

Prehistoric Psychotropic Drug Use in Northeastern Mexico and Trans-Pecos Texas

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In the context of this paper, northeastern Mexico refers primarily to the state of Coahuila and immediately adjacent portions of Chihuahua on the west and Nuevo Leon on the south and east. Trans-Pecos Texas herein refers to that portion of the state of Texas west of the Pecos River. The term psychotropic drug collectively designates those agents whose ingestion results in an altered state of consciousness including specifically hallucinations and euphoria.

Within the arid area noted above, the use of psychotropic drugs is well documented in early post-contact times. The aboriginal Coahuiltecan speakers of this region were using both peyote, *Lophophora williamsi*, and the so-called "red" or "mescal bean," *Sophora secundiflora* at first European contact (La Barre 1938, 1969). Both plants were also used extensively by the Tamaulipekans and Tarahumari of the northern and north-eastern deserts (La Barre 1938, 1969). The earliest reference to the use of the red bean from the area under discussion is Cabeza de Vaca's report of 1539 (Schultes 1963), while early references to peyote are many. Though the Pre-Columbian use of psychotropic agents has long been known and a considerable time depth postulated, until quite recently no exact dates were available on the antiquity of this practice.

Recently, however, a series of well dated archaeological sites from northeastern Mexico and Trans-Pecos Texas have demonstrated that the use of psychotropic drugs extends back to the ninth millennium B. C. Moreover, as will be shown, the evidence further indicates an evolutionary development

in the use of such agents.

In the Cuatro Ciénegas Basin of Coahuila, a series of caves and rock shelters spanning ca. 8000 years of intermittent occupation have yielded the red bean, peyote and a third potentially psychotropic plant *Ungnadia speciosa*. (This latter plant is known variously as the Mexican, Spanish, or Texas buckeye and in Spanish, Monilla.) These sites, first reported by Taylor (1948, 1966) have recently been dated by a series of forty-four C¹⁴ determinations run by the radio-carbon laboratory of the Smithsonian Institution. These dates added to an earlier series of eleven (Taylor, 1956) run by the University of Michigan render this area one of the best controlled chronologically in all of Mexico.

The deposits at the largest of these sites, Frightful Cave (CM 68), extend from 7500 B. C. to A. D. 570. At this site the red bean and the Mexican buckeye are abundant in all levels, though peyote is totally lacking. Here it should be inserted that *Ungnadia speciosa* is a suspected psychotropic agent because it is invariably associated with the red bean and particularly because it is found in contexts strongly suggestive of some sort of ritual or, at least, special use.

Specifically, the Mexican buckeye is often found in large quantities literally sealed in plaited or twilled baskets, entrance to which can be made only by tearing open the container. One such cache contained eleven pounds of this plant. No other plants in this or the other Coahuila sites were similarly stored except the red bean. *Ungnadia* is a member of the Sapindaceae or Soapberry family and is reported in most references as being poisonous. Havard (1885) reports, on very limited evidence, that this plant is euphoric and the excessive ingestion of it re-

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sults in rapid death. Chemical studies of *Ungnadia* (Siegler, Seaman and Mabry 1971, Mikolajczak, Smith and Tjarks 1970) indicate it contains high quantities of cyanogenetic lipids and triglycerides none of which are psychoactive compounds.

Preliminary studies indicate that the Mexican buckeye will probably kill fish, and if applied to projectile points, will disable mammals or birds. The total absence of fish bones from any of the Coahuila sites militates against its use as a piscicide, though its potential in hunting cannot be excluded. Further studies will be made to determine the efficacy of this plant both as a hunting and fishing poison.

A situation similar to that at Frightful Cave exists at Fat Burro Cave (CM 24). This site, occupied between 3000 B. C. and 400 A. D. also yielded the red bean and the buckeye from all levels.

At CM 79, yet another Cuatro Cienegas site, peyote in the form of a necklace has been found and dated between 810 and 1070 A. D.

In Trans-Pecos, Texas, a large number of sites have been found which contain both the Mexican buckeye and the red bean at very early time periods. The number of sites is too great to list here but the following are representative (see Story and Bryant 1966 for further information on these sites.):

Fate Bell Shelter (42 VV 74)

This enormous rockshelter yielded *Sophora secundiflora* and *Ungnadia speciosa* from all levels of the deposit spanning the well dated Trans-Pecos archaeological Periods II through VI (7000 B. C. to 1000 A. D.).

Coontail Spin (41 VV 82)

This rockshelter yielded both *Sophora secundiflora* and *Ungnadia speciosa* spanning Trans-Pecos Periods III through VI (4000 B. C. to A. D. 1000).

Zopilote Cave (41 VV 218)

This site yielded *Sophora secundiflora* and *Ungnadia speciosa*. The site spans Trans Pecos Periods IV and V (2500 to 200 B. C.).

Eagle Cave (41 VV 167)

This well dated cave contained *Sophora secundiflora* in abundance as well as

Ungnadia speciosa. Both were restricted to strata spanning Trans-Pecos Periods II through VI (7000 B. C. to A. D. 1000).

Bonfire Shelter (41 VV 218)

This well dated and important archaeological site yielded *Sophora secundiflora* from the lowest occupational stratum- Bone Bed II with a C¹⁴ age of 8440 to 8120 B. C. This occurrence is in direct association with Folsom and Plainview projectile points. This plant also occurred in the topmost level of the site dated at A. D. 420 to 1040, as well as the rest of the intervening cultural deposits. Presently, the lower date from this site and the lowest date from Frightful Cave constitute the earliest dated occurrences of psychotropic plants in North America.

As in Mexico, the buckeyes from the Trans-Pecos sites are occasionally found in caches involving sealed, twilled or plaited baskets. One such spectacular cache was recovered from Horseshoe Cave (41 VV 171) by Woolsey (1936) and provided further evidence as to the potentially ritualistic use of this plant. Among other items, the cache contained eleven rodent mandibles (ten lefts and one right), a carapace of terrapin, three pieces of red ochre, a piece of deer hide, a ball of pink clay, a variety of lithic artifacts, and one pint of *Sophora secundiflora* and *Ungnadia speciosa* mixed together.

All of the above data seems to indicate that the regular use of psychotropics is established in the northeastern Mexico Trans-Pecos Texas area by ca. 8500 B. C. The earliest plants would appear to be the buckeye and the red bean, though the frequency of the former is much greater than the latter in early contexts. Later, the use of the red bean becomes more common while the buckeye declines. At some point, as yet undetermined with precision, the use of the red bean likewise declines and peyote becomes the favored plant. This supports the view of La Barre and others that a widespread red bean cult preceded the use of peyote in the area under discussion. Moreover, it indicates great age for this cult. An interesting facet of the sequence just presented is the fact that there is a marked trend toward the use of ever less lethal plants. *Ungnadia*, if indeed it

is used as a psychotropic, is, if Havard can be believed, quite dangerous while *Sophora* is only a little less so. Conversely, *Lophophora*, even when taken in excess, is not physically harmful.

A final comment may be made on the context of the use of such plants. Considerable, though wholly circumstantial evidence, suggests the use of the buckeye and the red bean may be part of a hunting cult. The cache items from Texas, and what may be an antler headdress from Mexico are but a few of the more direct hints at such a cult.

However, it is possibly unwise to presume an exclusively ritual use for any of these plants. The enormous quantity found in some of the sites seems much more than ritual alone would require, particularly given the small amount needed to become crazed. The incidental use of such agents as simple intoxicants is therefore not to be discounted.

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Book Reviews (continued from page 93)

and their distinctive species, comments on photography of wildflowers, and several aids for plant identification. The identification aids include a few short general comments on identification, a list of "Plants with Unusual Characteristics" (e.g., compound umbels, milky juice, succulent leaves), a dichotomous key to nine "species groups" (e.g., monocots with superior ovularies), an illustrated list of floral and vegetative structures, and a five-page glossary with good non-technical definitions. The usefulness of the book could have been increased by expanding the key to species groups or including a key to families or genera. Regrettably, references to floras or other sources of identification for the many southeastern species not included in this book are not cited.

In summary, this is a good, well-prepared,

photographic guide to southeastern wildflowers, although lacking detailed keys or references for species identification. The book is worth the \$12.00 price.

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