

laws must start somewhere before it can go elsewhere. As Mr. Stilwell acknowledged, the Marijuana Control Act is not a perfect solution. But in relation to the existing situation, it is a step in the right direction, and people of conscience should lend their support. For those wishing to contribute energy (or money), or who may simply want to find out more information about what OCRDA is doing to get the legislation on the ballot, the group can be contacted at:

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### **San Pedro: Cactus of Gentle Strength**

The San Pedro is a native to mountainous regions of Peru and Ecuador. It is found in greatest abundance at elevations of 5,000 to 10,000 feet, though it is easily cultivated at lower altitudes and is commonly stocked in nurseries specializing in cacti and succulents.

It is important to have a loose soil, as the roots of San Pedro will grow about as rapidly as the cactus body itself. A mixture of three parts sand to one part loam will ensure that the soil does not become packed hard with repeated waterings. Specialists in cacti cultivation often recommend sterilizing the soil in a low oven (300° F.) for half-an-hour before planting, as most cacti are susceptible to root rot and plant parasites.

Choose a deep, tall pot for planting. The roots of the plant go straight down, with little lateral growth, and will often be nearly equal in length to the height of the cactus body. If a plant is very large, say two to four feet in height, a pot this deep becomes impractical, and the roots will spread throughout a shorter container more evenly. This will not inhibit growth if the pot is fairly wide.

San Pedro does well as an indoor houseplant, and it can be set outside in the spring or summer when the danger of frost is past and rainfall will not water it excessively. Although it can survive mild frost, it is advisable to keep it inside during the winter and early spring, particularly if new growth is evident at its tip. San Pedro often remains dormant during the winter months, then starts growing in the spring. The tender tips of new, bright green growth are susceptible to sunburn if left directly in sunlight, so it is best to shelter them from direct sun in the house by keeping them aside of the window.

Since the cactus is dormant in the winter, watering can be very minimal during that period. I water mine about once a month during winter, and twice a month during the summer, or as soon as new growth appears. In any case, underwatering is better than overwatering, as too much water will cause root rot. The surface of the soil should become quite dry between waterings. A large potted plant needs only one cup of water at two week intervals, even during dry weather.

Most cacti, including *Trichocereus*, are easily propagated by cuttings. Cuttings should be at least eight inches long. After taking a cutting from San Pedro, allow it to dry for about five days. During this time the cut surface will form a tough, corky scab, protecting it from infection by microbes when it is potted. Plant it only deep enough for the soil to hold it upright when pressed down firmly against the sides; usually about one-third of the length of a short cutting is underground. When planting a new cutting, water it sparingly for the first couple of months, just maintaining a damp, not wet, soil around the base of the plant.

During its growing season, San Pedro often grows an inch or more in a month. This rate usually doesn't hold throughout the winter, however, but dormancy of growth doesn't mean the plant is entirely inactive. It is during those winter months that San Pedro converts its

assimilated nutrients into mescaline; hence the reason for peak potency occurring in the early spring, just before the next growing cycle. Then is the time for harvest. I have found that two eighteen-inch plants will produce, in a year, enough growth for harvesting a single small psychedelic dose of this cactus.

Besides mescaline, San Pedro also contains 3,4-dimethoxyphenethylamine, 3-methoxytyramine, 3,4-dimethoxy-4-hydroxy- $\beta$ -phenethylamine, and 3,5-dimethoxy-4-hydroxy- $\beta$ -phenethylamine (see page 22).<sup>1</sup> Although some literature of the early 1970s alleged that San Pedro contained mescaline in the same concentration as peyote, I have found it, by experience, to have considerably less—probably closer to one-half or one-third of the concentration of peyote. More recent publications have listed the mescaline content of peyote at about six percent as compared to two percent for San Pedro (both dried weight).<sup>2</sup>

Gottlieb cites research which has shown dopamine to be a precursor of mescaline production in San Pedro. He then describes a method of increasing mescaline production in the plant by periodic injections of dopamine prior to harvesting.<sup>3</sup> I wouldn't recommend this procedure, even though it may be valid. San Pedro is unique from peyote in that the low concentration makes it practically impossible to O.D. from consuming too much. I have never heard of any case of anyone overdosing on San Pedro, nor of negative reaction to its psychedelic effects. This wide margin of safety from an overdose, plus the fact that it seldom causes the nausea experienced with peyote, makes it preferred over peyote by some people, though perhaps only a minority. The naturally low potency is thus an asset to San Pedro's identity.

And those looking for "good times with a legal high" will probably not enjoy having to eat so much of the bitter, slimy stuff. I don't think we will have to worry too much about San Pedro being put on the controlled substances list, as it would be very difficult to use as a substance of chronic abuse. Although extraction or concentration of alkaloids is possible by anyone with a knowledge of basic chemistry, it is a laborious and time-consuming process for the relatively low yield.

As we briefly noted in the previous issue, the native curanderos make a strong tea of the San Pedro by slicing and boiling it in water for seven hours. Most people here in the United States prefer to eat it raw, sometimes with a drop of honey on each slice to mask the bitter taste. The central tissue surrounding the fibrous core is white and contains little mescaline, but the dark green meristematic cortex immediately beneath the skin surface is rich in psychoactive alkaloids and should not be wasted.\*

Douglas Sharon, while studying archeological ruins in Peru, enlisted the help of a local curandero by the name of Galvaez.<sup>4</sup> Sharon developed a long-lasting friendship with Galvaez, and eventually was invited to participate in some of his healing practices.

Galvaez came to know his calling after a lengthy illness that could not be cured by conventional physicians. He went to a curandero who diagnosed his illness (as being caused by witchcraft), and effected a cure. Galvaez spent several years learning the techniques of folk healing under the direction of the curandero who had cured him. Because of his recovery from this traumatic illness, he became convinced that his lifetime goal was to alleviate human suffering by becoming a folk healer.

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\* On my first experiment with San Pedro, I perceived only minimal effects because, even though I had consumed a fair quantity of the plant, I simply sliced the skin off in strips, taking with it much of the underlying rich, green tissue.

Other names the curandero uses to refer to San Pedro are Huanda Hermosa, Cardo, and Hua-chuma. The curandero must follow special diets, avoiding salt, animal fat, and vine-grown foods. The curandero believes the cactus is always attuned to the powers of the Saints, and of beings who have supernatural powers. He seeks the perception of unity in the dynamic interaction between the laws of Good and Evil. His faith in ancient powers and the magical cactus is as absolute as his faith in Christ and the Saints. But Sharon also points out that Galvaez did not rely solely on the San Pedro for his practice of diagnosis and healing; it is not a frightened retreat of aboriginal natives from the mysteries of science, nor a sorcerer's replacement for the standard medical practices. Galvaez was reasonably knowledgeable about modern medical practices, and used what he knew of that science to augment his own practice.

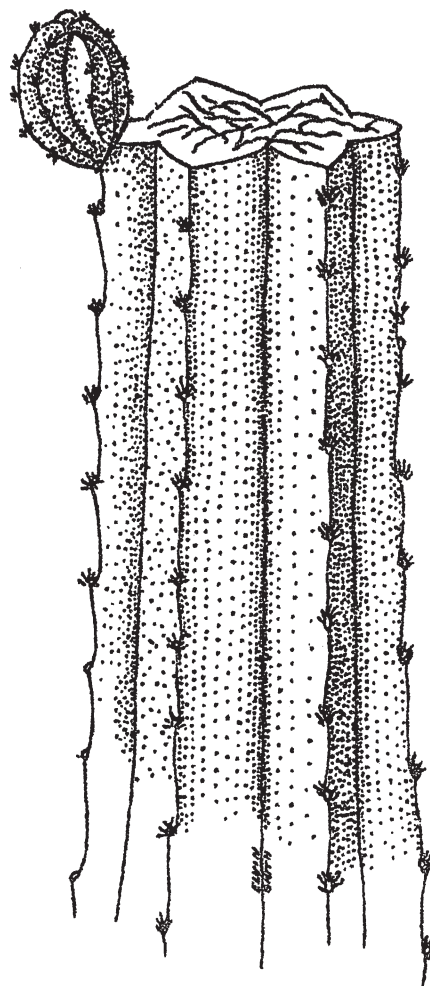
Galvaez explained that the reason San Pedro is successful in healing and diagnosis is because it brings to the individual a type of visual "force field" which is inclusive of all the senses, including the telepathic sense, and the capacity to distinguish powers or problems at a great distance. He also noted it to be a general cleansing agent for the renal, circulatory, and digestive systems.

The first ceremony in which Sharon participated brought few effects, though others in the group seemed to be in consensual agreement about the visions they perceived. A second experience some time later was considerably more vivid, and lasted about five hours.

Sharon conclusively notes that cultural heritage is an important factor in what one experiences. Some objective sensory perceptions might be fairly standard for all users, no matter what their culture. But the cultural background would have an influence on how those impressions are conceptualized.

The cultural heritage is, of course, an element of the set, so his conclusions are correct in that

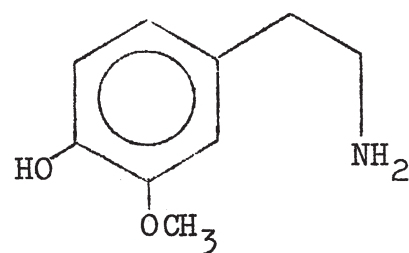
conceptualizations can occur in many different ways for many different individuals, even though dosage and drug may be uniform for all. But the whole idea of culturally influenced conceptualizations brings to mind another point: While culture itself may seem to vary widely from nation to nation or race to race, there are transcultural elements common to all members of humanity; there are even broader "supracultural" elements common to mammalian nervous systems; indeed, could not this line of logic be carried on to include every living element of the biosphere that possesses DNA?



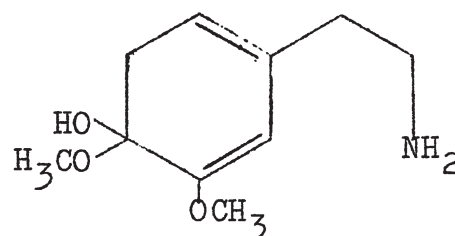
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San Pedro sends forth a bud of new growth within a few weeks after an early spring harvest.

I do not mean to belittle Sharon's work. He has made some careful and accurate observations and stated a true conclusion. But I don't think he intended it to be an exclusive conclusion, and neither would I expect the preceding paragraph to be accepted as the "real" explanation of why differences of effects are perceived or not perceived. The curandero has learned to use the tool of San Pedro through centuries of practice, some of which was undoubtedly trial-and-error methodology. If it works for the betterment of the society in which he lives, Galvaez has attained his goal of alleviating human suffering. With all its classified capital and blundering bureaucracy, the CIA hasn't done as well.

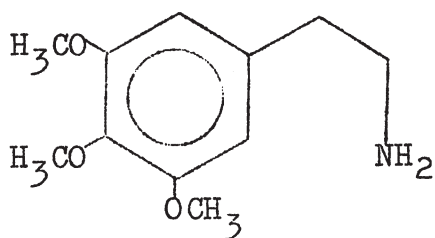


3-methoxytyramine

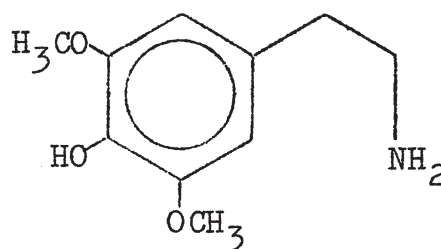


3,4-dimethoxy-4-hydroxy- $\beta$ -phenethylamine

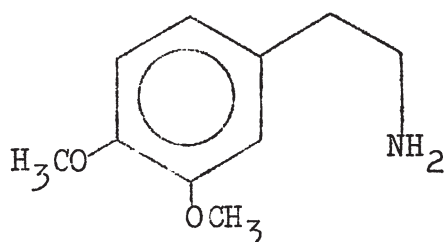
**Principle Alkaloids of *Trichocereus pachanoi***



3,4,5-trimethoxy- $\beta$ -phenethylamine  
(mescaline)

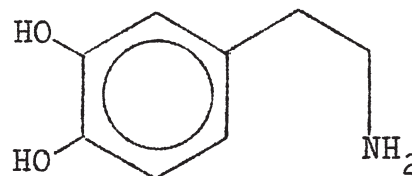


3,5-dimethoxy-4-hydroxy- $\beta$ -phenethylamine



3,4-dimethoxy- $\beta$ -phenethylamine

**Potential Mescaline Precursor**



dopamine

- 1) *The Botany and Chemistry of Hallucinogens* by R.E. Schultes and A. Hofmann, 1973. C.C. Thomas, Springfield, IL., and "Cactaceae Alkaloids. X. Alkaloids of *Trichocereus* Species and Some Other Cacti" by S. Agurell et al., 1971. *Lloydia* 34(2): 183-187.
- 2) *Psychedelics Encyclopedia* by Peter Stafford, 1977. And/Or Press, Berkeley, CA.
- 3) *Peyote and Other Psychoactive Cacti* by A. Gottlieb, 1977. Kistone Press, Manhattan Beach, CA.
- 4) "San Pedro Cactus in Folk Healing" by Douglas Sharon in *Flesh of the Gods*, P.T. Furst, editor, 1974. Praeger Publishers, New York, NY.