

Twenty Years of Peyote Studies

by Weston La Barre

PEYOTE (from the Aztec *peyotl*) is a small, spineless, carrot-shaped cactus, *Lophophora williamsii* Lemaire, which grows wild in the Rio Grande Valley and southward. It is mostly subterranean, and only the grayish-green pincushion-like top appears above ground, with spiral radial grooves dividing the puffy prominences which bear linearly-spaced tufts of fine gray-white flocculence, somewhat like artists' camels-hair paintbrushes. Cut off horizontally about ground level, and dried into a hard woody disc, this top becomes the so-called "peyote button"—often called "mescal button," confusingly since it does not come from the non-cactus succulent, the mescal proper, from whose fermented sap, pulque, the brandy mescal is distilled; also, erroneously, called "mescal bean" which is the Red Bean, *Sophora secundiflora* (ortega) Lag. ex DC; and, further, once quite mistakenly identified with the Aztec narcotic mushroom *teonanacatl*, a Basidiomycete, a true member of the Fungi. Nine psychotropic alkaloids, an unusual number even for a cactus, are contained in natural pan-peyotl; some of these are strychnine-like pharmacodynamically, others (notably mescaline) hallucinogenic. For this reason the psychotomimetic mescaline has been experimentally investigated in recent psychiatric research, along with its fellow-indoles such as lysergic acid; and for this reason, its hallucinogenic qualities, American Indians have used pan-peyotl in native "doctoring,"

witchcraft, and religious rituals. As a religious cult, peyotism is pre-Columbian in Mexico. Toward the end of the nineteenth century, peyotism spread, via Texan tribes and Athapaskans of the Southwest, to the Indians of the United States, mostly following the subsidence of the Ghost Dance, for which it largely substituted, now as a peaceful intertribal nativistic religion, in places somewhat acculturated to Christianity. It is now the major religious cult of most Indians of the United States between the Rocky Mountains and the Mississippi (including the remnants of eastern Algonkin tribes and the Siouan Winnebago), and additionally in parts of southern Canada, the Great Basin, and east-central California. The appeal of peyote is based upon the visions it induces, viz. its "medicine power," and its availability therefore in native doctoring is culturally based upon the aboriginal vision quest and the religious and ideological premises of this quest. Peyote is generally agreed by experts to be non-habit-forming; it is non-soporific and not, therefore, technically a "narcotic."

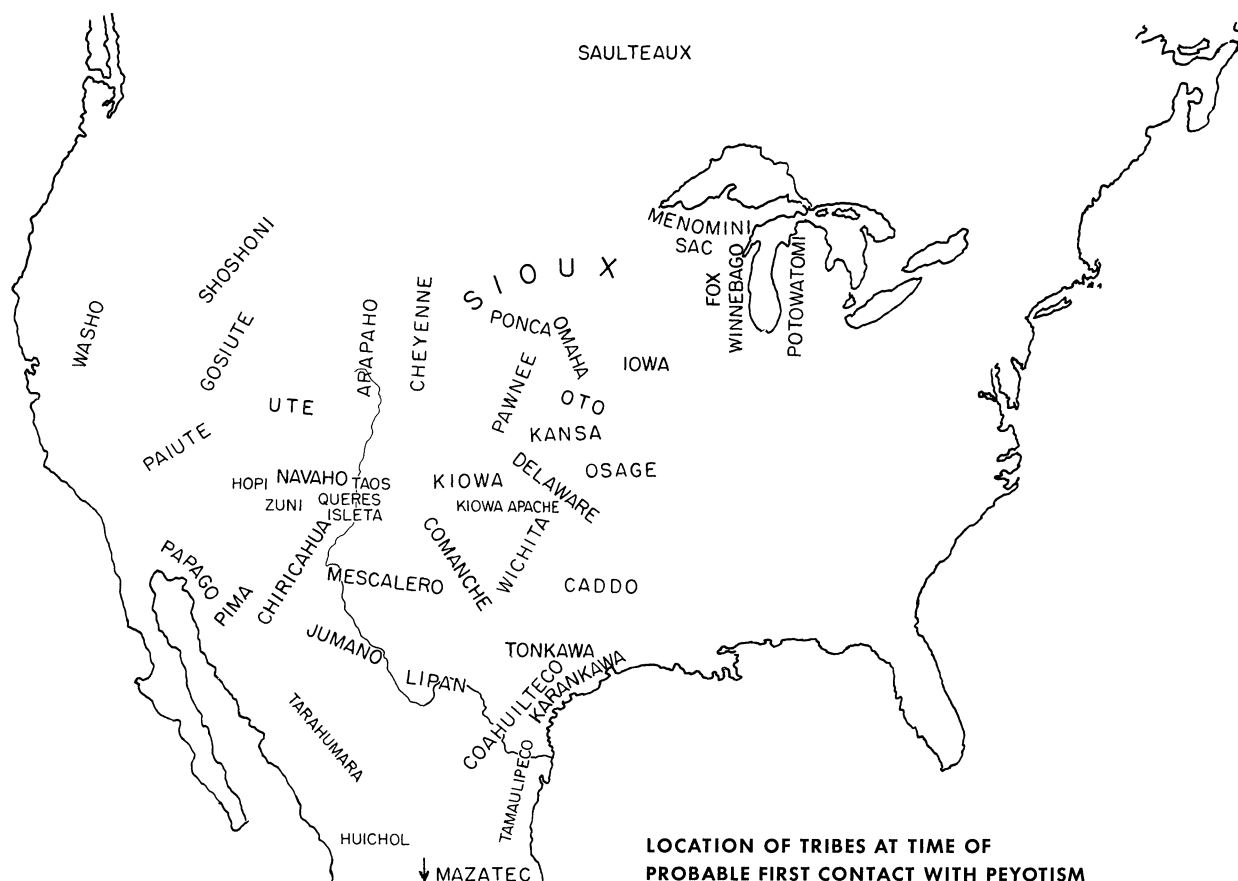
Some twenty years ago the present writer sought to summarize all that was then known about peyote (*Lophophora williamsii*)—its botany, ethnology and history, chemistry, psychology and physiology—as well as about the "mescal" bean (*Sophora secundiflora*) and the narcotic mushroom *teonanacatl*, both of which had been confused with peyote. This summary (La Barre 1938) was based upon the extensive published literature on peyote and peyotism, on the generous loan of current and unpublished field notes by many persons, and on the writer's own field trips during several years to fifteen peyote-using American Indian tribes.

In the subsequent two decades, peyotism has remained a lively subject of Americanist research. Despite the standardization of the rite, a number of new substantive details have been added to our knowledge. Peyotism has spread to several new tribes. Medicopsychiatric research on mescaline, the principal hallucinogenic alkaloid of the nine in natural panpeyotl, has progressed considerably beyond its status in 1938. Certain problems concerning the origin and diffusion of peyote have been argued and perhaps clarified. And, finally, important new problem-oriented and methodological studies have been made on the basis of peyote

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LA BARRE began his studies of American Indians and peyotism with field work among the Kiowa and fourteen other North American tribes in 1935 and 1936. His *The Peyote Cult* is now being reprinted by The Shoe String Press (New Haven, Conn.)

The present article, submitted on September 11, 1958, was the first to receive CA☆ treatment (see inside front cover). It was sent to thirteen scholars. Substantive comments were returned by David F. Aberle, Donald Collier, Åke Hultkrantz, Wilhelm Koppers, Marvin K. Opler, Louise Spindler, George Spindler, and Anthony F. C. Wallace. Those contributions that were incorporated by the author into text or notes are indicated by a star (☆).



LOCATION OF TRIBES AT TIME OF
PROBABLE FIRST CONTACT WITH PEYOTISM

data, which studies, not the least being the new and valuable materials on peyote music, are of wider general interest. It would probably be useful at the present time to summarize these studies for the general ethnologist and to attempt a perspective on the past as well as a prospect for future studies.

GENERAL WORKS

Of general works, the first to be mentioned is Gusinde's "Der Peyote-Kult" (1939), judiciously reviewed by Marvin Opler (1940b). Opler was critical of some *Kulturkreis* aspects of Gusinde's work and contrasted it methodologically with the Yale study. Despite the different approaches, Opler pointed out that, "Gusinde adds confirmation to La Barre's Yale University publication with substantial, though undeclared, agreement on most essential points" (p. 667). The most important of these, perhaps, concerns the early origins of peyotism in the United States, since Gusinde and La Barre worked entirely independently of one another and were ignorant of one another's researches. Opler states (p. 669) that, for Gusinde, the

Carrizo, Tonkawa, Lipan, and Mescalero are on the direct line of diffusion from northeastern Mexico. The Mescalero are seen as the link to the Kiowa and Comanche, and the latter provide the connection to the Caddo, Delaware, southern Cheyenne and Arapaho, and finally to the Ute and Shoshoni.

It is, in fact, to the later published field work of both the brothers Opler that we owe the clarification of early diffusion of peyote to Texas and the eastern Southwest,

a point on which Gusinde, La Barre, the Oplers, and most other students except Slotkin are in agreement. The major new contributions to our knowledge have been made at the other end of history, in respect of the modern diffusion of peyote to the Menomini, Navaho, Ute, and Washo. Slotkin has introduced alternative views concerning the diffusion of peyotism through the Hopi, Taos, and the Caddo, but specialists on these areas have questioned both his data and his conclusions, and his must be regarded as a minority viewpoint.

Slotkin's major work on peyote, *The Peyote Religion* (1956a), is extremely valuable for its summary of the present legal status of peyotism in state and federal laws (pp. 54-56), for its discussion of the local organizations and officers of the Native American Church (pp. 57-64), and for its excellent "Bibliography on Peyotism North of the Rio Grande, 1850-1955" (pp. 143-87). This bibliography of more than 550 items contains only 55 already cited by La Barre, and over 300 before and 77 since 1937 not in La Barre, so that the bibliographies largely supplement one another and together account for over a thousand items. As will be noted later, Slotkin was also responsible for the publication of a number of colonial documents, though some of these have been disputed as referring to peyote. In addition, he published a number of documents on the Native American Church, known to but only summarized in La Barre. Slotkin's *The Peyote Religion* must be regarded as the major source on the Native American Church, of which Slotkin was an officer. The real value of Slotkin's original contributions and documentations can scarcely be disputed, though his manner of presentation has been

criticized (La Barre 1957b) and also some of his conclusions (Beaver 1952).

The other extended works on peyotism include works by Aberle and Stewart on Navaho and Ute peyotism, Stewart on Washo-Northern Paiute, Slotkin and McAllester on Menomini, McAllester on peyote music, and the Spindlers on the place of peyotism in Menomini acculturation. These studies will be discussed below. Another general work is "La Magia del Peyotl" (Aguirre Beltrán 1952), an excellent though brief study, containing new material on the uses of peyote in colonial Mexico. "El Peyote al Traves de los Siglos" (Hijar y Haro 1937) is interesting for its somewhat standard bibliography placed in chronological order. Leonard (1942) has published documents indicating that in 1620 the Inquisition prohibited the use of peyote in Mexico, where it had been used for detecting thefts and for divination and prognostication. The distinguished botanist Schultes believes, on the basis of information recorded by Sahagun, that *Lophophora williamsii* has been used as a religious sacrament since 300 B.C., hence has been an item in economic botany for over two thousand years, and, on the basis of information in B. P. Reko, that it has been used as far south as Yucatan (Schultes 1938b). Schultes points out also that peyote was a problem to missionaries in Texas in 1760, and thinks that peyote came to the Kiowa Reservation earlier than is now assumed, though he has not demonstrated that the Kiowa were in that position at that date. Underhill has written a good summary, "Peyote" (1952), based on standard sources. She has also sharpened our awareness that the slight ritualization of the "peyote journey" of Plains tribes may have been influenced by the more developed ritual journeys in Mexico and the Southwest (1954: 649):

A trait of Huichol and Tarahumara which did not reach the north until later times is the use of peyote. Connected with it is the ceremonial journey, with restrictions and special language. A similar journey is found among the Papago, where the object is not peyote but salt. Perhaps the salt journeys of both Hopi and Zuni may be faint echoes of it, as also the Taos camp at Blue Lake. The warpath behavior of the Chiricahua Apache with its restrictions and its special language . . . may be another echo, perhaps learned from the Papago who were neighbors and enemies.

However, we believe that such an influence on the ritualization of the peyote journey must have come through Apache groups in the Southwest and Texas, rather than through the Pueblo groups, though this adds an interesting sidenote to the standard theory of the diffusion of peyote.

LEGAL STATUS OF PEYOTISM

As earlier noted, Slotkin's work is the standard one on the legal status of peyotism and the Native American Church. Stewart added some interesting new data in his spirited argument against a Colorado state anti-peyote law (1956a). He notes that the Native American Church of Saskatchewan was chartered on November 3, 1954, and that a new group appeared legally in North Dakota on January 9, 1954. Twelve states have now issued charters to the Native American Church. The Twelfth Annual Meeting of the Church was held at Scottsbluff, Nebraska, from June 28 to July 1, 1956.

The use of peyote has been a burning legal issue especially among the Navaho. In a newspaper article datelined from Window Rock, Arizona (*New York Times* 1954), it was stated that thirteen members of the Native American Church had been jailed by the Navaho tribal leaders, and that Texas, Arizona, and New Mexico now prohibit the transportation and sale of peyote; nevertheless, the buttons, which cost ten to eleven dollars per thousand in Texas, were commonly available on the Navaho Reservation at five to ten cents each.

Missionaries have continued their determined hostility toward peyotism.¹ Niedhammer, in a "Statement on Peyote" (n.d.) prepared for his ecclesiastical superiors at the Saint Labre Indian Mission to the Cheyenne of Tongue River Reservation, condemned the use of peyote by Indians. Based on this document was an article (Scully 1941) which ended in the promulgation of the dictum that there is a complete incompatibility between peyotism and the Catholic religion. Curiously, an American Medical Association committee urged in its report of November 25, 1948, to the U.S. Secretary of the Interior, that the use of peyote be nationally outlawed as a habit-forming drug (Associated Press 1948; see also Braasch, Branton, and Chesley 1949). We can only conclude that these doctors did not base their opinion on adequate medical evidence. Certainly ethnologists who have used peyote repeatedly and have observed in circumstantial detail its use among Indians, in both cases without such assumed effects, quite uniformly agree that peyote is not habit-forming. This was asserted in a "Statement on Peyote" signed by La Barre, McAllester, Slotkin, Stewart, and Tax (La Barre *et al.* 1951). This document is in essential agreement with an earlier series of standard statements by Boas, Kroeber, Hrdlička, J. P. and M. R. Harrington, La Barre, Petrullo, Schultes, Elna Smith, and Osage Chief Fred Lookout against the (Chavez) Senate Bill 1399 of February 8, 1937. Although the final opinion must necessarily be a medical one, informed anthropologists are firmly united in their judgment and will doubtless continue to protest the neglect of medical evidence in the formulation of medical opinion (*Documents on Peyote* 1937).

PSYCHIATRIC RESEARCH

Psychiatric research on mescaline has continued to increase in recent decades. Claude and Ey (1934) reported on mescaline as an hallucinogenic substance; and Freedman, Aghajanian, Ornitz, and Rosner (1958), on the patterns of tolerance of lysergic acid and mescaline in rats. Denber and Merlis (1956a) studied the action of mescaline on brain-wave patterns in schizophrenics before and after administering Electric Shock Therapy, the antagonism between mescaline and Chlorpromazine (1956b), and also wrote on the therapeutic implications of mescaline-induced states (1954). Merlis and Hunter (1954) published on the effects of administration of mescaline to schizophrenics after Electric Shock Therapy; and Denber (1955), on its action in epileptics. Guttman (1936), writing on artificial psychoses produced by mescaline, emphasized the paranoid states

that occasionally accompany mescaline intoxication which have been observed among both Indian (Radin 1926) and White subjects. The same authority was co-author of a study of mescaline and depersonalization (Guttman and Maclay 1936) that reported research at Maudsley Hospital, London, and that stated that, "Mescaline [sic] depersonalization is identical with this symptom in morbid states, and therefore can be used as a model for therapeutic experiments" (p. 203). Himwich gives the formulas of various neurohormones, psychotomimetic agents, and tranquilizing drugs, including mescaline, in his research on drugs (1958), and had earlier shown that mescaline is psychotomimetic and that azacyclonol could suppress its effects (Himwich in Cholden 1956). Hoch (1952) and Kant (1931) also worked on the experimental induction of psychoses by mescaline. Abram Hoffer had experimented with mescaline for over three years by 1954, in his research on schizophrenia at the University of Saskatchewan—work supported, like Guttman and Maclay's, by a grant from the Rockefeller Foundation. Lindemann and Malamud (1933) have made experimental analyses of the psychopathological effects of intoxicating drugs, including mescaline. De Ropp's book, *Drugs and the Mind* (1957), has a chapter on "The Mind and Mescaline" (pp. 27–60); he uses mostly European sources of earlier date, but cites the Statement, earlier mentioned, by American ethnologists in *Science*. Slotka and Szyska (1933), working in São Paulo, Brazil, have reported new discoveries concerning mescaline. Wallace (1959) considers that response to mescaline intoxication depends very considerably on the cultural and situational milieu, as well as on individual personality. Wertham has twice published on mescaline and pain (1952a, 1952b). Wikler (1957) has summarized recent psychiatric and pharmacological work on mescaline.² This selection of psychiatric researches on mescaline does not pretend to be exhaustive of the relevant copious modern studies on psychopharmacology, but it is believed that it constitutes a representative sampling.

SPECIAL PROBLEMS

Basing his argument exclusively on textual evidence from colonial documents, the present writer early argued against Safford's facile identification of peyote and the Aztec narcotic *teonanacatl*, since the latter was always specifically identified as a narcotic mushroom (La Barre 1938, Appendix 3: "Peyote and Teonanacatl," pp. 128–30). The final solution of the problem could, of course, rest only on properly botanical evidence. Subsequently the botanist Schultes rediscovered a narcotic *Basidiomycete* in Mexico, which he identified with the Aztec mushroom *teonanacatl*, reporting first in a botanical publication (Schultes 1939) and later in an anthropological journal (Schultes 1940b). The provocative, lavishly expensive (\$125.00), and somewhat inaccessible work on mushrooms, including *teonanacatl*, by a wealthy amateur and J. P. Morgan partner (Wasson and Wasson 1957; Wasson 1956), is a rediscovery of the Aztec narcotic mushroom. Although in agreement on the botany and the ethnology of *teonanacatl*, these authors disagree upon the etymology of the word. La Barre had questioned Benvenuto's etymol-

ogy, "bread of the gods," which was accepted by Safford and others, but Schultes (1940b) cites Simeón and V. A. Reko (as later did Wasson) to support the earlier etymology. The present writer, although now a minority of one, still retains his skepticism regarding this point in Safford also, and further points out that this question will ultimately be settled only by linguistic specialists. It is gratifying, incidentally, that among professional anthropologists the misleading term "mescal bean" as applied to *Lophophora williamsii* has been dropped, though still retained by British literary writers; there is no such listing in the latest *General Index* of the American Anthropological Association publications ([1951] 53: 37). Schultes has also written interestingly on the aboriginal therapeutic uses of *Lophophora williamsii* (Schultes 1940a).

Another disagreement, this time between ethnologists, has occurred over the relationship of peyotism to "mescalism," the former cult dealing with *Lophophora williamsii* (a cactus) and the latter with the "red bean" (*Sophora secundiflora*, a true member of the FABACEAE or Bean Family). The earlier Red Bean Cult was found among the Apache, Comanche, Delaware, Iowa, Kansa, Omaha, Osage, Oto, Pawnee, Ponca, Tonkawa, and Wichita, according to Howard (1957). This evidence was contained in La Barre's original dissertation, now on deposit in the Sterling Library at Yale University, but was condensed in the final published account (1938) which merely distinguished peyote and the "mescal bean" botanically and suggested a "Red Bean Cult" that may have preceded peyotism in Texas and the Plains. On the basis of "mescal" evidence, however, Howard regarded with skepticism the usual derivation of the peyote cult from Mexico via the Apache. Howard argued that the similarities of peyotism with the mescal bean cult indicate a derivation of the ritual content of peyotism from mescalism, and that the influences on ritual form would seem to be from north to south, contrary to the usual view. The present writer has replied to this by arguing (1) that the history and ethnology of peyotism proper already establish sufficiently a southern origin from Mexico via the Apache and other tribes of Texas and the eastern Southwest; (2) that the supposed similarities in ritual are limited, non-specific, and ambiguous; (3) that the botanical provenience of both *Lophophora* and *Sophora* are southern; and (4) that there are archaeological evidences of early date for the use of *Sophora* in southwest Texas (La Barre 1957a). This last argument has elicited further data from an archaeologist indicating abundant finds of *Sophora* in Texas sites (Campbell 1958). The present writer still looks to the south for the origins of both mescalism and peyotism, maintaining that the Plains Siouan and Algonkian mescalists who late and historically received peyote from southern tribes could hardly have shaped the original southern rite—even though an attenuated and earlier mescalism had come to them, also from the south. What we should look for is an earlier Red Bean Cult in Texas, among Apache tribes, and in Mexico, which, on this time level, might indeed have influenced the ritual content of Apache-Kiowa-Comanche peyotism, though this is still to be demonstrated.

NEW SUBSTANTIVE DATA ON THE PEYOTE RITE

Although the Plains rite is highly standardized and has been voluminously reported in tribal monographs since the classic account of Kroeber for the Arapaho (1907) and of Mooney for the southern Plains (1896), and although peyotism itself has since been monographed by La Barre, Gusinde, and Slotkin, there still remain a number of contributions to substantive detail. Howard has written on a Comanche spearpoint used in a Kiowa-Comanche ceremonial (1950). This was an item in the ritual paraphernalia of the road chief Levi Whitebear (a half-Negro, quarter-Kiowa, quarter-Comanche of Lincoln, Nebraska) to symbolize the old way of life in which hunting was important and as a token of thanksgiving. The spearpoint was placed, in order from the "moon," eagle wingbone whistle, spearpoint, staff. Howard regards this as "an intrusive element of recent origin" (1950: 5), but has since pointed out in correspondence that several other "fireplaces" use it, most of them apparently of Kiowa or Comanche origin, and that while he earlier believed it to be an otherwise functionless fetish, he has found it used in doctoring for bloodletting. Howard has also written about a Tonkawa peyote legend (1951); this is the standard and familiar stress-origin legend of peyote, except for the etiological rationalization of why the Tonkawa are called "cannibals" by other Indians. He has also described the "fireplace" of the Oto leader, Charles Whitehorn, since 1946 in the keeping of an Omaha, George Phillips; it is said to have been obtained by Whitehorn in a vision, but it is indistinguishable from the standard Kiowa-Comanche altar except for a heart under the fire and a transverse line from horn to horn of the "moon" (1956). Indeed, it is similar to an earlier Caddo-Delaware moon (La Barre 1938: 75, Fig. 4b)—a measure of the "originality" to be expected in peyote rites.

Probably the most significant recent contribution to our knowledge of early peyotism is that of Brant. In his study of peyotism among the Kiowa Apache (1950), he adds the valuable new historical detail that a Mescalero or Lipan Apache named Nayokogał brought peyotism to the Kiowa Apache about 1875. Since the Kiowa themselves obtained peyote about 1880, it may very well be that the Kiowa Apache were a link between the Kiowa and the other Apache tribes of Mexico and the Southwest. Brant's data are in any case entirely consistent with Morris Opler's southern Athapaskan ethnography and La Barre's southern Plains data on early peyotism. Brant adds another interesting detail that the Kiowa Apache ritual breakfast sometimes consists of pemmican and corn gruel. Since the original Mexican rite had boneless deer meat and parched corn in sugar-water—and some much later northern rites had canned corn beef and Cracker Jack—one can only remark that *plus ça change, plus c'est la même chose!*

The Cheyenne and Menomini, like the Winnebago, have long been known to celebrate a somewhat Christianized version of the old aboriginal rite. Spindler, in a preliminary paper on his Menomini studies (1951), adds the confirmatory details that the tepee poles represent Jesus and his disciples; the leader's staff is carved with crosses, and the leader makes the sign of the cross;

the ashes are shaped into the form of a "dove"; and there is a small pedestal on the moon for the "Master" Peyote—some of these apparently derivative from Christianity. "But," he adds, "the basic concepts and premises of the cult are native-oriented though modified and perverted to meet the unique needs of the participants." The same author states that the Menomini got peyote from the Potowatomi via J. M. Mitchell in 1914, and were influenced by the Winnebago, though they rejected some of John Rave's Christian elements; the purposes of meetings were "salvation" and prophetic visions, and one old woman kept a supply of peyote on hand to "get a vision for a design" for her beadwork when she tired of the old designs—which might be compared with the older Menomini pattern for song- and design-getting (Spindler 1950).

Other new data include those of Tax on Fox peyotism (1955). The volume *Iowa* (1949: 473–74), in the "State Guide Series" also indicates that the Sac and Fox of Iowa have obtained peyotism and now get their buttons direct from Texas. As reported in Canadian newspapers, peyote has now spread to the Saulteaux of Manitoba near Fort Qu'Appelle and Portage la Prairie; and, as reported in early December of 1956, peyote was spreading in northern Saskatchewan and Alberta as well.

Malouf indicates in his study of Gosiute peyotism (1942) some of the problems of establishing dates. La Barre had placed the origin in 1921 and Hayes in 1925 (Hayes 1940) when a Sioux, Sam Lone Bear, brought to the Gosiute the "Western Slope Way" (which eschewed tobacco), although the orthodox "Tipi Way" supplanted this in a short time. According to Hayes there were less than a dozen users before 1925; Malouf says his informants vaguely estimated that it got established sometime between 1925 and 1928. These data, not really inconsistent with one another, raise the question whether one should indicate the introduction or the *floruit* of the cult in stating origins. Indeed, Hayes mentions that Gray Horse, a Washo from Fallon, Nevada, and a great leader in the western Basin, had in 1940 used Peyote for twenty-five years, that is, since 1915. Malouf considers that Sam Lone Bear (or Roan Bear) may be the Ute Ralph Kochampaniskin or "Lone Bear" who had held Washo meetings as early as 1932. Since M. K. Opler^{*} agrees with Malouf's interpretation of the Ute origin of Sam Loan Bear, and since Aberle and Stewart (1957) have definitively discussed the question, the identification as "Sioux" by La Barre's informant must now be regarded as superseded. In any case, the Washo and the Gosiute have now an entirely standard Plains rite.

The Navaho have a long history of factionalism, in part arising over peyotism. Kirk reports that peyotism was strenuously resisted around 1932. The Charter of Incorporation in New Mexico of the Native American Church is dated July 15, 1945, with respect to Navaho peyotists. But in 1947 there were five or six thousand participants, that is, 35% of the population in the Shiprock region, which accounts for one-third of the area of the Navaho Reservation (Kirk 1947). Further discussion of the Navaho and peyote will be deferred until we deal

below with the able monograph treatment of Aberle and Stewart on Ute-Navaho peyotism.

PROBLEMS OF DIFFUSION

Morris Opler has contributed a valuable description of a Tonkawa peyote meeting held in 1902 (1939a). Obtaining what are probably the last ethnographic materials available from this group, he states that the Tonkawa were taught peyotism by the Carrizo, and that a Chiricahua Apache visited the Tonkawa meeting of 1902. These data are consistent with those cited in Opler's standard and authoritative review of *The Peyote Cult* (1939b) that peyotism came to the Lipan and Tonkawa via the Tamaulipacan-Carrizo tribes; that the Mescalero received peyote before 1870; and that the Kiowa-Comanche got it between 1870 and 1880. Opler has also written on the use of Peyote by the Carrizo and the Lipan Apache. His description of a Carrizo peyote meeting, which included shamanistic tricks, indicates diffusion to the Tonkawa and Lipan Apache as well (1938). The material culture of Carrizo peyotism fits the later rite well, the shaman's bow pointing backward to the Mexican first-fruits hunting rite (as also does the Comanche spearpoint mentioned by Howard?) and forward to the leader's staff in the standard Plains rite. Opler mentions also that for these tribes the "male" peyote blossoms red and the "female" white, a belief that fits well transitionally between the notions of plant sexuality held in Mexico and the southern Plains belief that Peyote Woman can be heard singing when one has eaten a female peyote button.

Some special problems of diffusion are discussed in Merriam and D'Azevedo's study of Washo peyote songs (1957). In 1957 Washo peyotism was scarcely more than twenty years old, having been introduced by the Washo, Ben Lancaster, who had lived among the eastern and southern tribes. He began proselytizing in 1936, and by 1939 had obtained an enthusiastic group of Washo and Paiute adherents. But in 1940 his meeting was largely defunct; he built an octagonal church (of Osage origin?) and presided over the remnants. The reasons for the decline were partly the clash of conflicting ritual "ways" and partly the conflict of peyotist theology with the spirit-guidance concepts of the Washo; possibly, too, the rivalry between the old shamans and the new peyotists was involved.

The most thorough studies on the diffusion of peyotism in single tribes have been those of the Spindlers on Menomini, and of Aberle and Stewart on Navaho and Ute. In a paper on "Male and Female Adaptations in Culture Change," Louise and George Spindler (1958) introduced a new dimension into peyotist studies with their discussions of differential diffusion and acculturation, and then elaborated in their later studies.³ Louise Spindler also discussed the problems of peyote and witchcraft in Menomini acculturation (1952), and at the same date George Spindler and Walter Goldschmidt (1952) published a preliminary programmatic discussion of the method Spindler was to use in his 1955 doctoral thesis. In this they discussed the problem of sociological and psychological variables among the Menomini and presented a graph on which the levels of socio-economic status of groups varied vertically and the degree of acculturation horizontally.

In *Sociocultural and Psychological Processes in Menomini Acculturation* (1955), George Spindler produced at the same time one of the ablest papers on acculturation and one of the most minutely researched documents on projective techniques in the culture-and-personality field. Spindler's problem was to study the differential acculturation of each of five discernible groups of individuals among the Menomini; his method was to make extensive Rorschach-test samples of individuals in each of these five groups. Members of the Menomini native-oriented Dream Dance group were the least acculturated and were roughly similar in personality structure to their Algonkian relatives, the Ojibwa. The Peyote Cultists, with an intermediate Kiowa-Comanche and Winnebago Christianized version of the cult, showed a systematic deviation from the other Menomini groups, based on their identification with the closely knit cult group of peyotists. The Transitionals, with both native and White culture experiences, the lower-class acculturated, and the middle-class acculturated were the other groups, the last being at the opposite extreme of a continuum from the Dream Dance group and showing basic personality reformulation. Spindler has shown precisely the context of the Menomini peyotists (p. 207):

The systematic deviation in psychological processes demonstrated for the Peyote Cult consists of a relatively high degree of self-projective fantasy in a setting of anxiety, conflict, awareness, and introspection. This is accompanied by relative looseness of affect control and a possible decrement in reality control. This systematic deviation is represented statistically by consistent difference between the Peyotists as a group and all other Menomini categories, but the characteristics last named are shared with the transitionals.

The work of Aberle and Stewart on the diffusion of peyotism from the Ute to the Navaho is also admirable methodologically (1957). As early as 1954 Kluckhohn stated that, "Aberle and Moore in their studies of Navaho peyote use have also employed random sampling" (1954: 691). Kluckhohn and Leighton had noted in 1946 that, "The peyote and certain other religious cults flourish here" among the Navaho of Shiprock (1946: 125), long a center of anti-White feeling, and Thompson had included the Navaho in her discussion of the problems of acculturation in various tribes (1948). Aberle and Stewart attacked the problem systematically and statistically, giving careful attention to both geographic and psychological details. Despite continuous opposition from the Navaho tribal council, peyotism spread, in the authors' opinion, with respect to communications and geographic availability, although they regard the disgruntlement arising from the stock-reduction campaign as an important additional impetus to its spread. The present writer has reviewed this work elsewhere (1958) and will not deal with it further here; Morris Opler (1958) has also reviewed the work of Aberle and Stewart.

The same problem of differential diffusion has preoccupied other students, among them the distinguished sociologists Lasswell, Barber, and Shonle. Lasswell wrote on "Collective Autism as a Consequence of Cultural Contact: Notes on Religious Training and the Peyote Cult at Taos" (1935). In the opinion of the present writer, however, Lasswell attended too little to com-

parative ethnography and has perhaps been misled in his interpretations within this narrow framework of reference that he has chosen; but a historically longitudinal study of peyotism at Taos since colonial times is still worth doing. Barber points out the close temporal succession of Peyotism upon the Ghost Dance, and discusses John Wilson and the Kiowa shaman Baigya, both of whom bridged the two phenomena in time (1941). Barber concludes (pp. 674-75) that:

The Ghost Dance and the Peyote cult, then, may in part be understood as alternative responses to a similar socio-cultural constellation. As such a response, the Peyote cult performs certain adaptive functions. On those whom it honors with leadership, it bestows prestige and status, serving as a path to social advancement. Public confession of sins in Peyote ceremonies is at once a mechanism for the dissolution of individual anxieties and a mode of social control. Like the old buffalo societies of the Teton Sioux, the cult can become a focus of tribal ceremonial and social activity. This interpretation, however, does not pretend to exhaust the possible understanding of the phenomena. It does not preclude the necessity for understanding the particular cultural patterns to which peyotism diffused and tracing their influence in the process of its assimilation. It does indicate the socio-cultural situation from which the Peyote cult was precipitated.

The usual psychological-ethnological explanation for the spread of peyote has been that of Shonle, who pointed out that peyote was diffusing in the same regions that had the old Plains vision quest (1925) and, indeed, the subsequent spread of peyotism has largely confirmed Miss Shonle's predictions. Barber writes (1941: 675) that:

There may or may not be some relation between the importance of the vision in Plains culture and the Peyote cult. Shonle, for example, thinks there is. Petrullo [1934] criticizes the theory that Peyote is a substitute for the fasting and self-torture employed by the Plains Indians seeking a vision. I should say that the vision is an important element in the culture to which Peyote was assimilated, and, as such, exerted its influence, but that this cannot explain the particular occasion of the widespread diffusion of Peyote.

The present writer would point out in defense of Shonle that even among the Caddo-Delaware whom Petrullo studied, the peyote meeting was in the context of an ordeal or an endurance contest; that despite their closeness to the source of peyote, the Pueblos (with the exception of Taos, the most "Plains-like" of the Pueblos) have not accepted peyotism; that even at Taos peyotism has long had a difficult time; and, finally, that peyotism is still a very controversial subject among the Pueblo-influenced Navaho, despite the latter's common origin with the Apache, who were the major vehicle for the Mexico-Plains spread of the cult. It is probable that most contemporary students would agree with Shonle and Barber that prior culture did have some significance in the diffusion, both positively and negatively, rather than with Petrullo. Barber also asks the interesting question, "Do the leaders of the new cult come from among the old elite?" The answer would perhaps be negative for Taos and other fringe areas, but affirmative for the Plains, again indicating the significance of prior culture in the differential spread. Probably still

more work remains to be done on the problem of differential diffusion, with respect both to individuals and to tribes, and, since peyotism is a contemporary phenomenon, perhaps such studies might serve to clarify some general problems of diffusion.⁴

Dittman and Moore have studied disturbance in dreams as related to peyotism among the Navaho, believing that "a resort to peyotism might be connected with a breakdown of traditional methods of problem solving" (1957: 643) and concluding that peyotists have more "bad dreams" according to their indices than do the non-peyotists, and that the peyotists are disapproved by the majority of the people. Newcomb, writing on Cherokee-Delaware "Pan-Indianism," says (1955: 1044) that:

As the old culture declined and Delaware society disintegrated the void was partly bridged with a *mélange* of traits which are Indian. The peyote cult was perhaps the first, and is still one of the strongest elements furthering and cementing the bonds of Cherokee-Delaware Pan-Indianism.

Newcomb cites Devereux (1951) regarding Devereux's thesis that the common denominator of a real culture in various tribes constitutes a refractory remnant after tribal deculturation and, as such, aids the mutual reinforcement of Pan-Indianism in the separate tribes. The Pan-Indian character of peyotism has been stressed by both Slotkin and La Barre as well as other students of the cult, and would thoroughly support the position of Newcomb and Devereux. Jones's (1957) emphasis on the fact that among the Ute it was specifically the full-bloods identified with the old culture who were the peyotists, who were anti-White, and who resisted the agents' acculturative attempts, would also seem to support this contention.⁵ In the Plains, however, peyotism is largely accommodative, in contrast to the Ghost Dance; and in some tribes, as in Menomini, the peyotists are at best a transitionally-acculturated group. Arth (1956) suggests an interesting refinement and thinks that the function of peyotism (and hence the differential facilitation of its spread) may be different for different age, sex, and other groups: the elderly may be concerned with health and peyote's curing function, the conservative may value its vision-producing power; the confused and half-acculturated older people may find in it a focus of resistance to the Whites; for some it may be social and recreational; and for others it may be connected with the breakdown of the Omaha male role. Newcomb (1956) has elsewhere written on the differential acculturation of the Delaware; Voget (1957) has criticized some of his conclusions in a review.

SCHOLARLY CONTROVERSIES OVER INTERPRETATIONS

The most vigorous controversialists among students of peyotism have been Stewart and Slotkin.⁶ In an important tribal study of Ute peyotism, Stewart (1948) takes issue with the common belief that the peyote cult was basically aboriginal, with only secondary and adventitious accretions from Christianity. Stewart takes the view that Christian elements were early, integral, basic and essential, and diffused with the rite itself. It is possible that the specific tribe studied may give the

field worker differing opinions on this matter (though it is a little surprising perhaps that the Ute are so notably Christian). The matter may be fairly viewed only by the interested student's first-hand examination of Stewart's work. But Marvin Opler (1940) has offered an equally vigorous rebuttal to Stewart's position in a paper on the character and history of the Southern Ute peyote rite. Stewart in turn replied with a communication on the Southern Ute peyote cult (1941), and Opler again with "Fact and Fancy in Ute Peyotism" (1942). Perhaps the final solution to the problem must be left to specialists on the Ute, although historical evidence from other tribes would appear to support Opler concerning the secondary nature of Christian influences on peyotism in general.

In his 1948 monograph (p. 3), Stewart gives the interesting item that:

Modern scientific interest in peyote was first aroused by Mrs. Anna B. Nickels, of Laredo, Texas, about 1880. From the Indians she learned of its supposedly marvelous therapeutic properties and sent samples to Parke, Davis and Co., drug manufacturers, and subsequently to scientists in Washington, D. C., Germany, France, and England for detailed and exhaustive study.

Slotkin (1955: 208, 222) disputes this and states that:

Modern pharmacological and psychological research on peyote was begun by Briggs (1887). . . . That Briggs was the pioneer is based upon the following evidence: (a) The files of Parke, Davis & Co. on the subject of peyote begin with a clipping of his 1887 article. (b) Lewin (1888) stated that the peyote he received from Parke, Davis & Co. was obtained from Mexico. Briggs' brother lived there, and it was from him that Briggs received his own supply. (c) Lewin used the unusual form "muscale button," as did Briggs. Mrs. Anna B. Nickels is usually credited with having brought peyote to the attention of Parke, Davis & Co. I reject this for the following reasons: (a) W. P. Cusick of that company informs me that "we are unable to locate any records . . . connected with Mrs. Nickels" (personal communication). (b) Mrs. Nickels lived in Laredo, Texas. (c) She used the common form "mescal button."

Apparently her spelling, residence, and the loss of records must deprive Mrs. Nickels of the distinction of first arousing scientific interest in peyote, despite her priority in time.

Another important tribal monograph on peyote by Stewart (1944) is his *Washo-Northern Paiute Peyotism*. Stewart considers peyotism here to be purely a healing cult and cautions against "the purely sociological explanation of acculturation." His major argument in this work is a rebuttal of the cultural thesis of diffusion (1944: 94, 98):

What is, then, the reason for diffusion? In the case of the Washo-Paiute, the individual, at times with economic motives, looms as a determining element. . . . In Ben [Lancaster], that is, the individual, rests the crucial factor in Washo-Paiute peyotism. . . . With faith shaken that cultural autopsy can adequately expose reasons for behavior and noting that in all groups there are remarkably distinct personal reactions toward introduced cults, proselytizers and their motives assume new significance. . . . Since those who decided in favor of peyote and believed it to be of great worth for curing, for salvation, and for better living had no cultural, social, or psychological status in common, but were definitely representative of all elements in the population,

it is evident that each reacted as an individual, for purely personal reasons.

Since Omer Stewart is in disagreement with earlier writers on peyote in a number of particulars, his work deserves extended discussion. Stewart says that "all Peyote rituals north of the Rio Grande . . . appear universally to include elements of Christian theology and ritual integrated with aboriginal elements" although "Radin, Opler, Petrullo, La Barre, and others consider Christian elements recent additions" whereas "evidence to the contrary is presented in my Ute Peyotism" (1944: 64). La Barre, however, in a review (1946: 633), countered:

What are these "Christian" elements anyway? *Prayers* to peyote, or via peyote to the Great Spirit? An earthen *altar*? *Sage incense*? An eagle wing-bone *whistle* (equated with the Catholic bell)? *Baptism* in the drum water? I cannot find a single demonstrably Christian element in Stewart's list of 265 traits, nor does he discuss any. Great Basin peyotism, which is recent, is not the best evidence to substantiate an argument for the near-aboriginality of Christian elements; Mexican or transitional Apache data would be more critical. Both Opler and Lumholtz are unimpressed by Christian elements in peyotism [and missionaries, from colonial times to the present, have uniformly combatted peyotism]. It is hard to see in them more than window-dressing for a proselytizing cult; considering some of the tribes' historical exposure to Christianity, it is surprising its influence is not greater.

Stewart (1944: 86) considers Shonle mistaken in her thesis that "the underlying belief in the supernatural origin of visions is important among the factors contributing to the diffusion of peyote and in a general way defines the area of its probable spread." By contrast, Stewart espouses the botanist Schultes' view that peyote's therapeutic power is more important and that "the peyote vision is incidental and of little significance" (Schultes 1938b in Stewart 1944: 86). But La Barre (1939) had already shown that Schultes was naively conceptualizing in terms of White ideology about "medicine" and that Schultes' unwitting dichotomy of "medicine power" into therapeutic pharmacodynamics and the supernatural vision created only a pseudo-problem. Plains "medicine power" is supernatural in origin (the vision), not pharmaceutical. If peyote did not cause visions, would new adherents to the cult be so ready to believe that it cures (has "medicine power")? *Of course* people take peyote partly to cure ills—*because* a vision-producing plant obviously has medicine power. La Barre further pointed out (1939: 634) that:

For the rest, the stubborn distributional fact remains that peyotism historically has spread much as Shonle's thesis would predict: we still await in vain reports of Pueblo peyotism, except in the case of the most Plains-like, Taos. La Barre is nevertheless in error (page 90ff.) in emphasizing the "cultural compatibility" explanation of peyotism's differential diffusion. No more applicable is Kroeber's "cultural disintegration theory, which says that peoples experiencing cultural disintegration and degradation will readily accept new religions, especially those which promise the miraculous restoration of former conditions of life" (page 90). Equally unacceptable, perhaps, would be a combination of these, to the effect that peyotism was successful as a "new" Indian religion precisely because it was already compatible with the threatened aboriginal beliefs in disintegrating cultures.

When prior culture is not significant, its current disintegrated status unimportant, and Christian influences (ancient or modern) undiscussed, one wonders why indeed this is called "a study in acculturation."

Stewart seems unjust, also, in accusing earlier students of peyotism of studiously ignoring the individual. Radin's *Crashing Thunder*, after all, was first published in 1920; and La Barre wrote in *The Peyote Cult* that, "A descriptive account of a ritual pattern, however meticulously detailed it be, must always fall short of reality unless supplemented by further information regarding its functioning in individuals" (1938: 93), when introducing a chapter on the "Psychological Aspects of Peyotism" which was surely not unfriendly to the study of individual motivations. The major motivation of the proselytizer Ben Lancaster, to take money, was certainly not going to be realized if a sufficient number of cult participants were not culture-psychologically willing to give the money. Furthermore, if Ben Lancaster had motivations, do not other persons also have them? Are there not common Washo or Ute cultural assumptions basic to these motives and to the cult itself? Is not belief in the peyote cure itself cultural? The unfortunate thing is that Stewart is right so far as he goes: the individual is important. That Ben Lancaster was an exploiter of peyotism economically, and John Wilson was too, is interesting and significant. But to leave it at that is to perpetuate the devil theory of history-by-plot. There are also Bert Crowlance and Mary Buffalo and Jack Bear Track to be considered as well, if we are to avoid a *Führerprinzip* theory of ethnological history. The franchise of being psychologically motivated must be extended equally to the new cult's opponents and adherents too, as well as to Ben Lancaster. On this larger scale, the past nature and the current acculturative state of the culture, and various individual relationships to both, may then not seem so unimportant. The "Great Man" theory is as inadequate to explain the history of peyotism as it is of any other history, when taken alone.

Of all the students of peyotism, Slotkin was the most industrious in rediscovering colonial documents, but his supposition that they all refer to peyote has sometimes been disputed. For example, in a 1951 paper, "Early Eighteenth Century Documents on Peyotism North of the Rio Grande," he said (p. 420) with respect to an obviously unidentified tribe he specified as Comanche,

One of these manuscripts, a report dated 1716, states that peyote was used by unspecified tribes in Texas. Another is the record of a trial held in Taos in 1720. During the proceedings it developed that an Isleta, who lived among the Hopi after the Pueblo Revolt, and now resided in Taos, had brought peyote with him from the Hopi.

This source, and this reasoning, however, are not sufficient to establish the existence of peyotism among the Comanche in 1760 nor, indeed, the cannibalism that is inferred from their *mitote*. On the contrary, if cannibalism on the part of the unspecified tribe is accepted from this tendentious colonial Spanish document, a far more plausible tribal identification would be the Tonkawa, who were known to have had peyote at an early date, and who were cannibals at least by repute.

Nor do we have any reason to infer the use of peyote at Isleta Pueblo at this or any other date, at least not on the basis of these documents. Beaver also scouts Slotkin's assertion that the Hopi ever had peyote (1952: 120):

The major idea of the article was to show the earliest mention of the use of peyote north of the Rio Grande, and to give evidence that an Isleta had brought the peyote to Taos from the Hopi. It would seem that both Slotkin and the Spanish could not distinguish peyote from jimson weed, or if it really was peyote that these Indians were using, they did not tell the truth as to its source. The Hopi were ignorant of the use of peyote and the older generations still are today.

Indeed, the phrases "the herb from Moqui" and "the herb from Aguatubi [Awatovi]" mentioned in the documents are inadequate to establish the plant involved as being specifically peyote.

Not one ethnologist working among the Hopi has ever mentioned the use of peyote among them. Another very important factor is that the cactus does not grow in the Hopi country, nor does it grow in the country of any tribe that surrounds the Hopi. The use of the jimson weed as a medicine and by the doctors as a means of diagnosing a sickness, however, has its distribution westward to California.

The early sporadic use of peyote at Taos is also open to further research and verification; but the present documents surely do not establish the use of *Lophophora williamsii* at these dates either among the Comanche, the Isleta, or the Hopi.

Slotkin continued his researches on early documents in his paper on "Peyotism, 1521-1891" (1955). This study contains a number of valuable new references to colonial documents, but Slotkin's use of them is again open to criticism. He states (p. 202) that:

In 1954 I had occasion to review the literature on the early history of peyotism, i.e., the use of peyote. The deeper I delved into the subject, the more unsatisfactory did the state of our knowledge appear. Consequently, it seemed useful to make a critical re-examination of the sources, so that future research might proceed on a sounder basis.

He begins his paper with a section on the "Identification of Peyote," quite as if La Barre (1938) had never devoted four appendices to the botanical identification of *Lophophora williamsii* or peyote, and the plants confused with them. Thereafter his use of documents at times only compounds confusion. For example, his inference that the Caddo (mapped as overlapping the Oklahoma-Arkansas-Louisiana-Texas border region) had peyote as early as 1709-16 is based on the bland formula that, "For purposes of this paper I attribute all 'Texas' material to the Caddo" (1955: 206). In his 1951 (p. 421) paper the unidentified tribe was Comanche! Both are wholly unwarranted, for Morris Opler's repeated studies on Texas peyotists in early times would surely have led one first to rule out such Texas tribes as the Tonkawa, Carrizo, and Lipan—and perhaps, because of the uncertain area of "Texas" in these documents, also the Coahuilteco, Jumano, and even the Tamaulipeco. Slotkin's list of the "Uses of Peyote" by various tribes is useful for its sources; but, again, this is not the first such study; and these sources should be

used critically and with caution. Slotkin concludes (1955: 208 and 210):

The most significant result of this analysis is that the individual uses (to reduce fatigue and hunger, as a medicine, to induce "visions" for purposes of supernatural revelation, as an amulet, and as an intoxicant), and the collective use in tribal rites, all seem equally old and part of a single trait complex. Only the collective cult seems recent.

The present writer is at a loss to understand how, if the individual and collective uses in tribal rites are equally old, only the collective cult can then be recent. In the section on the "History of Peyotism," Slotkin cites peyotism for the Queres, Hopi, Isleta, Taos, Pima, Coahuilteco, and Caddo—quite as if Beaver and others had not brought some of these into grave question—and on this basis argues that "there seems to be no reason why peyotism in the north should not be as old as in the south—or at least pre-Conquest" (1955: 210). For the Coahuilteco, who live, in part, in regions where peyote grows, possibly; for the others, surely the Scottish verdict "not proven!" Perhaps it was another Texan tribe.

A minor disagreement arose over the botanist Schultes' paper on "The Appeal of Peyote (*Lophophora williamsii*) as a Medicine" (1938b). Schultes argued that the major reason for the spread of peyotism was its use as a "medicine" and not with reference to its vision-giving power. La Barre (1939) pointed out that Schultes' misunderstanding of the sources arose from his unawareness that "medicine" in reference to American Indians has by usage supernatural connotations, and that the *medicinal* virtues imputed to peyote were in fact based both on the visions it induces and on the "power" that the Indian thus infers is in it. The problem is purely a semantic one. Johnson (1940), incidentally, has criticized La Barre (1939) for awarding the credit for the rediscovery of *teonanacatl* to Dr. Richard E. Schultes, now Curator of the Oakes Ames Herbarium in the Harvard Botanical Museum. Johnson states that a linguist, Mr. R. J. Weitlaner of Mexico City, Johnson's father-in-law, found some mushrooms used by the Mazatec and, "recognizing the mushrooms as *teonanacatl*" of the Aztec, sent them to Dr. B. P. Reko, "who sent the specimens to botanists for identification" (1940: 549). Now, Mr. Weitlaner is certainly to be credited for his perspicacity in suspecting that the mushroom used in modern Mazatec witchcraft was probably the Aztec narcotic mushroom. But since Schultes was the first to identify the mushroom botanically as a *Basidiomycete* and to publish his results, the scientific credit would seem ultimately to be his. Perhaps this is another purely semantic problem. Can the matter be fairly stated thus: "Dr. Schultes was the first botanist to identify *teonanacatl* scientifically as a *Basidiomycete* and to publish his results"? As for Reko, he apparently misidentified *teonanacatl* with *ololiuhqui*, which is another plant, and did not himself establish the botanical identity of either.

Another point has arisen with respect to appropriate recommended usage in discussing drugs. Barber (1959) agrees with La Barre, Slotkin, and others, that peyote is not, technically, a "narcotic" since it is neither soporific nor addictive; but to remove it from the context of American Indian drug use, he thinks, is to lose the ad-

vantage of such ethnographic association. His point is well taken. Perhaps we might suggest the general term "psychotropic" for such specialized ethnographic use. In this connection it may be well to note the "mescalismo" recently described for northern Peru by Gutiérrez-Noriega (1950). The cortex of "*Opuntia cylindrica* 'San Pedro'" contains mescaline, for which reason the cactus has come to be used by medicine men; there is no public group ritual involved.

PEYOTE MUSIC AND ART

The major work on *Peyote Music* is by McAllester (1949). It is an excellent technical work and authoritative in its field. McAllester has also published on Menominee peyote music (1952). For technical reasons, music is an excellent way of tracing provenience and tribal influences. For example, "when peyote music [heard by McAllester in a ceremony near Window Rock] is sung by the Navaho it is rendered in the Ute musical style rather than the Navaho musical style" (Moore 1956: 220). The soundness of this method is demonstrated in the fact that the spread of peyotism from the Ute to the Navaho is thoroughly well documented for historic times by contemporary specialists on the Ute and Navaho, Stewart and Aberle, respectively. Kurath, in a review (1953: 113) of Concha Michel's *Cantos Indígenas de México* of 1951; has remarked that, "The most interesting are probably the Tarahumara sections, notably the *Canto del Peyote*, which the reviewer has found among the Navaho and the Cheyenne." Musicological evidence is thus an important adjunct to other ethnological and historical data in tracing the origins of peyotism; at the same time, the remarkable fact that the recognizably same song is found among the Tarahumara, Navaho, and Cheyenne is supported by the similar fact that in the peyote ritual meal, from ancient Mexico to modern Manitoba, the foods are always some form of boneless meat, fruit, and sweetened corn—a remarkable culture-continuity in both cases (see p. 49). Nettl (1958), in a valuable paper, has pointed out that McAllester's musicological evidence indicates the Peyote style came from the Apache to the Plains. The conclusions both of Nettl and of McAllester support the generally accepted theory of peyote's diffusion; but Nettl has also introduced an interesting principle of the differential survival of the specialized and the unspecialized that might well find application and testing in other fields of ethnography (1958: 523):

It [the Peyote style] retained a feature of Apache music, the use of restricted rhythmic values (only two note-lengths are usually found), but in the Plains it evidently acquired the cascadingly descending, terrace-shaped melodic contour. Possibly the forces described above operated here; the melodic contour of the Plains, a specialized and rather highly developed type, was strong enough to encroach on the Peyote style, but the more generalized rhythmic structure of the Plains was not strong enough to alter the specialized rhythmic organization derived from the Apache.

Nettl (1953) has also published some interesting observations on meaningless peyote song texts which probably have linguistic and diffusionist bearing. Rhodes (1958) has published on an individual peyote song, a kind of study that is rarely done.

Without doubt the most indefatigable collector of Indian songs was the late Frances Densmore. Some of her studies have relevance to peyotism. In 1938 she wrote a paper concerning the influence of hymns on the form of Indian songs. Paired phrases, characteristic of Protestant hymns, she found in thirteen (plus six in modified form) of twenty-two Wisconsin Winnebago songs that she transcribed; paired phrases were not characteristic of the 340 Chippewa songs that have been analyzed. Densmore believed that the difference is owing to the influence of the simple flowing melodies of the Catholic Church on the Chippewa, versus the Protestant missionary influence on the Winnebago. Densmore's musicological evidence is thus consistent with the belief of Mooney, Radin, and other ethnologists that the Winnebago cult represents a more Christianized form of the peyote religion. In another paper, Densmore (1941) demonstrated on musicological grounds the syncretism of Christianity with peyotism in the Winnebago Native American Church. The marked, but atypical, position of the Winnebago and the tribes influenced by them with regard to the Christian elements in their rite must now be accepted as established by her additional evidence; but Miss Densmore was surely mistaken in her historical perspective when she argued (1941: 80), on Winnebago grounds, that:

The peyote cult came to the Plains from other tribes and did not bring with it a ceremonial ritual. This was developed chiefly by adaptations of the customs of Christian worship.

This unfortunate error is another example of the danger of asserting propositions about peyotism at large on the basis of information from a single tribe.

The most recent work on peyote music is that by Merriam and D'Azevedo (1957) on Washo peyote songs. Some of their data on musical instruments, e.g., on the peyote rattle, are new; the description of vocal style is interesting; and their recording of songs and technical analysis of them are both competent and useful.

As is well known to ethnographers of the region, a number of American Indians in Oklahoma and the Southwest have in recent times become competent artists, quite commonly in *gouache* paintings (La Farge 1957). Some of those in Oklahoma, such as Ernest Spybuck, Stephen Mopope, and Monroe Huntinghorse (Tsa Toke), have been directly inspired in their paintings by peyotism. Recently a superb collection of Tsa Toke's paintings has been published by Denman (1957) in a limited edition by the Grabhorn Press. Monroe Huntinghorse (1904-37) was born near Saddle Mountain, Oklahoma, his grandmother being a captive White woman. He went to school at the College of Bacone at Muskogee. Huntinghorse's explanations of his pictures contain an explicit bird symbolism: the cormorant is the Water Bird of the morning ritual; the male and female yellowhammer or flicker is the Fire Bird; a parrot or a macaw, the Dawn Bird; the scissorstail or swallow, the peyote singers; while the eagle is representative of purity and love. Other information in this somewhat inaccessible and expensive (\$32.00) book is worth recording here: Ida Lone Wolf, widow of the Kiowa warrior De Los Lone Wolf, said that sometimes in the old days, toward morning, if a man had great reverence, he

might dance in a peyote meeting. Is this a dim echo of dancing in the peyote rituals of early Texas and colonial Mexico?

White artists have also been inspired by peyote. In Gallery One in Soho, London, in the Autumn of 1957, twenty-two fine-nibbed pen drawings were shown by the French artist, Henri Michaux, portraying visions and made after taking mescaline (*Observer* 1957). In early 1953, a German photographer named Leif Geiges sent to America a number of *Surréaliste* composite photographs that simulate mescaline intoxication, six of which were published in an American weekly magazine (*Newsweek* 1953).

POPULAR ACCOUNTS OF PEYOTE AND PEYOTISM

Several recognized ethnographers have published popular accounts relating to peyote. One of the most charming of these is a recounting by Alice Marriott in the *New Yorker* (1954) of her peyote experiences on a field trip in South Dakota. Hoebel (1949) also wrote of "The Wonderful Herb" in a literary and humanities review, describing an Indian cult vision experience among the Cheyenne of Montana. Stewart's "Three Gods for Joe" (1956) is an amusing story of a Northern Paiute who is at once a *pohari* (shaman), a peyotist, and an Episcopalian. In the same periodical is a description of "The Peyote Way" by Slotkin (1956b). Howard wrote on peyote in the Pan-Indian culture of Oklahoma, in an article intended for the general reader (1955). Kamffer's article on *Plumed Arrows of the Huicholes of Western Mexico* (1957) is a pleasant well-illustrated piece, including data on Huichol peyotism. Bromberg's "Storm over Peyote" (1942) was based chiefly on La Barre, and was later summarized by Schultes (1937).

Among non-anthropologists who have recently written on peyote, the most prominent and publicized undoubtedly has been the British novelist and literary man, Mr. Aldous Huxley. In recent years Huxley has become a mystic and has read widely on oriental religions and on occidental psychic research. His book, *The Doors of Perception*, appeared in 1954 and reported his experiences with mescaline. Apart from its irritating habit of inaccuracy ("[mescaline] is less toxic than any other substance in the pharmacologist's repertory" and "Professor J. S. Slotkin, one of the very few white men ever to have participated in the rites of a Peyotist congregation"), the work is highly articulate in expressing Mr. Huxley's mystical views (p. 16):

The other world to which mescaline admitted me was not the world of visions; it existed out there, in what I could see with my eyes open. The great change was in the realm of objective fact. What had happened to my subjective universe was relatively unimportant.

These statements are not literary hyperbole for Huxley, for he believes that in mescaline intoxication he is discovering a larger *Istigkeit*. His book was somewhat variously reviewed, but provoked a symposium in the *Saturday Review* entitled "Mescaline—An Answer to Cigarettes?" by Huxley, Slotkin (who was dubious about peyote in this context), and a physician, Dr. W. C. Cut-

ting, who was guarded in his opinion. Huxley came to Durham, North Carolina, to visit his friend, Dr. J. B. Rhine, and on the evening of October 5, 1954, gave the opening address of the Duke University Lecture Series, on the subject of "Visionary Experience, Visionary Art, and the Other World." Mescaline, Huxley believes, opens the doors to another world in the "antipodes of the mind" that is as objective as an undiscovered Australia.

One of the most widely read accounts of peyote was the article "Button, Button . . ." that appeared in *Time* magazine (1951). It is also one of the most error-ridden (there is no "dismal hangover" from peyote, the ritual breakfast is not "to help straighten them out," peyote is not the "fruit" of the "mescal cactus," peyote is not "the mescal cactus," nor, incidentally, is mescal a cactus). The opinions in this article are as tendentious as its statements are erroneous. It is unfortunate that so many persons should obtain their notions about peyote from so irresponsible a source.

Journalistic surveys, often well-informed, of local or regional peyote rites have appeared increasingly in American and Canadian newspapers. One of the most workmanlike is "Indian Drums Beat Throughout Night: Peyote Users Faithful to Their Religion" (*Omaha Evening World-Herald* 1938), in which the reporter's integrity matches his knowledgeability. Aberle[☆] says that the *Phoenix Republican* has also maintained a high order of journalistic accuracy in articles on peyotism. By contrast, Olcott's brochure, *The Enchanted Hills* (1948), describes peyote so misleadingly ("shaped like a prickly pear," "this pear shaped bud . . . cut from the plant," etc.) that it is clear that she has never seen a peyote plant. Other popular accounts have been of similar level, though they appeared in widely disseminated media. A Sunday supplement article, "Sent to an Artificial Paradise by the Evil Cactus Root" (*American Weekly* 1941), was based on Petrullo's *The Diabolic Root*. Perhaps the nadir has been reached in DeJacques' piece on "America's Newest Dope Horror" (1955), in which one searches with difficulty for even one accurate statement.

FUTURE STUDIES

A FEW concluding remarks might be made concerning future studies in peyotism. Detailed tribal surveys, so well begun by Kroeber and so ably continued by Aberle and Stewart and by the Spindlers, still need to be made, in particular with respect to historical diffusion, merely blocked out in large by La Barre. Both the Navaho-Ute and the Menomini studies present valuable innovations in methodology with considerable applicability to other modern field problems, and remind us that a contemporary complex such as peyotism is highly available and useful for the testing of hypotheses concerning method, diffusion, psychological and cultural issues, and the like. Problems of Pan-Indianism and acculturation will certainly continue to have relevance to peyotism in the future. Detailed psychological studies of individual and tribal peyote "theology" and related ideologies (perhaps in conjunction with the Thematic Apperception Test and other projective techniques) can still uncover for us many matters of cultural importance. Musicologists, archaeologists, and linguists are greatly needed to help solve several knotty problems. For example, we still do not know, specifically, in what area the form of the ritual first took shape, and under the influence of what tribal cultural contexts, though most experts are now agreed that peyotism first arose in the general area of the botanical provenience of peyote. Questions of differential diffusion, in particular in the Southwest, remain to be studied, perhaps in terms of the formulations of Shonle and Benedict. A putative "Red Bean Cult" as a forerunner of peyotism, early suggested by La Barre and recently reintroduced by Howard, awaits future research and definition ethnographically and historically; however, a better substitute for the unfortunate term "mescalism" could probably be found, since "mescal" (once quite erroneously confused with a narcotic mushroom) now refers confusingly to a bean, a cactus, and a succulent xerophyte, as well as to distilled pulque. And, finally, pharmacological research, now abundant on mescaline, might well be continued on the eight other alkaloids present in panpeyotl.^{7, 8}

Notes

1. This is true of both Protestant and Catholic missionaries, but Aberle[☆] points out that, among the Navaho, Catholic missionaries have been "particularly lenient" toward the controversial peyotism of the Navaho.

2. DAVID F. ABERLE:[☆] This source "has some very sage comments on the notion of 'model' psychoses, essentially taking the position that (a) the similarity of the conditions produced by mescaline, LSD [lysergic acid di-ethyl amide], etc., to the functional psychoses is doubtful, but (b) the gross changes of affect, sensorium, motor activity, and so on created by mescaline and other substances remain very important subjects for experimentation in understanding

the functioning of the nervous system, psychological processes, etc. He [Wikler] also attempts a rather thorough coverage of this type of work."

3. LOUISE SPINDLER:[☆] "It might be useful to offer a few additional notes on Menomini peyotism and raise some questions on the basis of them. These notes pertain to the role of women members of the cult, which does not receive much explicit attention in the literature (but see L. Spindler 1956).

"(a) Relatively few female members attend meetings regularly and have vision experiences (three, in contrast to the 13 males). The Menomini peyote cult was originally for males only, and at present all important positions except one are held by males. Is it generally true that the cult is so male-dominated?

"(b) Many marginal female peyote-cult members use peyote in a very secular and rational manner—e.g., as medicine for earache, childbirth, etc.—with no reference to, or understanding of, its religious meaning. Others use peyote for inducing visions that furnish designs for beadwork or embroidery. These women lack identification with the cult as members, and have little involvement with the cult as a set of values and patterns for behavior. Do women peyotists elsewhere tend to be so practical and non-sacred in their point of view?

"(c) The female peyote-cult members comprise the only group, in the Menomini study, which is statistically differentiated from all other acculturative groups of women in specific Rorschach indices. Is there evidence that female peyotists elsewhere are psychologically

distinct in any way from non-peyotists in the same tribal community?

“(d) The Menomini women peyotists show striking differences from the men. The men represent an introspective, almost schizoid personality type. On the other hand, the women are outward-oriented, and not very introspective. Furthermore, their Rorschach responses suggest that they have greater control over their emotions than do the peyote men, and that they are less tense. Are male and female peyotists psychologically different elsewhere?”

4. ÅKE HULTKRANTZ:☆ “It is surprising that Miss Shonle’s viewpoint on the spread of peyotism, though shared by most anthropologists, has not given impetus to further investigations. I think her theory is brilliant, and that the integration of the peyote cult with the Plains vision complex can be explained by three main conditions: (1) the old-fashioned visions—especially in correlation with dreams—could not be experienced in a society where religious doubts had resulted from the clash with White civilization, and where the natural environment, the setting for the vision quest, was encroached upon by the Whites (precisely this latter point was made by my Shoshoni informants!); (2) the peyote visions are stronger, more compelling, to the skepticist than are Plains visions (note, by the way, La Barre’s quotation from Huxley, whose experiences vividly show that visions at peyote meetings are, or can be, truly hallucinatory, and are no pseudo-hallucinations like earlier visionary dreams); (3) peyote visions may be experienced by almost anybody, whereas in the old days a high percentage of Indians sought visions without success.”

5. MARVIN K. OPLER:☆ “I agree with Jones’s (1957) stress on cultural revivalistic elements of peyotism, which I also stressed in my Southern Ute study of 1940 and 1942. In the volume edited by Ralph Linton, *Acculturation in Seven American Indian Tribes* [New York: Appleton-Century-Crofts, 1940], I emphasized this aspect also in my chapter on the Southern Ute. This brings me to the commentaries on Omer Stewart’s interpretation of the Christian elements in peyotism as being early, essential, and basic. There is a difference in the two cults on the two sides of the Southern Ute reservation, as I reported both in the *American Anthropologist* [1940a] and in the Linton volume in 1940 and 1942. I think it is clearly the case that Stewart has not only been, as La Barre points out, a chief controversialist representing a minority position, but that the position has added up to a curious kind of ethnocentrism in interpreting peyotism in a Christian fashion. Anthropologists are often alarmed when they

find non-anthropologists guilty of this practice. It is possible that as peyotism continues in the American scene under conditions of further acculturation it will become, as it appears to have in certain places, a more Christianized cult. But these are comments only upon the pace of acculturation. The early Southwestern and Basin instances seem to have been culturally revivalistic according to practically all other scholars. This is even the case where the cult was rather abortive, as in certain Ute settings. However, this does not preclude later studies discovering a stronger element from Christian settings. My own studies appeared before Stewart’s and referred to field work primarily in 1936 and 1937. Any later studies, for instance today, might have to reckon with an increased pace of acculturation.”

6. ÅKE HULTKRANTZ:☆ “The discussion surrounding peyote would probably have faded away were it not for the controversies engendered by Stewart and Slotkin. La Barre has ably characterized those controversies, and exhibited a no way unfair reaction to Slotkin’s papers, which in a way usurp on his own contributions. Slotkin’s monograph, being basically a manual for peyotists, is not entirely on the same level with La Barre’s book; still, La Barre does not stress the somewhat dogmatic character of Slotkin’s opus, but justly criticizes its shortcomings in the reconstruction of paths of diffusion, and praises it as a source of legal documents and of administrative reports on the Native American Church. Many of the controversies do seem referable to the fact that, as La Barre points out, anthropologists have asserted general propositions on the basis of data from single tribes. Further, several earlier students of peyotism never witnessed a peyote meeting, partly because the more conservative tribes resisted their presence at meetings.”

7. ÅKE HULTKRANTZ:☆ “Looking to the future, I think there are two important tasks for ethnologically trained students of peyotism. First, the relations between the Mescal Bean Cult and peyotism should be further investigated. Second, research should now concentrate on the character of the peyote belief-systems, which has been very much neglected by American anthropologists, and not only in this connection; see, for example, the (in themselves excellent) studies on the Plains Indian Sun Dance, wherein beliefs have, with few exceptions, been scarcely touched on. That religious beliefs play an active role in the diffusion of peyotism has been convincingly shown by Merriam and D’Azevedo in their paper on Washo

peyote songs (1957). Perhaps I should add that my interest in the *Glaubensinhalt* of peyotism is an interest also in this phenomenon per se: after all, I am looking at peyotism with European eyes.”

8. GEORGE SPINDLER:☆ “La Barre’s paper stimulates me to raise some questions for future research.

“First, how deep are the psychological consequences of participation in the peyote cult? Among the Menomini, the peyote complex goes very deep in the emotional, cognitive, and perceptual structuring of individual members. In ritual and its symbolism, in the supporting ideology, in conversion experiences, in art work by peyotists, and in Rorschach-test responses, there is impressive continuity and consistency. To the extent that such consistency is characteristic of other peyote groups, future research cannot ignore the psychological, as well as the social and cultural, significance of peyotism.

“Second, how widespread are the elements of peyote, or of any, ideology? Can peyotism diffuse, and be accepted, without supportive ideology? How much is the ideology reworked to fit a tribal culture, and the unique demands of each contemporary tribal community? Is the ideology reworked without major changes in ritual symbolism? The literature contains some suggestive materials relevant to these questions, but we need much more, done more systematically.

“The third problem has to do with particular combinations of events and forces operating to hinder or enhance acceptance and growth of peyotism in specific cases. La Barre mentions several of the explanations so far advanced for the diffusion of peyote, but some are essentially uni-causal in type, and others take only limited account of what seem to be essential factors. In the Menomini situation, uni-causal explanations are totally inadequate, since Menomini peyotism started with an historical accident, got under way because a few individuals were in a ready state, and finally became firmly established not from any single cause but from a combination of factors. One of these factors, for example, was a contemporary change in traditional culture which relates closely to psychology: persons possessing powers to combat witchcraft were dying out, such that other persons who were in fear of sorcery turned instead to the peyote cult for protection.

“In short, future research on peyotism must operate in several dimensions—the historical, cultural, ideological, psychological, and social—if it, or any so-called ‘nativistic movement,’ is to be understood.”

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