

ETHNOHISTORICAL ASPECTS OF PEYOTISM AND MESCALISM

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ABSTRACT

The relationship of "mescal bean cult" and "Peyote Religion" is clouded by the theory that harsh or violent cults are older than mild ones. This is questionable notwithstanding more ancient *Sophora secundiflora* than *Lophophora williamsii* are found in archaeological sites. *Lophophora* and *Sophora* have been closely associated during the full history of Peyotism in the United States. Their use in Peyotism does not make the Native American Church much different from other churches in producing "good behavior." Many Peyotists are at the same time active Catholics, Episcopalians, Mormons, Baptist ministers, leaders of Sun Dance, or medicine men (shamans).

My forty-year study and experience with Peyote became ethnohistorical near the beginning when I discovered early in my Ph.D. thesis research that only a small minority of the Washo and Northern Paiute tribes had accepted the Peyote Religion. My first thesis problem was to discover why the Washo and Northern Paiute had accepted Peyotism during the two years before my research in 1938. The thesis problem became one of learning who were the converts and then trying to determine why those particular Indians became Peyotists. To answer the questions which arose, I was inevitably stimulated to do very unanthropological research. Anthropologists had usually sought a group culture pattern and described the Peyotism of the group as if it were a tribal religion. By contrast, I obtained a census of the communities where Peyotism occurred and then, by talking to Peyotists and non-Peyotists in each community, recorded by name all converts to and all opponents of Peyotism. For the thousand individuals in the communities where Peyotists lived I recorded economic and social status for each. Although about a fourth of the population

had espoused Peyotism for a short time, by November 1938, less than two years after the return home of the Washo Peyote missionary, fewer than 10 per cent remained active in the Native American Church.

The Peyotists made up a proportional representation of the Indian communities as to problem drinking, activity in Christian Missions, shamanism, political leadership, being mixed-bloods, and amount of wealth [1]. None of the theories propounded up to 1938 to explain the spread of Peyotism in the United States could be supported by the data I collected for my Ph.D. thesis, but the research set me firmly on the road to becoming an ethnohistorian.

My research methods have been inductive as far as possible in that theory development has been very general until masses of data have been in hand. The historic portion has consisted in collecting, organizing and evaluating written documents to the fullest extent possible. Rather than being contented with examining other anthropological publications, I have searched both professional and popular historical writings, newspapers, hearings of political bodies, government reports and unpublished archives of the U.S. government, state governments, and universities. One historical method has been the development of a card file containing the names of Peyotists copied from all sources and arranged by tribes. I now have a file of about ten thousand Indians who have been identified as leaders of Peyotism. But many are also named as active Catholics, Episcopalians, Mormons, Baptist ministers, Sun Dance leaders, and are also shamans.

My file of individual Peyote members has led me to this important conclusion: American Indians can and do belong to several distinct religions at the same time. An Oto Indian was the principal promoter of the first incorporated Peyote religion in 1914, while active as a Young Men's Christian Association organizer. He remained a Peyotist while working as a paid proselytizer for the Reorganized Church of Jesus Christ of Latter Day Saints. He continued as a Mormon and a Peyotist yet became a black handkerchief shaman and a sucking shaman while missionizing several groups, including the Navajo into the Native American Church. Those data cast doubt on several widely accepted anthropological theories.

ORIGINS OF PEYOTISM

My name file does not, of course, help to interpret pre-history. Archaeological excavations have exposed Peyote (*Lophophora williamsii*) and mescal or red beans (*Sophora secundiflora*) in pre-historic occupation layers of caves in Northern Mexico and Texas [2,3]. The finding together of *Sophora* and *Lophophora* can be explained by a general theory, which has been developed by ethnobotanists. It proposes that hunting and gathering peoples learn the properties of all plants, animals and insects which occur in their home territory shortly after arriving in the area. Indians would have discovered and eaten both

Peyote and mescal beans in southeastern Texas and Northern Mexico as soon as they arrived and would have declared both possessed of supernatural powers because both were psychotropogens.

Mooney [4], Shonle [5], La Barre [6], and others stated that the violent Ghost Dance was followed by the peaceful Peyote Religion, notwithstanding the fact that Peyotism had preceded the Ghost Dance in Oklahoma by about a half century [7]. Howard did not give credit to the above theory when he proposed that the mescal bean cult preceded and probably provided the basic cultural elements to the milder Peyote cult [8]. Although La Barre was quick to find fault with much of Howard's article he did say: "Howard's basic thesis that the ritual form of peyotism is derived from an earlier mescal bean ceremony is a good one." [9, p. 710] He reported some archaeological evidence for the antiquity of mescal beans in south Texas and modern Mexico. Campbell reported many archaeological finds of mescal beans and two finds of Peyote in Texas caves [2], but it remained for Adovasio and Fry to report the evidence that hundreds of mescal beans had been found in many deposits dated back to 7500 B.C. and Peyote has been in a few sites in levels only 810 to 1070 A.D. [3].

In 1962, Troike reviewed the evidence for the relationship between mescalism and Peyotism and expressed doubt that mescalism preceded Peyotism. Troike wrote: "Thus the mescal bean, along with peyote and datura, seems to have been part of a widespread and very ancient narcotic complex in northern Mexico." [10, p. 961]

The opinion that the potentially lethal red bean cult preceded the Peyote religion continues to be expressed [11-16]. For example, in 1976 Furst makes an unqualified assertion that evidence for a red bean (*Sophora*) cult goes back to 7265 B.C. and that use of *Sophora* was replaced by the "benign peyote cactus." [16]

Most scholars recognize that assertions that a red bean cult was present about 7000 B.C. are not warranted. No undisputed evidence from archaeology justifies more than a cautious opinion that the finds of *Sophora* beans suggest the possibility of a cult. No Spanish historic reports I could find state that *Sophora secundiflora* beans were used in rituals in Mexico. In 1539, in Texas, Cabeza de Vaca said only that mescal beans were an article of trade [11, p. 31]. The Spanish sources on *Sophora* in ritual found by Troike come mainly from Texas—among Caddo as reported by Father Hidalgo in 1716 [10]. Parsons recorded informant testimony of the traditions that Caddo had in the distant past used red beans as a medicine [17, pp. 34,36]. Another Spanish source cited by Troike is the confessional in the Coahuiltecan language used in the San Antonio mission in 1760 which asked: "Have you eaten the flesh of man? Have you eaten peyote? Did it intoxicate you? Have you eaten *frixolillo*? Did it intoxicate you?" [10, p. 654] *Frixolillo* was early recorded as a name for *Sophora* beans, and the juxtaposition with Peyote suggests ritual use. Since

Sophora had a greater natural range than Peyote in both Texas and Mexico, the scarcity of early Spanish references to the ritual use of *Sophora* casts doubt on its antiquity in ritual in Mexico. By contrast, references to use of Peyote in Mexico assembled by Slotkin occurred as follows: eleven in the sixteenth century; thirteen in the seventeenth century; twelve in the eighteenth century; five in the nineteenth century [18, pp. 223-227].

It appears to me somewhat unusual that only three of the twelve tribes for whom Howard found evidence of a mescal bean cult, the Tonkawa, Wichita and possibly the Mescalero Apache, were living in the territory of natural growth of *Sophora secundiflora* in pre-Spanish times [8]. All Apache were recent migrants from the north. The Lipan Apache reached the *Sophora* area after 1758 [19].

Inasmuch as the evidence is very limited for an ancient red bean cult, how can one account for the large quantity of *Sophora* in cave deposits and for its continuing popularity with members of the Native American Church? The greater age and amount of *Sophora* in archaeological deposits, over *Lophophora*, can be a result of the physical properties of the two. Red beans have a tough hard skin, difficult to crush and resistant to stomach fluids and water [8]. They are brilliantly colored and easy to transport. *Lophophora williamsii* could decay easily if moist and lacked any attractive shape or color when dried.

Because of error, to be considered later, the terms mescal, mescal button, and mescal bean were used to designate Peyote. The first law to prohibit Peyote in the United States was enacted by the Oklahoma Territorial legislature in 1899 upon the recommendation of U.S. Indian Agents [20], but the law was ineffectual when tested in court in 1907, because the law declared the use of "mescal beans" was unlawful. The 1907 cases were dismissed because the Indians convinced the judge they used Peyote in their rituals and not mescal beans. Further clarification came in January 1908 when Indian Agents attempted to amend the anti-mescal bean law by adding Peyote. Peyotists blocked the attempt to outlaw Peyote by having a large delegation of Peyotist Indian Chiefs including Quanah Parker (Comanche), Joe Springer (Iowa), Black Dog (Osage) and others who testified mescal beans were used to wear as bandoleers or necklaces but that only Peyote was consumed in rituals. The newly created Oklahoma State Legislature repealed the anti-mescal bean law and refused to pass the anti-Peyote law (Documents in Oklahoma Historical Society).

USE OF MESCAL BEANS

In 1977, William L. Merrill of the University of Michigan Museum authored an exhaustive review of published references to mescal beans (*Sophora secundiflora*) and examined museum collections of mescal beans and items decorated with them from the seven largest ethnographic museums in eastern

United States and received photographs and descriptions of such items from eight other museums coast to coast [21]. Merrill wrote: "The exploitation of the psychotropic properties of mescal beans was the most dramatic use of mescal beans by North American Indian groups, and the most elaborate symbolism and ceremonialism associated with the use of mescal beans was developed by those American Indian groups who employed them in this fashion. Yet, of the more than thirty North American Indian groups who were familiar with mescal beans, less than half are known ever to have consumed them. Without question, the most widespread and continuous purpose for which North American Indian groups have employed mescal beans is as seed beads attached to a wide variety of articles. . . ." One of the archaeological specimens of mescal bean use from Val Verde County, Texas, was a buckskin loin cloth decorated with *Sophora secundiflora* seeds [21].

Merrill identified forty-four tribal groups which employed mescal beans as material culture [21]. Five of these might have lived or traveled in the natural growth areas of *Sophora secundiflora* and of *Lophophora williamsii* in pre-Spanish times. These were Coahuilteco, Tonkawa, Caddo, Wichita, and Mescalero Apache. The tribes which moved into the natural range of *Sophora* following Spanish occupation of the American Southwest and Texas, but before 1850 were the Kiowa, Kiowa-Apache, Comanche and Lipan Apache. Of the eighteen tribes Merrill named as consuming mescal beans individually or ceremonially eight are named above; i.e., all except the Kiowa-Apache. The other ten red bean eaters never occupied the natural range of *Sophora*. Four of the groups who lived for long periods during the last two centuries in the natural range of *Sophora* have no record of developing any ceremonial use of the mescal bean. These are Lipan Apache, Mescalero Apache, Kiowa-Apache, and Kiowa. There is some question about Comanche. Nine prairie tribes who developed mescal bean ceremonial usage never occupied the *Sophora* natural area, although seven of the nine moved into Oklahoma from farther north during the last third of the nineteenth century. These seven were Pawnee, Iowa, Oto, Missouri, Kansas, Osage, and Ponca. Only the Prairie Potawatomi and Omaha developed mescal bean rites without staying in Oklahoma or living for long periods in the *Sophora* natural growth area.

Twenty-five other tribal groups have documented use of mescal beans as seed bead decoration, without any record of using them in special red bean ceremonies. These include Blackfoot, Crow, and Cheyenne of Montana; Arikara, Mandan, Hidatsa, and Sioux of North Dakota; Ojibwa of Minnesota; Omaha and Winnebago of Nebraska; Sioux of South Dakota; Sac and Fox, Shawnee, Delaware, Kickapoo, Arapaho, and Cheyenne of Oklahoma; Taos, Santa Clara and Apache of Arizona, and the Shoshone and Arapaho of Wyoming.

When considering presence or absence of Peyotism among the forty-four groups who used mescal beans to decorate materials, it is obvious there is a high

correlation between the two. That eight groups of mescal bean users should not also have Peyote might come as a surprise, especially when it is learned the eight are made up of three groups of Sioux in South Dakota; three groups of Apache in southern Arizona; the Blackfoot of Montana and the Santa Clara Pueblo of New Mexico. Of more interest may be the reports of Peyotism among the eighteen Indian groups where mescal was ingested in a ritual or as a medicine.

Except for one, the nine groups occupying the area of natural growth consumed *Sophora secundiflora* and *Lophophora williamsii*. Only the Kiowa-Apache among the early Peyotists are not known to ingest mescal beans. The groups longest in the Peyote and mescal bean area, the Coahuilteco, Tonkawa, Caddo, and Lipan Apache loom large as the organizers of the Peyote religion which was taught directly to the other five groups which had traveled most in the *Sophora* and *Lophophora* areas—the Wichita, Comanche, Kiowa, Kiowa-Apache and the Mescalero Apache.

I have now well documented by name the roles of four Lipan Apache Indians who were born near Laredo, Texas, and who settled with the Kiowa, Kiowa-Apache, and Comanche and were named as teachers of the Peyote ritual, including songs, to the groups around Fort Sill in Indian Territory, now western Oklahoma. The best known was Chivato, who was photographed in a Peyote meeting wearing a mescal bean bandoleer.

In 1859, the only U.S. Indian reservation in Texas was raided and the Indians were forced to flee to Indian Territory. The role that Caddo, Tonkawa and Wichita, removed from the growth areas of *Sophora secundiflora* and *Lophophora williamsii*, might have played in preparing the way for or supporting Chivato and his fellow Lipan has not been reconstructed. The Caddo John Wilson became, at the age of about forty, before, during and after the most active Ghost Dance period in Oklahoma, 1890 to 1893, a noted Peyote prophet and proselytizer. His sect of Peyotism is the most popular and active modification which has continued at least ninety years and is strong among Sioux and Winnebago, and is the dominant sect on the Goshute Reservation in western Utah.

Merrill records that of his forty-four groups using mescal beans on articles, thirty-two strung them to be worn as necklaces or bandoleers, by far the most common use, during Peyote ceremonies [21, Table 1, pp. 32-33]. He did not include analyses of photographs. I have old photographs showing mescal beans with Peyote outfits worn by Comanche, Kiowa, Kiowa-Apache, Southern Arapaho, Southern Cheyenne, Delaware, Iowa, Kickapoo, and Osage, as well as the Lipan mentioned above. In 1979, mescal beans were sold by the hundreds by the Western Trading Post, Denver, Colorado. Merrill concluded: "The evidence presented. . . has failed to provide support either for the proposition that 1) the ceremonialism associated with the pre-reservation mescal bean medicine societies had a direct and substantial impact on the ceremonialism of the reservation Peyote Religion or for the proposition that 2) a familiarity with mescal beans. . . enhanced the diffusion of peyotism. . ." [21, p. 60]

CONFUSION OF MESCAL AND PEYOTE IN THE LITERATURE

Just as I find no support for Howard's suggestion "that the mescal bean ceremony may have been a direct ancestor of the peyote cult," [8, p. 75] I see no merit in his idea that an understanding of the red bean cult could account for "the frequent confusion of the terms 'mescal bean' and 'peyote'." [8, p. 86] The two were never confused in the minds or words of the Indians, the Spanish, or the Mexicans. In Mexico, mescal is associated with an *Agave* plant either as a food or as an intoxicant fermented and distilled from it. Unfortunately, in the United States popular yet often official notice of Peyotism, because of inadequate knowledge of the two Mexican intoxicating products, used the same term for two, and considering *Sophora*, for three different plants. So far as I can find, there are no reports from Mexico at any time up to the present using any form of the word mescal to designate Peyote. The mistake started in the United States and spread to Europe and was then shipped back. The earliest American reference to Peyote is by Havard in 1885 in which he identified it as *Anhelsonia fissurata* and *A. williamsii* with the Spanish name *Pallote* and English Peyote [22, p. 420]. In the same study he described "*Sophora secundiflora*, Lag. (*Frijolillo*; Coral Bean)." The next published reference is in the *Report of the Commissioner of Indian Affairs* for 1886 in which Agent J. Lee Hall describes a narcotic cactus called *wocowist* by the Comanche and *hoas* or *hose* by the Apache. In 1888 the annual report of Indian Agent E. E. White wrote of *Woqui* of the Comanche and added: "Its common name here among the whites is mescal bean." [23] At about the same time J. R. Briggs, M.D., of Dallas ate some Peyote, and reported his experience to the *Medical Register* [24] which published it April 7, 1887, and it was soon reprinted in the *Druggists' Bulletin*, under the title "Muscale Buttons—Physiological Action—a Mexican Fruit with Possible Medicinal Virtues." In July 1887 Briggs sent five bushels of Muscale buttons to Parke-Davis in Detroit. In 1888, Parke-Davis sent buttons to Louis Lewin in Germany who shared them with D. Henning. According to Bender: "Muscale buttons entered into the literature of medicine as *Anhalonium Lewinii*, Henning" [25, p. 163] by means of an article by Lewin in the *Therapeutic Gazette* in 1888 [26].

The misnomer was continued and enlarged in reports of the Commissioner of Indian Affairs until the error was demonstrated in court rooms in Oklahoma in 1907, mentioned above. It was expanded to the scholarly and popular literature chiefly by the mistakes of Smithsonian Ethnologist James Mooney who was a participant observer in a Kiowa Peyote meeting in early 1891. When writing of it in a letter in April 1891, he called it the "mescal ceremony." In a speech before the Anthropological Society of Washington, as reported November 4, 1891, in the Washington D.C. *Evening Star*, Mooney talked on "The Kiowa Mescal Rite." [27] A copywrited story by Mooney in the January

24, 1892 issue of *The Augusta Chronicle* had the headline EATING THE MESCAL [28]. *The American Anthropologist* published a short article by Mooney and a photograph of a Peyote rattle with the title "A Kiowa Mescal Rattle." [29] Under the title "The Mescal Plant and Ceremony," appeared an article by Mooney in *The Therapeutic Gazette* in which the names for *Anhalonium williamsii* were explained as follows: "Among the Kiowa it was *seni*; among the Comanche *wokowi*, with the Mescaleros, *ho*; and with the Tarahumaris, *Hikori*. The traders of the Indian Territory commonly call it mescal, although it must not be confounded with another mescal in Arizona, the *Agave*. . . The local Mexican name upon the Rio Grande is *peyote* or *pellote*, from the old Aztec name *peyotl*. . . . The Mescalero Apache take their name from it." [36] In a footnote, Mooney reports, "Mr. Colville, botanist of the Agricultural Department, has made a distinct genus of the mescal plant, calling it *Lophophora williamsii* Lewinii." In 1897, Mooney wrote of "The Kiowa Peyote Rite," in *Der Urquell* [31].

The false designation of *Lophophora williamsii* as mescal entered published literature through the mistakes of J. R. Briggs, M.D. [24], Indian Agent E. E. White [23], and ethnologist James Mooney [27]. The error has been given its most recent and greatest dissemination by Carlos Castaneda in his popular novels in which he attributes to a Mexican Yaqui assigning the name "Mescalito" to the supernatural power in Peyote [32].

As mentioned above, the drug supply house of Parke-Davis supplied some European scholars with large samples of Peyote, which soon became known and shared. A few years later James Mooney of Smithsonian Institution furnished Peyote in sufficient quantity to several American doctors for objective tests of the properties and effects of the cactus. Havelock Ellis, an early English psychologist, in June 1897 published one of the first such studies in a medical journal entitled "A Note on the Phenomena of Mescal Intoxication." [33] Slightly enlarged and rewritten, it reappeared in a literary journal, *The Contemporary Review*, as "Mescal: A New Artificial Paradise" in January 1898 [34]. Within months it was reprinted without change in the *Annual Report of the Smithsonian Institution* [35]. It entered public knowledge by being reprinted in *Popular Science Monthly* in 1902 [36]. It may have been reprinted many times, but I have in hand one by Ebin published in 1961 [37]. In 1898 Ellis gave the background for his experiment as follows: "In 1891 Mr. James Mooney, of the United States Bureau of Ethnology, having frequently observed the mescal rites of the Kiowa Indians and assisted at them, called the attention of the Anthropological Society at Washington to the subject, and three years later he brought to Washington a supply of mescal, which was handed over for examination to Drs. Prentiss and Morgan. These investigators experimented on several young men, and demonstrated, for the first time, the precise character of mescal intoxication and the remarkable visions to which it gives rise. A little later Dr. Weir Mitchell, who in addition to his eminence as a physician, is a man of marked aesthetic temperament, experimented on himself,

and published a very interesting record of the brilliant visions by which he was visited under the influence of the plant. In the spring of the past year I was able to obtain a small sample of mescal in London, and as my first experiment with mescal was also, apparently, the first attempt to investigate its vision-producing properties outside America, I will describe it in some detail, in preference to drawing on the previously published descriptions of American observers." At this point in his article he drew attention to this footnote: "Lewin, of Berlin, indeed experimented with *Anhalonium Lewinii*, to which he gave its name, as early as 1888, and as he found that even a small portion produced dangerous symptoms, he classed it amongst the extremely poisonous drug, like strychnia." The importance of the early experiments is evidenced from their being cited by ethnologist Edward H. Spicer in his review of the first volume by Carlos Castaneda [38].

The experimenting has continued in recent years but with the synthetic alkaloid mescaline rather than by eating an unmodified part of the cactus, referred to as "pan-peyote" in the scholarly literature.

POPULAR LITERATURE ON PEYOTE

During the last half century three books on Peyote have become known widely enough to be considered "popular." The first appeared in French in 1927 entitled *La Plante qui fait les yeux émerveillés: Le Peyotl* (The Plant Which Produces Astonishing Visions: The Peyote) by A. Rouhier, Paris [39]. Rouhier published an article with the same title in a medical journal in 1923 and had used the same subject for his doctoral thesis in pharmacology in 1926. Also in 1927 appeared in Paris his pamphlet entitled *Les Plantes Divinatoires* (Plants Used for Divination) [40]. His two publications of 1927 were combined, edited and republished in 1975 by Odette Rouhier.

The second popular book was published in London, 1928, entitled *Mescal: The 'Divine' Plant and Its Psychological Effects*, by psychologist Heinrich Klüver [41]. This was reprinted and combined with Klüver's 1942 article entitled "Mechanisms of Hallucinations" [42] in 1966 by the University of Chicago Press [43].

The third is *The Peyote Cult* by Weston LaBarre, which was submitted to Yale University as a Ph.D. thesis and published as an anthropological monograph in 1938 [6]. It was reprinted as a commercial book in 1959. Three additional editions have appeared, each enlarged over previous printings. The fourth edition appeared in 1975 and was the tenth printing by the fourth publisher [44]. A monograph on Des Peyote-Kultes by Gunter Wagner was published in Berlin in 1932, which covered much of the same ground as LaBarre's *The Peyote Cult*, but it never appeared as a commercial book, so far as I know [45].

The three popular books can serve as guides to non-Indian concern and involvement with Peyote inside and outside of the Peyote religion. An analysis

of the bibliographies in the three books reveals the relative amount of research and writing stimulated by concern with the Peyote religion of the Indians as compared with similar activity devoted to non-Indian experimentation and study of the Peyote cactus as a plant and as a stimulant, or as an ordinary medicine. For example, Rouhier cited 136 studies in 1927, but only twenty-five, less than one-fifth, could be identified as ethnographic reports of American Indian use of Peyote [39]. For the second edition forty-nine new titles were added, of which eighteen were ethnographic. In both editions with 185 titles cited less than one-fourth are ethnographic. Notwithstanding being in French, Rouhier's *Le Peyotl* has been a major source of information on the subject internationally.

Klüver's *Mescal* had only about one-fourth as many pages as Rouhier's *Le Peyotl*, and Klüver's use of ethnographic sources was relatively more restricted than was that of Rouhier [41]. Klüver listed fifteen references used and only three were ethnographic—Mooney, Radin, and Shonle. The other publications cited dealt with the chemical properties of the Peyote cactus and the physical, mental and emotional reactions of white Europeans and Americans after receiving pan-peyote or one or more of its various alkaloids in refined form.

The third popular book, LaBarre's *The Peyote Cult* has had a much greater international distribution over a longer time than the other two [44]. Enlarged three times from its first printing in 1938, the number of references cited arose from the initial 454 to 1239 in 1975. In 1938 LaBarre cited 144 ethnographic sources, which is less than one-third of the total reports related to Peyote which he found. By 1975 the ratio of ethnographic to non-ethnographic studies had been reduced to slightly more than one-fourth. Since LaBarre is an ethnographer and general anthropologist it is to be expected he would be delighted in seeking the anthropological literature on Peyotism as compared to the efforts of pharmacologist Rouhier or psychologist Klüver. Nevertheless the above analysis can be accepted as a good indication of the relative attraction of Peyote as a part of an American Indian religion or its attraction as a plant which induces visions.

NON-INDIAN USE OF PEYOTE

Another way to evaluate the sources of public information about Peyote in addition to counting the publications is to compare the number of non-Indian individuals who took Peyote in various ways. In 1927 Rouhier named eight anthropologists who had been in Peyote meetings and Odette Rouhier added seven more for the bibliography of the 1975 edition [39]. Klüver in 1928 named only one anthropological author who had attended a Peyote meeting: Mooney [41]. For his thesis in 1938, LaBarre named twenty-five white participant observers in Peyote meetings, including those named by Ellis, Rouhier and Klüver [6]. By 1975 LaBarre could add the names of thirty-five more non-Indians who had attended Peyote meetings and made reports on them [44].

I have learned of a dozen more, not named by LaBarre. Thus as a matter of record, probably fewer than one hundred non-Indians reported attending Peyote meetings from 1891, when Mooney started the process, to 1979.

The total of non-Indian experimenters is harder to estimate. Rouhier named sixteen [39], including Ellis, Prentiss, Morgan and Mitchell, but not Lewin, mentioned by Ellis [34]. Klüver made the following summary statement regarding experiments with "Mescal Visions" [41]: "Our analysis is only concerned with the 'how' of the optical effects. Of special importance in this respect are the studies by Beringer, Rouhier, Knauer and Maloney. Valuable contributions have been made by Dixon, Havelock Ellis, Fernberger, Guttman, W. Haensch, Weir Mitchell, Serko, Mayer-Gross and Stein, Prentiss and Morgan. Knauer and Maloney experimenting on themselves and on physicians in Kraepelin's clinic made altogether twenty-three experiments. Rouhier refers to five observations, and Beringer to 'about 60' trials [39]. Beringer, who worked in the Psychiatric Clinic in Heidelberg, used chiefly physicians and medical students as subjects. . . The thirty-two observations published by Beringer in 1927 are of outstanding importance." If we assume there is no duplication in the figures from Beringer, Klüver's statement records 134 experimenters who took Peyote, all but five in Europe, up to 1927. That is more than five times the number of anthropological participant observers known to LaBarre in 1938 [6].

Serious scientific research into uses of Peyote in modern medicine already well commenced in 1927 has continued. Hoch *et al.* [46], Fischer [47,48], Hoffer and Osmond [49] and LaBarre [44] document the growing literature on research with Peyote and mescaline. An examination of the *Cumulated Index Medicus* published annually by the U.S. Department of Health, Education and Welfare and the National Library of Medicine reveals that there are about two dozen articles a year since 1960 under the heading of "Mescaline." As important as the objective research dealing with Peyote has been and continues, it is the non-Indian use of Peyote for mystical experiences which looms largest.

POPULARIZATION OF PEYOTE

From the perspective of 1979, the publication of *The Doors of Perception* by Aldous Huxley in 1954 appears to have been the single event which initiated a new era for Peyote [50]. Aldous Huxley, of the famous British family of scientists, became a greatly admired novelist in the 1920s and 1930s producing a series of *avant garde* books of fiction. In the 1950s while living in California, Aldous Huxley was becoming more religious. A young English psychiatrist suggested that Huxley submit to an experience with refined mescaline. The book *Doors of Perception*, was his account of what happened after one dose of "four-tenths of a gram of mescaline dissolved in half a glass of water." Huxley described a beautiful and interesting mystical experience which as soon as published attracted imitators. Not only did *Doors of Perception* have a very

large sale, having annual new editions for three years, but reappeared in paperback in 1963 and continued for sale in the bookstores in 1979. The book reviewers stimulated debate, often over whether Huxley remained a cynic in 1954 as he had been twenty years before. Huston Smith defended Huxley and criticized his critics for not recognizing that *Doors of Perception* involved "metaphysics." [51, pp. 141-143] Such a judgment from a professor of the philosophy of religion came as a surprise. More astonishing was the appearance of a 256-page book with complete footnotes, references and index entitled *Mysticism: Sacred and Profane* by R. C. Zaehner [52], Spalding Professor of Eastern Religions and Ethics at the University of Oxford and a Fellow of All Souls College, Oxford and editor of the *Concise Encyclopedia of Living Faiths*. Professor Zaehner was motivated to write the book analysing and evaluating *Doors of Perception* "Because", as he wrote in the Preface, "I disagree so profoundly with the conclusions reached by Mr. Aldous Huxley. . . ." In the Introduction, Zaehner continued: "In *Doors of Perception* Mr. Huxley seemed to assume that praeternatural experiences conveniently described by the all-embracing term 'mysticism', must all be the same in essence, no matter whether they be the result of intensive ascetic training. . . or simply of the taking of drugs." Zaehner questioned what Huxley called 'a natural mystical experience' induced by mescaline. Zaehner includes in appendices [52, pp. 208-226] a letter of 29 May 1954, from a woman who had "acted as a guinea-pig for scientists investigating mescaline and have shared Mr. Huxley's revelation. . ." Finally, Professor Zaehner himself took mescaline. As he reported: "At my own request I was the subject of an experiment with mescaline on 3 December 1955. Dr. J. R. Smythies of the Psychological Laboratory, Cambridge, administered the drug and supervised my reactions." After a twelve-page account of his reactions, Zaehner concluded [52, p. 226]: "I would not presume to draw any conclusions from so trivial an experience. . . . I felt that the experience was. . . not conformable with religious experience. . . . In Huxley's terminology 'self-transcendence' of a sort did take place, but transcendence into a world of farcical meaninglessness. . . . As far as I am concerned, mescaline was quite unable to reproduce the 'natural mystical experience' I have described elsewhere."

A less erudite and less sophisticated mystic than Zaehner gave credit to Huxley [50] and Slotkin [53] for leading him to a method easily to communicate with the "God-mind" and "Creator" of the Universe. In 1958, Fay M. Clark, "a retired building contractor. . . [of] Hiawatha, Iowa" (book jacket) published at his own expense a little book (80 pages) entitled *Beyond the Light* [54]. Clark relates how mescaline helped him produce "self-hypnosis," during which he talked with God.

To demonstrate the close ties between Peyote and the whole psychedelic movement that flowered in the 1960s a look at the career of Humphry Osmond, M.D., is enlightening. In his book, *Doors of Perception*, Aldous

Huxley did not name the "young English psychiatrist" who prepared for him the mescaline which produced the experiences he reported [50]. Humphry Osmond's name is in footnotes along with two or three others. In an essay in *Psychedelics*, edited by Aaronson and Osmond [55], Osmond leaves no doubt that he in May 1953 administered the mescaline to Huxley and had the thought that "He did not relish the possibility, however remote, of finding a small, but discreditable niche in literary history as the man who drove Aldous Huxley mad. His fears proved groundless. . ."

Osmond himself contributed to the growth of interest in psychedelics. While still in London in 1951 as a "psychiatrist, aged 34" Osmond experimented with mescaline [56]. On the night of October 6, 1956, he participated fully in a ritual of the Native American Church at Fort Battleford, Saskatchewan, Canada, conducted by Crow Indian Frank Takes Gun, international president of the NAC of North America. The Peyote meeting was reported fully and well photographed, for the *Saskatoon Star-Phoenix* and published October 13, 1956.

In some ways Dr. Osmond behaved like a very astute proselytizer for a new religion who, possibly for professional medical reasons, wished sometimes to remain anonymous. He seemed happy not to be named by Aldous Huxley as the "young English psychiatrist, at present working in Canada" who "came on business to California" and visited Huxley one spring morning in 1953 and prepared the mescaline for him to drink. On the other hand, Dr. Osmond had not avoided being named in *TIME* magazine, along with Dr. John Smythies, in a July 13, 1953 article entitled "Mescaline and the Mad Hatter," suggesting mescaline produced an artificial schizophrenia. In December 1955, Dr. Osmond and Dr. Smythies, "two Canadian scientists" in London, approached Christopher Mayhew, a member of Parliament and former journalist, who "agreed to serve as one volunteer in a series of experiments. . . with mescaline . . . in his home." Mayhew was told that Dr. Osmond had administered the mescaline to Aldous Huxley and he had read *Doors of Perception*.

The experiment was filmed by B.B.C. Mayhew had "the full flood of the extraordinary visual phenomena described in the *Doors of Perception*" which he reported in the London *Observer* October 28, 1956 [57].

Osmond appeared before the New York Academy of Sciences in April 1956 and read the paper in which he proposed the word psychedelic (mind manifesting) to replace psychotomimetic (psychoses imitating) he had previously used [58]. There are few, if any, more prestigious scientific conferences devoted to discussion of particular topics by a dozen or so specialists financed to come together for three or four days than those provided by the New York Academy of Sciences. The papers presented received extensive world-wide distribution. Osmond was honored by the invitation to present the opening paper, April 12, 1956, entitled "A Review of the Clinical Effects of Psychotomimetic Agents" [58]. The almost complete and general use of the term "psychedelic" instead of "psychotomimetic," or other similar words, in medical, scientific and popular

publications is in part due to the great prestige and extensive reporting of the recommendations made to the N.Y. Academy of Sciences. Osmond listed various psychedelic "treasures of 5,000 years of perilous and sometimes fatal searching" and commented: "With our modern synthetics we are a little safer though the ground quakes beneath us." Osmond then named mescaline, LSD, and others. What might be interpreted as an invitation to general public experimentation with psychedelics followed: "Considering their interest to medicine alone, our lack of information is disquieting, but they are of more than medical significance. They reach out to psychology. . . , sociology. . . , Philosophy. . . , art . . . and even to religion. . . . Surely we are woefully ignorant of these agents and this ignorance must be remedied."

Assistance to remedy the situation came almost immediately in the form of a popular book *Drugs of the Mind* by Robert S. de Ropp [59]. Besides chapters on "The Mind and Mescaline," "The Mind and Marihuana," and the older psychedelics, de Ropp discussed LSD and added an Appendix with the chemical structural formulae of twenty-six "chemopsychiatric" drugs, including mescaline, amphetamine, LSD-25, amytal, miltown, cocaine, morphine and ethyl alcohol.

In the 1960s a psychedelic explosion took place, almost to the extent of bringing about a new religion. The real prophet of this psychedelic movement was Timothy Leary, who reviewed the first seven years of his life as a psychedelic proselytizer in his autobiographic book immodestly titled *HIGH PRIEST* [60]. Leary took personal credit for the tremendous increase in use of hallucinogenic drugs and expressed pleasure that "The 1967 phenomenon of several million Americans taking LSD on their own, exploring their own consciousness, doing it themselves. . ." reflected the revolution in psychology which he recommended.

It was during October and November 1960 that Leary read *Doors of Perception* and had several opportunities to talk with Huxley in Cambridge, MA., Huxley told him of Osmond, and of Hoffman of Sandoz Pharmaceutical Co. in Switzerland, from which Leary was to receive, very cheaply, quantities of synthetic psilocybin, LSD, and mescaline, to use in "scientific experiments." Huxley advised Leary on research design [60, pp. 66-67]. Soon Allen Ginsberg, William Burroughs, and Alan Watts were advisors and friends.

Two theologians, Walter Clark and Huston Smith arranged for a large group of divinity school students to take LSD and they reported having mystical experiences, thus supporting Leary's notion that he was converting the world to a new religion. Leary's new LSD religion was weak on organization, but it was not from lack of trying to build one. The International Federation for Internal Freedom (IFIF) was organized as a "Massachusetts non-profit corporation" and prepared to distribute its "Statement of Purpose" on January 24, 1963. One function was to encourage research in the use of "Indole

substances (LSD, mescaline¹, psilocybin, etc.). . . , the most powerful agents yet discovered for opening the mind to new data." Another function was "to establish and support two new journals which will publish scientific and literary articles about consciousness—expansion. . . (The first issue of *The Psychedelic Review* appears in June 1963). . ." Membership fee in IFIF was ten dollars per year. Subscription for *The Psychedelic Review* was five dollars per year. An early service to members in May 1963, was a ten-page mimeographed "Bibliography on Psychedelic and Related Research," with 156 items. IFIF was soon forgotten but the *Psychedelic Review* limped along until 1971, publishing eleven numbers, rather than fifty originally projected for that period. Fifteen *Review* articles were re-printed in *The Psychedelic Reader* [61]. In the first number, the following editorial consultants were named who have appeared previously in this paper: Humphrey Osmond and Huston Smith. Aldous Huxley was probably too ill to serve. The book, *The Psychedelic Experience*, by Timothy Leary, Ralph Metzner and Richard Alpert carried this dedication: "To Aldous Huxley, July 26, 1894-November 22, 1963, with profound admiration and gratitude." [62] In *LSD: The Consciousness-Expanding Drug*, edited by David Solomon, with an introduction by Timothy Leary, the dedication reads: "For Aldous Huxley, *guru extraordinaire*, whose words first beckoned me through the doors of perception." [63] Not all scholars held Huxley in such high esteem, La Barre wrote [44, p. 228]: "But the greatest impetus to a titillated lay interest was provided by a widely publicized and rather absurd book of 1954 by the novelist and mystic Aldous Huxley, entitled *The Doors of Perception*. . ."

In the 1960s publications regarding hallucinogenic drugs accumulated rapidly. Solomon's collection, mentioned above, reprinted fifteen articles: two by Osmond, two by Unger, and one each by Leary, Huxley, Alan Watts, Huston Smith, and others. The dust jacket reveals that David Solomon was an editor for *Playboy* magazine. Furthermore, permission to reprint articles by Aldous Huxley, Dan Wakefield, and Alan Harrington regarding hallucinogens which originally appeared in *Playboy* was gratefully acknowledged.

Only slightly before Solomon, David Ebin edited *The Drug Experience* presented twenty-nine first-person accounts of reaction to drug use [57]. Included was hemp (marihuana), opium, opiates, peyote, mushrooms and LSD. In December 1965, *ETC* (journal of the International Society for General Semantics) published a "special issue on the psychedelic experience." [64] One article by Richard Marsh, who was with members of IFIF when they were expelled from Mexico in 1963, was titled "Meaning and the Mind-Drugs." [65] It reviewed many of the reports listed above. Humphrey Osmond produced five pages of Comments for Marsh's article emphasizing the practical use of LSD-25 in treatment of schizophrenics [66].

¹Editor's note: mescaline is not an indole substance; it is a β -phenethylamine derivative.

That some adults encouraging the free use of drugs anticipated the formation of psychedelic churches as a means of avoiding legal prohibitions was made explicit in a "Symposium: Psychedelic Drugs and the Law" published by the *Journal of Psychedelic Drugs* in its volume 1(1): "We've tried to bring to the courts—we're trying now—through an organization called the League for Spiritual Discovery (or LSD) an attempt to set up a formal religion and the tradition. You see, the Native American Church, the American Indians, are already allowed by the Supreme Court [of California] to use Peyote in their religious ceremonies. The League for Spiritual Discovery has been set up for LSD in this sense. . ."

In his book *High Priest* [61], devoted to his experiences January 1959 to June 1962, Timothy Leary added the note: "The League for Spiritual Discovery is a legally incorporated religion dedicated to the ancient sacred sequence of turning-on, tuning-in, and dropping-out." There is no evidence for its continuation.

An associate of Leary in New York, Arthur J. Kleps, incorporated the Neo-American Church with Peyote, marijuana, LSD and other psychedelics as sacraments. Since then, several cases involving the Neo-American Church have reached higher courts, but none have succeeded in gaining legal status for controlled psychedelic drugs. One group of non-Indians in New Mexico has carried on the Peyote religion for ten years under Articles of Incorporation specifying the use of Peyote as a sacrament. By not seeking a test case, the members have been allowed quietly to continue.

RECENT INDIAN USE OF PEYOTE

But what about the American Indian in relation to the Non-Indian interest in Peyote. Their reaction is fear. The Indians remember laws to prohibit use of Peyote, which were passed by many states but repealed after the Supreme Court of California in 1964 expressed the opinion that the state had an obligation to protect the religious freedom of Peyotists. When the Federal Drug Abuse laws were passed making psychedelic drugs illegal, an exception for bonafide religious use of Peyote was ordered. The Indians are afraid that exemption might be lost. Also some states are slow to comply. In September 1978, Peyotists were arrested in the State of Washington under a misinterpretation of Washington State law. After the case, for which I served as an expert witness, was dismissed and the law declared unconstitutional on October 11, 1978, it is expected that the religious freedom of the Indian will be safe for a time.

The extension of the Native American Church to the State of Washington in 1977 follows the pattern of diffusion established a century ago when Lipan Apache Peyote missionaries converted Kiowa, Comanche and Kiowa-Apache in Indian Territory. Informal missionary activity has gone on continually for a

century. I have traced Comanche, Kiowa, Caddo and Quapaw Peyote missionaries in Oklahoma. Winnebago Peyotists proselytized Sioux and Ojibwa. An Oto missionized Omaha, Menominee, Ute and Navajo. Dozens of Oklahoma Peyotists have settled among the Navajo to teach the ritual of the Native American Church.

One might ask: Why has the LDS (Mormon) Church and the Native American Church (Peyotist) greatly increased its Navajo membership during the last twenty-years? I can answer: Because both churches have been represented on the Navajo Reservation by increasing numbers of missionaries.

My forty years research among western Indians with a constant interest in Peyote has led me to the following conclusions:

1. Peyotism is attractive to Indians and helps them because it is a religion, not because of its psychedelic stimulation.
2. Unless Indians are converted to the Peyote Religion, they do not continue to use Peyote or may not ever accept it.
3. As an aid to Indians living according to their highest ideals, all religions help, and it is impossible to say that commitment to one or the other of the Sun Dance, the Native American Church, shamanism, or traditional Christian Churches is better.
4. Indians can and often do belong to all religions listed above at the same time.
5. The pattern of conversions to the Native American Church has not changed in a century. Some Indian groups have nearly totally rejected Peyotism—i.e., Cherokee, Choctaw, Blackfoot, Flathead, Pueblos, except a small minority at Taos, etc. Peyotism is accepted by the majority of Indians on only about a half dozen reservations: Ute Mountain Ute of Colorado, Omaha of Nebraska, Kiowa, Comanche, Cheyenne, Arapaho, and Oto of Oklahoma. Except for the Ute Mountain Ute where no Peyotists were known in 1919, on the other reservations listed the majority were Peyotists by that date. Considering all Ute Indians, less than half are Peyotists. Contrary to expectation on the Ute reservations with the highest percentage of Peyotists exists the largest proportion of problem drinkers. As with other religions, Peyotists vary in ability to follow the highest ideals of their church.

REFERENCES

1. O. C. Stewart, Washo-Northern Paiute Peyotism: A Study in Acculturation, *Univ. of California Publications in American Archaeology and Ethnology*, 40:3, Univ. of California Press, L.A., 1944.
2. T. N. Campbell, Origin of the Mescal Bean Cult, *American Anthropologist*, 60, pp. 156-60, 1958.
3. J. M. Adovasio and G. F. Fry, Prehistoric Psychotropic Drug Use in

- Northeastern Mexico and Trans-Pecos Texas, *Economic Botany*, 30, pp. 94-96, 1976.
4. J. Mooney, The Cheyenne Indians, *Memoirs of the American Anthropological Association*, 1:6, 1907.
 5. R. Shonle, Peyote: The Giver of Visions, *American Anthropologist*, 27, pp. 53-75, 1925.
 6. W. LaBarre, The Peyote Cult, *Yale University Publications in Anthropology*, 19, Yale Univ. Press, New Haven, 1938.
 7. O. C. Stewart, The Peyote Religion and the Ghost Dance, *The Indian Historian*, 5:4, pp. 27-30, 1972.
 8. J. H. Howard, The Mescal Bean Cult of the Central and Southern Plains: An Ancestor of the Peyote Cult?, *American Anthropologist*, 59, pp. 75-87, 1957.
 9. W. LaBarre, Mescalism and Peyotism, *American Anthropologist*, 59, pp. 708-711, 1957.
 10. R. C. Troike, The Origins of Plains Mescalism, *American Anthropologist*, 64, pp. 947-963, 1962.
 11. R. E. Schultes, An Overview of Hallucinogens, *Flesh of the Gods*, P. T. Furst (ed.), Praeger, New York, 1972.
 12. R. E. Schultes and A. Hoffmann, *The Botany and Chemistry of Hallucinogens*, Charles C. Thomas, Springfield, Illinois, 1973.
 13. W. LaBarre, Hallucinogens and the Shamanic Origins of Religion, *Flesh of the Gods*, P. T. Furst (ed.), Praeger, New York, 1972.
 14. _____, Anthropological Perspectives on Hallucination and Hallucinogens. *Hallucinations*, Siegel and West (eds.), Wiley, New York, pp. 9-51, 1975.
 15. P. T. Furst, (ed.), *Flesh of the Gods: The Ritual Use of Hallucinogens*, Praeger, New York, 1972.
 16. _____, *Hallucinogens and Culture*, Chandler and Sharp, San Francisco, 1976.
 17. E. C. Parsons, Notes on the Caddo, *Memoirs of the American Anthropological Association*, 57, 1941.
 18. J. S. Slotkin, Peyotism, 1521-1891, *American Anthropologist*, 57, pp. 202-230, 1955.
 19. O. C. Stewart, Origin of the Peyote Religion in the United States, *Plains Anthropologist*, pp. 19-65, 1974.
 20. A. E. Woodson, Report of Agent for Cheyenne and Arapaho Agency, *U.S. Bureau of Indian Affairs, Annual Report 1899*, pp. 282-286, 1899.
 21. W. L. Merrill, An Investigation of Ethnographic and Archaeological Specimens of Mescalbeans (*Sophora Secundiflora*) in American Museums. *Technical Reports, No. 6, Research Reports in Ethnobotany, Contribution 1*, Museum of Anthropology, the University of Michigan, Ann Arbor, 1977.
 22. V. Havard, Report on the Flora of Western and Southern Texas, *Proceedings of the U.S. National Museum*, 8, pp. 449-533, 1885.
 23. E. E. White, Report of the Kiowa, Comanche and Wichita Agency, *U.S. Bureau of Indian Affairs Annual Report 1888*, pp. 98-99, 1888.
 24. J. R. Briggs, Muscale Buttons—Physiological Effects, *Medical Register*, 1, pp. 276-277, 1887.

25. G. A. Bender, Rough and Ready Research—1887 Style, *Journal of the History of Medicine and Allied Sciences*, 23, pp. 159-166, 1968.
26. L. Lewin, Anhalonium Lewinii, *Therapeutic Gazette*, 4, pp. 231-237, 1888.
27. J. Mooney, The Kiowa Mescal Rite [Report of speech to Anthropological Society of Washington], *Washington, D.C. Evening Star*, p. 6, Nov. 4, 1891.
28. _____, Eating the Mescal, *The Augusta (Ga.) Chronicle*, p. 11, Jan. 24, 1892.
29. _____, A Kiowa Mescal Rattle, *American Anthropologist*, 5, pp. 64-65, Jan. 1892.
30. _____, The Mescal Plant and Ceremony, *Therapeutic Gazette*, 12:11, pp. 7-11, 1896.
31. _____, The Kiowa Peyote Rite, *Der Urquell, N.S.*, 1, pp. 329-333, 1897.
32. C. Castaneda, *The Teachings of Don Juan: A Yaqui Way to Knowledge*, Ballantine, New York, 1969.
33. H. Ellis, A Note on the Phenomena of Mescal Intoxication, *Lancet*, 1, pp. 1540-1542, 1897.
34. _____, Mescal: A New Artificial Paradise, *Contemporary Review*, 73, pp. 130-141, 1898.
35. _____, Mescal: A New Artificial Paradise, *Smithsonian Institute, Annual Report 1897/98*, pp. 537-548, 1898.
36. _____, Mescal: A Study of a Divine Plant, *Popular Science Monthly*, 61, pp. 52-71, 1902.
37. _____, Mescal: A New Artificial Paradise, *The Drug Experience*, D. Ebin (ed.), The Orion Press, New York, pp. 225-236, 1961.
38. E. H. Spicer, Review of the Teachings of Don Juan: A Yaqui Way of Knowledge by Carlos Castaneda, *American Anthropologist*, 71, pp. 320-322, 1969.
39. A. Rouhier, *La Plante qui fait les yeux émerveillés—Le Peyotl*, Doin, Paris, 1927.
40. _____, *Les Plantes Divinatoires*, Doin, Paris, 1927.
41. H. Klüver, Mescal: *The 'Divine' Plant and Its Psychological Effect*, Psyche Mineraures, London, 1928.
42. _____, Mechanisms of Hallucinations, *Studies in Personality: Essays in Honor of Lewis M. Terman*, McGraw Hill, New York, pp. 175-207, 1942.
43. _____, *Mescal and Mechanisms of Hallucinations*, Univ. of Chicago Press, Chicago, 1966.
44. W. LaBarre, *The Peyote Cult*, Fourth Edition Enlarged, Schocken Books, New York, 1975.
45. G. Wagner, Entwicklung und Verbreitung des Peyote Cultes, *Baessler Archiv*, 15, pp. 59-144, 1932.
46. P. H. Hoch, J. P. Cattell, and H. H. Pennes, Effects of Mescaline and Lysergic Acid (d-LSD-25), *American Journal of Psychiatry*, 108, pp. 579-584, 1952.
47. R. Fischer, Selbst-Beobachtungen im Mezkalinrausch, *Schweizerische Zeitschrift für Psychologie*, 5, pp. 308-313, 1946.
48. _____, Pharmacology and Metabolism of Mescaline, *Revue Canadienne De Biologie*, 17, pp. 389-409, 1958.

49. A. Hoffer and H. Osmond, *The Hallucinogens*, Academic Press, New York, 1967.
50. A. Huxley, *The Doors of Perception*, Harper and Row, New York, 1954.
51. H. Smith, Mescaline and Metaphysics: The Case of Huxley and His Critics, *New Perspectives in Faith and Freedom*, 8, pp. 141-143, 1955.
52. R. C. Zaehner, *Mysticism: Sacred and Profane*, Oxford University Press, 1957.
53. J. S. Slotkin, *The Peyote Religion: A Study in Indian-White Relations*, Free Press, Glencoe, Illinois, 1956.
54. F. M. Clark, *Beyond the Light*, Vantage Press, New York, 1958.
55. B. Aaronson, and H. Osmond, *Psychedelics: Use and Implications of Hallucinogenic Drugs*, Doubleday, Garden City, New York, 1970.
56. H. Osmond, On Being Mad, *Saskatchewan Psychiatric Services Bulletin*, 1, p. 63, 1952.
57. D. Ebin (ed.), *The Drug Experience*, Orion, New York, 1961.
58. H. Osmond, A Review of the Clinical Effects of Psychotomimetic Agents, *Annals of the New York Academy of Science*, 66, pp. 418-434, 1957.
59. R. S. de Ropp, *Drugs and the Mind*, Grove Press, New York, 1961.
60. T. Leary, *High Priest*, World Publishing Co., New York, 1968.
61. T. Leary, G. M. Weil, R. Metzner (eds.), *The Psychedelic Reader: Selected from the Psychedelic Review*, University Books, New Hyde Park, New York, 1965.
62. T. Leary, R. Metzner and R. Alpert, *The Psychedelic Experience*, University Books, New Hyde Park, New York, 1964.
63. D. Solomon (ed.), *LSD: The Consciousness-Expanding Drug*, G. P. Putnam's Sons, New York, 1964.
64. S. I. Hayakawa (ed.), Special Issue on the Psychedelic Experience, *ETC: A Review of General Semantics*, 22:4, pp. 389-528, 1965.
65. R. P. Marsh, Meaning and the Mind-Drugs, *ETC*, 22, pp. 408-425, 1965.
66. H. Osmond, Comments on Meaning and the Mind-Drugs by Richard P. Marsh, *ETC*, 22, pp. 425-430, 1965.

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