants in a high humidity environment, don't make the mistake of thinking that you don't need to water them much - they will still require regular watering even with humidity levels in the 90% range. I do not like using tightly sealed tents or other grow chambers, these do not allow for a healthy flow of air and such stagnant conditions encourage the growth of molds and bacteria.

The most common pests of Salvia divinorum are whiteflies and aphids. They both live on the underside of the leaves, preferring the new growth on the top half of the plant. Aphids will also cluster on the stems. Whiteflies are small insects with bright white wings, their pupa are light green and look like small grains of rice. All stages suck on plant juices, and heavily infested plants will yellow and grow poorly. If the infestation is left unchecked, the plants can be killed from a black sooty mold that grows on the honeydew that the whiteflies and aphids produce.

I have had good results combating whitefly (and to a lesser degree aphids) simply spraying the underside of the leaves with a solution of 1 tsp. liquid castile soap (such as Dr. Bronner's unscented) to 1 qt. of water. The soap breaks down the insects' protective coating and they drown. The plants can be rinsed off the following day with clean water. You will want to repeat this procedure once a week for a couple of weeks to kill any pupa that survived the initial spraying and have turned into adults.

Aphids are a little more resistant to a simple castile soap spray, so I recommend using insecticidal soap on them, such as Safer brand. These soaps contain salts of fatty acids and are quite safe to use, even within days of harvest. The directions say the soap can be left on, but I wash the leaves off the following day after application just to be safe.

There are some biological controls that work wonderfully. The parasitic wasp Encarsiaformosa is very effective against whiteflies. These tiny wasps are
barely visible to the eye, they lay their eggs inside developing whitefly pupa, so one of their young hatches out instead of the whitefly. For aphids, try ladybugs or *Aphidoletesaphidimyza*.

I fertilize my plants about once a month with fish emulsion when they are outdoors in the summer. In the winter I use Stern's Miracid (S. divinorum likes acidic soil.) Feeding a lot of nitrogen to your plants will attract more problem insects to them, so cut back on fertilizing as part of the strategy to bring pests under control.

For all practical purposes, the lifespan of a Salvia divinorum plant is about 5-6 years. The plants get woody as they age, growth slows and they become more brittle and start to fall apart. If they have been staked and prevented from falling over and rerooting, then it is time to take some cuttings and start again. Cuttings from an old plant will show the same vigor as cuttings from a younger plant.

Salvia divinorum leaves should be dried in a food dehydrator on a medium high setting (130 - 140 degrees). At this temperature, drying will take between 1 - 2 hours depending on the size of the leaves. I remove the mid ribs on the large leaves and they never take more than 1 hour to dry. Drying at lower temperatures causes the leaves to lose their green color and turn brown. Once dry, I push the leaves through a sieve to powder them, then pack the powder tightly into glass vials and store in the freezer - potency will be retained for many years this way. Fresh leaves can be stored in the refrigerator for a few days before losing potency, keep them in a plastic bag with a damp paper towel. Freezing fresh leaves does not work, when thawed they turn into a slimy mess. Leaves can be juiced using a wheat grass juicer and then frozen for long term storage - when thawed, the juice is held in the mouth as is done with the fresh leaves. Dried leaves can be reconstituted by soaking in a small amount of water and then chewed.

It is my hope that many people will grow Salvia divinorum; it is one of the rarest of all plant entheogens. It was almost driven into extinction once, let's preserve this species so future generations can learn from this valuable plant ally.