

FOLK MEDICINE AND HERBAL HEALING

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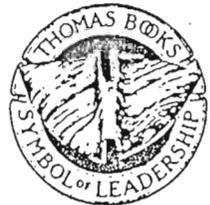
GEORGE G. MEYER, M.D.

KENNETH BLUM, Ph.D.

JOHN G. CULL, Ph.D.

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CHAPTER 18

MAYAN-EGYPTIAN USES OF WATER LILIES (*NYMPHACEAE*) IN SHAMANIC RITUAL DRUG USE

WILLIAM A. EMBODEN AND MARLENE DOBKIN DE RIOS

As Schultes has reported, the twentieth century will probably be best remembered for the rediscovery of mind-altering drug plants. While the last decade has seen an enormous resurgence of interest in plant hallucinogens and their use in traditional societies of the world, we would like to choose one little-discussed plant, the decorative water lily of the family Nymphaeaceae whose medicinal and mind-altering qualities are extraordinary. Information on *Nymphaea* species as psychoactive is scant in current literature. The story of the rediscovery of this plant drug is worth a few lines. Independently, Dobkin de Rios, (1974, 1978) a cultural anthropologist, analyzed the art of the prehistoric Maya as a means of understanding drug-induced religious activity; on a "tip" from Emboden (1974), a botanist, she suggested that the ancient Maya used *Nymphaea ampla*, a white water lily of meso-American fresh waters in healing activities (1974). At about the same time, Diaz, a biochemically oriented medical researcher at the National University in Mexico began gas chromatographic studies on the plant, since a number of young American visitors had begun to use its rhizome as a recreational drug in highland Chiapas.

Dobkin de Rios and Diaz (1976) were able to pool their knowledge to suggest that on the one hand, an analysis of the art and artifacts of prehistoric Mayan peoples indicated a knowledge of the psychoactive properties of *Nymphaea ampla*, as well as a probable

use of the plant for religious and healing activity. Containing aporphine, related chemically to apomorphine (a highly emetic morphine-like substance), the genus *Nymphaea* has now become of great interest to students of traditional plant healing since it has been of interest not only in ancient Mesoamerican society but in ancient Egypt and parts of Asia as well.

This paper, focusing on multidisciplinary evidence derived from chemistry, botany, anthropology, art, literature and the history of religion will support the contention that water lilies are hypnotic drugs and have been used similarly in two diverse ancient civilizations, namely the ancient Maya and the ancient Egyptians. We will argue in the limited space provided us that, given the psychoactive properties of the plant, and the high value placed by both societies on ecstatic states as a vehicle to communication with supernatural forces, the water lily played a major role in transformational shamanic activities and in healing. Since many volumes have been written on both of these ancient civilizations, and the botanical-chemical data is vast, we must restrict ourselves to a rather schematic presentation. Multidisciplinary efforts have enabled us to synthesize this new material and reiterate how powerful a force plant hallucinogens have been, not only in hunting and gathering societies of the world but among ancient civilized nations.

While one approach to this interesting convergence of drug use among the Maya and Egyptians might be to seek out diffusionist connections, Dobkin de Rios' study (1973) has indicated that throughout the world, mind-altering plants have been used by peoples of traditional societies and ancient civilizations in a similar fashion apart from such connections. As the result of a report contracted by the second National Commission on Marihuana and Drug Abuse, Dobkin de Rios surveyed the use of a dozen societies of the world who utilized mind-altering plants for religion, healing, witchcraft, divination and recreational purposes. As the result of this analysis, a number of themes linked to psychoactive plant use emerged and function as working hypotheses which can be tested in diverse societies of the world.

Our presentation establishes the presence and postulated use of a known psychoactive substance among the Mayans and Egyptians by examining their art, artifacts, oral traditions and written records

for evidence and utilizing the symbolic themata that independently have emerged among drug-using peoples.

With regard to this book's theme of herbal medicine and folk healing, our presentation perhaps may seem to some to be not completely convincing. Unlike the transitional Amazonian populations studied by Dobkin de Rios (1968, 1972) or the reconstructions of Greek shamanic use of wine (Emboden 1972, 1977), much of the data on Mayan and Egyptian healing use of the water lily is derivative and suggestive. Among the ancient Maya, vomitive therapeutics were well known, as among all new world Indian populations. Ackerknecht (1951) pointed out that the etiology of disease among non-Western peoples was finite in categorization, with disease intrusion a major mode of psychological/physiological disorders. We suggest that any technique including the use of an emetic and mind-altering substance which enables a healer to extract such introjected substances would thus assume particular value to society. We have summarized our data which establishes the use of the *Nymphaea* among both the ancient Maya and Egyptians. We have compared similarities and differences in the recorded use by both peoples and interpreted the implications of such use in religion and healing, insofar as the drug properties of the water lily were undoubtedly known and appreciated by priestly castes in both areas.

THE ANCIENT MAYA AND THE WATER LILY

Dobkin de Rios (1974) analyzed the psychotropic flora and fauna of the Maya from three distinctive regions of Southern Mesoamerica. In that paper, it was suggested that the Maya used the water lily as part of religious activity. This is of especial interest since the plant at that time, merely from the thematic analyses, suggested to her that it was of hallucinogenic content. She argued that the Mayan shaman, priest and artist knew of these properties, which in turn were also diffused at the folk level in pre-Classic times. Rands (1953) listed various mythic associations connected with the water lily in a large number of archaeological sites. They include death symbols; mythic beings as the source of the plant, including a long-nosed serpent or rain god, bird form

and jaguar; anatomical sources associated with the water lily at the top of the head, ears, eyes, mouth, hands and neck/nose regions, suggestive of the psychoactive effects on sensory modalities; paraphernalia indicating preparation of the plant in a drink or powdered form; supernatural themes of nine over-lords of the underworld; association with a toad (*Bufo marinus*); and reclining human figures. From the middle of the Classic Period until the demise of Mayan civilization, the water lily motif is common and is part of a complex of beliefs connected with the maize plant and important in Mayan religious symbolism, although in higher doses it induces psychoses.

One of the drug-related themes referred to earlier includes that of death and resurrection. The mayan association of the *Nymphaea* escatological concepts may shed some light on the linkage of the drug effect with its religious patterning to facilitate communication, control, manipulation or supplication of more-than-human entities.

The relationship of mythic beings as the source of the plant, including the long-nosed serpent, a bird form and jaguar corresponds to many drug-using societies where shamanic metamorphoses into animal familiars, the so-called "shape-shifting" in folkloric parlance, is a commonly found theme. It may symbolize the power source of the individual who calls upon an animal familiar to do his bidding, thus this theme which is generally part of shamanic religious systems of the hunter, and gatherers of the world, has not been analyzed for its continuance among priestly hierarchical elites in societies such as the Maya and the Egyptians. We will argue in this paper that such a drug-linked theme may explain some of the shape shifting in Egyptian religious art as well as New World art. In both cases it derives from the power element of control over nature signified in shamanic religion and thought to be of lesser significance in the religions of advanced civilizations where supplication became a more dominant ethos of the society. Both ancient Egyptian society as well as the Maya, in our opinion, were cognizant of this ethos of power and saw the drug-induced state as an expression of man/animal power relationships. As Roys (1965) points out, it is likely that the priests took over some of the functions of the old shamanhood. With

regard to drug healing, Roys points out that the shaman accomplishes his purposes through his own power and not of the gods, although he does not oppose the deities to whom he is usually reverent. Diseases were considered to be a semipersonified being, not assuming human form but understanding commands and impressed by the words of the shaman. Such a healer, probably with the use of psychoactive plants as the water lily, is at battle with the personification of the disease; Roys' analysis of the *Ritual of the Bacabs* indicates that the shaman emphatically asserts that he is winning the contest.

THE ANCIENT EGYPTIANS AND THE WATER LILY

It is clear that *Nymphaea ampla* has antecedents in older Near Eastern cultures. Ekholm and Heine-Geldern (1951) have argued for similarities in Buddhist and Mayan art on the basis of trans-Pacific contacts. However, we suggest that similarities are related to the intrinsic properties of the plants in question and their production of altered states of consciousness as found in sculpture and other art. Recent studies of apomorphine (Tamminga et al. 1978) have also indicated that in low doses, it is effective in the treatment of schizophrenia and other acute psychoses. Without doubt, traditional healer/priests in both regions must have empirically observed such effects.

Emboden (1978) has pointed out that of the several Mayan sites in which water lily motifs have been found, the murals at Bonampak are dramatically like Minoan and Egyptian murals. In both cultures, the true priests occupied centers that were forbidden to the common people or folk-level shamans who may have been involved in curing and divination. Higher priestly castes were involved in prediction, oracular revelation and formulation of spells.

Although Conard (1955) writes of the importance of water lilies as a decorative motif in ancient Egyptian civilizations, he is unable to attribute any mythic or ritual associations other than the obvious; he further denies that members of the family *Nymphaeaceae* have unusual chemical properties or any real medicinal value. This is due to his lack of knowledge of some early reports and in other instances, of his unwillingness to place any credence in such

assertions. Descourtilz (1828) reported that the water lilies of the Antilles were "narcotic and able to replace opium." This report gained credence when Pobeguín (1912), in writing on the medicinal plants of Guinea, noted that *Nymphaea stellata* and *N. caerulea* were used in order to obtain a narcotic decoction from the flower. Mordrakowsky (1938) characterized the flowers of *Nymphaea* as a hypnotic when injected. The report of Raymond-Hamet (1941) attributed all effects to nupharine and indicated this compound to be a respiratory stimulant; this account stands in marked contrast to the more frequent references to the flower as a psychodysleptic, but unlike his predecessors, Raymond-Hamet did not experiment with humans. The report of these substances combined with Diaz's (1976) report of apomorphine-like compounds as well as nuciferine and nornuciferine are an opening to a more complete exigesis of the complete chemical syndrome.

Egyptian civilization presents us with a stratification hierarchy much like that of the Mayan. In both cultures the priestly castes occupied centers that were forbidden to the folk shaman, who in turn, concerned himself with curing and divination. The high priestly caste involved themselves with the prediction of lucky and unlucky days, oracular revelation and the formulation of spells. The Harris Magical Papyrus, the Salt Magical Papyrus, and the Beatty Papyrus VII are all almost entirely occupied with relating the magic of a priestly caste which never filtered down to the common man in any primary form. Dobkin de Rios (1973) acknowledges a common theme worth noting in this context is that as societies become more complex structurally, plant hallucinogenic use alters. Thus, with elite formation, drug plants are generally usurped from popular use because of the magical power they are believed to possess, especially in terms of their use culturally by those believed able to bewitch enemies. Among the Maya we have reason to suspect complex beliefs concerning such drug use disappeared upon the demise of the elite groups, coded only in the art. In Egypt, real commentary on priestly activities begins only in the Fifth Dynasty (2494-2345 B.C.) and indications are that temples of this period were occupied exclusively by a priestly caste, where neither worshippers nor supplicants were permitted to enter. In later periods the mortuary temples became

the gathering place for secondary cults, which developed out of a desire on the part of the common man to have stations at which to venerate real or imagined heroes and deities. The official religion involved a daily ritual on the part of temple priests that was extremely uniform in the divergent temples. During most of the dynasties it was a ceremony linking the king with Osiris whose death and resurrection is symbolized in the blue water lily (*Nymphaea caerulea*). Again referring to Dobkin de Rios' study (1973), the theme of death of the ego and resurrection is another drug-linked motif occurring cross-culturally. A trinity existed between the pharaoh or king, Osiris, and Horus. Horus was originally the sky-god and latter the son of Osiris and his sister Isis. Thus all incantations in the temple were tripartite, emblematic of the earthly existence of the pharaoh, his union with the heavens and the waters as symbolized by Horus and Osiris respectively.

Just as the propitiants at Delphia held laurel leaves in their mouths, so those who would approach the mortuary temples would hold water lilies. Fortunately, tomb paintings make it clear to us that the flower was *Nymphaea caerulea*. This same flower regularly appears on "unguent jars" found in the tombs of pharaohs, especially in the Eighteenth Dynasty. The traditional explanation is that these were jars of perfumes and anointing oils, but a more plausible hypothesis is that they contained the elixirs of a priestly caste that would aid the mortal being on his immortal journey just as they had in life. The figuring of the blue water lily as well as mandrake fruits (the narcotic *Mandragora*) give further evidence to this end. In the Papyrus of Ani often referred to as *The Book of the Dead* we can trace certain magical formulae to at least 3,500 B.C., although the document was drawn up in 1500-350 B.C. In this work there is the magical shamanic transformation scene in which Ani wishes to be transformed into the blue water lily which is the favorite of Rā and an emanation from his sacred person. A variant of this text indicates a transformation into Ptah (creator-god) accompanied by a vignette of a human head springing from the open flower growing out of a pool of water. The text, attributed to Osiris Ani, says, "I am the holy water lily that comes forth from the light which belongs to the nostrils of Rā, and which belongs to the head of Hathor. I am the pure water lily that comes forth from the field

of Rā." In a later version of this book the water lily is petitioned by a supplicant who speaks to it as though to a person asking to be granted a *vision* of the gods who are the guides to the Tuat. It is obviously known to the penitent that the plant can provide the vision, the provoked ego.

In 1941 when it seemed that opium sources might be lost to France as the result of war, Delphaut and Balansard published their experiments with mice in which they used a tincture of powdered rhizomes of *Nymphaea alba* on mice and dogs. They noted a spasmolytic action that terminated in a deep sleep. The simple presentation of a respiratory stimulant reported earlier did not hold up. The overwhelming evidence from the earliest reports has been that the *Nymphaeas* tested have been narcotic and act as mind-altering drugs. To relate this kind of information to Egyptian shamanic ritual can only be accomplished by extrapolation. It is the testimony of a respected Egyptologist, I. E. S. Edwards (1976), that only cups or chalices with the blue water lily were used for ritual purposes. What was the ritual libation? From the "golden shrine of Tutankhamen," we see on the second scene of the top register of the side panel the king pouring some liquid for his queen as he holds water lilies and poppies (*Papaver somniferum*, the opium poppy). Is it fortuitous that of the thousands of plants available to the ancient Egyptians these two should be portrayed? We think not. The accompanying inscription reads: "Adoration with offerings may the Great Enchantress receive thee, O Ruler, beloved of Amun." In the tomb of Tutankhamun alone, 400 liters of fluid were stolen from the calcite vessels decorated with water lily motifs and the "treasures" were allowed to remain. Obviously the fluid had greater virtues than mere unguents or perfumes. Is this not manifest also in the description of Semeñkhkara reclining on a staff as he is offered two mandrake fruits and a bud of *Nymphaea*? These are emblems of shamanic healing. The Egyptologist Arpag Mekhitarian (1954) wrote: "We must never lose sight of the fact that the choice of motifs in Egyptian pictures, even those which seem to have no connection with religious subjects, is always guided by ritual considerations."

The great Rā-Harakhte is seen in the Papyrus of Ani beginning his journey into the nether world as he stands before two

water lily pedestals with jars that are also covered by water lilies. These, like the seven cows and a bull, must sustain Rā on his journey. It is obviously not food, but power or the magic which will sustain him. Is this possibly "the perfume of acclamation," one of the seven ritual oils offered to the gods during rituals? In a fresco from an unknown tomb of the Eighteenth Dynasty there is an amphora on a pedestal from which a spray of gold rays emerge. Below the rim are pendant *Datura* flowers (a potent psychoactive agent), and from these are suspended mandrake fruits. Bands of black and ochre separate these from a row of blue *Nymphaea* flower buds and at the base are grapes. Is it possible that the choice of four intoxicating and/or narcotic plants figure by chance into this scene of funereal ritual dancing?

What is lacking is the hard evidence that the priests actually drank *Nymphaea* infusions from their calcite chalices decorated with the flower. Why was the deceased pharaoh left with jars of opium and presumably mandrake and water lilies for his next life? Can we draw upon the myth of Hawthor's being conquered by Rā through her drinking of a potion of mandrake, beer and blood as indicative of the use of narcotics by sacred personages? This much must be reconstructed in much the same way that the enigmatic soma of the Vedic peoples of north India has been investigated, that is through cumulative bits and fragments of evidence pieced together. We know that the well-being of the people of Egypt depended upon the pronouncements of the priests through their intermediaries who dictated appropriate magical practice for the populace. The religious rituals of the priestly caste depended heavily on revelation. Given the frequent depiction of narcotic plants in association with this elite, it is logical to assume that the imagery is more than decorative. If jars of narcotic substances were given to the dead to sustain them they must also have been sustenance for the living. Egyptian dynasties depended enormously on magical procedures: eating magic, drinking magic, magical passes of the hands, magical books, magical days, magical numbers, etc. We can assume that as in most ancient civilizations healing was within its realm as well. Revelation within induced by a drug is a practice common both in old and new world societies.

We have demonstrated the narcotic qualities of the water lily

the attendant use of opium poppies and mandrakes, and the ritual vessels from which these would be consumed by the priestly groups. The tales of power in ancient Egypt were essentially shamanic in terms of power relationships of men to the supernatural.

Nymphaea and Healing

Although we can make no specific suggestions as to the exact healing ritual in either Mayan or Egyptian civilizations, it is important to note some unusual drug properties of this plant. Apomorphine clinically has a long history of use in Western culture as an emetic, causing heavy and continuous vomiting. Such a drug effect might be inimical to the religious experience sought after by the Mayan priest at a temple center or an Egyptian healer. But, from a pharmacological perspective, after the emetic effect wears off, a dreamy, languid period follows. As mentioned earlier, apomorphine has proven therapeutic effects among mentally ill patients as well. Throughout the world, as Ackerknecht's arguments go, societies that believe in spells, witchcraft and supernatural etiology of disease would be quite interested in a drug plant that creates altered states of consciousness in conjunction with vomitive therapeutics. In the case of one plant hallucinogen, ayahuasca, (*Banisteriopsis caapi*), studied by Dobkin de Rios in the Peruvian Amazon, the heavily emetic properties of that drug were highly regarded by healers and patients alike. In addition the effects of Nupharidine, as discussed, indicate that it plays an important role in contributing to the hypnotic state so important to shamanic conception and behavior. In combination both substances would contribute to the healing of patients with psychological dysfunctions.

Conclusions

In this paper, we have presented evidence that the water lily, a member of the genus *Nymphaea*, was known by ancient Mayans and Egyptians to be a mind-altering drug and used in the service of religion and healing. There are still many avenues of investigation left for us. What about the relationship of *Nymphaea* to the

lotus, (*Nelumbo*), both pharmacologically and botanically? What is the role, if any, of such a drug connection with ancient Eastern religious and healing systems? What can we still learn from those masters in ancient times who have experimented with drug plants and utilized them in their pharmacopoeias, which in turn have influenced their art and beliefs? We would end on the note that much of ancient artistic endeavor in the Mayan and Egyptian civilizations is linked to religious belief, and that is in turn linked to mind-altering plants as a vehicle of supernatural communication. We stress the importance of studies such as our own to aid as a decoding device in understanding the art and religion of ancient people as well as a way of understanding traditional healing activities.

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