

Evolving Hyperspace



Underground Psychedelic Research
at the DMT - Nexus

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www.dmt-nexus.me

The pamphlet that you hold in your hands is but a mere taste of what the DMT-Nexus has to offer to the entheogenic community and the world at large. Inside, you will find laboratory analyses and groundbreaking phytochemical research, discussions on novel approaches for isolating psychoactive compounds, a brief examination of the future of sustainable underground entheogenic research and much more. We hope that you find this information as exciting as we do and use this pamphlet as a stepping stone into the vast world of underground entheogenic research.

A Brief History of The DMT-Nexus

“In the beginning the Universe was created. This has made a lot of people very angry and has been widely regarded as a bad move.” - Douglas Adams

Unlike the Universe, the DMT-Nexus, was born out of an urgent need. The DMT-World website had just disappeared and one person called BlackClo thought that a new website dedicated to DMT was needed to fill the void. In its infancy, the Nexus was very small and there was hardly any activity from the few registered members. However, as the months went by, it became clear that the DMT-Nexus was growing and that a lot of people were reading the forum.

As the DMT-Nexus continued to grow steadily, BlackClo became more and more concerned with the ethics of the DMT-Nexus and whether or not he wanted to continue to maintain the site. His dilemma reached its climax when he told The Traveler (another Nexian) that he wanted to put an end to the DMT-Nexus. After some discussion, BlackClo decided to hand the forum over to The Traveler, but shut down the rest of the site.

The DMT-Nexus has changed a lot since The Traveler assumed the role of administrator. The Wiki was added, the forum was cleaned up, and new subfora, an Attitude, a FAQ and a chat were added to the site. The focus of the site was expanded to include other entheogens and projects such as the Hyperspace Lexicon, the Enigmaticus, the Coalition for Entheogenic Liberty (and many others) were started.

The DMT-Nexus continues to increase in size and to spread its knowledge about DMT and other entheogens around the globe. Projects such as the Coalition for Entheogenic Liberty and the Nexus Collaborative Research Project are ongoing and will continue to benefit from the addition of new, passionate and knowledgeable members. New DMT-Nexus projects will be added soon. Visit www.dmt-nexus.me to see what's going on and join in the research and discussions.

Main Goals of the Nexus

At present, the DMT-Nexus has several main foci that give our community direction and cohesion. The four core foci of the DMT-Nexus are building community, engaging in harm reduction, advancing research and raising global awareness. These four pillars create a general framework from which research and discussions flow organically according to topics that members find to be of interest or merit.

The DMT-Nexus is a diverse community, made up of individuals from all walks of life from around the globe. This extreme diversity of worldviews and experiences creates a unique environment for entheogenic research and discussion and plays a major role in the innovations and research that take place on the Nexus. Recently, there has been an explicit shift in the overarching

theme of the Nexus community to that of an “enthoegenic university”, focusing on research, collaboration and the expansion and development of knowledge within the community.

At the Nexus, we feel that harm reduction is a very important aspect of entheogenic research. The potential dangers associated with the extraction and use of entheogenic plants and chemicals must not be taken lightly and are unfortunately, largely the result of the repressive environment and subsequent lack of information created by prohibition. As such, we feel that the best way to decrease the potential health and safety risks to people who wish to engage in entheogenic research is to provide accurate and thorough information regarding proper safety precautions for extraction and ingestion. Our three-pronged approach to harm reduction covers the safe and respectful use of entheogens, safe and proper use of extraction materials and methodologies, and propaganda prevention. We feel that explicitly addressing these three areas can greatly improve the safety and well-being of the community as a whole.

Research is perhaps the most exciting focus of the Nexus community and is a prime example of the merits of autonomous, self-directed exploration into numerous facets of the entheogenic experience. The areas of research we are currently exploring range from investigating lesser-known plants (both traditional ethnobotanicals as well as newly-realized plants with analogous alkaloid profiles), to extraction methodologies, routes of administration and beyond. By encouraging community members to engage in research in areas that interest them and then share their results with the community, we are able to weave together the earnest work of individuals around the globe into an increasingly clear and more comprehensive body of knowledge.

The goal of raising global awareness about entheogens is intertwined with almost all of the work that takes place on the Nexus. In the realm of harm reduction, raising global awareness about the actual effects and potential benefits/risks of these substances and the politics behind their criminalization is one of the most effective means of presenting evidence towards overturning prohibition. Much of the “logic” behind criminalization depends on fear-mongering and propaganda based on lies and urban myths. Additionally, raising awareness about our phytochemical research is an important aspect of our ongoing work, as there are a number of important discoveries that would benefit greatly from continued research in a laboratory or clinical setting.

Safe and Proper Use of Extraction Materials and Methodologies

The incredible variety of DMT extraction routes, the skills and knowledge of extractors and the purity of the chemicals used in the extraction process are reflected in the varied purity of different batches of DMT. This is one of the reasons why buying DMT or obtaining it from an unknown or untrusted person is very dangerous – you could end up smoking toxic solvent residue or other impurities from the chemicals used. We strongly advise that if you are going to ingest or smoke DMT, you only do so with DMT that was extracted by you or someone you know and trust. In either case it is important that you are conscious of purity (e.g. use guaranteed pure chemicals, perform solvent evaporation tests, make sure the product has been thoroughly dried, etc.).

The following are some guidelines for safely extracting entheogenic compounds:

- ALWAYS use safety goggles and gloves, especially when handling lye. Lye can blind you and cause very serious burns.
- When working with strong bases, keep vinegar within reach to neutralize any spills.
- Make sure you know what you are doing before extracting. Certain chemicals might be incompatible with others and some reactions can be dangerous. Don't improvise without

understanding the chemistry involved and don't mix chemicals without being sure it is safe to do so.

- Always read the labels of any chemical you plan on using. Make sure there are no unwanted impurities. Google the brand name of the chemical to find the MSDS (material safety data sheet) for that particular chemical, which will usually have information about safety guidelines as well as any possible impurities or admixtures in a given chemical.
- When working with solvents, make sure there is enough ventilation. Avoid breathing solvent vapors and use a safety mask or respirator.
- Do not use petrochemical solvents that smell strongly if you have neighbors who could become suspicious.
- Always do an evaporation test before using any solvent to see if it evaporates cleanly. Simply pour a small amount into a glass dish and let it evaporate. If it leaves any residue, do NOT use it.
- NEVER evaporate or warm up a flammable solvent next to an open flame or equipment that might generate sparks. To warm up solvents, boil some water separately, turn off the flame or heat source, add the solvent to a container and submerge the bottom of the container in the recently heated water (make sure the temperature change is gradual to avoid damaging your solvent container). Open or loosen the top of the container with the solvent, otherwise pressure might be generated, causing the container to explode.
- NEVER warm anything up in a completely closed container as this can generate excess pressurization and explosions.
- If you are mixing a base with an acid (or vice versa), do it slowly. For example, mixing vinegar with sodium carbonate or bicarbonate will generate a lot of CO₂, and it can bubble up very quickly and can rupture containers or cause chemical spills.
- Use glass equipment and tools. If you use anything else, make sure to find out EXACTLY what material it's made of and Google "chemical compatibility charts" or "chemical resistance" of that material, to find out if it is resistant to the chemicals you plan on using. Always check at least two chemical compatibility charts from different sources.

Safe and Respectful Use of DMT

Warning

DMT is a bottomless well of never ending befuddlement, an unsolvable riddle of epic proportions spoken in alien tongues. It will call into question all that you know, all that you've learned to accept as reality and introduce you to a state of being that defies all comprehension.

This experience is not for everyone, and not all who choose to open the door deal well with the questions it raises. It should never be undertaken lightly or treated in a casual manner. Those who approach the experience without respect often pay a psychic price. Should you choose to proceed, be aware that integration issues may ensue. What you find inside may change your life and will almost certainly alter your deepest, most fundamental assumptions.

DMT/Ayahuasca and Health

Research shows the relative physical safety of DMT. Ayahuasca, the DMT-containing brew from the Amazon, has been studied by multidisciplinary groups in Brazil and other countries and it has been shown that in reasonable doses in a careful context, it presents no negative cognitive, psychiatric or physical consequences (Callaway, 1994. Callaway et al, 1996. Callaway et al, 1998. Grob et al, 1996.). There has been minimal research into vaporized DMT, but there seems to be no

sign that it is more physically dangerous than other methods of administration. There are no reported deaths from vaporizing DMT.

It should be noted that somatic effects such as the possibility of increased heart-rate mean that people with heart or other life-threatening conditions should NOT take DMT unless they have consulted a qualified health professional. Also, it is possible that during the experience, you will temporarily lose orientation in consensus reality, so smoking or ingesting DMT in a hazardous physical environment is not a good idea. DO NOT use RIMAs/MAOIs (*Banisteriopsis caapi*, *Peganum harmala*, extracted harmala alkaloids, etc.) together with stimulants (e.g., MDMA or amphetamines) or SSRI medication (e.g., Prozac), as this can cause serotonin syndrome and lead to convulsions or death.

The research mentioned above has shown that in a carefully controlled setting, ayahuasca (oral DMT) use, even with regularity, causes no apparent cognitive, emotional or social problems. Habitual users actually reported improved well-being and overall health. However, these users were part of a strong community with shared values and constant support. The controlled setting in which they took ayahuasca helped them make sense of the experience and they took special care with regards to integration (see the Integration section below).

Vaporized DMT has not been the subject of any peer-reviewed scientific studies. The overwhelming nature of the experience, as well as the almost instantaneous onset (wherein the user is launched into the peak experience within a minute) lends itself to the possibility of panic and existential terror. The complete and utter inscrutability of the experience can leave the user vulnerable in the aftermath. Integration issues are not at all uncommon and most who have vaporized DMT have dealt with this in some way. It is very important that anyone who plans on vaporizing DMT takes special care with regards to set and setting, approaches the experience with a respectful attitude and takes time to integrate their experience(s).

As with other psychedelics, DMT provides a very powerful emotional and mental experience, so those with personal or family psychiatric history should not use it. A psychedelic experience can possibly trigger latent schizophrenia or exacerbate a pre-existing mental illness.

While there have been several cases reported of “psychological healing” along with anecdotal reports of cured depression and other mental health issues, DMT and psychedelics in general should not be considered a cure-all and will not heal everybody. If you are going through a difficult period in your life, you should be aware of the increased risks that undertaking this experience carries. If, after informing yourself thoroughly of the possible risks, you still decide to do it, it is recommended that you do so only under the supervision of an experienced individual, medical/spiritual professional or shaman, and take special care concerning set, setting and integration.

Addiction and Frequency of Use

DMT is not physically addictive and many users find it has a self-regulating quality. However, any drug has the potential for abuse, and DMT is no exception. If you feel yourself slipping into an area where you might be overindulging, trust your instincts – chances are you’re right.

It is unclear how often DMT can be smoked safely. There is most likely a point at which frequency of use has a negative impact on the user’s body, mind, or social life due to neglecting friends, family and personal duties. The safe limit of use varies from person to person, context to context and moment to moment. If at any point you find that you are investing more emotional energy

in “that world” than “this one”, we strongly recommend that you reduce your frequency of usage or take a break altogether.

Dealing With Negative Trips and Dark Entities

It is possible for people to have negative trips or meet dark entities within the context of their exploration(s) of hyperspace. The interpretations of what these experiences mean or where exactly they come from are as varied as the individuals who use DMT and there may be no easy answer to these questions. However, there are constructive ways for dealing with them.

There are several factors which can decrease (or increase) the chance of these negative experiences, many of which are related to preparation. If these experiences occur, there are a number of different techniques you can use to deal with them in a positive way, both during the experience, as well as during the subsequent integration period. Here are some tips collected from different members of the Nexus:

Preparation:

- Work on your daily life and fulfill your responsibilities. Being a productive and healthy person can serve to create a strong foundation from which to start engaging with alternate states of consciousness.
- Take care of set and setting. It is important to ask yourself: Is it a good time and place to take DMT? Is the room clean and organized and is this an appropriate mindset?
- Create a clear intention to carry with you into Hyperspace (a short and sweet mantra).
- Meditate. Clear your mind and evict any obnoxious inner voices or negative emotions.
- Surround yourself with “power objects”. Things you consider sacred, or find comforting and calming can be used to create a positive atmosphere.
- Make sure you are well-nourished and hydrated.
- Play music that makes you feel safe and loved in the background.

During the Experience:

- Some people feel that it is best to avoid dark entities. Others feel that there may be something to learn from dealing with them, as long as you maintain a state of inner strength and work towards integration afterwards.
- Have a mantra to fall back on. It doesn't have to be esoteric and can be as simple as "All is well," or "This too shall pass."
- Stay calm and release any negative emotions as or before they arise. Some people find that fear and anger attract negative experiences.
- Try to surrender to the experience and let go. Take it in without judgment.
- Actively use your intentions to find the experience you want. There is nothing wrong with being passive and seeing what unfolds, but if you are not happy with what is going on, try to move on to something better. This may take a bit of practice, like navigating a lucid dream.
- Try not to focus on, pay attention to, give energy to, or otherwise encourage any beings or spaces you encounter that make you uncomfortable. When in doubt, seek positive affirmation within the experience.
- Detach, rather than identify with any negative images, visions and experiences.
- Remember the Common Source that binds us all. Ultimately there is nothing to fear, because this is all part of Existence.
- Ring a bell or singing bowl.
- Dance, use yoga, qi-gong, tai-chi, or engage in other forms of movement.

- Use breathing exercises. Some people visualize blowing out the negativity.
- If all else fails, you can call on guardians you have met previously or have an affinity for. Allies that might come to your aid can take any form, and the spirit of the ayahuasca vine itself can be quite protective. It helps if you have cultivated this and have worked with your guardians previously, but you might be surprised who or what will come to your aid if you implore with sincerity.

Integration:

- Write down your experience in a journal.
- Think deeply about what happened and try to remember events that might have slipped your mind.
- Be patient with the blanks in your memory.
- Meditate on the most impressive or important aspects of your experience. Contemplate symbols and images you encountered.
- Question yourself about the experience. A few guiding questions that can help are:
 - Was there something in my preparation and “normal” life that I have done that could have caused this experience?
 - Can I improve something?
 - Is there a message to me in this experience?
 - Can I use this in a life-affirming way to improve myself and/or the world around me?
 - Should I do this again or perhaps take a break or stop altogether? If I do, is there anything I can do better?
 - Can I improve through changing something in my dosage, intentions, set and setting, actions during the negative event and/or integration?
 - Should I get some help, whether it is simply talking with others who can understand me, or more thorough psychological/spiritual support?
- Talk through your experience with someone who you trust and can ask you questions that you might not remember to ask yourself.
- Be thankful and let it all go!

Integration

One of the fundamental aspects of a psychedelic experience is digesting what you have faced and putting any lessons presented into practice in daily life. Without this, a psychedelic experience can become meaningless, dysphoric and isolating.

This is not to say every single hyperspace experience must be decoded into a particular lesson. Many experiences may be so out-there that it will be hard to relate them to daily life in some way. However, at the very least, a sense of humbleness, respect or awe and the happiness of being back and alive can be used for making positive changes in your life.

We spend most of our time in “consensus” reality, and it is here that the real tests present themselves. It is here that we write the story of our lives and make good (or don’t) on our responsibilities and aspirations. The difficulties of daily life should not be seen as a problem we must avoid at all costs, but rather as opportunities to improve ourselves.

While it can be extremely blissful, treating DMT and the psychedelic experience as ends to themselves is very dangerous. Balance is always key! Appreciate the gift of being alive and being

able to deal with normal life. Entheogens might be a beautiful part of the process but they are not self-sufficient and won't make life meaningful for you on their own.

Pointers for Integration:

- Talk to different people and listen to what they have to say. By definition, our vision of life and the events we go through is one-sided and self-biased. Other people, (experienced with psychedelics or not) can provide differing viewpoints that aid in our learning process, like mirrors that help us notice our blind spots.
- If during an experience you receive messages about how you should change your eating habits, treat others better, study more, etc., then make all the effort possible to put that into practice. You may want to avoid using entheogens again until you have achieved your goal (or have made significant progress).
- Express yourself creatively. A large part of the DMT experience is ineffable. Yet, it is important that we try to digest it in one way or another in order to integrate our emotional and spiritual experiences. Expressing yourself creatively after smoking DMT (or taking other entheogens) through drawing, painting, music, poems or other art forms can be helpful.
- Question things! Do not believe literally and take at face-value what anybody tells you (whether it's religious leaders, politicians, your friends or your psychedelic experiences/entities). Be self-critical and put things in perspective. Be aware and skeptical of any experience/feeling that involves thoughts or feelings of grandeur and anything that leads to extreme dissociation from other human beings (e.g., "I'm the chosen one, others are sheep."). Be extremely careful with suicidal thoughts.
- Balance is key! If you are investing more time thinking about and putting effort into psychedelic experiences while neglecting other areas of your life (family, work, health, studies, etc.), take a long break. Dedicate yourself to life. Don't worry; psychedelics will still be there in a few weeks, months or years. There is no need to rush.
- Remember: You may have experienced Eternal Bliss and seen the Fractal All and Everything while interacting with Hyperspatial Beings...but the bills still have to be paid, the house still has to be cleaned and the food still has to be cooked.
- Health is a priority! It pays off in both consensus reality as well as in the entheogenic and hyperspatial realms of consciousness to eat healthy, exercise, improve interpersonal relations, accept and address your emotions, etc. If DMT or psychedelic use is negatively affecting your health (physical, emotional or intellectual) directly or indirectly, stop using it and return only when you have addressed those issues.
- Do NOT make strong decisions during or immediately after a psychedelic experience. If you really feel like saying something important to somebody, quitting your job due to a realization, or making any other radical change. Write it down and think it over (for a day, week, month or longer). Evaluate this new perspective from another state of consciousness. If it is the right decision, you can still make it after you have waited, but if it's the wrong decision and you make it impulsively, there might be no turning back.

Propaganda Prevention

Coalition for Entheogenic Liberty

The Coalition for Entheogenic Liberty (CEL) was created in the aftermath of the DEA raid of Bouncing Bear Botanicals in February of 2010. The CEL is the Nexus community's response to the

need for the relatively small entheogenic community to openly resist the lies and propaganda of the government's "War on [some people who use certain] Drugs."

The purpose of the Coalition for Entheogenic Liberty's purpose is to raise awareness regarding the spiritual use of plants and substances. The CEL enthusiastically and openly represents the entheogenic community, and seeks support in the form of professional scientific and medical opinions and research, legal advocacy and council, and the sympathy and interest of the general public. The CEL considers the current prohibition of entheogens to be unfounded, unconstitutional, and in violation of fundamental human rights, and it seeks to repeal these policies and social taboos created by them.

As a public face of the entheogenic community, CEL works to shed light on the community's core principle of responsibility in entheogenic practice, as well as its many achievements and discoveries. The Coalition also plans to present the therapeutic potential of entheogenic practices and the implications of their use in the indigenous cultures from which they originate.

In short, the goals of the CEL are:

- To raise awareness regarding the benefits of entheogenic practices.
- To alleviate the unnecessary legal and social strain on the entheogenic community, and
- To promote responsible practice and sincerity of intent within the entheogenic community.

YouTube Videos

The DMT-Nexus discourages posting and actively flags videos on YouTube that show DMT use or extractions. We feel that these types of videos put the community at risk for several reasons. First, we feel that DMT is not a substance needs to be or should be advertised. The experience created by DMT is incredibly powerful and people who are merely seeking to "see some wild or crazy visuals" and become enticed by commentaries on DMT often get significantly more than they bargained for. Secondly, the popularity and visibility of YouTube, combined with the general ethos and immaturity presented by its vast user base present a poor environment for fostering education and respect. We feel that this is obvious given the numerous videos of reckless and dangerous Salvia divinorum use posted on the site (and their subsequent citation as evidence for the criminalization of Salvia).

Finally, we see no merit to posting such videos, only the creation of additional attention to and risk for the entheogenic community. If you feel that you need a video to understand the extraction process, we suggest you take more time to study the extraction concepts and procedures. There is nothing presented in a video that is not already in the numerous extraction techniques on the Nexus, aside from improper safety procedures and misinformed commentaries. We feel that videos showing either DMT extractions or use are a hazard to the well-being and safety of the community and provide no benefit to those who post or watch them.

Global Media Reporting

From time to time, corporate news-media outlets cover stories involving DMT, ayahuasca or other psychedelics. As should be expected, the vast majority of these stories reflect the sensationalism of today's mainstream "journalism" coupled with propaganda that serves only to maintain prohibitionist policies. Fortunately, since many of these stories are published online, we have a chance to respond to these stories directly, and to a potentially larger audience than that of similar televised stories.

The widespread allowance of commenting on internet news media outlets presents a prime opportunity to directly combat prohibitionist propaganda. Generally, there are three major tactics to replying to such news stories: addressing factual inconsistencies and errors within the story, identifying and correcting propaganda (frequently espoused by police or other law enforcement officials) and responding to additional lies and propaganda from commenters. It should go without saying that these comment sections can easily be trolled and we do not believe that people should waste significant amounts of time addressing commenters espousing nonsense. However, we have seen numerous comment sections that have contained significantly more factual information than the article itself, and subsequent comments acknowledging or even thanking commenters for providing accurate information. This feedback indicates that this is an effective strategy for combating erroneous news stories.

Underground Research

Perhaps you find yourself asking, “Why? Why do you conduct this research without governmental sanctions or approval? Wouldn’t it be more ‘appropriate’ if you were to take the time (and money) to enroll in an accredited university, get a degree, find a job-opportunity and climb the laboratory hierarchy, apply for grants and DEA approval, then bide your time and stifle your scientific inquiries until that magical moment when, amidst today’s tanking global economy and strict prohibition, suddenly grant funding appears and the DEA gives you the green-light?” The question pretty much speaks for itself, don’t you think?

At the DMT-Nexus, we feel that there are a number of merits to underground entheogenic research that make it a valuable tool alongside officially-sanctioned research. Perhaps most notably, the barriers to engaging in underground research are considerably less than those present when engaging in officially sanctioned research. Anyone who has an interest in psychoactive plants and/or chemicals and has researched or experienced their effects has engaged in underground research to some degree. Consequently, there is a sizeable and far-flung network of these underground researchers. Unfortunately this veritable goldmine of valuable experiences and information, for the most part, remains completely alienated from officially sanctioned psychedelic research.

The real-world consequences of this disconnect are apparent in numerous cases, such as when grant-funded research is redundant and of relatively poor quality. Take for example the paper “Determination of N,N-Dimethyltryptamine in *Mimosa tenuiflora* Inner Barks by Matrix Solid-Phase Dispersion Procedure and GC-MS” (Gaujac et al 2012), which claims to improve upon the isolation of DMT for use as a laboratory standard, but falls well short of even the most rudimentary extraction methods on the Nexus. Additionally, published works of non-fiction often draw on older published results and hypotheses that are significantly lacking when compared to present underground work. Finally, the community is at a disadvantage when public psychedelic discussions revolve around outdated or incomplete information that has since been improved upon by researchers in underground circles.

The major advantage of underground entheogenic research is that researchers are not subjected to reviews or guidelines of agencies like the FDA or DEA, and do not have to submit methodologies to the Institutional Review Board for approval. This has several direct implications for underground research. First and foremost, it means that while researchers may be subject to legal risks that officially-sanctioned researchers are not, there are no restrictions on the type of substance, route of administration or experimental methods that the researcher can choose to explore. Additionally, because there is no need for underground researchers to apply for DEA licenses or have

their methodologies reviewed by ethics boards, research can take place in a much shorter timeframe than officially sanctioned studies.

At the DMT-Nexus, we have seen the merits of international, underground, collaborative research and have found that in some cases this has taken us far beyond the published literature, to the very edge of human knowledge. Our Collaborative Research Project has presented the first known chemical analyses of several relatively obscure ayahuasca vines. This research disproved officially-sanctioned researcher, Alexander Shulgin's, hypothesis on the chemical composition of *Tetrapteryx methystica* (Possible Implications of Myrsiticin as a Psychotropic Substance, Shulgin, 1966).

In an attempt to increase the sustainability of underground entheogenic research, the Collaborative Research Project has begun to explore non-traditional psychoactive plants that present identical or similar alkaloid profiles to traditional ethnobotanical species. Additionally, in the case of both DMT and mescaline extractions, underground researchers from South Africa, Brazil, the US and many other locales have developed extraction methods involving non-petrochemical solvents, back-salting techniques and other novel approaches that present more efficient, more sustainable and potentially less ecologically destructive approaches to isolating these compounds. This vast body of knowledge has been generated outside the framework of officially-sanctioned entheogenic research.

While there are numerous advantages to underground entheogenic research, it is not without drawbacks. Unlike officially-sanctioned research, there is a distinct lack of requisite laboratory-grade equipment and solvents for both extraction and analysis. Experiments are generally not carried out by trained scientists, potentially causing them to suffer from design flaws as a result. Additionally, the peer review process is arguably more limited as a result of the fact that the vast majority of researchers have never met or dialogued through any medium beyond the internet. This means that in the majority of experiments, there is only one witness, creating an increased need for others to repeat a given experiment and verify the results.

Underground research generally does not find its way into journals or other notable publications, especially with the decline of publications such as *The Entheogen Review*. Thus, it is frequently overlooked by both the scientific community and the entheogenic community at large. Despite these challenges, underground research has and will continue to shine light on many new and fascinating areas for exploration that officially-sanctioned research can significantly advance. It is for this reason that we at the DMT-Nexus advocate for collaboration between officially-sanctioned and underground entheogenic research.

Plant Analysis and Research

The novel research and analysis of ethnobotanicals and plant extracts is one of the most unique areas of developing research at the DMT-Nexus. Using a mix of grassroots hands-on work coupled with a structured methodology and access to home-based and laboratory analytical instruments, this collective effort has pushed the boundaries of what is known world-wide about psychedelics.

We have examined a number of different plants and several are now the focus of our constant attention and continued research. We are gathering knowledge with regards to traditional ayahuasca-related plants, as well as other DMT and beta-carboline-containing plants within *Acacia*, *Phalaris*, *Mimosa*, *Psychotria*, *Diplopteryx*, *Banisteriopsis*, *Tetrapteryx* and other genera. We are also conducting general research on other entheogenic plants, such as *Salvia divinorum*, mescaline-containing cacti, etc.

Analysis Techniques and Research Tools at the DMT-Nexus. To increase the living knowledge database of these plants, a new subforum was created where members of the Nexus community are able to pool the knowledge they have derived from three main paths of research:

- Reviews of published literature
- Extraction experiments and laboratory analytical techniques
- Bioassays

Reviews of Published Literature. The published literature research has been organized within the Research Resources thread, which contains important websites and tips on how to most efficiently search for information relating to ethnobotanicals and alkaloids. The Nexus seeks to maintain high standards regarding the reliability of information used and therefore favors referenced knowledge, peer-reviewed research and empirical evidence.

Every major plant or category of plants being researched has a dedicated thread (or Workspace) in the Collaborative Research Project subforum. By using the resources mentioned above, members of the community are able to post any information they gather on different plants, display summarized quotes and references or attach full publications for more thorough review by others. Through collaboration, a lot of hard-to-find information has been gathered and organized incredibly quickly.

Extraction Experiments and Laboratory Analytical Techniques. Different extraction methods are discussed more thoroughly in the chemical research section of this pamphlet. Nevertheless, it is relevant to note that through different plant extractions and subsequent analysis using home or lab tests, we are able to learn a great deal about plant chemistry. Conducting a side-by-side extraction and changing one variable between the two extractions is an efficient and self-empowering way to learn about plant alkaloids and share valuable information with the community.

Following different extractions, whether crude solvent soaks or proper extractions with many purification steps, Nexians have been able to analyze their products using two main techniques:

TLC – Thin Layer Chromatography:

TLC is a simple, inexpensive and effective method for analyzing plants using special plates made of silica which separate the plant mixture into its individual chemical components. Compounds are identified by the distance they move up the plate and the color change that occurs when reagent is added to the sample. Several Nexians around the world are familiarizing themselves with this technique and we expect this knowledge to become even more commonplace in the near future.

GC/LC-MS – Gas/Liquid Chromatography and Mass Spectrometry:

Through collaboration with an official harm reduction organization, Nexians have been able to analyze ethnobotanical specimens and plant extracts using a proper laboratory and instruments such as chromatographs and mass spectrometers. These instruments separate a compound mixture by passing the substance(s) through a column made of a material, which different substances pass through at varying speeds. At the end of the column there is a mass spectrometer, which bombards the separated substances with electrons and identifies them precisely by the size of their molecular fragments. Through these tests, as detailed below, The

Nexus has been able to considerably expand the available knowledge on these plants in a completely unparalleled way. In many aspects, this is significantly ahead of mainstream psychedelic/ethnobotanical research.

Bioassays. This is one of the key aspects of our research, because it represents the experiential dimension of the Nexus' investigations. Not only do we create written information and knowledge that others can reliably use, we also become part of the research; we change ourselves in the process.

While assuring their personal safety and ensuring the best set and setting for consuming these substances (see the "harm reduction" section), Nexians consume different entheogenic preparations containing various ethnobotanicals and share these experiences with the community. If an experience can be correlated with a previous analysis of the alkaloid content of that specific preparation, this important data is noted by the Collaborative Research Project.

These experiences are often shared in a more freestyle poetic way, as you can see in the Experience Report subforum, but we have also created a template and systemized online survey for people to detail certain key aspects of their experiences. In this way, as more information is gathered, we can learn about the effects and side-effects of these substances, and perform statistical analyses to compare different variables in the surveys.

Bioassays mark the recursive relationship between us as researchers and the objects of our research. In this way, bioassays help us learn about the effects and pharmacology of certain plants and preparations, find statistical correlations or simply allow us to share our experiences with others. They can also reach the researcher on a deeper level, affecting their ethics, personality and how they relate to the world around them. The bioassays do not merely represent the consumption of a substance at the end of some research. Rather, they help us remember that this whole research effort is a part of a broader process; to improve ourselves and our relationship to other living beings and to try to find some existential peace in this mysterious universe.

Plant Analysis Results

Underlined text indicates novel research.
++++ indicates the main substance present
+++ indicates relatively high amounts present
++ indicates moderate amounts present
+ indicates small amounts present
- indicates trace amounts present

***Mimosa tenuiflora* (syn. *hostilis*)/Jungle Spice Analysis**

Mimosa tenuiflora is one of the most important DMT-containing plants. It is used traditionally in Northeast Brazil and has been sold for years by several ethnobotanical suppliers. For these reasons, it has been the focus of considerable research by Nexians. We have tested both the crude plant preparations as well as different products extracted using a variety of different methods.

The main results are:

***Mimosa tenuiflora* (whole root bark):**

++++ DMT

+++ Yuremamine
++ Catechol, homocatechol, resorcinol, etc. (possibly breakdown products of yuremamine and/or lignin)
+ NMT
+ 2-MTHBC
- Hordenine, N-Methyl-Phenethylamine, Dimethyl-Phenethylamine, N-Formyl-NMT, 1,2-Dimethyl-Tetrahydro-Beta-Carboline

DMT (extracted with naphtha, xylene + FASA or limonene + FASI):

++++ DMT
+ NMT
+ 2-MTHBC

DMT (extracted with xylene + evaporated or limonene/xylene/toluene + aqueous saltings):

++++DMT
+NMT
+2MTHBC
+ 1-2-Dimethyl-Tetrahydro-Beta-Carboline.
+ 1-Methyl-Tetrahydro-Beta-Carboline
- Hordenine, N-Methyl-Phenethylamine, Dimethyl-Phenethylamine, N-Formyl-NMT

Conclusions. These analyses confirmed that heating up or extracting *Mimosa tenuiflora* breaks down some of the original components found in the plant material, most notably yuremamine, which may play a role in making cold-brewed Mimosa preparations orally active without a RIMA/MAOI.

When extracting with solvents that are less-selective than naphtha, we found very small amounts of two other beta carbolines that have unknown effects. It's possible that at this concentration they do not affect the experience, but they might, at these or higher concentrations. Some people believe that even in the small amounts found, these alkaloids do affect the experience but we don't yet know if this is the result of self-suggestion or not. The few psychonautic blind tests that have been conducted do not confirm any noticeable difference in activity.

To concentrate these non-DMT alkaloids, you can precipitate DMT from a solvent by the FASA/FASI method, and later wash the solvent with water to retrieve the other alkaloids. It is important to note that we do not know if a concentration of these other alkaloids is safe or desirable for ingestion. We also have yet to confirm whether at least part of these other alkaloids are artifacts of extraction/analysis or if they are present in the plant.

Lesser-Known Ayahuasca Constituents

***Banisteriopsis caapi* and related ayahuasca vines.** In both local South American groups and on international vendor websites, we have seen different varieties of ayahuasca vines being used or sold. Some are *Banisteriopsis caapi* and possible varieties of *B. caapi*, while others are misidentified plants of other species (e.g., *Banisteriopsis muricata*), or are of a completely different genus altogether (e.g., *Alicia anisopetala*). At the DMT Nexus we are making an effort to sort out these botanical confusions and unite them with chemical analyses.

The first important thing to be aware of is that there is no consensus between local mestizos or indigenous people and botanists, or even amongst locals or botanists themselves, as far as the nomenclature for different types of ayahuasca vine. There is only one species of *B. caapi* that has been officially published in botanical literature, however popular knowledge commonly notes two unpublished varieties, *B. caapi* var. *tukunaka* and *B. caapi* var. *caupuri*. Additionally, several other types of ayahuasca vines are noted by different people and we have tried to identify and analyze them.

Black ayahuasca. This vine is sometimes sold as *Banisteriopsis caapi* "negra/black," but is also rarely sold as the (probably) correct identification of *Alicia anisopetala*. There is also at least one vendor from the Netherlands who sells normal *Banisteriopsis caapi* as "ayahuasca Black", but this is not the Peruvian black ayahuasca. Black ayahuasca (*Alicia anisopetala*) does NOT contain harmala alkaloids. Its chemical content is still mostly unidentified. It contains fatty acids but also small amount of non-harmala alkaloids that have not been identified yet. It is very possible it does not orally activate DMT and thus, if it has psychic/somatic effects, it is from these unstudied alkaloids.

Grey ayahuasca. Grey ayahuasca has been identified as *Tetrapterys methystica*, an ayahuasca vine of a different species that Richard Evans Schultes failed to analyze as a result of losing his sample while returning home from the Amazon. Schultes (and later, Alexander Shulgin) thought that *T. methystica* contained harmalas but our one analysis shows no harmalas, but instead, other unknown alkaloids.

Red ayahuasca. Previously thought to be *Banisteriopsis caapi*, our latest botanical research seems to indicate that this is actually *Banisteriopsis muricata*. Analysis shows it to have a similar alkaloid profile to *Banisteriopsis caapi*, with harmine as its main alkaloid, followed by THH and small amounts of harmaline.

Yellow ayahuasca. Yellow ayahuasca seems to be *Banisteriopsis caapi*. Its morphological aspects and alkaloid content are the same as other caapi plants analyzed, with harmine as the main alkaloid and a minor amount of THH and harmaline.

White ayahuasca. White ayahuasca also appears to be *Banisteriopsis caapi*, with harmine as the main compound and small amounts of THH and traces of harmaline.

Ourinhos ayahuasca. While the correct botanical identification has not yet been established due to the lack of an intact botanical specimen and an examination of its morphological features, it is interesting to note that a brew of the single Ourinhos sample tested so far showed a large amount of ketatetrahydronorharmine, a compound that has only been identified in trace amounts in caapi before (Hashimoto & Kawanashi 1976). The pharmacological effects of this substance are unknown.

Bali ayahuasca. One Bali ayahuasca sample tested appeared very weak in terms of alkaloid content but contained a large quantity of fatty acids.

Non-Vine Ayahuasca Admixtures

***Diplopterys cabrerana*.** One of the common rumors amongst the underground entheogenic community is that *Diplopterys cabrerana* (chaliponga) contains significant amounts of 5-MeO-DMT. When searching through published literature, three reports mentioned DMT in the plant (Mckenna 1984; Der Marderosian et al 1968; Poisson 1965), while only one report showed 0.0035% of 5-MeO-DMT (vs. 0.17% DMT) in stem material and only traces of 5-MeO-DMT in leaf material (Agurell et al 1968).

Since the rumors are so persistent, and there is not yet a widely available plant containing 5-MeO-DMT, Nexians have tested *Diplopterys cabrerana* sold by a large vendor whose chaliponga has been widely reported to induce 5-MeO-DMT-like effects. Results of the *Diplopterys cabrerana* analysis showed mainly DMT and plant fatty acids with no detectable trace of 5-MeO-DMT.

Psychotria species. There is still a big hole in the ethnobotanical and chemical knowledge of the Psychotria genus. While *Psychotria viridis* is the main plant known to be used as an ayahuasca admixture, there are a number of other Psychotria species that are used traditionally, such as *Psychotria carthagenensis* (*syn. alba*) and others. There are also different Psychotria viridis “varieties” that are not recognized by botanists but have different local names. Some of these plants appear to be unstudied in an officially-sanctioned context but are currently being studied by Nexians.

The Psychotria Complex Workspace is where the current information is being posted. Different samples are being gathered for future testing.

Phalaris species. The Phalaris genus is comprised of different grasses that are currently being analyzed for their alkaloid content. Phalaris has been shown to contain several tryptamines (including DMT and 5-MeO-DMT), beta-carbolines and other phenolic and indolic substances. Some of the substances found are of unknown effects or are potentially toxic (such as gramine), so the study of these grasses is closely aligned with the Nexus’ commitment to harm reduction

The Phalaris Analysis Thread summarizes the information regarding the tested Phalaris plants. Thus far, six different samples have been tested with varying results. This is what we have learned to date:

- Cold D-Limonene pulls only minimal gramine, but does pull DMT fairly efficiently.
- As it warms, limonene pulls more gramine.
- Gramine is very poorly soluble in naphtha/petroleum ether.
- Gramine precipitates with FASI/FASA methods.
- Wild phalaris has a highly varied alkaloid content. It can contain alkaloids of unknown activity and toxicity such as 5-MeO-NMT and 2-Me-6-MeO-THBC.
- A sample of Yugo Red did not contain any significant amount of 5-MeO-DMT.
- AQ1 and Big Medicine have the cleanest alkaloid profiles and greatest amounts of DMT of all species tested, but still contain some hordenine.
- Gramine turns black with marquis and mecke reagents, as does a mixture of DMT and gramine. However, DMT on its own turns yellow/brownish.
- Phalaris grasses contain a variety of fatty acids and plant sterols.

Acacia. Acacia is one of the most important genera when it comes to psychoactive alkaloids, since many Acacia trees contain significant amounts of DMT or other related tryptamines and beta-carbolines.

The Nexus has been at the forefront of conducting novel analyses of Acacia species that have never been formally tested before. Several unstudied species such as *Acacia acuminata*, *A. obtusifolia X maidenii*, *A. mucronata var. longifolia* and others have been examined and found to have very interesting alkaloid profiles. For more information, visit the Acacia Analysis Thread on the Nexus.

The Nexus has not only been focusing on the alkaloids and extractions, but also on the complex dynamics between sustainability, cultivation, phytochemistry, pharmacology, social implications, geography, history and spiritual uses of these plants. All of this information is being organized and continually updated in the Acacia Information Thread.

After having witnessed several cases of destructive harvesting of Acacia trees, members of the Nexus have decided to advocate both personal cultivation and harvesting from parts of these trees that can easily regrow. Our research has show that several of the DMT-containing Acacias have significant quantities of alkaloids in their leaves, phyllodes, small twigs and branches. By harvesting only these parts and leaving the main branches, trunk and roots intact, the trees easily recover and there is no negative impact on the environment.

Other plants. The interest in ethnobotanical plants is very diverse throughout the community, and knowledge is constantly being generated, gathered and organized. New lines of research are opened all the time, without the bureaucratic paperwork that official research requires. All that is necessary is one member starting a dedicated thread and slowly gathering information.

Some Nexians are gathering information on and samples of many other known or relatively unknown plants and natural alkaloid sources, such as different species of *Anadenanthera* (yopo/cebil snuff) and *Tabernaemonthana* (Sanango/bechete eye drops), as well as *Phylomedusa bicolor* (Kambo) and many others.

The Nexus will continue to be on the cutting edge of ethnobotanical research, and new suggestions and plant research are always welcome from any member.

Extraction Research

Over the past several years, there have been a number of discoveries with regards to extraction procedures that, while common to many Nexians, remain relatively obscure among theentheogenic community at large. These developments include a number of extraction methodologies and alternative solvents that present potentially safer or more efficient methods for extracting DMT and other entheogenic compounds, as well as conversions, purifications and other exciting procedural innovations.

Different Extraction Methods

When extracting and isolating entheogenic compounds, it is important that you research and fully understand the underlying chemical principles behind the method you choose. A lack of understanding can lead to problems ranging from a failed extraction to serious hazards when extracting or administering a given compound (including, but not limited to chemical fires, chemical burns, inhaling toxic vapors, ingesting unsafe compounds etc.). That being said, there are many extraction methodologies that can be used to isolate DMT from different plant sources.

It is interesting to note that the DMT-Nexus is, in many respects, far ahead of mainstream research. As mentioned in the Underground Research section, as recently as 2012 a published paper claims to improve the extraction methods of DMT for use as a reference standard in official research (Gaujac et al 2012). However, the process detailed is a very simple acid/base extraction that has been used for decades already, with several design flaws that we commonly correct at the Nexus (e.g. pH too low after adding a base to the solution, too few non-polar solvent pulls and other issues). Also, the yield described is very poor (0.7% crude, 0.3% purified) compared to the 1%+ yields

Nexians commonly achieve. This goes to show the difference between official research and our own much more dynamic developments. Any of the teks (an acronym derived from the anthropological term “Traditional Ecological Knowledge”) or methods described at the DMT-Nexus should result in yields that are at least equivalent in terms of amount and purity, if not significantly higher than what was described by Gaujac et al (2012).

Each route of extraction has advantages and disadvantages and it is up to the extractor to decide which procedure they most fully understand and is best suited to their needs. There are a few comprehensive overviews of the chemical concepts and procedures on the Nexus, such as the “Where to Start” section of the FAQ or the “DMT Extraction Overview” thread. Below is a short description of the different categories of extraction methodologies.

Acid/Base (A/B). A/B extractions are those in which there is a first decoction or soak of plant material in acidic water which is later filtered (like a tea). A base is then added to precipitate the alkaloids or cause them to migrate to an organic solvent layer (naphtha, limonene, vegetable oil, etc.) added after basification. One example is Vovin's tek.

Straight-To-Base (STB). STB extractions skip the brewing or soaking and filtering of plant material to remove solids. Instead, the base is added directly to the plant material submerged in water and then an organic solvent is added and mixed with the basified plant material to extract the alkaloids. The main example of this category is Noman's tek, which has been utilized by hundreds if not thousands of people to efficiently yield DMT.

Dry Extractions (Dry Teks). Dry teks are extractions that use very little water. The base (usually calcium hydroxide or sodium carbonate) is mixed with the plant material and a small amount of water. Then, either a non-polar solvent (such as naphtha or limonene) is added to pull the alkaloids, or the mixture is dried and then a more polar solvent (such as acetone or different alcohols) is added to extract the alkaloids. Examples of this category are Amor Fati's tek and the preliminary research into alcohol-vinegar-sodium carbonate teks, both of which use only food-safe ingredients to extract DMT.

Other Extraction or Conversion Processes

In addition to the full-length extraction methodologies, some highlights of the Nexus are the alternative processes to crystallize and convert alkaloids in ways that are safer and much more efficient than standard processes used in both the mainstream and other underground research circles. Below are a few examples:

Fumaric acid salting. Salting refers to the process of using an acid to precipitate a DMT salt out of a non-polar solvent. Using this method of isolating alkaloids provides several advantages over evaporation or freeze precipitation. Salting does not require the evaporation of volatile organic compounds and therefore minimizes the exposure of the extractor to toxic or potentially toxic petrochemical vapors. Additionally, salting allows for non-toxic solvents such as D-Limonene or vegetable oil to be used in place of organic hydrocarbon solvents, reducing reliance on petrochemicals and the potential personal and environmental hazards associated with them.

Fumaric Acid Saturated Acetone/Isopropanol (FASA / FASI). FASA/FASI refers to dry acetone or Isopropanol (IPA) that has been saturated with fumaric acid. If you dissolve freebase DMT in acetone or IPA and add FASA/FASI, DMT fumarate will precipitate out of the solution. While freebase DMT and fumaric acid are each individually soluble in acetone, DMT fumarate is not. FASA/FASI can also be used to precipitate DMT fumarate out of non-polar solvents such as xylene or

limonene. DMT fumarate is best suited for insufflation, sublingual use, intravenous use, intra-rectal use, or oral use with a RIMA/MAOI.

When a non-polar solvent such as limonene or xylene are used to extract DMT, it can also dissolve fatty acids and other plant impurities which can end up in the final product. Additionally, evaporating these solvents to retrieve the alkaloids is not ecologically efficient. It may take very long or simply not happen. The smell of petrochemicals such as xylene may attract unwanted attention from neighbors and can be respiratory irritants and/or toxic if evaporated without proper ventilation. The FASA/FASI method allows for bypassing this evaporation step by precipitating the alkaloids straight out of the solvent, significantly reducing or completely eliminating the aforementioned problems.

Fumaric Acid Saturated Water (FASW). FASW is similar to FASA, but the fumaric acid is dissolved in water rather than acetone. Due to the acidity of the FASW and the fact that water is not miscible in non-polar solvents (unlike acetone), when salting a non-polar solvent with FASW, the DMT migrates into the fumaric acid-saturated water. The FASW is easily separated from the non-polar solvent and when evaporated, yields DMT fumarate. If excess fumaric acid is used, the final product may be slightly contaminated with excess fumaric acid, but this can be rectified by cleaning the DMT fumarate with anhydrous acetone or using other methods described in the DMT-Nexus wiki. The alkaloids retrieved with the FASW method are generally not as pure as those from the FASA/FASI method, but are still perfectly usable.

Vinegar salting and conversion. Similarly to FASW, a non-polar solvent containing alkaloids can be salted by mixing it with a vinegar solution. The alkaloids will migrate into the vinegar which can then be evaporated to yield DMT acetate. To convert DMT acetate to freebase DMT, there are potentially two methods, a proven one and one that is still under research.

The proven method is to mix the DMT acetate with sodium carbonate, and then soak the mixture with ethanol, IPA or any clean-evaporating solvent that dissolves freebase DMT. The solvent is then poured off and evaporated to isolate DMT freebase.

The second method is based on an idea that still needs further research. Heating DMT acetate for several hours at approximately 100°C may cause it to dissociate into freebase DMT. This means that it may be possible to convert DMT acetate to freebase without the use of additional solvents or bases. The implications for this are that, when used in tandem with non-petrochemical solvents, such as D-Limonene or vegetable oil, it may be possible to obtain a freebased extract from plant material, using only materials that are easily obtained from grocery stores. It should be noted that unless the starting material for this conversion is pure, clear/white DMT freebase, it is likely that the resulting product will be somewhat goeey or waxy in consistency and yellow to red in color. Some people did not have success with this method and more research needs to be conducted to confirm this conversion.

Water conversion of a DMT salt to freebase. One of the interesting discoveries at the DMT-Nexus is the possibility of converting a DMT salt, such as DMT fumarate, into DMT freebase, without the use of any solvent or chemicals aside from water and sodium carbonate. DMT fumarate is dissolved in water, a sodium carbonate solution is added, and the mixture is placed into a refrigerator for a few days. DMT will precipitate out of the water and crystalize. The main advantage of this method is that the DMT will be free of any solvent contamination, as can happen when DMT crystallizes from evaporating hydrocarbons. This ensures a safe and non-toxic product. More information is located at the Nexus in the Conversion Wiki.

Harmaline to Tetrahydroharmine (THH) conversion. Tetrahydroharmine has long been speculated to play a significant role in the effects of ayahuasca and its potential neuropharmacological benefits (Callaway et al 1994). While THH has been found in low quantities in *Peganum harmala*, the quantities are significantly lower than those found in *B. caapi*. However, *Banisteriopsis caapi* is significantly more expensive and harder to obtain than *P. harmala*, for most people. Therefore it was of interest to discover if there was an easy way to convert harmaline to THH.

For this experiment, harmala alkaloids were extracted from Syrian rue (*P. harmala*), and the extract was separated into its two major constituents, harmine and harmaline.

The process involves dissolving harmaline in acetic acid/vinegar, then adding excess zinc dust (pure zinc), which releases hydrogen gas and reduces harmaline into THH. This reaction is done over the course of a few hours, the liquid is filtered, and a base is added to precipitate the alkaloids and zinc salts (e.g., zinc carbonate if sodium carbonate was used as a base). Zinc salts are not soluble in dry alcohol but THH is, so an alcohol soak should separate them. There are other processes being tested at the moment to see if THH can be separated from zinc in other ways, such as precipitating only THH by adding a saturated salt solution and cooling the mixture.

It is important to remember that the hydrogen gas generated when adding zinc to the vinegar solution creates pressure and is highly flammable, so care must be taken to prevent explosions/fires by leaving the container open and working away from flames. We recommend that anybody attempting this discuss their plans on the forum first, so that we can properly advise them.

Alternative Chemicals

One area of research that the DMT-Nexus has been particularly focused on over the past two years is the use of alternative solvents and bases that allow for safer extractions and present less environmental danger than their traditional counterparts. It should be noted that the environmental impact of underground entheogenic extractors can hardly be considered meaningful when examined in the context of the environmental destruction wrought by industrial civilization. However, we feel that at the local level, preserving our environment matters and we should therefore do our best to minimize our environmental effects.

The exploration of these alternative solvents and bases has led to the development of a number of extraction procedures that require less toxic chemicals, pose less threat to the environment and can be just as efficient as traditional extraction methodologies. These solvents include acetone, D-Limonene and assorted vegetable oils. The main alternative base that has been explored is calcium hydroxide. Potassium hydroxide has also been successfully utilized in a number of extractions but, it is hard to consider it much safer than sodium hydroxide.

Solvents

D-Limonene. D-Limonene is a cyclic terpene solvent that is obtained by steam distillation or centrifugal separation of orange peels. There is currently no evidence of it exhibiting carcinogenicity or genotoxicity in humans, however it has been shown to be a skin and respiratory irritant (mostly in cases of long-term industrial exposure). D-Limonene is useful for extracting both DMT and mescaline. However, DMT extracted with D-Limonene may include a larger number of plant fats and oils, as well as other compounds present in the plant material being used (e.g., 1,2-MTHBC in *Mimosa tenuiflora*

root bark). D-Limonene cannot be freeze-precipitated or evaporated to retrieve alkaloids so it must be salted, as mentioned in the above section.

Vegetable Oils. Vegetable oils, including but not limited to canola oil, safflower oil and sunflower oil have been used successfully in both DMT and mescaline extractions, where they have been substituted for classic non-polar solvents. Due to the potential for saponification if utilized in classic acid/base extractions, the application and success of these oils has been observed mostly in conjunction with dry teks. The relatively high viscosity of these oils when compared with other solvents can add difficulties to the extraction process, but some individuals have rectified this by adding minimal amounts of D-Limonene to their vegetable oil to reduce the viscosity. Vegetable oils cannot be freeze-precipitated or evaporated to retrieve alkaloids so they must be salted, as mentioned in the above section.

Acetone. Acetone is a colorless, odorless, simple ketone that is produced and metabolized endogenously in humans in low quantities. When handled properly, it is believed to exhibit only slight toxicity and presents no strong evidence of chronic health effects in humans. Acetone is useful for salting compounds such as DMT or mescaline out of non-polar solvents when used in conjunction with fumaric acid. Acetone is very effective for dissolving DMT freebase and can be used to clean alkaloidal residue off of glassware, allowing for the recovery of otherwise lost alkaloids. Additionally, acetone can be used to clean certain salt forms of DMT, mescaline and other alkaloids.

Ethanol. Ethanol is the most culturally accepted intoxicating solvent for personal ingestion. However, it has also been used in conjunction with vinegar and sodium carbonate to successfully extract a relatively crude DMT-containing product. This first test did not assess purity but seemed to show that it is possible to get a decent product with very simple materials. Dry ethanol can also be used to do a first soak of plant material, which can then be evaporated and further purified.

Bases

Calcium Hydroxide. Calcium hydroxide, commonly referred to as “pickling lime” or “slaked lime” is a base generally used in the preparation of food. It is poorly soluble in water and therefore serves mainly as a basifying agent for dry teks. In the presence of minimal water, calcium hydroxide can reach a pH of 12, allowing it to freebase both DMT and mescaline.

Sodium Carbonate. Sodium carbonate has been successfully used as a base in different kinds of extractions. Sodium bicarbonate, also known as baking soda, when heated in the oven for a couple of hours, releases water and carbon dioxide into the air and becomes sodium carbonate.

Trisodium Phosphate. This is a relatively safe base that has also been used successfully to extract DMT.

***A note on “food safe” solvents and bases:** The labels “food safe” or “food grade” do not mean that a given product is safe for human consumption. They only mean that the substance in question “meets the minimum standard for substances permitted to be in contact with food.” This means that regardless of the purity of such products, they are neither toxic nor carcinogenic beyond the levels set forth in food safety standards. This is very important to note in the case of caustic substances, such as food grade sodium hydroxide or calcium hydroxide, which are every bit as strong as their non-food grade counterparts.

The DMT-Nexus and You

Since its inception, the DMT-Nexus has thrived on the collaborative efforts of members engaged in different areas of research. We depend on the contributions of all Nexians, whether senior or new, to create, maintain and update the information shared and discussed in our community. If you have enjoyed, learned from or made use of the information and discussions on the Nexus or this presentation, please take some time to contribute to our collective endeavor. The entheogenic community is relatively small, but full of people with unique and interesting viewpoints, all of whom are welcomed to find a niche in the ever-evolving process of our collaborative underground research.

The Collaborative Research Project is the largest project on the Nexus currently in need of active researchers. The two main foci of the project are (1) botanical research into the morphology, taxonomy, nomenclature and phytogeography of traditional and analogous entheogenic plants, and (2) phytochemical analysis, including research into the psychoactive compounds contained within these plants. While these tasks may sound daunting at first, there are both professionals and knowledgeable enthusiasts eager to assist newcomers with engaging in this exciting and cutting edge research.

In addition to the Collaborative Research Project, there are a number of other ongoing and upcoming communal projects at the Nexus. These projects include the Sustainable Nexus, the Coalition for Entheogenic Liberty, the Hyperspace Lexicon and the Enigmaticus. Other areas in which participation is always welcome include: improving chemical and botanical knowledge, performing side-by-side extractions, participating in discussions, contributing to the Nexus Wiki, sharing trip reports, donating funds for site maintenance and research projects, suggesting new changes to the site design or forum...the list goes on and on.

We hope that you will enrich the Nexus community with your knowledge and experience.

www.dmt-nexus.me

