# The

## Somic Shilpa Shastras (The Art and Craft of Soma)

A Religious Textbook

## Ritual Chemistry & Plant Chemistry

By: A Church of Neuroscience Parishioner/ A Universal Life Church Minister

### This book is dedicated to Mason Ryan Wight

Hymns from the Rigveda: (to the dead) "Go forth, go forth on those ancient paths on which our ancient fathers passed beyond. There you shall see the two kings. Yama and Varuna, rejoicing in the sacrificial drink."

"Clarifying Soma, when you are sated with waters your juice runs through the sieve made of wool."

"Have I not drunk Soma?"

"Long-hair holds fire, holds the drug, holds the sky and Earth. Long-hair reveals everything, so that everyone can see the Sun. Long-hair declares the light."

"Flying down from the sky, the plants spoke: 'That man shall not be harmed whose life we join'."

"You plants whose king is Soma, spread out over the Earth as you were sent by Brhaspati: Unite your powers in this plant."

"Plant you are supreme; the Trees they are your subjects."

## Intro

Many people have never heard of the concept of Neurospirituality, but they have probably heard something related to it. You have probably heard that certain parts of your Brain Light up when you talk about or listen to something about God, and it is different than the parts that light up when you are just normally talking or listening. Some people take this and say "See, when someone experiences God, it is just Chemical Reactions in their brain". But, for example, when someone with Alzheimer's becomes completely Lucid, and remembers everything about their entire lives, and are able to talk to family members for a brief period. That is also all just Chemical Reactions in the Brain, right? But just because it is Chemical Reactions in the Brain doesn't mean it isn't much much more than that. Take the Concept of Love for example, Scientists have discovered that when someone experiences what we call "Love", the 2 main Chemicals associated with this feeling are Theobromine and Oxytocin. But you can't force yourself to love someone simply by ingesting or injecting Theobromine and Oxyticin. And when they hook someone up to an EEG or ECG Brain scanner, they can see Brain activity based on the Molecules. But what is making the Molecules be released? Are the Molecules being released because of the Brain Activity? Or is the Brain Activity a result of the Molecules? When you Love someone, it may have a Chemical Reaction behind it, but it does not mean that it isn't something real and more meaningful than a Chemical reaction.

#### **Examples of Ritual Chemistry in Tribal Religious Settings:**

Ayahuasca preparation from DMT and MAOI combinations. This Religion now exists in America in the form of Santo Daime. The People in the Amazon say that the plants taught them how to make the combination and Western Science was not even aware of MAOIs, and was even convinced that DMT was inactive, until extensive research was done on the plants that are added to Ayahuasca brews. Which revealed a series of Tryptamines and Carbolines, some of which had never been seen before and most of which were completely not understood, and again, the people in the Amazon say that the plants taught them how to do this out of the thousands if not millions of species of available plants in any given region.

Amanita Muscaria or Fly Agaric Mushrooms, which contain Muscimol and Ibotenic Acid. Ibotenic Acid can cause side effects, so, the Chukchi People who use the Mushroom Sacrementally wait for Reindeer to eat the Mushrooms and they go through their system, where the Ibotenic Acid is decarboxylized into Muscimol. At this point the Urine is collected and consumed as part of a Religious Ceremony.

Yopo preparation from Plant seeds or Toad venom containing 5-HO-DMT, which can make your blood vessels hurt, and Edible Lime (Calcium Hydroxide). This alters the molecule slightly allowing for it to be used as a Religious Sacrament, in a smoked or snuff form.

The South American Kambo Frog (Waxy Leaf Frog or Waxy Monkey Frog) venom, which contains Opiods and is gathered by capturing a frog and tying it up, then running a wedge along its skin to collect a thin slime. A small burn is then applied to the skin and the Frog venom is applied to the burn, this works somewhat like an injection of Religious Sacrament and the scars are seen as a Rite of Passage.

Ubulawu, which is a mixture of plants used Sacramentally in the Yoruba faith. It is part of a Religious Ritual to promote dreams and clarity.

Hottentot Tea, which is a mixture of plants used Sacramentally in the Hottentot Tribe.

And as you will find in this book, many plants are doing Ritual Chemistry.

#### **Examples of Ritual Chemistry in Non-Tribal Religious Settings:**

Christian Fermentation of Wine and Spirits. At one point Monks even used the name "God-is-Good" for Yeast. Most other Ritual Fermentation involves plants that ferment themselves, such as Grapes into Wine or Palm Tree Sap into Palm Wine, but Christianity was one of the first Religions that involved keeping Yeast Cultures in the Monasteries. There are still a few Sects of Christian Monks who have passed down different traditions of making Spirits. Another example of Christian Ritual Chemistry would be the "Tyrian Purple" from the Bible which is the famous color of Royalty. It is gathered from glands of the creature that lives in a Conch Shell and can be turned into a deep Blue or Crimson depending on how it is treated. This was not started by Christians but Phoenicians and became important to Christian Religion through Greek trade. The Creation of clear Glass is another example of a Chemical process that was spread by the Phoenicians and today stained glass windows are an Iconic part of the Christian Church.

Eastern and European Alchemy. The word Al-Chemy is an Arabic word similar to Algebra or Alcohol, these words were all invented by Arabic Scientists in the Ancient world known as Alchemists. Muslim Mosques were somewhat of a center of Language Translation and Esoteric trade (Such as purified Elements or Books), especially around the time of the Ottoman Empire. Alchemy is also the reason that the Periodic Table of Elements contains things like "Germanium" and "Indium", and why Lead is marked "Pb" and Tungsten is marked "W". The Periodic Table of Elements did not always exist, and it has been Religious Diligence and International Cooperation that has gotten us as far as Chemistry, Organic Chemistry, etc.

Hindu Ayurveda & Chinese Medicine, both of which involve various combinations of Oils and Extracts, as well as the extraction processes themselves. Many modern Lotions and similar products were originally Religious Products, for example, both of these traditions are Eastern, but even in the Western tradition of Christianity Jesus is called "Christ" which literally means "The Anointed One" anointed being someone who has had the correct Holy oils placed on them in the correct Ritual manner. Other examples within Hinduism includes the creation of Hindu idols, which is a Ritual form of Allergy (Alloy making). Different metals are combined in different ways that are considered to be Sacred, for example Parad (the Metal form of Mercury) is Holy to the God Shiva, so is sometimes used when making statues of him. Sometimes the mixtures are meant to create metals that will change colors, an example of this in America is the Statue of Liberty. The Creation of Pigments using different plants and applying Edible Lime (Calcium Hydroxide) or other Reactants with them in order to form bright and solid colors that are used in Dyes and Religious Ceremonies. And yet another example within Hinduism is the creation of Charas (Hashish) from Marijuana and the creation of Bhang (THC Milk).

Perfume making in Ancient Egypt and Ancient Anatolia were Religious Processes and in Turkey Perfumes are still made from the same species of Rose. In Ancient Egypt substances like Naphtha (Petroleum Ether) were used in the creation of Religious art, and Cinnamaldehyde in the Embalming Process. Another example in Ancient Egypt would be addition of White Lotus to Wine, which causes the Aporphine in White Lotus to be extracted into the Wine.

Incense and the Creation of it has been important to pretty much every Religion ever. An example in Eastern Religion would be Sandalwood which is Holy to the God Shiva, a Western example would be Frankincense which is Holy to the God Jesus and a Native American example would be the White Sage smudge stick which is used in purification rituals before various Ceremonies.

Ancient Greek Medicine was a form of Medicine which involved inducing sleep by using Poppies (Morphine) and inducing dreams in the Patient, then either encouraging them to have a Spiritual Journey within the dream or preform a needed surgery while they were asleep. This form of Medicine became modern medicine by way of Hippocrates who created the Hippocratic Oath which Doctors still say today.

#### **Examples of Plants being used in Religious Ceremonies:**

Hindu and Rastafarian use of Marijuana

South American use of Ayahuasca and Yopo snuffs

Native American use of Peyote, Tobacco and Datura

Oaxacan Magic Mushroom Tea

Peruvian Cactus Tea

Chukchi use of Amanita Muscaria

Mazatec use of Salvia

The Ancient Egyptian Tree of Life

Hindu Soma

Coffee in Ancient Ethiopia

#### **Examples of Plants (and Animals) being used in Social Cultural settings:**

Nigerian Uziza Leaves, which contain Caryophyllene and are used in a Tradition tea that helps promote your appetite.

Sea Urchin Roe is eaten commonly as Sushi and it contains a Cannabinoid that can also be found in your brain (An Endocannabinoid)

Fugu is a delicacy in Japan. Fugu is just the puffer fish, but a puffer fish liver contains a Neurotoxin that is something like 10,000,000x the strength of Cocaine and causes the body to slow down to the point of death. In some cases the person will register as Medically dead for up to 3 days before body function returns to normal, but in most cases it is a permanent death. The person who eats the Fugu is taking the risk of both eating Fugu and trusting the Chef to prepare it correctly.

Coffee was used Culturally in Yemen once it spread out of Ethiopia and from there Coffee use spread to Amsterdam, and now it has spread around the World.

Tea was culturally used in Eastern countries and was spread around the World by Britain.

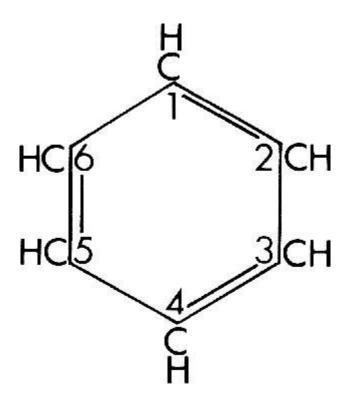
Alcohol has been fermented from some Sugar source in pretty much every culture ever.

## **Chapter 1:**

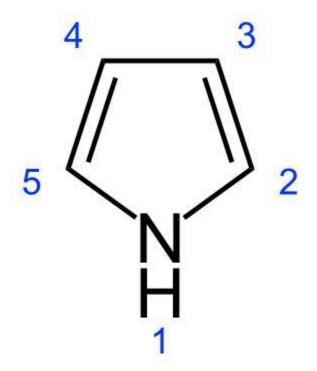
### The Basics of Plants, Smells and Sacraments:

#### **Aromatic Rings**

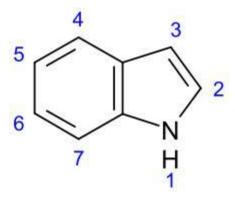
This is a Benzene ring, if you have ever smelled any smell from a flower or pretty much any other natural odor, you have some experience with Benzene rings. Benzene is not the only Aromatic compound but it is the main one.



Damascone is an example of a Benzene ring that is well known in the Perfume world. Damascone is the most defining smell of the Rose Bud and is a Benzene structure. Another similar example is Ionone which is responsible for the smell of Violets. Benzene can also be attached to other rings, for example this aromatic ring is known as Pyrole.



And an Indole is a Benzene ring attached to a Pyrole.



Indoles make up many of the smell that everyone is familiar with, for example the Molecule Indole itself can be found in various plants and flowers as part of what makes their odor and Skatole is the Indole that is responsible for the smell of poop.

Here is a short list of common Benzene rings that can be found in common plants: Peppermint: Menthol Cinnamon: Cinnamaldehyde Vanilla: Vanillin Lemon Peel: Lemonene Phalaris Grass: Tryptamines Acacia/Wattle Tree: Tryptamines Syrian Rue: Carbolines

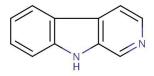
Many of these plant compounds fall into the Category of Terpenes or Terpenoids. Many, but not all, Terpenes and Terpenoids, contain Benzene rings. An example of a Terpene that has no Benzene ring would be Myrcene. Mycene can be found in various plants, including Hops (used to flavor beer) and Marijuana. Terpenes and other compounds can be retrieved from plants through Fractal distillation. This means that a solution is made of the plant materials, then the solution is set to boil, but you do not reach the boiling point of all the materials in the solution. This way you can meet only the melting point of the other materials and collect an isolated molecule through distillation. Pure compounds can also be retrieved through Polar/Non-Polar mixtures which will separate the Polar/ Non-Polar Molecules, but this is not always as effective at isolating a molecule, as multiple molecules in one plant are likely to have the same Polarity. Polar substances dissolve into Polar substances while Non-Polar substances dissolve into Non-Polar substances. An example of this would be THC. THC is not water soluble meaning it will not dissolve in water, which makes it one of the few plants which is not readily made into a Tea form. But in the Hindu Religious Tradition, Marijuana drinks are made using Milk, because THC and Milk have the same Polarity and, THC and water do not have the same Polarity, making the THC readily dissolved in Milk, but not in water. If you have a solution containing a Polar and Non-Polar substance, they will eventually separate if they are Polar or Non-Polar enough, an example of this would be Water and Oil not mixing. These kinds of settled solutions with the Polar and Non-Polar substances on top of each other can be separated using what is called a Separatory Funnel, this device allows for the top layer to be left alone while the bottom layer is filtered off. A less effective way to achieve the same separation would be to use something like a Turkey baster to scoop the top layer away from the bottom layer.

Cannabinoids and Tryptamines are both examples of Plant Indoles. All Cannabinoids and Tryptamines contain an Indole skeleton but Tryptamines and Cannabinoids are considered distinct families of Molecule. Delta-9-THC and N,N-DMT are examples of a Cannabinoid and a Tryptamine.

Phenethylamines and Tryptamines are both examples of different kinds of Benzene rings, one family contains an Indole ring (The Tryptamines) while the other contains just a

Benzene ring, they are both considered Aromatic Compounds though. An example of a Tryptamine in your body is Melatonin and an example of a Phenethylamine in your body is Adrenaline. Your "5-HTP receptors" (Serotonin Receptors) are your 5-HydroxyTryptoPhan receptors. Gramine & Indole-3-Ethanol (Tryptophol) is converted to DMT in some plant species and can be used to make Tryptophan or Tryptamine. The primary metabolite of Tryptamine and DMT in nature is the corresponding Indolic Acid which is a plant growth hormone. Tryptophol is also a plant growth stimulant and can be found in Cucumber seedlings as well as various DMT containing plants. Tryptamines are derived from Tryptophan and Tryptamine while Phenethylamines are derived from Phenethylamine and Phenelalanine. Tryptamine is most often found in nature in its Carboxylic acid form which is Tryptophan (Found in Milk and according to Urban Legend the Tryptophan content of Turkey is what makes you tired on Thanksgiving, Turkey does contain Tryptophan, but not enough to cause noticeable effects). Phenethylamine is most commonly found in nature in its Alcohol forms, which are Phenols. These make up many of the flower smells we know, and apart from Damascone the Phenols are some of the most important factors in what makes up the smell of a Rose. Synephrine is closely related to Adrenaline and contains a Phenethylamine skeleton, Synephrine is in the human body, but in the body of an insect it works similarly to Adrenaline in a human body. Melatonin, a Tryptamine, is released when you close your eyes, so sleep and meditation are both regulated by it in the brain. Melatonin is also a common pigment in Amphibians and reacts to light similarly to the human pigment Malanin. Maltonin is used so that they body can know what time of day it is, and it has been sold as a supplement for sleep and to help fight jet lag. Melatonin is thought to be bioavailable in only small amounts, but studies with Melatonin have shown that regular usage (10mg or less) usually has no noticeable effect, while Chronic dosage (Daily doses of 70-80mg) can bring better sleep and more functional states while awake. Tryptophan has also been studied and is a much more direct sleep causing molecule (with hardly anyone being able to resist sleeping with proper doses of Tryptophan) and can also promote more functional states while awake. This is the reason for the Urban Legend that Turkey makes you sleepy on Thanksgiving.

Harmine is an example of a Carboline. Carbolines are related to all the other families of Molecule in that they all contain Benzene rings making them Aromatic compounds, but a Carboline molecule contains two Benzene rings and a Pyrole ring.



#### **Esters & Peptides**

Not all smells contain Benzene rings or Pyrole rings, there are also Furan rings and Thiophene rings, but those are much more uncommon in nature and only a few Furans are used in Sacraments. But Aromatic ring structures are not the only way to create smell, in fact some Aromatic ring structures do not have a smell until they are turned into their Ester form. Esterificiation is a process that is used in making Artificial Smells and Flavors (Most E-Cigarette Oils are Esters) as well as used in Medicine to create water soluble medicines. THC is again the perfect example for this as it is not soluble in water. When THC is made into its THC-O-Acetate form or its THC-O-Phosphate form, it becomes water soluble and can be used for injections in the ER/ICU for people having strokes or in a coma. Esters are easy to form. Any Alcohol in the presence of any Carboxylic acid will form an Ester, sometimes a stronger acid is needed to kick start the process, but an Ester is simply the bonding of a Carboxylic acid and an Alcohol. Another good example of this is Choline, in the body Choline is turned into Acetylcholine which is simply the Acetate form of Choline. In the brain Choline is used up by the Cholinesterase enzymes, Piracetam is an example of a compound that people take in order to boost the bodies use of Choline and Acetylcholine, but because Acetylcholine is used to regulate dreaming in the brain this can cause a trade off where during the day the Acetylcholine is being used and the brain feels more functional for different work and operations but, since the Acetylcholine is used up during the day it is unlikely that dreams will occur that night (This is the same receptor Nicotine uses, which is why Native Americans have traditionally used the more potent Tobacco Nicotiana Rustica in order to achieve Ceremonial dream states). Acetylcholine supplements taken at night can similarly promote dreaming, Choline can also promote dreaming but it is less Bioavailable, meaning that if you were to take 100 mg of Choline and 100 mg of Acetylcholine, the Acetylcholine would reach your brain in a quantity much closer to 100 mg that Choline which may only actually get 25 mg or less of the material to your brain after it is destroyed by stomach acids and enzymes. Bioavailability is also the reason some supplements are taken Sublingually (Through the Gums and under the Tongue). This is similar to the DMT/MAOI scenario where DMT is 0% bioavailable unless MAOIs are first taken to prevent stomach enzymes from destroying it.

A simple bond that creates smell which is similar to Esterification is the creation of Peptides. Esters are formed when a Carboxylic Acid meets and Alcohol, Peptides are formed when a Carboxylic Acid (Specifically Amino Acids) combines with another Caboxylic Acid (Specifically an Amino Acid). This makes up many of the Meat smells, Fish smells and other smells like that in nature. DNA also fits into this definition, but it is a Polypeptide, meaning it is a complex combination of Amino acids formed with various Peptide bonds rather than just one (DNA just means Desoxy Ribonucleic Acid, which

means Ribonucleic Acid missing an Oxygen, Desoxy = Oxygen removed, RNA = Ribonucleic Acid). Peptides are very simple in that they are formed when two Amino Acids come together and lose a Hydrogen Atom and two Oxygen atoms (Water). An example of a Peptide bond is Picamillon, which is formed using the Amino Aids GABA and Niacin. Used alone GABA works to relax a person, while Niacin used alone works to promote blood flow. When they come together they form Picamillon, which makes both the GABA and the Niacin more bioavailable as well as helps the GABA better cross the Blood Brain Barrier. This makes the GABA more effective in the brain in helping to relax a person while the Niacin specifically goes to promote the blood flow of the brain instead of the body as it usually does, which can help relieve headaches. Some examples of natural Peptides in the human body are Endorphines (aka Endogenous Morphines) and Endocannabinoids (which work with the human Endocannabinoid system), as well as Neuropeptides which have been called "Chemical Emotions". There are also Opiod peptides, which are similar to Endorphines and they exist in many common foods such as Milk or Spinach, but they do not cross the Blood Brain Barrier.

#### **Chlorine in Plants**

The main part of a plant that everyone learns about at some point in their lives is the Chlorophyll. Everyone learns that plants are Green because they contain Chlorophyll and the Chlorophyll is what reacts with Sunlight (Photosynthesis) to start the Chemical processes of the plant. But what does this really mean?

Chlorophyll contains Chlorine and when Chloride ( $Cl_2$ ) has light shown through it, the 2 Chlorine atoms actually spread apart, which in the presence of certain elements causes reactions that create different Molecules. Plants have harnessed this Chemical process in the form of Chlorophyll in order to create the materials that are necessary for animal life to exist. Without this process animals would continue to breathe in Oxygen  $(O_2)$  and breathe out Carbom Dioxide (CO<sub>2</sub>) until all the Oxygen was depleted, but plants use Photosyntheses and Water (H2O) to convert Carbon Dioxide into Oxygen allowing the planet to continue breathing. Strangely, Chlorine can also be found as one of the primary ingredients of the Ocean which contains tons of Table Salt/Sea Salt (Sodium Chloride) and, Salt is an Electrolyte meaning that it conducts electricity in water and is important in facilitating various natural processes similar to Chlorophyll. Salts are formed by the mixture of Acids and Bases. The structure of an Acid or Base usually contains lots of Hydrogen (H) and Hydroxide (OH) and depending how many of each of those is present or what charge they have, the substance is either a Base or an Acid. A very common salt formed when making extractions of plants is HCl Acid or Hydrochloric Acid which is the same acid which is present in your stomach to activate stomach enzymes, this acid forms HCl Salt or Hydrochloric Salt when mixed with any basic substance (such as NaOH aka Sodium Hydroxide, or Baking Soda aka Sodium Bicarbonate). When chemical reactions

are done using water (H<sub>2</sub>O) should not be done with tap water, as tap water contains Chlorine which can effect the outcome of any reaction as well as storage. Pure water can be made through Distillation.

#### **Iodine in Nature**

Iodine is more rare in nature but it is necessary for a properly functioning Thyroid Gland. This is why many Commercially available table salts contain Iodine and say "Iodized Salt". So most salt contains Chlorine and Iodine, just not in the same Molecule. Iodine can be used similarly to Chlorine as a disinfectant and is sold at camping goods stores as a disinfectant for drinking water found in the wild. Related closely to Iodine and Chlorine via the Periodic Table of Elements (They are all Halogens) is Bromine.

#### **Nature's Chemistry**

Hydrogen, Oxygen (and Sulfur which is right below it on the Periodic table), Nitrogen & Carbon make up most of Ritual Chemistry as well as most of Nature's Chemistry, it is just adding them together in different ways and adding other atoms or molecules that make them do different things that makes up the rest of it. Rust is a common example of Oxidation (Fe<sub>2</sub>O) and a similar process happens to Copper which is the reason for the Blue color of the Statue of Liberty. An example of Hydrogen being able to change the entire chemistry of something would be THC and CBD. CBD is Cannabidiol while THC is TetraHydraCannabidiol, meaning that if you apply a strong acid to CBD it will turn into THC.

#### Mushrooms

Chapter 2 will get in to Sasha Shulgin's work but I wanted to mention something that was part of his research here. Sasha mentioned an experiment that had been done sometime between the 1960s and 1980s where a species of Psilocybin Mushrooms were inoculated to their Mycelium stage at which point they were fed DMT, the Sacramental compound Psilocin is 4-HO-DMT, which means DMT with a Hydroxy in the 4 Position (we will get more into the specifics of what this means in Chapter 2), and when the Mycelium of the Mushroom was fed DMT, it turned the DMT into 4-HO-DMT. So in the same lab a second experiment was tried. They took a compound that is related to DMT, which was DET, and fed it to the Mycelium and out came 4-HO-DET. DET is a completely synthetic compound that can not be found anywhere in nature, but the Mushrooms accepted the DET. So is 4-HO-DET a Natural compound or a Synthetic one? In Sasha's words "If you put a Mickey Mouse in you would probably get a 4-HO-Mickey Mouse out".

Following is a list of Mushroom Genus which contain Species who make either 4-HO-DMT or some other 4-HO compound, as well as things like 5-HTP and Serotonin: Psilocybe (Psilocybe are also known as "Magic Mushrooms", Psilocybe Cubensis being most common) Stropharia Copelandia Panaeolina Panaeolous Psathyrella Gymnopilus Inocybe Pluteus Agrocybe Conocybe The Amanita family or Amanitaceae are known to contain Muscimol, Ibotenic Acid and

5-HO-DMT and related compounds. Muscimol can pass through around 7 animals or 7 people's digestive systems, and be urinated out each time, before all of the Muscimol has been used. This is the basis of the Decarboxylation process done in the Reindeer's stomaches before the Chukchi people collect its urine for religious use.

The Ergot family or Hypocreaceae contain Ergot alkaloids which are used in the creation of things like LSD and Medication for Parkinson's Disease. These can be found as fungus on Cereal grains, as well as in the seeds of Morning Glory plants and Hawaiian Baby Woodrose plants in the form of LSA, which is a close relative of LSD.

Corn contains N-Substituted Tryptamine Amides, but Corn is not digested by humans. Common Rice contains Melatonin. Limonia Acidissma contains DMT and a Carboline. Vepris Ampody contains DMT The Genus Evodia has many species which contain Phenethylamines and Carbolines. Evodia Rutacarpa contains DMT Dutaillyea Oreophila contains 5-MeO-DMT Phalaris Grass entains DMT & 5-MeO-DMT Giant Reed (Sugar Cane) Contains DMT, 5-MeO-DMT and 5-HO-DMT Iboga species and other species that contain Ibogain (Such as Confederate Jasmine) are full of strange Opiod Tryptamines.

#### Cacti

Another short note from Sasha's work was research on Cacti. Sasha mentions in his work that when some labs discovered certain compounds within Cacti they fed the Cacti

Molecules that had radioactive markers so that the Cacti could be studied, and the end product could be tested to see what the Cacti were doing. And in Sasha's work he only mentions when a Cactus did not do what the lab expected, so it can be assumed that all the other Cacti which have been tested do what you would expect them to do (similar to how the Mushrooms made 4-HO-DET from DET). Over the past 50 or so years it has become common practice to test how different life forms react to different environmental factors, for example when some Marine Algae and other marine life were first being tested for isolates compounds, they would test them by giving them Phenelalanine as their only Nitrogen source, then see what they did with it.

Regular Cacti can be made to grow faster by being Grafted to a Pereskiopsis Cacti. These are more like regular plants, and when a Cactus is grafted to one it will work like a regular plant instead of absorbing water slowly like a cactus, and it will boost the cactus into a faster growth process. Grafting is when the top of a plant is removed, then it is added to the top of another plant as if being planted onto that plant. If connected properly (open "stem cells" exposed, and being pressed together with slight pressure) they should graft together and become one plant. The bottom plant will retain its chemical properties and the top plant will retain its chemical properties.

Following is a short list of Cacti known to contain the compound Phenethylamine: Islaya Minor Pereskia Pititache Pereskia Tampicana Pereskiopsis Chapistle

Following is a short list of Cacti which contain Dopamine, which is also called 3,4-Dihydroxy-PEA (PEA being Phenethylamine). In principle they should be able to create other 3,4-DHO-x compounds when fed other molecules: Carnegiea Gigantea

#### Lophophora Wolliamsii

Following is a short list of Cacti known to contain N-Methyl-PEA. In Principle they will create N-Methyl compounds being fed other Molecules: Dolichothele Sphaerica

#### Dolicholethe Surculosa

Following is a short list of Cacti which contain 4-Methoxy-PEA. In principle they will create 4-Mx compounds which fed other molecules: Coryphantha Cornifera

Coryphantha Ottonis Coryphantha Poselgerina

Following is a list of Cacti known to contain 4-HO-PEA. In Principle these Cacti will create 4-HO compounds being fed other Molecules, similarly to the 4-HO addition mentioned with Mushrooms earlier: Azureocereus Ayacuchensis **Cactus Grandiflorus** Cereus Forbesii Coryphantha Pectinata Echinopsis Rhodotricha Espostoa Huanucensis Gymnocalycium Leeanum Gymnocalycium Saglione Islaya Minor Lobivia Allegriana Lobivia Aurea Lobivia Beckebergii Lobivia Binghamiana Lobivia Huashua Lobivia Pentland Lophophora Williamsii (Peyote) Mammillaria Microcarpia Melocactus Delessertianus Melocactus Maxonii Obregonia Denegrii **Opunita** Clavata **Opunita Ficus-Indica Opunita** Imbricata **Opunita** Invicta Opunita Kleiniae **Opunita Schottii Opunita Spinosior** Opunita Stanlyi var. Kunzei Opunita Sanlyi var. Stanlyi **Opunita Versicolor** Pereskia Aculeata Pereskia Autumnalis Pereskia Corrugata Pereskia Cubensis Pereskia Godseffiana Pereskia Grandifolia Pereskia Pitatche

Pereskia Tampicana Pereskiopsis Chapistle Pereskiopsis Scandens Pilosocereus Maxonii Psuedolobivia Kermisina Tichocereus Bridgesii **Trichocereus Camarguensis Trichocereus Candicans** Trichocereus Couratii Trichocereus Cuzcoensis **Trichocereus Fulvilanus Trichocereus Knuthianus Trichocereus Macrogonus** Trichocereus Manguinii Trichocereus Pachanoi **Trichocereus Peruvians** Trichocereus Purpureopilosus **Trichocereus Santiaguensis** Trichocereus Skuttsbergii **Trichocereus Species** Trichocereus Strigosus **Trichocereus Tunariensis Trichocereus Werdermannianus** 

Following is a list of Cacti which contain 4-HO-N-Methyl-PEA. In principle they will create 4-HO-N-Methyl compounds being fed other molecules: Ariocarpus Fissuratus

Ariocarpus Kotschoubeyanusz Ariocarpus Lloydii Ariocarpus Scapharostus Ariocarpus Trigonus Coryphantha Calipensis Coryphantha Missouriensis Coryphantha Missouriensis Coryphantha Poselferiana Coryphantha Poselferiana Coryphantha Radians Coryphantha Ramillosa Coryphantha Runyonii Dolichothele Sphaerica Dolichothele Surculosa **Dolichothele Uberiformis** Espostoa Huanucensis Gymnocalycium Leeanum Islaya Minor Lobivia Pentland Lophopora Williamsii Pilocereus Maxonii Mammillaria Microcarpia Obergonia Denegrii **Opunita** Clavata Opunita Ficus-Indica **Opunita** Invictica Opunita Kleineiae Opunita Schottii Opunita Stayli var. Kunzei Opunita Stanlyi var. Stanlyi **Opunita Versicolor** Solicia Pentineta Trichocereus Camarguensis **Trichocereus Candicans** Trichocereus Courantti Trichocereus Fulvilanus Trichocereus Manguinii Trichocereus Purpureopilosus Trichocereus Schickendantzii Trichocereus Skottsbergii **Trichocereus** Thelegonus

Following is a list of Cacti that contain 4-Hydroxy-N,N-Dimethyl-PEA, in principle this could be the exact same process used by Mushrooms to create 4-Hydroxy-N,N-Dimethyltryptamine (4-HO-DMT) from Tryptamine or Tryptophan, and if fed Tryptamine the PEA could be replaced with a T and they should make other 4-HO-DMx compounds: Ariocarpus Agavoides Ariocarpus Fissuratus Ariocarpus Kotschoubeyanus Ariocarpus Lloydii Ariocarpus Retusus Ariocarpus Scaphorosrus Ariocarpus Trigonus Cactus Grandifloris

Cereus Alacriprotanus Cereus Glaucus Cereus Peruvians Coryphantha Bumamma Coryphantha Calipensis Coryphantha Cornifera Coryphantha Cornifer var. Echinus Coryphantha Durangensis Coryphantha Elephantidens Coryphantha Ottonis Coryphantha Pectinata Coryphantha Poselgeriana Coryphantha Radians Coryphantha Ramillosa Coryphantha Runyonii Coryphantha Vivipara Dolichothele Surculosa Dolichothele Uberformis Espostoa Huanucensis Gymnocalycium Leeanum Islaya Minor Echinocereus Merkeri Echinopsis Eyriesii Helioanthocereus Huascha Helioanthocereus Pascana Helioanthocereus Poco Lobivia Allegriana Lobivia Aurea Lobivia Beckebergii Lobivia Binghamiana Lobivia Huashua Lobivia Pentland Lophophora Diffusa Lophophora Williamsii Mammillaria Microcarpia Notocactus Ottonis Obregonia Dengrii Opunita Auraniaca **Opunita** Clavata **Opunita** Invictica **Opunita Maldonadensis** 

**Opunita Schotti Opunita Versicolor Opunita Vulgaris** Pelecyphora Aselliformis Pelecyphora Psuedopectinata Selenicereus Ptaeranthos Solicia Pectinata Trichocereus Andalgalensis trichcereus Candicans Trichocereus Lamprochlorus Trichocereus Manguinii Trichocereus Pachanoi **Trichocereus Santiaguensis** Trichocereus Schickendantzii Trichocereus Species Trichocerus Strigosus Trichocereus Taquimbalensis Trichocereus Thelegonoides **Trichocereus Tunariensis** Turbinicarpus Psuedomacrochele Wigginsia Erincea Wigginsia Macrocantha Wigginsia Tephracantha

Following is a short list of Cacti that contain 4-Hydroxy-N,N,N-Trimethy-PEA, in principle they will create 4-HO-TMx compounds when fed other molecules: Denmoza Rhodacantha Echinocereus Merkei Gymnocalycium Saglione Lobivia Formosa Opunita Hickenii Trichocereus Andalgalensis Trichocereus Candicans Trichocereus Pasacana Trichocereus Species Trichocereus Strigosus

Following is a short list of Cacti that contain Synephrine, mentioned before for its effects similar to adrenaline in the insect world, Synephrine is also 4-beta-Dihydroxy-N-Methyl-PEA. In principle they will create 4-beta-DHO-Mx compounds when fed other molecules:

Coryphantha Cornifera Coryphantha Cornifera var. Echinus Coryphantha Duragensis Coryphantha Elephantidens Coryphantha Greenwoodii Coryphantha Ottonis Coryphantha Pectinata Coryphantha Poselgeriana Coryphantha Ramillosa Coryphantha Runyonii Dolichothele Sphaerica Dolichothele Surculosa Dolichothele Uberformis

Following is a short list of Cacti which contain 4-Hydroxy-beta-Methoxy-N-Methyl-PEA and in principle they should make 4-HO-beta-MeO-Mx compounds when fed other molecules:

Coryphanthas Cornfera var. Echinus

Coryphanas Greenwoodii

Coryphanthas Pectinata

Coryphantha Ramilosa

Dolichothele Sphaerica

Following is a short list of Cacti which contain N-Methyl-4-Methoxy-PEA. In principle they will create other N-MeO-4-MeO-x compounds when fed other molecules: Ariocarpus Retusus Coryphantha Bumamma Coryphantha Cornifera var. Echinus Coryphantha Macromeris Coryphantha Pectinata Coryphantha Ramillosa Dolichothele Uberformis

Following is a short list of Cacti which contain 3-Methoxy-4-Hydroxy-PEA. In principle they will create 3-MeO-4-HO-x compounds when fed other molecules: Backebergia Militaris Islaya Minor Lophophora Williamsii Opunita Imbricata Opunita Spinosior

**Opunita Subulate** Pereskia Corrugata Pereskia Grandifolia Pereskiopsis Chapistle Pachycereus Pecten-Aboriginum Trichocereus Bridgesii Trichocereus Camaraguensis Trichocereus Courantii Trichocereus Cuzcoensis Trichocereus Knuthianus **Trichocereus Macrogonus** Trichocereus Manguinii Trichocereus Pachanoi **Trichocereus Peruvians** Trichocereus Taquimbalensis Trichocereus Werdermannianus

Following is a list of Cacti which contain 3,4-Dimethoxy-PEA, which is one of the closest PEA relatives to N,N-DMT. In principle they should create 3,4-DMx compounds when fed other Molecules: Backbergia Militaris Carnegiea Gigantea Echinocereus Blankii Echinocereus Merkeri Islaya Minor Lophophora Williamsii Mammillaria Microcarpia Melocactus Maxonii Neoraimondia Arequipensis var. Roseiflora Opunita Acanthocarpa Opunita Echinocarpa **Opunita** Exaltata **Opunita** Imbricata Opunita Ramosissima **Opunita Spinosior Opunita Whipple** Pachycereus Pecten-Aboriginum Pelycyphora Aselliformis Pereskia Corrugata Pereskia Tampicana

Pereskiopsis Scandes

Pilosocereus Maxonii Polaskia Chende Psuedolobivia Kermisina Pterocereus Foetidus Ptereocereus Gaumeri Stenocereus Benecki Stenocereus Eruca Sternocereus Stellatus Sternocereus Treleasei Trichocereus Bridgesii **Trichocereus Camarguensis** Trichocereus Courantii **Trichocereus Macrogonus** richocereus Pachanoi **Trichcereus Peruvians** Trichocereus Taquimbalensis Trichocereus Werdermannianus

Following is a list of Cacti which contain 3,4-Dimethoxy-N-Methyl-PEA. In principle they should create 3,4-Dimethoxy-N-Methyl-x compounds when fed other molecules: Ariocarpus Algavoides Ariocarpus Fissuratus Ariocarpus Retusus Ariocarpus Scapharostrus Ariocarpus Trigonis Backebergia Militaris Coryphantha Bumamma Coryphantha Elephantidens Coryphantha Greenwoodii Coryphantha Missouriensis Coryphantha Pectinata Dolichothele Uberformis **Echinocereus Cinerascens** Echinocereus Merkeri Mammallaria Heyderi Pilosocereus Guerreronis Pilosocereus Maxonii

Pilosocereus Chrysacanthus

Following is a short list of Cacti which contain 3,4,5-Trimethoxy-PEA which is also known as Mescaline and is the main active ingredient in the Sacred Peyote Cactus, the

Sacred San Pedro Cactus and the Sacred Peruvian Torch Cactus. In principle they should be able to create 3,4,5-TMx compounds when fed other molecules, or create more 3,4,5-TMPEA when fed PEA: Gymnocalycium Gibbosum Islaya Minor Lophophora Diffusa Lophophora Echinata Lophophora Fricii Lophophora Jourdaniana Lophophora Williamsii Myrtillocactus Geometrizans Opunita Acanthocarpa **Opunita Basilaris Opunita** Cylindrica Opunita Echinocarpa **Opunita Ficus-Indica Opunita** Imbricata **Opunita Spinosior** Pelecypgora Aselliformis Pereskia Corrugata Pereskia Tampicana Pereskiopsis Scandens Polaskia Chende Pterocereus Gaumeri Stenocereus Benecki Stenocereus Eruca Stenocereus Stellatus Stenocereus Treleasei Trichocereus Bridgesii Trichocereus Cuzcoensis Trichocereus Fulvilanus Trichocereus Macrogonus Trichocereus Pachanoi **Trichocereus Peruvians** Trichocereus Strigosus Trichocereus Taquimbalensis Trichocereus Terschekii Trichocereus Validus Trichocereus Werdermannianus

Currently there are some Religious and non-Religious groups breeding Cacti (Mainly Trichocereus Species) together in order to create new Variations/Breeds/Strains of Cactus. An example would be Trichocereus Bridgesii X Trichocereus Peruvians. There are also Cacti being what is called Super Stressed, meaning they are not being given enough water and are being damaged with slices or gouging. This by way of Epigenetics passes down small alterations in the DNA structure which pass down Genes that are not encoded in the DNA but attached to it. These are usually marked with an SS, for example SS San Pedro X SS Peruvian Torch.

Following is a short list of Cacti which contain N-MethylMescaline. In principle they will create N-Methyl-3,4,5-TMx compounds when fed other Molecules: Pelecyphora Aselliformis Lophophora Diffusa Lophophora Williamsii

Growing Cacti is not hard, they do not take much water and can easily be grown from seed. They usually just need soil mixed with sand to be completely satisfied.

Growing Mushrooms is a little harder, here is a short guide:

#### **Growing Mushrooms:**

- 1. First you fill Mason jars of any size with ground up Oatstraw and Brown Rice flour This is topped with a layer of Vermiculite and sealed. These jars are then boiled in a pressure cooker for a few hours. The temperature reached should kill any bacteria.
- 2. Once the Jars are cooled a hole can be made i the top of each lif with a knife or screwdriver that has been sterilized with fire or alcohol.
- 3. At this time the jars can be inoculated, this is done by using a syringe to put Mushroom spores under the layer of Vermiculite, and between the glass of the jar and the Oatstraw Brown Rice flour mix.
- 4. After a week or a few weeks a white fuzz should grow in the jars, this is known as Mycelium. Once it has pretty well taken over the jars you are ready for the next step.
- 5. At this time you create the larger "Terrarium" for your mushrooms. The way to do this is to get some kind of container that is 1 Gallon or larger, any size larger than 1 Gallon will work. On the bottom of the container put a layer of Vermiculite, on top of that you put a layer of Coco Coir. Then on top of this you add

the Nutrient layer, which is Oatstraw and Brown Rice Flower, this layer is also where you would add

any Religious offering to the Mushroom, such as the DET to 4-HO-DET example from before and the offering is covered in Brown Rice flour.

6. At this point you open the jars of white fuzz and remove the "Rice Cakes" from the jars like you would Ketchup in a glass bottle, then after putting on a pair of sterile gloves the cakes are gently broken apart while taking care to touch the fewest spots on the cake as possible. Any spots that are touched are likely to die off. The peices are put into the new Brown Rice flour and Oatstraw in the large container, covered in a layer of Oatstraw, which is then covered in a layer of Coco Coir. This is then sprayed daily with a water spray bottle and the lid to the container is put on when it is not being sprayed.

This method should allow for large yields of Mushrooms and after harvest the block can simply be flipped out and water added, and with the abundant nutrients another harvest can be gotten.

#### **Creating Mushroom spore prints:**

Making a Mushroom spore print is how Mushroom spores are gathered from a harvest in order to create new Rice Cakes.

- 1. First get a piece of Tin Foil and heat it up to around 400 Degrees Fahrenheit to kill any bacteria, then allow it to cool back to room Temperature
- 2. Then, with a Sterilized knife or Scalpel a Cap is removed from one of the tops of the Mushrooms, and cut flat from the Stalk so that it can be laid flat on a the Tin Foil.
- 3. Once the Cap has been placed on the Tin Foil the top of the cap can be tapped to help spores drop to the foil, and once the Cap has been sitting there for around or more than an Hour it should have some spores dropped.
- 4. These spores can be scrapped (using a sterile knife or scalpel) into a sterile shot glass or similar container. Bottled Water can then be gathered by a Syringe and sprayed into the shot glass on top of the spores. The syringe is then used by filling and squirting out the spore/water mixture in order to create a mixture in the water that contains most or all of the spores. This syringe can then be kept in a refrigerator or used immediately.

#### How to Grow Plants with the most and Strongest Branches:

Most plants are a little bit harder than Cacti but much easier than Mushrooms as far as growing goes. So here is a quick guide for how to grow the bushiest plants that can hold large flowers or fruits.

Both indoor and outdoor growers of plants, Religious or not, need to pay attention to seasons. If you are growing indoors CFL & LED lights should be used during the Vegetative stage and HPS & LED lights should be used during the Flowering stage. These lights will have the correct spectrums of light to give plants the same form of light they would be getting from the sun during different seasons.

Use Coco Coir mixed in with indoor plant soil as it will allow the same amount of space to grow a larger plant.

Topping or "Pinching Back" is a technique to create new branches. What you do is wait until a plant has a few small new branches growing, or if a plant is already fully grown you can just move on to the next part, which is. Chop the top off of the plant and the highest 2 lower branches will grow to form 2 new main stalks of the plant. These can in turn be chopped off at the top to grow 4 more tops and those 4 can be chopped to create 8, etc.

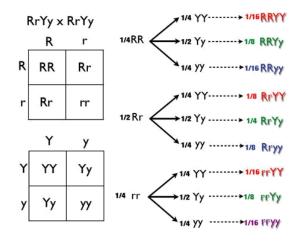
Plants can also be Grafted. When grafting a plant you chop the top off of one plant and tie or duct tape or using a gum, plant it on to the top of another plant. The top plant will use the root system of the larger plant and will grow faster. The bottom plant will retain its properties and the top plant will retain its properties. This is a method that has been used to grow various species of fruit on one tree. Grafting can also be used in reverse, where a plant's top is chopped off and its roots are grafted to another plant. The other plant will use this root system and grow faster or be more healthy.

These methods can be used with screen which spread branches apart, they are sold for Tomatoes in oder to create the largest plants possible and support their fruits. You have probably seen them in people's garden's if you do not grow plants of your own. They are like a conical pyramid type thing that has a grid type structure so that the branches of the tomato can be supported by the conical pyramid grid shape.

#### **Methods of Plant or Animal Breeding:**

There are 3 main methods in plant breeding and they can all be used together and the second & third methods kind of require the first to work.

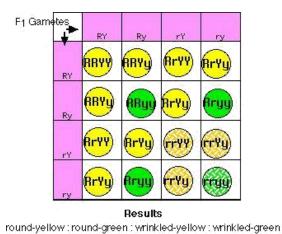
The first one is the one everyone has seen, it is the basic square of Dominant and Recessive genes which create 4 different breeds known as "Phenotypes".



The Second is called Cross Breeding. Cross breeding is done by selecting the specific Species or strains you want to cross, and crossing them as in the Phenotype Square. Then, once the Crossed strains are grown out (brother and sister plants), they are then bred together which will create a new "Locked in" strain with its own 4 Phenotypes.

Parental cross	F <sub>1</sub> generation	F <sub>2</sub> generation	Probability ratio
vinkled	round	5474 round 1850 wrinkled	3:1
yellow green	yellow	6022 yellow 2001 green	3:1
smooth constricted	smooth	882 smooth 299 constricted	3:1
	green	428 green 152 yellow	3:1
	long	787 long 277 short	3:1

The Third is called Double Pair Mating. This is where 2 Phenotypes or 2 of 1 Phenotype that have traits that are desired are bred with 3 other plants, one of those plants being the same plant that the other one bred with or at least the same phenotype. From this there is a greater selection from which to Cross breed a specific desired strain.



9:3:3:1

This Fourth method is not necessarily anything like the others. A lot of people who consider themselves Science Enthusiasts or something like that will say that Species means 2 populations that can not interbreed, but this definition is false. In many cases species are defined as such because they will not interbreed, such as certain birds around Australia and Polynesia, there is an imaginary line in the Ocean that birds don't cross and therefor don't breed, and it has created different variations on these birds as they are split apart for longer periods of time. But they still can breed. And many species do cross breed, for example different species of Mint will readily breed with one another. This sometimes even goes one step further when 2 different Genus breed together, this is readily seen in Orchids. And the most well known recent example is probably the Liger. Ligers are real animals made by breeding a Lion with a Tiger, there are also Tigons which are made the same way, it just depends if the mom or dad is a Lion or Tiger. The most well known older example of this would be Mules, a Mule is the offspring of a Horse and a Donkey.

#### **Breeding Sacred Frogs and Toads:**

Frog and Toads are either easier or harder than Mushrooms depending how you personally feel about different things.

Coco Coir and other materials can be used for the ground cover of the cage. A large pool of water must be somewhere in the cage, as frogs and toads are amphibians and there eggs are lain in water.

And then you just have to raise Tadpoles into frogs, which pretty much just involves feeding Sacred pets.

#### **Ritual Chemistry:**

Ritual Chemistry starts with knowing the 6 basic Chemical Reactions, so here they are

- 1. Combination: When 2 or more reactants form 1 product
- 2. Decomposition: when a single compound breaks down into 2 or more simpler compounds
- 3. Single Displacement: When a more active element displaces a less active element
- 4. Double Displacement: When two different types of elements on a single molecule are displaced
- 5. Combustion: A Combustion reaction occurs when a compound, usually containing Carbon, combines with the Oxygen gas in the air. Also called Burning
- 6. Redox: A Redox is a "Reduction Oxidation Reaction", this is where electrons are exchanged

Those are the 6 basic Chemical reactions that can occur, and here are some example of those actually being used.

Ozonolysis: This is when you cleave carbon-carbon bonds using Ozone  $(O_3)$ . The fragments formed are either Aldehydes or Ketones.

Permanganate Oxidation: Similar to Ozonolysis, but with a stronger oxidizing agent. This causes what would be Aldehydes and Ketones in Ozonolysis to become Carboxylic Acids. This is done with Potassium Permanganate (KMnO<sub>4</sub>).

The Gringard reaction is used to make Alcohols. A Gringard Reagent is made by mixing Magnesium with any Alkyl Halide. A Grindard Reagent will react with Carbonyl compounds to form Alcohols.

Gringard Reagent + Formaldehyde = Primary Alcohols

Gringard Reagent + Aldehydes = Secondary Alcohols

Gringard Reagent + Ketones = Tertiary Alcohols

Sodium Borohydride and Lithium Aluminum Hydride can also be used with Carboxylic Acids to create Alcohols via Reduction.

Alcohols can be turned to their Carbonyl form using Pyridinium Chlorochromate or the Jones Reagent (Chromate + Acid). Pyridinium Chlorochromate oxidizes Alcohols to

Aldehydes. The Jones Reagent Oxidizes them further in to the Carboxylic Acid. This is the same reaction that happens between Iron and Oxygen in the air and water to form Rust.

Ethers are made with Alcohols by reacting an Alcohol with a Sodium Metal to form an Alcoxide. Alcoxides can react with primary Halides to make ethers. Halides are compounds that contain one or more Halogen. Halogens found in Organic compounds are Flourine, Chlroine, Bromine and Iodine.

In the presence of strong acid and heat, alcohols lose water (H<sub>2</sub>0) to become Alkenes.

Hydrogenation/Adding Hydrogens: Alkenes can be converted into Alkanes by Hydrogenation (Passing Hydrogen gas through a solution containing a Catalyst, usually Palladium on Carbon (Pd/C) or Platinum (Pt)) and the Alkene causes hydrogen to be added across the double bond in a syn addition. Alkynes can also be converted to Alkenes by Hydrogenation.

Alkenes can be converted to Cyclopropane rings by reacting with a Carbene. Dichlorocarbene can be made by reacting Cholorform with a base like Sodium Hydroxide or Calcium Hydroxide.

Thiols are the Sulfur Analogues of Alcohols which are most easily remembered as "Skunk smells". Oxygen is right above Sulfur on the Periodic table, and these are simply the compounds that exist based on that fact. Sulfur is kind of like a more reactive form of Oxygen.

In the Wittig Reaction, an aldehyde or Ketone is reacted with a Phosphroane to make an Alkene.

Making Phosphorane requires Triphenylphosphine and a Primary Alkyl Halide, then a strong base in an acid.

Arrhenius Acids & Bases are (acids) Molecules that dissociate in water to form Hydronium (H<sub>3</sub>O) and (bases) Molecules that dissociate in water to form Hydroxide Ions (HO).

Bronsted-Lowery Acids & Bases are Molecules that donate a proton (acids) and Molecules that accepts protons from an acid (bases)

Adding a Hydrohalic Acid (Usually HCl or HBr) toa double bond converts there AlkeneintoanAlkylHalide

Alkenes react rapidly with Bromine (Br<sub>2</sub>) or Chlorine (Cl<sub>2</sub>) in Carbon Tetrachlorida (CCl<sub>4</sub>) solvent to make a Dihalide. this is also used as a test to see if unkown compounds contain an Alkene, because the Blood colored Bromine turns white.

When HCl or HBr when added to a conjugated double bond if it attacks the number 2 carbon it leads to the 1,2-addition product, attacking at number 4 carbon leads to the 1,4-addition product. The 1.2-addition usually happens at lower temperatures (0 Celsius) and the 1,4-addition mostly happens at higher temperatures (40 Celsius).

The Bromonation of Alkanes occurs in the same fashion as the Chloronation of Alkanes, except that Br<sub>2</sub> is used in the reaction instead of Cl<sub>2</sub>. Bromide Radicals are more selective for Hydrogen on more substituted Carbons than Chloride radicals. Chlorine will react with any Hydrogen, while Bromine likes Hydrocarbons specifically. An example of this would be when Chlorine and Methane meet in the presence of light. As discussed with Chlorophyll Chlorine will readily react with other atoms, and when Chlorine and Methane meet in light Chloromethane is made, but so are Chlorine Radicals. With Butane this would cause unwanted byproducts to be produced, and with other alcohols there would be even more byproducts. This is why Bromide is used for its selectivity.

Amines are Nitrogen atoms that take the place of a Carbon atom in an Alkane. And more simply an Amine is a molecule containing an Isolated Nitrogen.

Methyl = 1 Carbon Ethyl = 2 Carbons Propyl = 3 Carbons Butyl = 4 Carbons etc.

Now, to learn your first Religious Ritual for creating Somic Compounds.

#### How to Create the 3rd Eye of Shiva:

This is one of the most simple Ritual Chemistry Sacraments to make. At this point I would like to stress that the Church of Neuroscience is a Religious Organization and that this should not be used as a "Recipe for Drugs". This is a Ritual used to create Sacred Materials meant for use by Parishioners of the Church of Neuroscience or in specific Religious Ceremonies. Similar to how wine can be used recreationally or ceremonially, but Churches do not sell wine for people to take to parties.

*NMT* is abundant in many plants and can be made from Tryptophan or Tryptamine.

1.20g of pure NMT was dissolved in 50mL EtOH (Pure Drinking/Grain Alcohol), then

treated with 1.0 mL Acetone, then with 0.5g 10% Pd/C (Palladium on Carbon), and the reaction mixture was shaken under a H<sub>2</sub> (Hydrogen Gas) Atmosphere at 50 psi. for 15h. The Catalyst was removed by filtration through a bed of Celite, the filtrate was stripped of solvent under Vacuum (a small Rotary Engine Vacuum Pump), and the solid residue was recrystallized from Hexane to give 0.93g MIPT (N-Isopropyl-N-Methyltryptamine) known Sacrementally as The 3rd Eye of Shiva.

**This is active at 10-25mg** and is used in a Hindu Ritual similar to Christian Communion or Santo Daime Ayahuasca Ceremonies and extremely comparable to the Church of True Inner Light's Ceremonial use of DPT. Some people in America think that Shiva is an evil God because of his role as the Destroyer but, when you are taught that Ganesha is the Creator of obstacles it puts Shiva in a whole new light.

The last chapter of this book will get into the Relationship between Religion and the Law in America but, to quickly explain, the Church of Neuroscience is a Religious Organization in America (which I am a Parishioner of) who use Synthetic Molecules as Religious Sacraments This can be compared to the Native American use of Peyote. The founder of the Church, Dr. Jeremy Kerr, has been to the Louisiana Supreme Court as well as Higher Federal Courts in America, and has won cases in which he argued that it was his religious right to sell Synthetic Molecules for Religious use. In the most recent case the DEA (Drug Enforcement Agency) stopped him and seized at least 6 different Synthetic Molecules, because some of them were related to Molecules like MDMA (Ecstasy). But when he took them to court his Sacraments were returned and he was awarded at least \$10,000. This case can be found online by searching "Jeremy Kerr V DEA".

I only mention this for the Benefit of any Church members or perspective Church members who are not yet aware of Religious Rights in America.

## Here are some items that a Ritual Chemist or aspiring Ritual Chemist should be aware of:

Still: A system used to separate things that have different boiling points, the most common example of its use would be in the making of Perfumes and its commercial use for the creation of Liquor.

Separation Funnel: This is used to separate 2 liquids with different Polarity. For example, if you had Water and Oil in a mixture, you could put it in one of these and let it sit until it separates, then remove the bottom later (water) from the top (oil).

Vacuum: For removing Solvents, a common example of its use is in Marijuana

extractions, where they are used to remove the solvent from solvent Hash.

Atmospheric Pressure Chamber: This is a container that can be used to create Inert Atmospheric (no gases present) for certain reactions, as well as creating a small environment filled with a certain kind of gas at a certain pressure.

Reflux Device: This is a glass device that allows you keep a material at a constant boil for any needed period of time by cooling the material when it is a gas at the top of the device, which allows it to form into a liquid and drip back down to be boiled again

Buret: Used for adding things in drops or in precisely measurable amounts

Magnetic Stirrer & Stir Plate: Used to stir a solution for any needed period of time. Magnetic Stirrers are acid proof.

Pyrex: A Brand that uses a certain glass that can be heated and cooled without cracking. It is also acid proof.

Ice Bath: For keeping a mixture cold during reaction

Hot Plate: For heating a mixture to activate a reaction or making it happen faster. The best ones are rounded for use with flasks

Steam Bath: For applying less direct heat

Coffee Filter: For regular Filtration

Carbon Filter: For heavy duty Filtration

# Chapter 2:

# Sasha's Work

This Chapter is dedicated to Sasha Shulgin and Mason Ryan Wight

2+3=5 is factual and complete, but is it interesting?

In the 1950's the Scientific Community was looking for names that could be given to these remarkable substances. And at first an attempt was made to hide or obscure the Religious and Spiritual nature with names like:

Psychotomimetic, Deliriants, Delusionogenics, Dysleptics, Misperceptinogens, Mysticomimetics, Phanerothymes, Phantasticants, Pharmakons, Psychosomimetics, Psychotaraxics, Psychoticants, Psychotogens, Psychogens, Psychotoxins and Schizogens.

This was at a time when the Medical Community believed they could replicate Psychotic states for research, which was eventually realized not to be possible. But in 1956 Humphry Osmond suggested that they stop pursuing the prefixes Psychoto- or Psycho- and instead use "Psyche". Psychedelic did not stick at first with other names being suggested like:

"Psychephoric" (Mind-Moving) "Psychehormic" (Mind-Rousing) "Psycheplastic" (Mind-Molding) "Psychezymic" (Mind-Fermenting) "Psycherhexic" (Mind-Bursting-forth) "Psychelytic" (Mind-Releasing)

But "Psychedelic" (Mind-Manifesting) has weathered all storms. And more modernly words like Entheogen (God-Created-Within), Entactogen (Touching-Within) or Empathogen (The Discovery of Empathy) have been used. But these words do not describe the experience that happens, they simply describe a Religious Sacrament that allows for these types of experiences.

Psycholytic: Small doses, Multiple sessions & Therapeutic Approach Psychedelic: Religious Conversion, Religious Ceremony & Crisis Confrontation Approach It is probably best place to start the Sasha's work chapter with the Essential Oils. Sasha's work involved inventing entirely new Molecules and Tasting them, which is a process where someone first takes a few Micrograms (1milligram is 1/1000th of a gram, 1microgram is 1/1000th of a Milligram) of a substance and then around 3-4 days later takes a a larger dose and a larger dose until they find out what the activity is and where it starts. In doing this he discovered how different Molecular structures act differently in the body. This is called Structure Activity Relationship (SAR). In doing all of this he realized that some of the most active structures can be found in Nature. Similarly to how DMT is in many common grasses and plants, there are Phenethylamine structures in many common herbs that are used in Cooking and Essential Oil making. All of the ones he listed can be found in most Kitchen Spice racks. And according to Sasha, in principle all of these can be turned into a Religious Sacrament through Ritual Chemistry simply by adding an Ammonia molecule (Amine-izing) them. They can be retrieved from the plants via Fractal Distillation.

### Here are the Structures that Sasha noticed were in the Spice Cabinet:

3,4-Dimethoxy Pattern: Methyleugenol, Eugenol, Chavibetol. (Cloves)

3,5-Dimethoxy Pattern: Mugwort & Sage

3,4-Methylenedioxy Pattern: Isosafrole (Root beer)

The 4-Methoxy Pattern: Methylchavicol or Anethole (Basil leaf)

3-Methoxy-4,5-Methylenedioxy Pattern: Croweacin

2-Methoxy-3,4-Methylenedioxy Pattern: Myristicin & Isomyristicin

3,4,5-Trimethoxy Pattern: Elemicin or Isoelemicin

2,4,5-Trimethoxy Pattern: Asarone & Gamma-Asarone (Calamus)

2,5-Dimethoxy-3,4-Methylenedioxy Pattern: Apiole & Isoapiole (Parsley)

2,3-Dimethoxy-4,5-Methylenedioxy Pattern: Dillapiole & Isodillapiole (Dill)

Tetramethoxy Pattern: 1-Allyl-2,3,4,5-Tetramethoxybenzene

Also, Vanillin from Vanilla is similar to these. There is a possibility of 6 arrangement for the 3 groups:

3,4,5-2,4,5-2,3,4-2,3,5-2,3,6-&2,4,6-

And theoretically any oxygen atom can be replaced with a Sulfur, these are known as Thios. Thio simply means "Sulfur-in-place-of-Oxygen". They also all have Halide forms.

Following is a list of Various possibilities for the placement of new Atoms of a
Phenethylamine or Typtamine ring:
4-AcO
4-HO
4-MeO
2-Me
Alpha
Alpha-
Beta
N-
N,N-
N,N,N-
5-НО
5-MeO
5-MeS
4,5-MDO
5-Br
4-F
3,4-MD
3-MeO
2-EtO

Then there are also Halide types, being the various Flouro, Chloro, Iodo, Bromo and Nitro arrangement And any of these can be made into smells by creating Esters.

Now, to learn your first Religious Ritual for creating Halide types of Somic Compounds

# **Using Religious Rituals to recreate Ocean Bromization:**

This first example is an example of MDA, which is the Amine form of Isosafrole (Root Beer) being Bromized in order to match the Ceremonial structure of a Marine Indole. This Ritual should only be used in the creation of Ceremonial Sacraments. The Marine world has offered us Brominated Indoles and we can Honor the Ocean on land by creating our own Brominated Indoles. An example of a Marine Indole is 5-Br-DMT which is found in Sea Sponges.

1. A solution of 3,4-MDA in Acetic acid was treated with Elemental Bromine

generating the Hydrobromide salt of 2-Bromo-4,5-MDA.

And as was mentioned in the first chapter this reaction can be effected simply by changing the Temperature.

# 2. This second example of a Bromization Ritual is completely separate, it is not a second step.

The reaction of 2,4-DMA with elemental Bromine proceeded directly to the formation of Meta-DOB

And that is how simple Ritual Bromine reactions are. And again, the Temperature can determine everything about the reaction, meaning changing the Temperature can create something completely different. Using HBr Acid would be another way to change the outcome.

# The 10 Classic Ladies:

Sasha left something like a Symbolic Key or Map that others can follow and he called these the 10 Classic Ladies. The 10 Classic Ladies show you alterations on a Molecule and allow you to have a definition for what you have done to a Molecule if you do that same thing to it. Just like how Cacti and Mushrooms do some of the same processes as each other, but they use Phenethylamine and Trpytamine respectively. You can do the things Sasha did in the lab with other Molecules, and knowing the 10 Classic Ladies you can have a definition for what you have done.

At first Sasha was going to replace the 10 Possible Hydrogen Atoms on the Molecule and each of those would be one of the 10 Classic Ladies. But as he started working through it other things came up and he ended up showing how to do various other things, then used one of the Masculine 10 Ladies (Named after the God Ganesha) to show everyone how to go in entirely different directions with these Molecules using Halides and other structures.

# ARIADNE

Historically, Ariadne is the Women who gave the ball of Twine (Called a "Clue" in Greek, which is where the word Clue comes from) to Theseus so that he could leave a trail and find his way out of the Labyrinth

Ariadne is when you put a Methyl in place of a Hydrogen on an Amine chain. What many people do is alter the 4-Position while leaving the Alpha-Position alone.

# BEATRICE

Beatrice was named after Beatrice from Dante's Divine Comedy Beatrice is when you add a Methyl group on the Nitrogen atom

# CHARMIAN

Charmian was Sasha's friend's Schizophrenic wife, as well as Cleopatra's Attendant Charmian is when you replace the Alpha-Hydrogen atom with a Methyl group

# DAPHNE

Daphne escaped Apollo by becoming a Laurel Tree Daphne is when the Beta-Hydrogen atom is replaced with a Methyl group

# El VIRA

Associated with Mozart's 21st El Vira is when you replace the Beta-Hydrogen atom with a Methyl group

# FLORENCE

English Translation of the Italian Firenze 2-Methoxy group becomes 2-Ethoxy group

# GANESHA

Ganesha is a Hindu God, the Creator of Obstacles 3-Hydrogen atom can become a 4-Ethyl group Ganesha Compounds: 2C-G 2C-G-3 2C-G-4 2C-G-5 2C-G-6 G-3 G-4 G-5 G-6

# HECATE (also DOET) Goddess of Magic 4-Methyl group becomes a 4-Ethyl group

2C-E is also a Hecate compound and 2CE-EtO is an example of a "Tweetio" All 2C compounds have 3 Possible Tweetios: 2-EtO 5-EtO 2,5-EtO as well as possible DiEtO & COOH forms. I have also seen BOM and BOHD forms.

IRIS Goddess of the Rainbow 5-Methoxy group becomes a 5-Ethoxy group

JUNO Queen of the Gods 6-Hydrogen becomes a 6-Methyl group

And that is the 10 Classic Ladies. Once you have come to a point where you completely understand those you should be able to start imagining up all kinds of ways to use Ritual Chemistry to create all kinds of compounds. And any of these can be made into smells by turning them in to Esters.

# Halides in Ritual Chemistry:

Halides have been mentioned a few times in this book but only the Bromo forms have been mentioned or shown. So now is time to learn your first Religious Ritual Involving the creation of a Chlorine Halide as well as another example of a Bromine Halide in reverence of the Ocean (some Marine Sponges create 5-Br-x Molecules in the same fashion that mushrooms make 4-HO-x ones). An example of a Ritual involving Nitrogen will also be included. Bromine will be 1, Chlorine will be 2 and Nitrogen will be 3. These rituals should only be done in Ceremony, not for recreational purposes.

 To a well stirred solution of 1.95g of the freebase of 2,5-DMA in 12mL Glacial Acetic Acid there was added 1.8g elemental Bromine dissolved in 4mL Acetic Acid over the course of 5min. The slightly exothermic reaction was allowed to stir for 3h, and then added to about 200mL H<sub>2</sub>O. The cloudy solution was washed with 2x 100mL Et<sub>2</sub>O made basic with Aqueous NaOH and extracted with 3x 100mL CH<sub>2</sub>Cl<sub>2</sub>. Evaporation from the pooled extracts gave about 3mL of a pale amber oil which was dissolved in 250mL Anhydrous Et<sub>2</sub>O and saturated with Anhydrous HCl gas. The

fine was Crystals of DOB (1.7g) were removed by filtration. Active at 1mg

 A Solution of 6.96g of 2,5-DMA Hydrochloride in 250mL H<sub>2</sub>O was made basic with Aqueous NaOH and extracted with 3x 75mL CH<sub>2</sub>Cl<sub>2</sub>. After removal of the solvent from the pooled extracts under vacuum the residual freebase was dissolved in 36g Glacial Acetic Acid and, with good stirring, cooled to 0 degrees Celsius with an external ice bath. There was then added with a Pasteur pipette 3mL of liquid Chlorine. The Generation of HCl was evident, and the reaction was allowed to stir for an additional 3h. The mixture was then poured into 300mL H<sub>2</sub>O and washed with 3x 100mL Et<sub>2</sub>O. The Aqueous phase was made basic with NaOH and extracted with 3x 150mL CH<sub>2</sub>Cl<sub>2</sub>. After removal of the solvents from the pooled extracts, the residue was dissolved in Et<sub>2</sub>O and saturated with Anhydrous HCl gas. There was the formation of a heavy precipitate. The ether supernatent was decanted and the residue was intimately mixed with 200mL of fresh anhydrous Et<sub>2</sub>O. Everything set up as an off white crystalline mass weighing 2.3g. This was dissolved in 12mL of boiling MeOH and diluted with 230mL boiling Et<sub>2</sub>O. The solution was quickly filtered to give a clear, pale amber, mother liquor, which soon started depositing lustrous white crystals. After filtering, Et<sub>2</sub>O washing, and air drying, there was obtained 1.4g of DOC.

Active at 1.5mg

3. A solution of 8.4g 2,5-DMA base in 40mL Acetic Acid was added dropwise over the course of 30min to 43mL of 50% Nitric Acid which was well stirred and cooled with an external ice bath. The resulting solution was quenched with ice water, made basic with NaOH, and extracted with a Benzene-Ether mixture. The residue that remained after removal of the solvent was dissolved in dillute HCl which, upon evaporation of the H<sub>2</sub>O yielded a nearly colorless residue. Recrystallization from an Ethanol/Ether mixture gave, after drying, 10.5g of DON. Active at 3mg

These types of Rituals can be done with various starting materials to create various Sacramental products.

# **Oilahuasca**

In Sasha's work he mentioned that the Essential oils could most likely be converted into Amines using Ammonia from your own Liver. For example, if you have ever taken an Aspirin, Aspirin is a non-Active compound, but once it is processed by the Liver it becomes an active compound. This is also similar to Ayahuasca. The DMT in Ayahuasca is inactive until you add an MAOI to the mixture, at which point it becomes an active drink, but this is not because of your Liver it is because of your MAO enzymes.

"Some people have reported Psychedelic effects from Mixing just Coffee, Almond, Cinnamon, Vanilla and Nutmeg"

This

Dr. Sasha Shulgin: "The major essential oil from that spice is myristicin, and it is the easiest source of MMDA. It has been reported that the passage of this oil through the liver of a rabbit will generate MMDA in that animal." Dr. Sasha Shulgin: "the 1-allyl-2,3,4,5synthetic intermediate

# **OBSERVATIONS:**

Several allylbenzenes have been proven to form up to 3 alkaloid metabolites after ingestion by several animals. They do not form amphetamines in vivo as has been speculated in the past. The alkaloids detected in animal urine are tertiary aminopropiophenones of 3 possible subtypes: dimethylamines, piperidines, and pyrrolidines.

The allylbenzene elemicin has been proven to form all 3 different alkaloid metabolites after ingestion in animals by analyzing urine using gas-liquid chromatography and chemical ionization mass spectrometry. Safrole is also proven to form all three alkaloid metabolites after ingestion.

Myristicin appears to only form piperidines and pyrrolidines. Dimethylamines ofmyristicinhavenotbeendetected.

Allylbenzene, from which all allylbenzenes are derived, forms piperidine and dimethylamine alkaloids.

Propenylbenzene and its derivatives (asarone, anethole, etc.) do not form alkaloid metabolites.

HOWITWORKS-CYPEnzymes (DrugMetabolism, etc)https://www.youtube.com/watch?Induction and Inhibition(Anti-Oxidants, etc)https://www.youtube.com/watch?

Most

important

things:

CYP2C9				Induction
Alcohol		Dehydrogenase		Induction
Aldehyde		Dehydrogenase		Inhibition
Piperidine	and o	or Dimethy	amine	Supplementation
Methyl		from		foods
Exercise or	compounds	that produce	e effects	like exercise
Less	important,	but	still	factors:
SSAO Inhibitio	n (Caffeine,	Phenethylamine,	Phenelalami	ine, Tryptamine)
MAO-A				Induction
MAO-B				Induction
NDMA				Antagonism
Prolactin				Inhibition

New Discoveries: If you mix different things together you can get different effects from different Molecules, it is based on the idea of Pro-Drugs and CYP450 Enzymes (Similar to MAOs which are effected by MAOIs). Some people have reported Psychedelic effects from Mixing just Coffee, Almond, Cinnamon, Vanilla and Nutmeg.

THE PERSON WHO NAMED OILAHUASCA WROTE THIS (In quotes, thequoteendsatthenextallcapsheader)

# https://postimg.org/image/

"The benzene ring has 6 positions. In the graphical layout given below the following color guide is used: position

1 = black (the important allyl side chain, required for conversion to an alkaloid) position

2 = brown (a methoxy group here seems to cause LSD-like mental effects) position

3 = red position

4 = green (must be a methoxy or methylenedioxy group for psychedelic activity) position

5 = blue (a methoxy or methylenedioxy group here seems to enhance visuals) position

6 = purple (a methoxy group here probably adds speedy effects)

Position 1 has the allyl side chain hanging off of it. It's the same for all allylbenzenes. This is the part of the allylbenzene that reacts in the body to form a dimethylamine, piperidine, or pyrrolidine alkaloid, if digested properly. The details of this are discussed elsewhere.

In order to have psychedelic activity, position 4 must be a methoxy group. It can be tied to another methoxy group on position 5, as it is with myristicin and others. Two methoxy groups tied together are called a methylenedioxy group.

Position 4 cannot be a hydroxy group as it is in eugenol, hydroxychavicol, and chavicol. This can only lead to stimulant effects, not psychedelic effects. At the bottom of the chart you can see eugenol, hydroxychavicol, and chavicol. These posses no psychedelic activity, even when properly metabolized. These are the only allylbenzenes in the chart that have a hydroxy group on the 4 position.

Above that we have methyl eugenol, chavibitol, and methyl chavicol. Methyl chavicol and methyl eugenol have psychedelic activity when properly metabolized. The effects of chavibitol are unknown, but are probably like a cross between methyl eugenol and methyl chavicol. The 5 position being a methoxy group seems to improve visual effects.

Above that we have croweacin, apiole, and safrole. Apiole and safrole are psychedelic when metabolized properly. Croweacin is a positional isomer of myristicin. It's activity is not known. It's very likely similar to myristicin, but probably more speedy like apiole. The 6 position being a methoxy group seems to add amphetamine style speedy effects.

Above that we have the ever so popular myristicin, and then dillapiole and the rare sarisan. Both myristicin and dillapiole are psychotic when properly metabolized. The activity of sarisan is unknown. It is a positional isomer of myristicin. It has a methoxy group on the 2 position instead of the 3 position. This probably gives it LSD-like mental effects which are attributed to dillapiole and gamma-asarone rather than myristicin.

Above that we have elemicin, 2,3,4,5-tetramethoxy-

For those of you that are unaware, MDMA is primarily manufactured from thesafrolefoundinsassafrasessentialoil.

Many bioassays of sassafras and even pure safrole show little activity. Usually a slight sedative effect, and very mild MDMA-like effect might be felt if you're lucky. Although a few people report almost full blown MDMA-like effects from sassafras as is, most people get no effects. This points in the direction of human metabolism altering the effects of safrole.

AFOAF once tried sassafras with a CYP1A2 inhibitor:

German chamomile. This experiment produced stimulant effects unlike the effects had from just sassafras alone. There was mild euphoria, and some possible mild visuals effects.

Safrole is primarily inactivated by conversion into 1-hydroxysafrole by CYP2A6. German chamomile primarily inhibits CYP1A2, so AFOAF was using the wrong inhibitor, but it was somewhat effective. Cinnamon bark oil is a potent CYP2A6 inhibitor. This should theoretically prevent CYP2A6 from turning safrole into 1-hydroxysafrole.

My theory is that about 2-5 grams of cinnamon, or 5-10 drops of cinnamon essential oil will contain enough cinnamaldehyde to inhibit CYP2A6 and allow

MDMA-like effects to be experienced from sassafras or sassafras oil. This is only a theory. As of yet AFOAF has not tried this. He will try this very soon. Incidentally, it is the 1-hydroxysafrole which is primarily formed by CYP2A6 which is considered weakly carcinogenic and not safrole itself. So by using cinnamon oil, the weak potential carcinogenicity of safrole should be greatly reduced. For his test he plans on using German chamomile oil at 3 drops along with the cinnamon bark oil at 6 drops. He will use sassafras bark, freshly ground, extracted into milk with lecithin, just like how you make kava. This is the best way to extract the safrole without using a solvent. He will take the sassafras milk and the oils at the same time. Hopefully this produces an MDMA-like effect. We will

Here's a picture of what the CYP2A6 enzyme in humans does to safrole. Once converted to 1-hydroxysafrole by CYP2A6, it becomes much more polar (the XLogP drops from 3 way down to 1.9!), and so it's far more difficult for it to enter the brain, meaning it should be far less psychedelic (assuming that safrole is actually psychedelic before this conversion). For maximum entry into the brain, CYP2A6 should be inhibited to prevent this conversion. It's possible that CYP1A2 might be able to perform this very same conversion (it does so with methyl chavicol and elemicin), SO it too should be inhibited.

On the right you can see MDMA for comparison purposes. See how 1hydroxysafrole is less like MDMA than safrole is? The XLogP3 of safrole is 3, MDMA is 2.2, and 1-hydroxysafrole is 1.9, being the most polar of the three. Safrole should more easily cross the blood brain barrier than MDMA, but once attacked by CYP2A6 enzymes, safrole turns into 1-hydroxysafrole, and that should help prevent it from entering the brain.

# https://postimg.org/image/

Later... Well it was tried a few hours ago. AFOAF used 5 grams of sassafras bark, 1 gram of lecithin, ground to powder, then mixed with 1 cup of steaming hot milk and 2 ml of vegetable oil. This was left to sit for 2 hours and was then filtered. It was super hard to filter. Decanting would be a better idea. He then mixed 6 drops of cinnamon bark oil and 3 drops of German chamomile oil into it. The German chamomile would not mix into it and just floated to the top. He mixed it as good as he could and drank it down. Its been about 3 hours and he feels NICE. There's very obvious euphoria. Sense of touch is enhanced. He feels good. There's no

sedation felt at all. It's mildly psychedelic.

This seemed to work. But he doesn't know what MDMA really feels like so he can't compare it to MDMA. It does feel like a phenethylamine though. It's very different from taking sassafras on its own.

This is a light dose. I think 10-20 grams of bark would be much better.

I would love to hear what others more familiar with MDMA think about this combination. It seems to have worked to produce an MDMA-like effect."

# PROCEDURE-

I found this page that gives dosages, for activators at least http://herbpedia.wikidot.com/

Procedure,		in	pla	in	English:
Pepper wou Anise	ld be made ir Oil,	nto a tea. Sol B9	ids filtered ou or	t. Then you woul Valerian	ld get some Root
(of		Chi	nese		Origin)

So that is your Pepperidine, and you activators. Now you need your Enzyme Inhibitors. You can add L-Lysine, but it is not necessary.

Vanilla and Cinnamon work, pick one or both. You also need the Aldehyde structure from one of these. Next. German Chamomile, Cayenne Pepper Capsules or

Tangerine Skin extract/capsules Then Almond extract, Anise Oil (if you already<br/>had it), Cinnamon, Lemon peel oil, Lime peel oil, or a cigarette or nicotine gum if<br/>you can't find anything else.

Then CBD, Echinacea Purea, Pomegranate, Pummelo, or Calamus Oil.

Then	Clove	oil,	Catechin,	Dill	seed	Oil	or	Goldenseal.
Then	Kı	udzu	or	Gly	vcerin		or	Caffeine

Not all of these things are neccisarry, but if you do 1 thing in each list, you should get very strong effects from whatever you take.

The best thing to take is Sweet Basil Extract, in it's pure form, it is known as Methyl Chavicol.

Take all that other stuff like 30 minutes to an hour before the Basil Extract, and redose the B9, Anise or Valerian root to keep the effects going without taking more.

# SCIENCE

Graviola	l-	5-HT1a			5-HT1a Agonist			onist
Black	Cohosh-	5-HT1A,	5-HT1D	&	5-HT7	Binding	C.	
Foetida		L		5-HT1	А	Age	onist	
Yokukar	isan-		5-HT1A	L		Age	onist	

DMT hits all of these, and can be found in tons of plants.

Black Cohosh- 5-HT1D maybe Rhodiola rosea, Albizia lebbeck & Albizia julibrissin.

5-HT1 Receptor Agonists: Turmeric, Ginger, Ginko Bilboa, Lemon Essential Oil, Rauwolfia, Valerian, Yohimbe

Elmicin	&	Му	risticin	(in	Nutmeg	)- 5-HT2A	Agonist
Estragole		(in	Sweet		Basil)-	5-HT2A	Agonist
Safrole		(in	Sas	safras	5)-	5-HT2A	Agonist

Cinnamon Bark- CYP2A6 & CYP2E1 Inhibitor (It will deplete your liver's Glutithione) Taken 1 Hour before Allybenzene, Clove Leaf- CYP2C9, CYP3A4, CYP1A1 & CYP1B1 Inhibitor

German Chamomile- CYP1A2 Inhibitor (Caffeine may also do this) GoldenSseal & Echinacea purpurea very effectively do the same thing.

Black seed oil, 50% EGCG, Valerian root oil, Pomegranate, Vitamin B9, 40% Ellagic extract, Rooibos 20% Gallic acid extract, Rutin, B3 & Kudzu

## AllylBenzenes

Anethole, Apiol, Asarone, Carpacin, Chavibetol, Chavicol, Dillapiole, Eugenol, Isoeugenol, Isosafrole, Methyl Eugenol, Methyl Isoeugenol.

Since Cinnamon is a Phenylpropanoid, and Phenylpropanoids are made from Phenelalamine, and people who took Phenelalamine claim to get better results. I decided to post a list of Phenylpropanoids also:

Caffeyl Alcohol, Cinnamaldehyde, Cinnamyl alcohol, alpha-Cyno-4hydroxycinnamic acid, Ethyl Cinnamate, Lignin, 2,4-

Star Anise Extract or B9 for CYP2C9 Induction

NMDA Receptor Plants: Uncaria Rhynchophyllia Psychotria Colorata Huperzia Serrata

Hungarian Parsley Seed is a better source of Myristicin than Nutmeg. The effects of it when activated properly are said to be like Mescaline and MDMA together. The P450 Enzymes CYP1A2 & CYP3A4 are what break this down and need to be inhibited. CYP2D6 could also play a big role.

Elmicin is something you either need Chromotography type knowledge to get, or you have to buy it in small quantities. When activated properly it is like Mescaline, when activated wrong it is like Melatonin (sleepy). CYP1A1, CYP1B1, CYP1A2, CYP2A6, CYP2C9, CYP2A6, CYP2C9 & CYP2E1 are what are needed to be inhibited to activate this. CYP2D6 could also play an important role.

Safrole is like MDMA when activated properly and like Melatonin when not. CYP2A6, CYP2C9, and CYP2E1 are most important for this. CYP2D6 could also be important. Methyl Chavicol when activated properly is like a light speedy LSD, when activated wrong it is said to be almost like Marijuana. CYP1A2 and CYP2A6 inhibit it, and CYP2D6 could also be important.

If the CYP2D6 Enzyme is inhibited with all the others, these are possibly visually hallucinogenic Oilahuascas. And the Methyl Chavicol doesn't build a tolerance (the others do) it actually gets stronger for you every time you use it, or you can use less.

All inhibitors of oxidative 17bHSD2 will prevent activation of allylbenzenes. This enzyme must be induced, not inhibited. It's the single most important enzyme to induce. If oxidative 17bHSD2 is not functioning, allylbenzenes cannot produce psychedelic activity. Naringenin also potently inhibits 17bHSD2. Grapefruit contains large amounts of naringenin, and also prevents the psychedelic action of allylbenzenes if taken before allylbenzenes. Inhibition lasts approximately 4-8 hours.

# OILAHUASCA DIET

Here's a list of all known 17bHSD2 inhibitors that should be avoided 4-8 hours prior to using allylbenzenes:

•Quercetin and all food or supplements containing large amounts of it.

•Apples (0.0263% quercetin)[6]

•Cabbage (0.01% quercetin)[6]

•Cranberry (0.025% quercetin)[6]

•Evening-Primrose (20% quercetin)[6]

•Galangin and all food or supplements containing large amounts of it.

•Garlic (0.02% quercetin)[6]

•Grapefruit (contains naringenin, kaempferol, galangin, and quercetin)

•Himalayan Mayapple (1.2% quercetin)[6]

•Kaempferide and all food or supplements containing large amounts of it.

•kaempferol and all foods that contain large amounts it.

•Mayapple (5% quercetin)[6]

•Naringenin and all food or supplements containing large amounts of it.

•Neem (0.1% Quercetin)[6]

•Oats (0.031% Quercetin)[6]

•Onions (4.81% quercetin).[6]

•Orange (4.58% naringenin)[6]

•Tea (10-25 mg/L quercetin, 6.3-17 mg/L kaempferol [7]).[6]

•Tomato (contains kaempferol, naringenin)

With Oilahuasca. Most people know the word "Anti-Oxidants", they have seen the word on Drinks, and Health Foods, and everything; but no one really knows what an Anti-Oxidant is. Anti-Oxidants are similar to MAOIs (Monoamine oxidase inhibitors). Most people know MAOIs as Anti-Depressants, but that is not what they were discovered as. MAOIs were discovered when American Scientists went down to Brazil, and met some people who lived in the Amazon Rain forest who used Ayhuasca. Ayahuasca is a Tea, made from a Bush called Chacruna which contains DMT, and a Vine called Ayahusca or "The Spirit Vine". DMT is inactive Orally, so when Western Scientists found this brew, they assume the Vine was the Main Active Ingredient. But they found that the Vine contained MAOIs, and later discovered that consuming MOAIs and DMT together actually alters your Digestive Chemistry, and stops your Body from breaking down DMT, allowing it to reach the Brain.

This is similar to the action of Anti-Oxidants,they do not do the exact same thing, but they alter your Digestive Chemistry. And this can be used in conjunction with other Molecules in order to have them reach the Brain. Anti-Oxidants are the mental Foundation of Oilahuasca that can allow people to understand that the Food they eat is similar to Reagents in Chemistry.

Now that Anti-Oxidants have been explained, it will be easier for everyone to understand CYP450 Enzymes. Just like MAOIs, just like Anti-Oxidants, CYP450 Enzymes are part of your digestive system. This is the primary concept behind Oilahuasca. Anti-Oxidants are part of it, and MAOIs can be used, but CYP450 Enzymes are the target in an Oilahuasca Brew.

An easy example of CYP450 Enzymes in the real world is that Cinnamon and Vanilla flavored Alcohol actually get you more drunk, this is because your Glutathione is depleted, which causes your body to not process it through your Liver as quickly, and you will be drunk faster and longer.

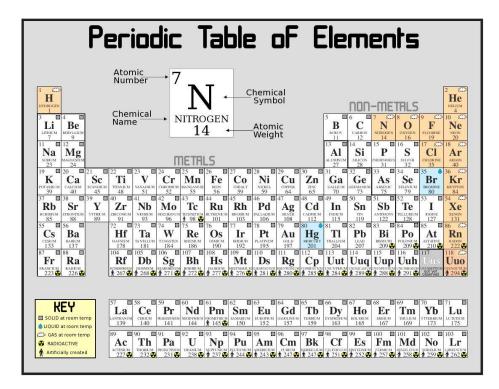
Another example, there are Liver Medications that you have to take extremely high doses of, because the Human Liver will destroy most of it, so you have to take something like 8 Grams, which is a Horse Pill. Most pills are .25mg to 300mg, so 8 Grams is more than 8x a normal Pill, and only about 10% of that is Bio-Available, meaning that 90% will break down into different inactive things. But there is a warning on the Pill bottle, and what it says is "Do Not Drink Grapefruit Juice". This is because Grapefruit Juice will Inhibit certain CYP450 Enzymes, and your Stomach will use 100% of the 8 Grams, and you could

There are various Herbs, that most people have in their Homes, some you use every day,thatalteryourCYP450Enzymes.

All of this may seem confusing still to some people, MAOIs (Monoamine oxidase inhibitors), Anti-Oxidants, and CYP450 Enzymes. But once you understand that your Stomach is full of Hydrochloric Acid, and that Hydrogen is highly reactive with Oxygen, all of the Oxi stuff starts making sense.

When a Molecule goes into your stomach, the parts that have Oxygen or Hydroxides onthem, react with the Hydrogen in your stomach, to create H20, and remove that HydrogenAtom or Hydroxide from that Molecule. And you can block certain actions that yourStomachAcidswouldotherwisetake.

<u>Chapter 3:</u> <u>The Periodic Table</u>



Fertilizers are not as difficult to understand as they seem. It seems like when you buy a bottle of Fertilizer there must be some hardcore science going in to making molecules designed to boost plant growth, but no, Miracle Grow, Fox Farm and other Fertilizer brands do not add plant hormones or stimulants to their basic mixtures, the main ingredient of a Fertilizer is usually some form of Nitrogen and usually in some Ammonia form, then it will be mixed with things like Phosphates and Chelated Copper and Zinc, etc. Most Fertilizers are not anything special.

Anyone growing plants for Religious reasons should make their own Fertilizers, for two reasons, firstly most Fertilizers are made for the average person who wants big tomatoes and big flowers, and the mixtures that are made fit pretty much any plant but, that does not mean that they are perfect for every plant. If you make your own Fertilizers you can figure out exactly what your plants like and give it to them. Then you can also add Sacraments made using Ritual Chemistry to create new compounds within the plant.

# Here are the main ingredients a Fertilizer should have:

Nitrogen in some form that is available to plants Water Soluble Potash Phosphate in some form that is available to plants Magnesium Silicate Boron Calcium Copper (Chelated) Iron (Chelated) Manganese (Chelated) Zinc (Chelated)

There are also plant Hormones that can be added, such as Tryptophol, and many of the needed Elements can be found mixed together in various forms. For example Calcium Nitrate contains both Calcium and Nitrogen. Fertilizer form farms in just Ammonia gas, which is injected into the ground and, Ammonia is simply Nitrogen gas + Hydrogen gas.

Many people do not realize this, but your Calendar is a God, or a Series of Gods; which have been given different names in different Religions. This is known as the Ogdoad.

A "Month" is actually just 1 Moon Cycle, so a "Moonth". The word "Saturday" is actually "Saturn-Day", "Sunday" is "Sun-Day", "Monday" is "Moon-Day", "Thursday" is "Thors-Day" (also, Jupiter), "Friday" is "Fria-Day". The 7 Days of the Week are based on the visible Planets, this is the foundation of the Ogdoad. These days and Planets were then associated with Gemstones and Minerals and Metals, as well as Plants and Animals. This is called Mnemonics.

The Ancient Egyptians had a 365 Day Calendar, they just did not have Leap Year. The way they measured the Year was by creating a Mud Wall to act as a False Horizon. And every day as the Sun came up, they would mark the spot where it came up; and at the end of the Year it would be back in the same spot, and there were 365 Marks. They knew the Planetary Cycles of other planets, they called Planets "Heavenly Bodies", because they were like Moving Stars. This is also where the Constellations come from. Aquarius and Taurus and Pisces and Libra

and Leo and Scorpio, etc. Aren't random, those are the Stars the Sun passes through throughout the Year as you watch the Sky from Earth, and those give us the names of our months. A lot of people see statues of Zeus now a days and think that Ancient people thought Zeus threw lightning bolts at them, but before people knew about Gravity and the Atmosphere, they thought the Planets controlled the weather and it was specifically thought that Jupiter (Zeus) controlled the Lightning. Many plants used to be thought to have a cycle based on the Planets and not the sun, and in the modern "Old Farmer's Almanac" every year they publish the planetary crop planting cycle. And the history of Machines and Gears actually comes from the measuring of the sky on boats, and people making mechanical navigation devices. So Machines come from this also.

All of this may seem like some Ancient Religion, but it is not. It has been preserved within Hinduism. India is the only Country in which the Population has never been replaced by Invaders, and they have used the same Temples and had the same Gods for at least 4,500 years. The Sun is called "Surya", the Moon and Liquid are called "Soma", Fire is called "Agni". And these Gods all have many names, and take many forms; the metaphor used is the Facets of a Diamond, and this is where Diamond Crafting comes from and why Hindu Gods have so many faces. 90% of the World's Diamonds are crafted in one place in India.

And it gets deeper than this. Egyptians were using Geometry to do Calculus, Math and Language used to be the same thing until Roman Numerals were invented. The Hebrew and Greek Alphabet are also their Numeric System. Language is something that was created, and specific Languages were created by the Phoenicians for specific purposes; and they also created the Royal Purple, Blue and Crimson that has become popular in Middle Eastern and European Culture.

# <u>Chapter 4:</u> <u>Religious Rights</u>

This book is not just meant for Americans as Religion is International but, this chapter should be informational to anyone who lives in or is coming to America. I have met many people who do not know what the Church of Neuroscience is or the Universal Life Church or anything about Hinduism and, the idea that Religious Sacraments are not something that can be legislated by Statutory Law may seem confusing to some people at first. There are 3 main types of law in the United States: Constitutional Law, Statutory Law & Case Law

One of the most important indicia of 'a religion' is that the particular collection of ideas and/or practices involves belief in the supernatural, that is to say, belief that reality extends beyond that which is capable of perception by the senses. If that be absent, it is unlikely that one has 'a religion'.

(1) Ultimate Ideas: Fundamental Questions about life, purpose and death

(2) Metaphysical Beliefs: Beliefs addressing a reality that transcends the physical and immediate apparent world(3) Moral and Ethical System: Proscription of a particular manner of acting or a way of life that is moral or ethical(4) Comprehensive Beliefs: An overarching array of beliefs that coalesce to provide the believer with answers to many of the problems and concerns that confront humans

(5) Accouterments of Religion: The presence of various external signs of Religion

Churches may even be a party to CONCORDAT see Ponce v. Roman Catholic Church 210 U.S. 296 (1908); Respublica v. De Longchamps, 1 U.S. 111 (1784); Serbian Orthodox Diocese v. Milivojevich, 426 U.S. 696 (1976); Presbyterian Church v. Hull Church, 393 U.S. 440 (1969), and allows American's to practice not only one Religion, but any Religion, free from persecution. Not only is there an ANTINOMY between the RELIGIOUS FEEDOM RESTORATION ACT / RELIGIOUS LAND USE AND INSTITUATIONALIZED PERSONS ACT and the CONTROLLED SUBSTANCES ACT, there is a CONFLICTUS LEGEM between the Plaintiff's Church and the Federal State arising from the ANTINOMY, which can be resolved by the FREE EXERCISE CLAUSE. RELIGIOUS ACCESSION also needs to be considered in the progress of History, Technology and Knowledge. "The term "religious exercise" includes any exercise of religion, whether or not compelled by, or central to, a system of religious belief", see 42 U.S. Code § 2000cc-5 (7) (a). "the general characteristics of Schedule I substances cannot carry the day", see Gonzales v. O Centro Espírita Beneficente União do Vegetal 546 U.S. 418 (2006); Church of Holy Light of the Queen V. Eric Holder, Jr., No. 13-35058 (9th Cir. 2014). "Congress must first enact a law criminalizing an activity, attach a penalty, and give the Federal courts Jurisdiction", see Hudson v. United States 522 U.S. 93 (1997). "Congress shall make no laws prohibiting the Free Exercise of Religion", see FREE EXERCISE CLAUSE, I AMENDMENT. "If a Government confronts an individual with a choice that pressures the individual to forgo a Religious practice, whether by imposing a penalty or withholding a benefit, then the Government has burdened the individuals free Religious Exercise.", see Sherbert v. Verner 374 U.S. 398 (1963). "Even neutral laws can be used unconstitutionally", see Yick Wo v. Hopkins 118 U.S. 356 (1886); 42 U.S. Code § 2000bb (a) (2). "failing to accommodate petitioners' exercise of their "nonmainstream" religions in a variety of ways", see Cutter v. Wilkinson, 544 U.S. 709 (2005). "conduct business in accordance with their religious beliefs", see Burwell v. Hobby Lobby Stores, Inc. 573 U.S. \_ (2014).

Sincere Religious Belief; and All Religions deserve exemptions, see Wisconsin v. Yoder U.S. 205 (1972)

"Within that phrase would come all sincere religious beliefs which are based upon a power or being, or upon a faith to which all else is subordinate or upon which all else is ultimately dependent. The test might be stated in these words: a sincere and meaningful belief which occupies in the life of its possessor a place parallel to that filled by the God of those admittedly qualifying for the exemption comes within the statutory definition. This construction avoids imputing to Congress an intent to classify different religious beliefs, exempting some and excluding others, and is in accord with the well established congressional policy of equal treatment for those whose opposition to service is grounded in their religious tenets."

The Importance of Religious Exemption & Indication via legislation that "Intoxicating Liquors" includes more than just Malt or Vinous based Liquors.

# (via The Volstead Act)

# *"TITLE I.*

#### TO PROVIDE FOR THE ENFORCEMENT OF WAR PROHIBITION.

The term "War Prohibition Act" used in this Act shall mean the provisions of any Act or Acts prohibiting the sale and manufacture of intoxicating liquors until the conclusion of the present war and thereafter until the termination of demobilization, the date of which shall be determined and proclaimed by the President of the United States. The words "beer, wine, or other intoxicating malt or vinous liquors" in the War Prohibition Act shall be hereafter construed to mean any such beverages which contain one-half of 1 per centum or more of alcoholic beverages by volume.

#### TITLE II.

#### PROHIBITION OF INTOXICATING BEVERAGES.

#### SEC. 3.

No person shall on or after the date when the eighteenth amendment to the Constitution of the United States goes into effect, manufacture, sell, barter, transport, import, export, deliver, furnish or possess any intoxicating liquor except as authorized in this Act, and all the provisions of this shall be liberally construed to the end that---the use of intoxicating liquor as a beverage may be prevented.

Liquor for nonbeverage purposes and wine for sacramental purposes may be manufactured, purchased. sold, bartered, transported, imported, exported, delivered furnished and possessed, but only as herein provided, and the commissioner may, upon application, issue permits therefor. Provided, That nothing in this Act shall prohibit the purchase and sale of warehouse receipts covering distilled spirits on deposit in Government bonded warehouses, and no special tax liability shall attach to the business of purchasing and selling such warehouse receipts.

#### •••

Nothing in this title shall be held to apply to the manufacture, sale, transportation, importation, possession, or distribution of wine for sacramental purposes, or like religious rites, except section 6 (save as the same requires a permit to purchase) and section 10 hereof, and the provisions of this Act prescribing penalties for the violation of either of said sections. No person to whom a permit may be issued to manufacture, transport, import, or sell wines for sacramental purposes or like religious rites shall sell, barter, exchange, or furnish any such to any person not a rabbi, minister of the gospel, priest, or an officer duly authorized for the purpose by any church or congregation, nor to any such except upon an application duly subscribed by him, which application, authenticated as regulations may prescribe, shall be filed and preserved by the seller. The head of any conference or diocese or other ecclesiastical jurisdiction may designate any rabbi, minister, or priest to supervise the manufacture of wine to be used for the purposes and rites in this section mentioned, and the person so designated may, in the

discretion of the commissioner, be granted a permit to supervise such manufacture."

## Pierce v. Society of Sisters 268 U.S. 510 (1925)

"The injury to appellees was present and very real, not a mere possibility in the remote future. If no relief had been possible prior to the effective date of the Act, the injury would have become irreparable. Prevention of impending injury by unlawful action is a well recognized function of courts of equity."

i. To get the Court quickly up to date on Case Law, I cite Olsen V DEA 878 F.2d 1458 279 U.S.App.D.C. 1, 58 USLW 2023 as well as Gonzales v. O Centro Espírita Beneficente União do Vegetal, 546 U.S. 418 (2006); Marbury v. Madison, 5 U.S. 137 (1803)

ii. Article XVIII, Amendment 64, Section 2 of the Colorado State Constitution, states in the explanation of Definitions "Unless the Context otherwise Requires" in explanation of all definitions, yet the Marijuana Enforcement Agency claims that they only exist to review Applications for Recreational and Medical Marijuana, not "Unless the Context otherwise Requires", see USC Title 42 Chapters 21B and 21C. Amendment 64 can be found in Exhibit S.

iii. Article XVIII, Amendment 64, Section 1 of the Colorado State Constitution, states in the explanation of the law itself, that "Marijuana shall be taxed like Alcohol". The Colorado State Alcohol Code, Article 47, Title 12 CRS, Part I General Provisions, 12-14-106, Exemptions, Section 1, states "The provisions of this Article shall not apply to the sale or Distribution of Sacramental wines sold and used for Religious Purposes", see Walz v. Tax Comm'n of City of New York 397 U.S. 664 (1970). Colorado Alcohol Code can be found in Exhibit S.

iv. For Guidance in this case, I ask the Court to review the DEA RFRA Exemption Process.

**DEA Processing Guidelines** 

**RFRA** Exemption Guidelines

https://www.deadiversion.

D. Processing Timeframes

It is important to act expeditiously on applications for Schedule I research. The timeframes for DEA's and FDA's processing of Schedule I research applications are specified in the regulations. DEA forwards complete Schedule I research protocols to the FDA within seven days of receipt; FDA notifies DEA of its determination regarding the merits of the protocol within 30 days; and DEA issues a certificate within 10 days of receiving the FDA's notice. 21 C.F.R. 1301.32(c). It should be noted that although many clinical researchers may be subject to a standardized protocol, thereby streamlining the process, some researchers must also meet institutional and State requirements prior to approval. DEA works closely with researchers to assist with the expeditious completion of their protocol submission and registration application.

v. The 1st amendment was incorporated into the States, and is basically a "person" for legal purposes. So the 1st amendment is a separate plaintiff from myself Everson v. Board of Education, 330 U.S. 1 (1947)

vi. The DEA is inhibiting Liberty; "The fundamental theory of liberty upon which all governments of this Union rest excludes any general power of the State to standardize its children by forcing them to accept instruction from public teachers only." Pierce v. Society of Sisters, 268 U.S. 510 (1925)

vii. I would like to point out that the Law itself actually does provide a route for keeping the Government and Religion unentangled, the DEA just has to follow their own rules. What they are SUPPOSED to be doing right now

is not judging if our Religion Conflicts with their Goals, they are simply supposed to be determining if our Religion is (1) Sincere (2) a Religious Belief (3) and is Burdened by the Controlled Substances Act. And if those 3 Conditions are met, they are supposed to grant Exemption.

viii. From there, Petitions can be submitted to solve the Entanglement Problem, as per #6 in the DEA RFRA Guidelines

6. Applicability of DEA Regulations.

A Petitioner whose petition for Religious Exemption from the Controlled Substances Act is granted remains bound by all applicable laws and Controlled Substances Act regulations governing registration, labeling and packaging, quotas, recordkeeping and reporting, security and storage, and periodic inspections, among other things. See 21 C.F.R. Sections 1300-1316. A Petitioner who seeks exemption from applicable CSA regulations (as opposed to the CSA itself) may petition under C.F.R. Section 1307.03. Such petition must separately address each regulation from which the petitioner seeks exemption and provide a statement of the reasons for each exemption sought. ix. We are growing "Low THC" Marijuana, for THCv content, not for THC content. And I am breeding strains for their THCv Content. Meaning that we are growing "Hemp" and we are making "Industrial Hemp", with High THCv and Low or No THC. (2) Industrial hemp

The term "industrial hemp" means the plant Cannabis sativa L. and any part of such plant, whether growing or not, with a delta-9 tetrahydrocannabinol concentration of not more than 0.3 percent on a dry weight basis

x. 'it is a familiar rule, that a thing may be within the letter of the statute and yet not within the statute, because not within its spirit, nor within the intention of its makers.' Church of the Holy Trinity v. United States, 143 U.S. 457 (1892)

xi. "The global need to prevent chemical warfare does not require the Federal Government to reach into the kitchen cupboard, or to treat a local assault with a chemical irritant as the deployment of a chemical weapon." Bond v. United States, 572 U.S. \_ (2014)

xii. "We do not want the government deciding what is political truth — for fear that the government might persecute those who criticize it. Instead, in a democracy, the voters should decide." Susan B. Anthony List v. Driehaus, 573 U.S. \_ (2014)

xii. Lemon v. Kurtzman, 403 U.S. 602 (1971)

a) The statute must have a secular legislative purpose. (Also known as the Purpose Prong)b) The principal or primary effect of the statute must not advance nor inhibit religion. (Also known as the Effect Prong)

c) The statute must not result in an "excessive government entanglement" with religion. (Also known as the Entanglement Prong)

Acts of Congress: USC Title 42 Chapter 21B USC Title 42 Chapter 21C

"The Congress finds that laws 'Neutral' towards religion may burden Religious exercise as surely as laws intended to interfere with Religious exercise." "Religious Exercise includes any Exercise of Religion, whether or not compelled by, or central to, a system of Religious Belief"

# Hudson V United States:

"Congress must first enact a law criminalizing an activity, attach a penalty, and give the Federal courts Jurisdiction in order to render a conviction."

Free Exercise Clause:

"Congress shall make no law prohibiting the Free Exercise of Religion"

# The Sherbert Test (Sherbert V Verner):

"If a Government confronts and individual with a choice that pressures the individual to forgo a Religious practice, whether by imposing a penalty or withholding a benefit, then the Government has burdened the individuals free Religious Exercise."

Yick Wo V Hopkins

"Even Neutral laws can be used Unconstitutionally"

# Cutter V Wilkinson

"Non-Mainstream Religions are Religions"

"officials (respondents here), in violation of RLUIPA, have failed to accommodate their religious exercise "in a variety of different ways, including retaliating and discriminating against them for exercising their nontraditional faiths, denying them access to religious literature, denying them the same opportunities for group worship that are granted to adherents of mainstream religions, forbidding them to adhere to the dress and appearance mandates of their religions, withholding religious ceremonial items..."

# Everson V The Board of Education

"The effects on all Religions must be considered when making a ruling on a single Religion."

For more information of Religious Freedom, see:

Jeremy Kerr V DEA Santo Daime V United States Burwell V Hobby Lobby Gonzales V O Centro Pierce V Society of Sisters Colorado V Peyote Way Church of God Church of the Holy Trinity V United States The Religious Freedom Restoration Act

# **Religious Free Speech:**

"To preserve the Freedom of the Human mind... and Freedom of the press, every spirit should be ready to devote itself to Martyrdom; for as long as we may think as we will and speak and we think, the condition of man will proceed in improvement." -Thomas Jefferson

<u>The Free Speech Clause:</u> "Congress shall make no Law prohibiting the Freedom of Speech"

<u>The Free Press Clause:</u> "Congress shall make no Law prohibiting the Freedom of the Press"

Near V Minnesota Saia V New York Miami Herald Publishing Co. V Tornillo Adamson V california Gitlow V New York Schneider V NewJersy Bose Corp. V Consumers Union of United States Snyder V Phelps R.A.V. V City of St. Paul Agency for International Development V Alliance for Open Society International Presbyterian V Hull

The Native American Church represents the Oldest Religious movement in America. It is dedicated to preserving the traditions of the Native American people's. The Churches vary from place to place, where some involve a lot of dancing or other traditional ceremonies but almost all of them involve the use of Peyote in their Religious ceremonies. The Native American Church is also a good example of Religion and Law in the United States. America has always wanted to protect the Ceremonial use of Peyote

for the Native American people and this is usually upheld but a court case (Employment Division V Smith) decided that an employer had the Contractual Right to deny employment to someone on the basis of Mescaline in that person's Urine.

Congress Recognized this infringement on Religious Freedom and put forward the Religious Freedom Restoration Act. The Act reads:

# (A) Findings:

The Congress Finds that-(1)The framers of the Constitution, recognizing free exercise of religion as an unalienable right, secured its protection in the first Amendment to the *Constitution* Laws "Neutral" towards religion may burden (2)religious exercise as surely as laws intended to interfere with religious exercise. (3) Governments should not substantially burden religious exercise without compelling justification; in Employment Division V Smith the Supreme Court virtually (4)eliminated the requirement that the Government justify burdens on religious exercise impose by laws neutral towards religion; and

(5) the compelling interest test as set forth in prior Federal court rulings is a workable test for striking balances between religious Liberty and competing Government interests.

# (B) Purpose:

The Purposes of this Chapter are-

(1) to restore the compelling interest test as set forth in Sherbert V Verner and Wisconsin V Yoder and to guarantee its application in all cases where Free Exercise to Religion is

	substantially burdened; and
(2)	to provide a claim or defense to a person
	whose religious exercise is substantially burdened by
	Government

# In another Section of the same Chapter it says:

## (A) In General

Government shall not substantially burden a person's exercise of Religion even if the burden results from a rule of general applicability, except as provided in subsection (b) of this section.

# (B)Exception

Government may substantially burden a person's exercise of religion only if it demonstrates that application of the burden to the person-

- (1) is in furtherance of a compelling Governmental interest; and
- (2) *is the least restrictive means of furthering that compelling Government interest.*

So, to translate that we can look at court cases where it has been used.

First, Sherbert V Verner which was mentioned as an example of how the courts should test to see if Government is burdening religion.

# Sherbert V Verner:

"If a Government confronts and individual with a choice that pressures the individual to forego a religious practice, whether by imposing a penalty or withholding a benefit, then the government has burdened the individuals free exercise of Religion."

Then Burwell V Hobby Lobby which was a Landmark case in 2014 <u>Burwell V Hobby Lobby</u> "The ability to conduct business in according with Religious beliefs"

Burwell V Hobby Lobby involved an employee who was denied coverage for Contraceptives because of the companies belief that a baby has a soul upon conception. And in denying this to their employee they were rejecting an Act of Congress (The Affordable Care Act). But the Religious Freedom Restoration Act was applied and it was decided that Private individuals and Privately held companies have the ability to conduct business in accordance with religious beliefs, regardless of laws imposed by Acts of Congress,

# Gonzales V O Centro

Secured the possession and importation of Ayahuasca (which contains DMT, a Schedule I substance) into America through the mail from South America.

In this case a Church from Brazil started a branch in America, then ordered 30 Gallons of Ayahuasca in order to preform religious ceremonies in the states. All 30 Gallons were

seized by customs on the basis that they contained a Schedule I Substance. So the Church sued for the return of the tea and to secure future importations from being seized and when the Religious Freedom Restoration Act was applied the court ruled in favor of the Church.

The Religious Freedom Restoration Act has made things much better for Religion in America but, using the Free Exercise Clause the Church of Santo Daime was able to secure the Possession of Ayahuasca (though not the importation of it) a decade or two earlier. And now that these 2 cases exist in the Case Law the Religious Freedom Restoration Act no longer needs to be applied to cases like this, the court can just be made aware of these 2 rulings where possession and importation have been secured. Another example of the Free Exercise Clause in action is the Peyote Way Church of God V Colorado. This was a case where a group of Mormons started a new Church where they use Peyote as a Sacrament. They were not Native American but considered it part of their Religion. The court ruled in their favor and The Peyote Way Church of God has spread to many places across America.

And this brings us to a very important case in American History. This case has acted just like the Religious Freedom Restoration Act in various situations. In many cases the non-Religious party will try to make the court feel as if they have no option but to follow the Statutory Law based on something like an Act of Congress but this case can show a court that they have the ability to openly interpret Statutes.

# The Church of the Holy Trinity V The United States:

"A Familiar rule, that a thing may be within the letter of the statute and yet not within the statute, because not within its spirit, nor the intention of its makers."

The Holy Trinity case was brought before the court in a Political Climate that was very similar to the Mexican-American border situation in 2015. People come to America looking for jobs but some Americans don't like that, so in this time period Congress had passed an Act making it a crime for anyone to contract work outside of America. The Church of the Holy Trinity Contracted a Minister from another nation and ended up in court and the court ended up saying that Laws should not infringe on Religion.

# Presbyterian V Hull

"A Court shall not rule on Doctrine"

Presbyterian V Hull was a similar case that shows in any case the importance of Government not making rulings about Religious Doctrine. A Church decided to start letting Women become Ministers and within the Christian tradition Women are not

supposed to be Ministers (this is much different than Hinduism) and because of this there was a split in the Church. They went to court because of a property dispute and it was decided that a court should not entangle itself with religion by making a ruling on if the new branch was a Church. They were both Churches and the court decided it should treat them both like Churches.

And many people in America think that Christians have rights but that other Religions do not, this has also been decided in the Supreme Court. The 2 biggest cases about this were Cutter V Wilkinson and Everson V Board of Education.

# Cutter V Wilkinson: "Non-Mainstream Religions are Religions"

<u>Everson V Board of Education:</u> "All Religions must be considered when making a ruling on a single Religion"

## Church of Lukumi Babalu Aye V City of Hialeah:

"The City does not argue that Santeria is not a 'Religion' within the meaning of the First Amendment. Nor could it."

"The Free Exercise Clause of the First Amendment, which has been applied to the States through the Fourteenth Amendment, see Cantwell v. Connecticut, <u>310 U. S. 296</u>, 303 (1940), provides that "Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof .... " (Emphasis added.) The city does not argue that Santeria is not a "religion" within the meaning of the First Amendment. Nor could it. Although the practice of animal sacrifice may seem abhorrent to some, "religious beliefs need not be acceptable, logical, consistent, or comprehensible to others in order to merit First Amendment protection." Thomas v. Review Bd. of Indiana Employment Security Div., <u>450 U. S. 707</u>, 714 (1981). Given the historical association between animal sacrifice and religious worship, see supra, at 524-525, petitioners' assertion that animal sacrifice is an integral part of their religion "cannot be deemed bizarre or incredible." Frazee v. Illinois Dept. of Employment Security, <u>489 U. S. 829</u>, 834, n. 2 (1989)."

This was a case in which a Santeria church was moving to a Florida town but this bothered people in the community because Santeria involves Animal Sacrifice. So the Legislators in town decided to start making laws that forbade animal sacrifice. But the Establishment Clause says that No Laws shall be made to prohibit religion. So, for example, if a member of the Church of Neuroscience were to announce that they were going to start a Temple, it would be illegal for any town to start making laws that forbid

the use of certain Chemicals that the church uses as Sacraments.

## The Federalist Papers No 10:

"From the influence of these on the sentiments and views of the respective proprietors, ensues a division of the society into different interests and parties."

"By a faction, I understand a number of citizens, whether amounting to a majority or a minority of the whole, who are united by some common impulse or passion, or of interest, adversed to the rights of other citizens, or the permanent and aggregate interests of the community,"

> <u>Pierce V Society of Sisters:</u> Due Process for the Establishment Clause

Peirce V Society of Sisters is a case where a Catholic School was not following Statutory Law and it has been said that this case is something like the Magna Carta for Religious Schools in America.

And more recently Congress passed what is called The Religious Land Use and Institutionalized Persons Act. This Act is much more broad than the Religious Freedom Restoration Act. The Religious Freedom Restoration Act has a definition for Government which is: (1) The term "government" includes a branch, department, agency, instrumentality, and official (or other person acting under Color of Law) of the united states or a covered

# entity.

While the Religious Land Use and Institutionalized Persons Act defines Government as: *a State, county, municipality, or other governmental entity created under the authority of a State; any branch, department, agency, instrumentality, or official of an entity listed in clause (i); and any other person acting under color of State Law.*(B) Includes the United States, a branch, department, agency, instrumentality, or official of the United States, and any other person acting under Color of Federal

Law.

So the Religious Freedom Restoration Act Covers only Federal Law while the Religious Land Use and Institutionalized Persons Act covers even City and Municipal Law. So it has more broad coverage of Rights. It also contains 4 things that the Religious Freedom

 Restoration Act doesn't have, first it Covers Free Exercise cases as well as:

 (1)
 Government Funded Programs or Activities affected by a Policy

 (2)
 Any Policy that may effect trade between States, Native Tribes or Foreign Nations

(3) Regulations Land Use

I have never heard of a case where the Religious Land Use and Institutionalized Persons Act has been used yet but, according to it Congress has completely eliminated any Land Use Regulation for a Religious person, and "Free Exercise" has been expanded to include the conversion of property. Then there is also a section which says that Religious Rights should not be denied to prisoners. In the protection of prisoners section it has the same exact wording as the Religious Freedom Restoration Act where is says that the Government can only burden religion in the least Restrictive way. So it is only a matter of time before the Church of Neuroscience and the Santo Daime Church start winning cases allowing us/them to use Sacraments in jail and have them mailed in, similar to how

Ayahuasca (which contains DMT) has been allowed into the country by the "Least restrictive means" rule.

The Third thing it has that the Religious Freedom Restoration Act doesn't have is Broad Construction. It says that it is for use in Free Exercise Cases, as well as Land Use cases and Religious Prisoner Rights cases, then it goes on to say: (G)Broad Rules of Construction This chapter shall be construed in favor of a broad protection of religious exercise, to the maximum extent permitted by this chapter and the constitution.

It is asking people to use the Constitution for their court cases. Instead of offering court

cases for the court to follow as rules, it asks you to offer court cases and Constitutional arguments. And I have never heard of anyone using it in court yet, because the Religious Freedom Restoration Act (from 1993) is still being used for the first times now (2013-2014 were some of the first and biggest cases).

And the 4th thing that makes it much different than the Religious Freedom Restoration Act is the definition of Religious Exercise:

Religious Exercise includes any Exercise of Religion, whether or not compelled by or central to a system of Religious Belief

And the reason that no one has heard of this is because it is so effective, for instance it gives the Government this option:

(E) Governmental discretion in alleviating burdens on religious exercise A government may avoid the preemptive force of any provisions of this chapter by changing the policy or practice that results in a substantial burden on religious exercise, by retaining the policy or practice and exempting the substantially burdened religious exercise, by providing exemptions from the policy or practice for applications that substantially burden religious exercise, or by any other means that eliminates substantial burden.

Here are 2 cases that could have used the Religious Land Use and Institutionalized Persons Act, but they won using only a Free Exercise Argument.

### Holt V Hobbs

Growing a Religious beard in Jail is a Religious Right

If the Religious Land Use and Institutionalized Persons Act were applied to that case it would have automatically been decided in favor of the Prisoner. But they used a Free Exercise argument and the example that a Christian Prisoner had been allowed to grow a beard, and that the beard requested was only the length of a Dime. And it was part of the Islamic faith to have a beard.

A Similar case happened with a Muslim Police Officer.

<u>Police V City of Newark:</u> Growing a Religious beard as a Government Employee is a Religious Right

This case is very similar in that it fits the Religious Land Use and Institutionalized Act's "Free Exercise" even though it is not a Land Use Regulation or in the context of a jail, it is a Policy which interferes with Religious Exercise. Another example would be Cruz V Beto.

# <u>Cruz V Beto:</u> Non-Abrahamic Religions can be pursued in jail

This was a case in where a Buddhist Prisoner was blocked from his Religion because it was not the Religion that a certain Jail or Prison saw as Godly, so he took it to court as a Free Exercise case and won. This example and the other two examples are just simple examples where the Religious Land Use and Institutionalized Persons Act could have made everything happen faster but, it can be used for things like allowing someone to turn their House into a Temple, Home Owners Associations no longer have the right to create Policies that prevent Religious Conversion of Property. And once it gets applied to Prisoners it will bring Ayahuasca Ceremonies into Jails and Sacraments from the Church of Neuroscience.

Here are some old Cases happened before the Religious Land Use and Institutionalized Persons Act but they are along the same lines as far as Religious Land Use:

Serbian Orthodox Diocese V Milivojevich:

Per the Establishment Clause, decisions imposed by Hierarchical Religious Organizations are binging in civil courts

Kedroff V St. Nicholas Cathedral of Russian Orthodox in North America Greek Archdiocese V Abrams Dartmouth College V Woodward

And these are just General cases about what Law is that also match up with what the Religious Land Use and Institutionalized Persons Act says:

United States V Hudson:

"Congress must first enact a law criminalizing an activity, attach a penalty, and give the Federal courts jurisdiction in order to render a conviction"

Free Exercise Clause: "Congress shall make no Law prohibiting the Free Exercise of Religion"

Hilton V Guyot

"No law has any effect, of its own force, beyond the limits of the Sovereignty from which its authority was derived."

### Brown V New Jersey:

"The States has full control over the procedure in its courts, both in civil and criminal cases, subject only to the qualification that such procedure must not work a denial of fundamental rights, or conflict with specific and applicable provisions of the Constitution."

# Yick Wo V Hopkins:

"A Law that seems Neutral but that is used discriminatorily, is an unconsitutional law."

The main section of the Religious Land Use and Institutionalized Persons Act puts forward 2 subsections that explain how it works:

(A) Cause of Action

A Person may assert a violation of this chapter as a claim or defense in a judicial proceeding and obtain appropriate relief against government. Standing to assert a claim or defense under this section shall be governed by the general rules of standing under article III of the Constitution

Article III simply establishes that one Supreme Court is at the top and establishes the Federal Courts. The next part of that section in the RLUIPA says

(B) Burden of Persuasion

If a plaintiff produces Prima Facie evidence to support a claim alleging a violation of the Free Exercise Clause or section 2000cc of this title, the government shall bear the burden on any element of the claim, except that the plaintiff shall bear the burden of persuasion on whether the law (including a regulation) or government practice that is challenged by the claim substantially burdens the plaintiff's exercise of religion..

Then there is the part about Trade between States, Native Tribes or Foreign Nations. The way those kind of cases work is, for example, truck drivers have to go from State to State and Congress is in charge of Commerce between the States. So Congress has to put things in place to protect Truck drivers from State's making laws that might stop them from going from State to State. A specific example would be Truck Flaps. If a State makes laws saying that a special kind of Truck flap is required that is not required other places, then they are putting a burden on the drivers. But in this situation it is being applied to policy that burdens religion.

Here is an example of some Rhetoric from a case like this:

# Southern Pacific Co. V Jensen:

"If New York can subject foreign ships coming into her ports to such obligations as those imposed by her Compensation Statute, other States may do likewise. The necessary consequences would be destruction of the very uniformity in respect to Maritime matters which the Constitution was designed to establish"

MM Steel, LP v. Reliance Steel & Aluminum Co. et al, No. 4:2012cv01227 - Document 504 (S.D. Tex. 2014)

2 Companies conspiring against Competitor(s)

Tunica Web Advertising v. TUNICA CASINO OPERATORS, 496 F.3d 403 (5th Cir. 2007)

Section 1 of the Sherman Act

Spectators' Comm. Network, Inc. v. Colonial Country Club, et al., 253 F.3d 215 (5 th Cir. 2001)

1. Engaged in Conspiracy;

2. That restrained trade;

3. In a particular market

NW Wholesale Stationers v. Pac. Stationery 472 U.S. 284 (1985)

"Disadvantage competitors by directly denying ... relationships the competitor needs in the competitive struggle"

#### Extra Case Law

Corp. of Presiding Bishop v. Amos483 U.S. 327 (1987) Everson v. Board of Education330 U.S. 1 (1947) Cantwell v. Connecticut310 U.S. 296 (1940)

John Doe Inc v. DEA, 484 F.3d 561 (D.C. Cir. 2007) Norman Bridge Drug Company, Plaintiff-appellee, v. Michael Banner, John R. Bartels, Jr., Administrator, Drug Enforcement Administration, et al., Defendants-appellants, 529 F.2d 822 (5th Cir. 1976) Mellouli v. Lynch 575 U.S. (2015) Pre-1970 Coca Statutes applied with the Controlled Substances Act

Linder v. United States 268 U.S. 5 (1925)

"The Harrison Narcotic Law, approved December 17, 1914, c. 1, 38 Stat. 785 -- 12 sections -- is entitled:

"An Act to provide for the registration of, with collectors of internal revenue, and to impose a special tax upon all persons who produce, import, manufacture, compound, deal in, dispense, sell, distribute, or give away opium or coca leaves, their salts, derivatives, or preparations, and for other purposes."

Section 1 provides:

"That on and after the first day of March, nineteen hundred and fifteen, every person [with exceptions not here important] who produces, imports, manufactures, compounds, deals in, dispenses, sells, distributes, or gives away opium or coca leaves or any compound, manufacture, salt, derivative, or preparation thereof, shall register with the collector of internal revenue,"

•••

The declared object of the Narcotic Law is to provide revenue, and this Court has held that whatever additional moral end it may have in view must "be reached only through a revenue measure and within the limits of a revenue measure." United States v. Jin Fuey Moy, 241 U. S. 394,241 U. S. 402. Congress cannot, under the pretext of executing delegated power, pass laws for the accomplishment of objects not intrusted to the federal government. And we accept as established doctrine that any provision of an Act of Congress ostensibly enacted under power granted by the Constitution, not naturally and reasonably adapted to the effective exercise of such power, but solely to the achievement of something plainly within power reserved to the states, is invalid and cannot be enforced. McCulloch v. Maryland, 4 Wheat, 316, 17 U. S. 423; License Tax Cases, 5 Wall. 462; United States v. De Witt, 9 Wall. 41; Keller v. United States, 213 U. S. 138; Hammer v. Dagenhart, 247 U. S. 251; Child Labor Tax Case, 259 U. S. 20. In the light of these principles, and not forgetting the familiar rule that

"a statute must be construed, if fairly possible, so as to avoid, not only the conclusion that it is unconstitutional, but also grave doubts upon that score,"

•••

Obviously, direct control of medical practice in the states is beyond the power of the federal government. Incidental regulation of such practice by Congress through a taxing act cannot extend to matters plainly inappropriate and unnecessary to reasonable enforcement of a revenue measure. The enactment under consideration levies a tax, upheld by this Court, upon every person who imports, manufactures, produces, compounds, sells, deals in, dispenses or gives away opium or coca leaves or derivatives therefrom, and may regulate medical practice in the states only so far as reasonably appropriate for or merely incidental to its enforcement. It says nothing of "addicts," and does not undertake to prescribe methods for their medical treatment. They are diseased, and proper subjects for such treatment, and we cannot possibly conclude that a physician acted improperly or unwisely or for other than medical purposes solely because he has dispensed to one of them, in the ordinary course and in good faith, four small tablets of morphine or cocaine for relief of conditions incident to addiction. What constitutes bona fide medical practice must be determined upon consideration of evidence and attending circumstances. Mere pretense of such practice, of course, cannot legalize forbidden sales, or otherwise nullify valid provisions of the statute, or defeat such regulations as may be fairly appropriate to its enforcement within the proper limitations of a revenue measure.

United States v. Jin Fuey Moy, supra, points out that the Narcotic Law can be upheld only as a revenue measure. It must be interpreted and applied accordingly. Further, grave constitutional doubts concerning § 8 cannot be avoided unless limited to persons who are required to register by § 1. Mere possession of the drug creates no presumption of guilt as against any other person.

In United States v. Doremus, 249 U. S. 86, 249 U. S. 93, 249 U. S. 95, a registered physician was accused of unlawfully selling, giving away and distributing 500 one-sixth grain tablets of heroin without official written order. Another count charged selling, dispensing and distributing 500 such tablets not in the course of regular professional practice. The trial court held § 2 invalid because it invaded the police power of the state. This Court declared:

"Of course, Congress may not, in the exercise of federal power, exert authority wholly reserved to the states. . . . ""

# Penumbra

The rights guaranteed by implication in a constitution or the implied powers of a rule.

The original and literal meaning of penumbra is "a space of partial illumination between the perfect shadow ... on all sidesand the full light" (Merriam Webster's Collegiate Dictionary, 10th ed., 1996). The term was created and introduced byastronomer Johannes Kepler in 1604 to describe the shadows that occur during eclipses. However, in legal terms penumbrais most often used as a metaphor describing a doctrine that refers to implied powers of the federal government. The doctrineis best known from the Supreme Court decision of griswold v. connecticut, 381 U.S. 479, 85 S. Ct. 1678, 14 L. Ed. 2d510 (1965), where Justice william o. douglas used it to describe the concept of an individual's constitutional right ofprivacy.

The history of the legal use of the penumbra metaphor can be traced to a federal decision written by Justice stephen j.field in the 1871 decision of Montgomery v. Bevans, 17 F.Cas. 628 (9th C.C.D. Cal.). (At the time, Field was performingcircuit duty while a member of the Supreme Court.) Since the Montgomery decision, the penumbra metaphor has not beenused often. In fact, more than half of its original uses can be attributed to just four judges: oliver wendell holmes, jr., learned hand, benjamin n. cardozo, and William O. Douglas.

In an 1873 article on the theory of torts, Justice Holmes used the term penumbra to describe the "gray area where logicand principle falter." In later decisions, Justice Holmes developed the penumbra doctrine as representing the "outer boundsof authority emanating from a law." Justice Holmes usually used the word in an attempt to describe the need to drawArbitrary lines when forming legislation. For instance, in the decision of Danforth v. Groton Water Co., Holmes referred toconstitutional rules as lacking mathematical exactness, stating that they, "[1]ike those of the Common Law, end in apenumbra where the Legislature has a certain freedom in fixing the line, as has been recognized with regard to the policepower" (178 Mass. 472, 476–77, 59 N.E. 1033, 1034 [1901]).

Judge Hand expanded the meaning of the word in opinions written between 1915 and 1950 by using it to indicate the vagueborders of words or concepts. He used it to emphasize the difficulty in defining and interpreting statutes, contracts, Trademarks, or ideas.

Justice Cardozo's use of the penumbra metaphor in opinions written between 1934 and 1941 was similar to Holmes'sapplication, but Justice Douglas took a different approach. Rather than using it to highlight the difficulty of drawing lines ordetermining the meaning of words or concepts, he used the term when he wanted to refer to a peripheral area or an indistinct boundary of something specific.

Douglas's most famous use of penumbra is in the Griswold decision. In the Griswold case, appellants Estelle Griswold, executive director of the Planned Parenthood League of Connecticut, and Dr. C. Lee Buxton, a medical professor at YaleMedical School and director of the league's office in New Haven, were convicted for prescribing contraceptive devices and giving contraceptive advice to married persons in violation of a Connecticut statute. They challenged the constitutionality of the statute, which made it unlawful to use any drug or medicinal article for the purpose of preventing conception, on behalf of the married persons with whom they had a professional relationship. The Supreme Court held that the statute wasunconstitutional because it was a violation of a person's right to privacy. In his opinion, Douglas stated that the specific guarantees of the Bill of Rights have penumbras "formed by emanations from those guarantees that help give them life and sub-stance," and that the right to privacy exists within this area.

Since Griswold, the penumbra doctrine has primarily been used to represent implied powers that emanate from a specificrule, thus extending the meaning of the rule into its periphery or penumbra.

# **Chapter 5: Humanity**

# The Kula Ring:

The Kula Ring is a system of trade that is the best example of a Gift Economy (it is used as an example in Anthropology) and it exists within a Tribal Religious system. It is also the best example of people going out onto the ocean with nothing but a small canoe or raft or reed boat and make long dangerous journeys for very little in return.

It exists between a small group of Islands and the members of the various tribes will do things like take a load of Necklaces made of white sea shells and then make the dangerous journey simply to trade them for Bracelets made with red sea shells. The tribes do connect in this way and are able to create relationships for future trade.

### The Columbia Effect:

The word Columbia comes from Christopher Columbus. Washington DC means District of Columbia and BC means British Columbia, and the country of Columbia is called Columbia. Even though Columbus discovered the Bahamas, which is why the Caribbean Islands are called the West Indies (He thought he was in India). He was pretty much lost, but now his name is the basis of many of our regions names and Coffee, Marijuana, Tobacco & Jalapeño peppers can be found almost anywhere in the world.

## Hellenization:

Hellenization was a period of almost 500 years just after Alexander the Great died and just before the life of Jesus. Alexander the Great went to various countries and took control of them in various ways and after he died all of those kingdoms (From Greece, to Egypt to modern Pakistan) had a ton of Technology and Resources to trade with each other, as well as various wars which eventually led to the Roman Empire taking control of it all. An example of the changes are Statues in India, there were no Statues before Hellenization brought the idea there. A specific example is The Buddha who was depicted as an Empty throne or as Footprints in sand before Hellenization. The major changes in Greece came from 2 books, one was called Babyloniaca and the other Eagyptiaca or The History of Babylon and the History of Egypt. This brought Zoroastrian Astrology into Western Science which later became Astronomy and it brought the entire Egyptian history (pretty much the same information we have now) to the Greek world, an example of this is the word Dynasty which was invented in the book Aegyptiaca. The "Ancient Greeks" saw themselves as connected to earlier Ancient Societies, the same way Americans see themselves as connected to the Founding Fathers, or the British see themselves connected to the British Empire and the Commonwealth of Nations it created in Modern times. The Iliad by Homer (Homer means "Hostage" in Greek) is an example, with cities like Troy, and stories of the Gods fighting in battles with the Ancients, and where those Gods came from, etc. the Egyptians (who called themselves Kemet, Aegyptos the Greek word) had an even closer connection and saw the Predynastic period as a Golden Age of Wisdom. Egypt existed for 3,000 years after King Scorpion II (The Scorpion King) brought the North and the South Kingdom together under 1 "Flag". And Imhotep invented Medicine, Surgery, Pyramids, Stairs, Columns, and solved a 7 year Famine by reading books that were Ancient to his time period (around 2000-1500 BC) while other people were cutting open goats and chickens for the King. And there was no Pharaoh, Par-Oh was a palace, where Kings, like King Tut and King Dojer and King Ramses lived, along with the Apis Cow, Twins, and other Holy people. These people all saw themselves as connected to the people before them, and had stories of Nature, and Gods, and earlier Societies.

Language and Fire were not created by our Species, and we are not in the 2nd Millennium. Our species, Homo Sapien, has been around for at least 100,000 years and language, through gestures, sounds and signaling, has existed for even longer, while the control of fire has existed for at least 1,000,000 years. Most people on Earth still have 1-4% Neanderthal DNA except for people living in Sub-Saharan Africa, who are 100% Homo Sapien and the only people who have the DNA of a third species are the Natives in Papua New Guinea, who have 4-6% Denisovan DNA.

At least 70,000 years ago the first example of human rituals can be found in Python Cave, in the Tsodilo Hills, Ngamiland, Botswana, and these rituals were practiced by the San people, who still live there today. A stone carved to look like it has scales was found, similar to a python which is a San holy animal, along with over 13,000 tools, shards of quartz and spear tips, some of which were used to carve the stone and some which were brought to the site from far and wide to be burned. The Tsodilo Hills are still considered sacred by the San people and are called the Mountains of the Gods or the Rock that Whispers. The Python Cave shows that humans have been having abstract thought since at least 70,000 years ago.

Around 50,000 years ago symbolic thought and careful selection of raw materials began to spread throughout humanity, which can be seen in the Diepkloof Ostrich egg carvings and Blombos Cave. This is when the first bedding was created from a plant called Imphepho, and this is the region where the flower known as Silene Udulata grows which is a well known dream herb used in the mixture called Ubulawu used by the Xhosa people. During this period, between 130,000 and 45,000 years ago, humans spread from Africa to Australia, possibly through what is called the Southern Dispersal Route. This route goes from Southern Africa, up through what is now the regions around Ethiopia and Saudi Arabia, to India, Indochina and Australia. Along this route seafood was a very important source of food and there are various examples of tools, arrowheads, pottery, cave carvings and paintings. The Bhimbetka Rock Shelters in what is now

known Madhya Pradesh, India, are the site of the first paintings ever, which were created as long as 30,000 years ago and 700 similar sites have been found, some which belonged to the Bhimbetka people and others that belonged to the Lakha Juar people.

The Lake Mungo Remains are a group of skeletons in Australia who lived between 18,000 and 45,000 years ago, not all of them lived at the same time, but one of them may be the oldest examples of cremation in the World and they all represent the people who created a Religious system which has become known as Dreamtime. To the Australian Aboriginals the word Dreaming means time out of time or everywhen and is not exclusive to living beings. This is also around the same time the first Dogs were domesticated, and there are now 4 main strains of Dogs: Asian Dogs, Carolina Dogs (American), Dingos (Australian) and Singing Dogs (Papua New Guinea). Some of the first Domesticated Dogs have been found to have been fed Seafood. During this time, around 35,000 BC, the people of Japan also developed relationships with Dolphins, where the humans and the Dolphins would help each other fish.

The first plant that was ever farmed is the Fig tree, around 11,000 BC, at a site called Gesher near the border of the West Bank of Palestine and Jordan now. Fig trees can't pollinate themselves and need something else to pollinate them, usually it is a bug known as a Fig wasp, but around 11,000 BC humans realized that we could do the same thing the wasps were doing, and keep an orchard. The fig is and has been considered sacred in various cultures.

Then around 10,000 BC the first Native Americans crossed from Siberia to Alaska, and around the same time the people at the Nabta Playa site in Egypt, who called themselves Kemet, were the first to map the stars. It is likely that they accomplished this by using lines drawn in the sand by Scarab beetles, who are known to follow the Moon and Stars as a guide at night. The scarab was also worshiped by the Egyptians in the form of the God Khepri. This is also when the throwing stick transitioned into the boomerang in various cultures, from Egypt to Australia. This is also about the same time the City of Dwarka was built, which is an Ancient city in India that is now submerged underwater. Sanskrit texts say that the city was founded by Lord Krishna and that it was submerged under the sea, but it was only discovered recently.

Around 5,000 BC, in Dabki, Poland, there is evidence of Farming Cultures coming together with Hunter Gatherer cultures in order to trade across the Sea. Many types of pottery have been found, an important example is pottery the Funnel Beaker culture, as well as various materials made from animals, such as leather cords, carved antler tools, and various other materials.

Around 4000 BC in Armenia, there was the first mass production of Wine. Soon after this, around 3,500 BC, Horses were domesticated in the area that is now Kazakhstan to Armenia, first

by the Botai people.

The first wheel appeared shortly after this, about 3000 BC, in Sumeria. The wheel became a Religious symbol, with spokes representing different things to different cultures, and the movement representing the movement of the Sun, Stars and Planets. Soon after the Egyptians mapped the sky, the Egyptians and Sumerians began mapping Planets, the movements of Planets, Star systems, etc. The Egyptians, or the people of Kemet, mapped a calendar close to our calendar by creating walls to act as fake horizons, and making marks on the wall every day when the Sun came up. At the end of the year, after making a mark every day, the Sun would go back to where it started and they would have 365 marks. The Moon cycles gave them the months, so they also had 12 Months, or Moon-ths. The word Saturday comes from Saturn, Sunday comes from the Sun, Monday comes from the Moon, and so on. This system is actually based on the Ogdoad, which is a system of Gods which can be found in various Religions, also called the 7 Heavens or 7 Heavenly bodies in Christianity which did not exist at this time.

Around 2600 BC, about 500 years after Upper and Lower Egypt were united as one nation by King Scorpion II, an Egyptian named Imhotep invented Medicine, Surgery, Stairs, Columns and the first Pyramid, known as the Step Pyramid. A temple was built for Imhotep when he died, which became something like the first Hospital, and he was later worshiped in the form of a God. The Ancient Egyptians were also aware of petroleum products, which they used for painting and waterproofing. They were also aware of electricity, in the form of static electricity and the Electric Eel which they called the Thunderer of the Nile. By this time Religion and Art had become much more sophisticated, and Gods were important and powerful Mnemonic devices with each Temple being like a specialized University. In the same time period, between 3,300 BC and 1,700 BC, the Indus Valley civilization flourished, which was the precursor to Hinduism. The Indus Valley Civilization was the first to create a city in a grid shape, and shared many ideas and a few Gods with the early Greeks. Around 2,000 BC the Island of Crete advanced, having a position in the middle of the Mediterranean, mixing a few elements of the Egyptian, Eurasian and European cultures. Just after this, around 1,800 BC, Babylon was created and expanded. Around 1,500 BC the Vedas were written in India in the Sanskrit language, starting with the Rig Veda, which created Hinduism. At the same time the first signs of Greek culture began to appear, and Phoenicia was founded, which was a Kingdom that encompassed Israel, Lebanon, Jordan, Palestine and Syria, the Capital of Phoenicia was in Byblos and eventually moved to Tyre, and according to the Old Testament, Israel was ruled by their first Judges which were similar to Kings. The Phoenicians invented Royal Purple Dye, called Tyrian Purple, using Conches, as well as Crimson and Blue, they also created the most advanced boats of the time, the first clear glass and various languages. The word Europe comes from the Phoenician Goddess Europa, and the Phoenicians were the inspiration of the Greek Phoenix. In modern Turkey during this period, Phrygia was growing, which is where the Phrygian cap, also known as the Liberty cap, comes from.

Around 800 BC Carthage was founded by the Phoenician, Punic, Queen Dido. Carthage was in North Africa, in modern day Tunisia, Libya, Morocco & Algeria. During this time the Greek culture also grew, expanding Math and Philosophy. At about the same time Zoroaster created Zoroastrianism, which put all the Babylonian Gods into one God, which created the first Religion with only one God, as well as a modern Astronomical Religion. In 782 BC the City of Yerevan was founded as the Capital of Armenia, and in 753 BC the City of Rome was founded which would become the Capital of Italy. Around 500 BC in India, Siddhartha became the first Buddha and created Buddhism, at the same time the Persian empire was established by Cyrus. Around 300 BC Philip II made Macedonia a great Kingdom, and then Alexander the Great took over after him and expanded it into a massive Empire reaching all the way to modern Pakistan. These two empires created the Hellenistic Era, which is when the East and the West really got to know each other. Statue making spread from Egypt and Greece to Asia and India where statue making is now an important part of Religion, and Spices, Dyes, Plants and Animals came from Asia and India to Egypt and Greece, while knowledge moved both ways. 2 Major influential books from this time are Aegyptiaca, by Manethos and Babyloniaca, by Berrosus. Aegyptiaca means: the History of Egypt, and Babyloniaca means: the History of Babylon, this is also when the Library of Alexandria was established in Egypt as well as the first Musaeum. Around 200 BC Rome went to war with Carthage in the First and Second Punic wars, at this time Sicily had just switched from being part of Carthage to being part of Italy, and Carthage lost control of the sea to Rome. On the Carthaginian side the war as primarily fought by the Barca family, on the Roman side it was fought by over-eager Politicians who sustained great loss for Rome due to their arrogance, and it got so bad that at one time they are said to have banned the word Peace. Fighting Hannibal Barca is where Rome learned most of their Military tactics. In 196 BC the Rosetta Stone was created, if it had not been created the Egyptian language would be a complete mystery to us. Around 100 BC an Orator named Cicero changed Politics and Language in ways that shaped modern Politics and Democracy. In 27 BC the Roman Empire was founded by Roman Fraternities and around 0 BC Jesus challenged the Roman Empire and was killed. Then in 64 AD Rome burned while Nero played a fiddle.

Around 300 AD Constantine became the first Christian Roman Emperor after seeing the cross in a dream, on it were the words: In this sign you conquer. In 330 AD he founded the City Constantinople, which is now the City called Istanbul in what is now Turkey. Around 600 AD Mohammed composed the Quran and in the period following this, Mosques became centers of knowledge and science. Most things beginning with 'Al' were created by the Arabic peoples, such as Alchemy which is the precursor to Chemistry, Electronic Engineering, etc, or pure Alcohol which is used for everything from Chemistry applications to a recreational beverage and is banned for that use in many Muslim countries, or Algebra which is a useful form of Math. Around 1,000 AD different Muslim groups were feuding and the Assassins, called the Hashashins then, were formed. At the same time The Poor Knights of Christ were formed, which was a Christian group who made pilgrimages to Holy sites and followed the words of Jesus to: Sell your cloak and buy a sword. The Poor Knights of Christ later became the Knights Templar. This is also when the Crusades flared up.

In 1,215 AD the Magna Carta was signed by a large group of European rulers, taking the power of the courts out of the hands of Kings or Queens and putting it into the hands of the people by establishing Juries and Rights, as well as paving the way for Parliaments. Around this time Islam was spreading through Africa, creating Cities like Timbuktu. Around 1,400 AD Leonardo Da Vinci became a famous artist, creating rough blueprints for the first Tank, Helicopter and Scuba suit. And in 1,492 AD Christopher Columbus sailed to America looking for a trade route to India. India is the only large scale Civilization which is still practicing the same Ancient Religion, using the same Ancient Temples that they always have. Around 1,600 AD Galileo began mapping the Sky using the Telescope. Soon after this Isaac Newton discovered a force that pulls all objects, planets and stars towards each other, which he called Gravity. In 1,698 AD the Steam Engine was invented, and around 1,700 AD various Electronic devices began to be invented. During this time Galvani discovered that there is electricity in all living beings.

In 1,776 AD the American Colonies Declared Independence, and the Constitution was written by Thomas Jefferson with help from Benjamin Bannecker. In 1,799 AD Alessandro Volta discovered Electrolytes and created the first Battery. Between 1,820 and 1,830 AD the first Electromagnetic Engines were created and Faraday's law was written. In 1,837 AD Stein Hill proposed that the Earth could be used as a Circuit and that Earth's magnetic field had Electrical Currents. In 1,839 AD Alexandre Edmond Becquerel discovered Photovoltaics, now called Solar Power. In 1,840 AD the Telegraph was invented and soon after this Morse Code was invented by Samuel Morse. In 1,858 AD the Transatlantic cable was put in place in order to facilitate communication across the Atlantic Ocean. In 1,861 AD Faraday's law was expanded on by Maxwell's equations. Then in 1,863 AD Abraham Lincoln gave the Emancipation Proclamation freeing slaves in the United States. In 1,879 AD Thomas Edison invented the lightbulb as well as fuses and microphones, then between 1,882 AD and 1,902 AD Oliver Heaviside, a self-taught Electrical Engineer, reformulated Electrical Theories laying the groundwork for modern Electrical Engineering and the modern AT&T. At the same time, between 1,886 AD and 1,900 AD Nikola Tesla invented Alternating Current (AC), the Rotating Electric Field, Radio, Wireless transmission, Quadrapolar Polarity, the Tesla Oscillator, the Tesla X-ray, the Tesla Coil, the Tesla Turbine and the Tesla Principle. Nikola Tesla was friends with Swami Vivekananda who brought the first Hindu Temples to the United States in that same time period. In the 1,890's AD Charles Proteus Steinmetz reformulated some of Nikola Tesla's work in a way that Electrical Engineers of the time could grasp, laying the groundwork for General Electric (GE). Steinmetz with Ernst Alexanderson expanded on Nikola Tesla's invention of Wireless transmission, which expanded

Radio and lead to Television. In 1,903 AD the Wright Brothers created the first Airplane, in 1,908 AD Henry Ford invented the Model T.

Between 1,905 AD and 1,939 AD Albert Einstein proposed his theories, between 1,914 AD and 1,918 AD WWI split up the Ottoman Empire, then in the 1,920's AD Marcus Garvey created the Black Pride movement and Noble Drew Ali created the Moorish Science Temple, then in 1,927 AD Philo Farnsworth created the first Image Dissector Camera Tube, which allowed for the first fully electronic Television. And between 1,939 AD and 1,945 AD WWII was fought and the first and last Atomic Bombs were used in a War.

he UN Psychotropics Convention Does Not Cover Various Substances and the United States Government continues to arrest, attack, kill, maim, and hunt Religious Practitioners using these Substances which are not listed on the UN Psychotropics Conventionm even after being told to stop by the US Supreme Court in Gonzales V O Centro. This is the Modern American Witch Hunt. In the case of the Shaivite Temple of Colorado, it is primarily THCv.

# THESE SUBSTANCES ARE NOT COVERED BY THE UN PSYCHOTROPICS CONVENTION AND THEREFOR FALL UNDER THE SAME RELIGIOUS PROTECTIONS AS HOASCA IN THE GONZALES CASE

THCv

### 4-OH-MIPT

alpha-Ethyltryptamine (a-ET) alpha-Methyltryptamine (a-MT) 5-Methoxy-N,N-5-Methoxy-N,N-

2-(4-Iodo-2,5-dimethoxyphenyl) ethanamine (2C-I)

2-(2,5-Dimethoxy-4-

2C-B

2-(2,5-Dimethoxy-4-

2-(2,5-Dimethoxy-4-nitro-2-(2,5-Dimethoxy-4-(n)-2C-F 2C-G 4-OH-DET 4-OH-MET 5-MeO-MIPT ETH-LAD AL-LAD DPT MXE 6-APB

# Herbs from different Cultures from around the world:

Lemon Grass: Myrcene & Lemonene Uziza Leaf: Caryophyllene Alepidea Amatymbica: Used in Ubulawu Guarana Seed: Caffeine & Theobromine White Sage: Used in Native American Ceremonies Silene Capensis: Main Ingredient of Ubulawu Wild Lettuce: Light Painkiller Illonois Bundleflower: DMT and is used in Ayahuasca Phalaris Spp.: DMT Drosera: Similar to Venus fly trap, but it has Trichombs like Marijuana Green Tea Matcha: Caffeine & L-Theanine Wormwood: Used to make Absinthe Entada Rheedi: African Dream Seeds, can be used in Ubulawu Sinicuichi: Used in Native Mexican Dream Tea Cloves: Contain Eugenol Helinus Integrifolus: Used in Ubulawu Damiana: Used in the Original Margaritas Coleus Blumei: Used in Mexican Dream Tea Kanna: A natural SSRI Mexican Dream Herb: Used in Mexican Dream Tea Syrian Rue: Contains MAOIs and is used in Ayahuasca Kava: Yangonin & Kavalactones Synaptolepis Kirkii: Used in Ubulawu Imphepho Kooigoed: Used in Ubulawu

Mugwort: A Dream Herb Acacia Xanthophloea: Used in Ubulawu Buchu: Used in Ubulawu Ginseng Root: Used as a Brain Stimulant St. John's Wort: Used as a Natural Anti-Depressant Echinacea: Used for various things Waxy Leaf Frog: Contains Opiods in sweat Red Cloves: Contains Opiods Catnip: Nepalactone Bitter Orange Peel: Used to create a beer with Stimulant effects Mucuna: Contains Tryptamins and 5-HTP Poppy seeds: Codeine Betel Leaf: Chavicol Basil Leaf: Methyl Chavicol Hops: Myrcene Passion Flower: MAOI Indian Sasparilla: Root Beer Valerian Root: Sleep Aid Ceylon (True) Cinnamon: Cinnamaldehyde Gingko Biloba: MAOI Wild Dagga: Leourine Sea Urchin Roe: Contains Endocannabinoids Datura: Contains Tropane Alkaloids White Lotus: Aporphine

#### NMT Ritual:

All of these items can be found on Alibaba, Amazon or Ebay

Needed for Tryptamine Ritual: Tryptophan Copper Acetate Hot H2O DMSO NaOH Acetone Sodium Hypochlorite Vacuum Pump and Vacuum Chamber

To a Solution of 50g L-Tryptophan (can be bought or extracted from Milk) in water was added a solution of an excess of Copper (II) Acetate in water. The resultant precipitate was filtered, the pooled extracts were then washed several times with hot water to give the Copper Chelate compound.

A suspension of Tryptophan Copper Chelate in DMSO was heated at 170-175 Degrees Celsius for several minutes, during which time an evolution of Carbon Dioxide was observed, After cooling, the resultant mixture was made basic with 30% Sodium Hydroxide solution and extracted with Chloroform (Made from Acetone and Sodium Hydroxide). After Vacuuming the solvent the residue was distilled to give Tryptamine in 40% yield.

#### Needed for NMT Ritual:

Tryptamine **Butyl Formate** Hydrochloric Acid CH<sub>2</sub>Cl<sub>2</sub> NaOH Vacuum Pump and Vacuum Chamber Still (for Distilling) Stir Plate and Magnetic Stirrer Ethyl Benzene (LAH) Lithium Aluminum Hydride (THF) Tetrahydrofuran **Reflux Device** Coffee Filter Argon Gas Paint Tank Magnetic Stir Plate & Magnetic Stirrer

A Suspension of 10g Tryptamine base in 10g Butyl Formate was held at Relfux for 24h, then the solvents Vacuumed. The residue was partitioned between dilute HCl & CH<sub>2</sub>Cl<sub>2</sub> and the aqueous phase extracted twice with additional CH<sub>2</sub>Cl<sub>2</sub>, the pooled extracts were washed once with dilute aqueous HCl, once with dilute aqueous NaOH then vacuumed to a black oil. This was distilled at the Kugel-Rohr to give 9.05g of N-formyltryptamine.

1.88g N-Formyltryptamine in 40mL anhydrous Et<sub>2</sub>O was added to 60 mL of a 1N solution of LAH in THF, well stirred under Argon, and held at Reflux for 24h. After cooling to room temperature the excess anhydride was destroyed by the addition of 20mL of 50% aqueous THF. Solids were removed by filtration, and the filter cake was washed with damp THF repeatedly. Then vacuumed and distilled at 135-145 Degrees Celsius to give 1.22g NMT.