AMERICAN INDIAN AND ALASKA NATIVE ABORIGINAL USE OF ALCOHOL IN THE UNITED STATES

Patrick J. Abbott, M.D.

Abstract: Alcohol beverages prior to White contact originated with the Mayan and the Aztec Nations and spread to the American Indians of the Southwest. Surprisingly, there are a number of accounts of alcohol use among other American Indians and Alaska Natives. Beverages were limited to wine and beer, and included: balche, pulque, and "haren a pitahaya" wines, tulpi beer and other beverages. White contact brought dramatic shifts in the use and function of alcoholic beverages in American Indian and Alaska Native societies.

Prior to White contact, the use of alcoholic beverages in the United States was primarily confined to American Indian groups in the Southwest. However, there was scattered use in other parts of the country (Driver, 1969; Heidenreich, 1976). The acceptance or rejection of alcohol varied among tribes. Some tribes readily accepted alcohol to extend their secular, social, religious, and supernatural experience. Others, initially rejected its use later to develop a taste for alcohol while others continuously turned away from use of alcohol (Heath, 1983; Heidenreich, 1976). Most American Indians and Alaska Natives knowledge and use of alcohol coincided with White contact (16th and 17th century). Initially, traders, explorers, and early settlers offered alcohol as a gesture of friendship and as an item of curiosity to American Indian groups they encountered. Alcohol soon became a valued trade commodity and was used in exchange for furs, land, and sexual favors. It was during this initial contact with Europeans that the "firewater myth" began. that is, the inability of Indians to tolerate alcohol's effect (Leland, 1976; MacAndrew & Edgerton, 1969). The origination of the use of the word firewater came from two sources: one started with the adulteration of alcohol with tobacco juice, hot peppers or opium, and the other began with the custom of testing the proof of alcohol by throwing it in the fire, if flammable alcohol would be acceptable for purchase (Williams, 1985; Anderson, 1988). By the time Lewis and Clark traveled across the United

States, most American Indians that they came in contact with had prior knowledge of the use of alcohol (Weibel-Orlando, 1986).

The primary aboriginal alcoholic drink was beer or wine since the art of even rudimentary distillation was known only to the Aztec prior to White contact (Bourke, 1894; LaBarre, 1938). The following brief history surveys aboriginal production and use of alcohol up to the period of White contact. We trace alcohol's use from Mesoamerican influences through the Southwest and into other regions of the United States.

Influence From the South

Mesoamerica was key in the development of agriculture and later in the production and utilization of alcoholic drinks which were ritualized in religious ceremonial complexes. The most influential group in this area was the Mayan Indians. They produced a drink called "balche", a wine made from honey and balche bark (Loeb, 1943). The Mayan use of alcohol was thought to have influenced the drinking complexes of Mexico and South America and, importantly, for the future development of North American drinking, the Aztec and Northern Mexican tribes. Over forty different alcoholic beverages were made in Mexico utilizing a variety of plant substances, such as honey, palm sap, wild plum, and pineapple (Driver, 1961; Price, 1975).

The Aztec and their ancestors, the Nahua, developed intricate ceremonies and social rules governing the proper use of alcohol. Many of the ancient alcohol production techniques date back prior to 300 A.D. (Waddell & Everett, 1980). The Aztec used maguey (Agave Americana), also known as the century plant, to produce pulque, a mild wine product made from the sap of the agave (Waddell & Everett, 1980). A modern product of this plant is mescal brandy, Tequila, being one of its place names (LaBarre, 1938). According to an Aztec myth, the origins of pulque were supernatural and initially provided by the deities, chief of which was Mayahuel. Therefore, the use of this sacred wine was clearly prescribed for religious purposes and not used for secular or social purposes (Paredes, 1975).

"Ocht!" or pulque was useful as a diuretic, a remedy for intestinal afflictions, and often used for its nutrient benefits, possessing moderate amounts of vitamin B and C (Waddell & Everett, 1980). Ceremonial use of pulque was the norm and it was rigorously controlled. All Aztec ceremonies were carefully supervised and drunkenness was a serious crime except during prescribed ceremonies (Waddell & Everett, 1980; Paredes, 1975). Drunkenness was only permitted in the elderly and severely punished in others if outside ceremonial occasions.

The diffusion of the Mayan and Aztec "alcohol-intoxication-agricultural ritual complex" spread northward, reaching as far as the Pima/

Papago tribes (Waddell & Everett, 1980). There were numerous groups in between that carried this influence to the Pima/Papago and Apache tribes.

The Taraharmara occupied the mountainous southwestern part of the state of Chihuahua, Mexico. They were known for their production of beer ("tesvino", "tesguino"). Tesguino is the name for Mexican corn beer which was used by most northern Mexican tribes (Kennedy, 1963). It was produced by fermenting corn with the addition of local grass seed. The entire process took about three days. Clearly, tesquino had a central and sacred role in Taraharmara culture. It was included in most ceremonies, such as the "curing ceremonies" for health of crops, animals, and people. the rite of male passage, marriages, and funerals. The Taraharmara also used maguey, but it assumed secondary importance. Apache groups located on the northern edge of the Sierra Madres had contact with the Taraharmara along the "Apache Corridor" which influenced their eventual adoption of tesguino (Waddell & Everett, 1980).

Southwestern United States and the Great Basin

Piman and Papago

Piman and Papago groups lived in southern Arizona and in northern Sonara. They were of the same language group as the Aztec and the Tarahamara, the Uto-Aztecan, and developed complex agricultural rituals with use of intoxicant beverages. They produced a wine from the saguaro cactus ("haren a pitahaya") (LaBarre, 1938). During late summer, the women of the tribe would gather the red fruit of the saguaro cactus which grew at the top of the cactus reaching heights of 15-30 feet. The women would use the fruit for jams and jellies and the last of the harvest for the production of wine. The wine would then be used in rain ceremonies that were held on their New Year's Day which occurred late in the summer (Price, 1975; Waddell & Everett, 1980). Today, many of the Papago villages continue to carry out these sacred ceremonials.

Apache

The Apache, along with the Navajo, are of Athapaskan origin and arrived late in the Southwest between 1000-1550 A.D. (Josephy, 1991). The Apache lived in New Mexico, Arizona, and ranged into northern Mexico. They consisted of the following four primary groups: Jicarilla, Mescalero, Chiricahua, and the Western Apache. They differed from the above native groups in that they were primarily hunters and gatherers, and only engaged in limited agricultural pursuits. However, the Apache did share the production of fermented beverages. "Tiswin", also called "tulapai" and "tulpi", was produced from fermented corn (Hrdlicka, 1904; LaBarre, 1938; Waddell & Everett, 1980). The process appears to have been passed from the tribes in northern Mexico to the Chiricahua Apache and then to the Western Apache. Tiswin was used primarily to mediate social and secular relationships (Waddell & Everett, 1980). However, it was used occasionally for ceremonial purposes.

The Chiricahua Apache not only made tulpi but also produced a drink from various species of the yucca, and the San Carols Apache made pitahaya wine from the saguaro cactus (LaBarre, 1938). Lastly, the Mescalera tribe made an intoxicating drink from the bark of the pine tree or mixed it with tulpi (Hrdlicka, 1908).

The Western Apache had contact with the western pueblos of the Hopi and Zuni, but only limited contact with the pueblos of the Rio Grande. Diffusion of alcohol producing techniques could have been spread by these nomadic groups.

Coahuiltecan

The Coahuiltecan of southern Texas and northeastern Mexico made an intoxicating beverage from the Agave plant (Waddell & Everett, 1980; Newcomb, 1969). This beverage was mixed with the red bean of the mountain laurel. The Coahuiltecans did not use this drink in their religious ceremonies but used peyote instead. Similar patterns of intoxicating beverage use were seen in surrounding tribes, such as the Karankawa, Jumano, and the Lipan Apache.

Yuman

In western Arizona along the lower Colorado River, south of the Grand Canyon, lived the following Yuman-speaking tribes: Havasupai, Walapai, Yavapai, Mohave, Halchidhoma, Maricopa, Yuma, and the Cocopas. They lived in small scattered communities along river bottoms and engaged in agriculture, except for the Walapai and Yavapai who were non-agricultural. The Maricopa did not use the agave cactus for wine nor did they make beer from the sprouts of corn (Spier, 1933). However, they and other Yumans did produce a wine from the fruit of the saguaro in mid-June, a practice that they may have patterned after the Pima and Papago (Waddell & Everett, 1980; Spier, 1933). Once the saguaro wine was prepared, neighboring villages were invited to participate in the festivities and were encouraged to dance. The dance was called "xatca" after the name of the wine. During these dances, alliances were formed and preparations to raid enemy locations were planned (Spier, 1933).

The Mohave tribe of the Yuman did not possess aboriginal alcoholic beverages (Devereux, 1948). Apparently, the Gila River was the northwest boundary for the production of aboriginal alcoholic drinks (Kroeber, 1931). Initial contact with European alcoholic beverages occurred in the mid-sixteenth century, but significant influence did not take

place until the nineteenth century. It was at that time White Americans came into the region with the railroads, mining, and later with the construction of the Parker Dam. In spite of these outside influences, the sociocultural integrity of the Mohave Indians remained intact.

Pueblos

There is some evidence that the Rio Grande River Pueblos had intoxicating beverages prior to contact with the Spanish in 1540. In one account of the San Juan Pueblo described by Ortiz (1969) in the "bringing-the-buds-to-life" ceremony, a sweet drink of fermented grain was served. This ceremony is the formal transfer of village rule from the winter moiety to the summer moiety and formally initiates the agricultural cycle (Ortiz, 1969). Additionally, early explorers to this region described the use of intoxicant beverages by the ancient pueblos involving a variety of plants: pitahaya, aloe, corn, maguey, prickly pear, and wild and cultivated grapes (Cherrington, 1925).

Further to the west of the Rio Grande Pueblos, the Zuni Pueblo is located and was one of the first pueblos to have contact with the Spanish. There is abundant documentation that they possessed intoxicating drinks prior to White contact. Waddell and Everett (1980) summarized their early drinking practices as follows:

> (a) they had knowledge of and utilized native beverages such as mescal wine, learned from their neighbors but these wines were used only on social occasions and not integral to important agricultural and other increase ceremonies; (b) they adopted many patterns of social drinking with other tribes that came to their villages, and later accepted the White man's distilled liquors for similar usage at large public gatherings, with the incidence increasing in more recent years; and (c) they used nonintoxicating beverages of several types, including use at ceremonies, which were most used for purification (p. 24).

The Zuni Indians also made a beverage from corn that they used at ceremonial feasts, if this beverage contained any alcohol it was minimal (Cherrington, 1925).

Hopi

Northwest of Zuni lived the Hopi Indians who had a very different pattern of use and adaptation of alcoholic drinks (Waddell & Everett, 1980). Due to their proximity to other groups that used alcoholic beverages, it is likely that the Hopi had known of alcoholic beverages in aboriginal times, but they never adopted its use in ceremonial or in social occasions. After contact with Whites, alcohol use continued to be forbidden and any drinking that did occur was secretive.

Navajo

Surrounding the Hopi tribe is the Athapaskan relative of the Apache, the Navajo. They are currently the second largest American Indian tribe in the United States numbering 219,198 and occupying a reservation the size of West Virginia (Reddy, 1993). Formerly occupying the northern part of New Mexico, they were a hunting and gathering nation and only recently adopted an economy based on sheep herding. They, unlike the Apache, had no use of alcohol prior to White contact. Intoxicant drinks were first introduced by the pueblos and villages bordering the eastern part of the reservation (Heath, 1964). During the 1880's, the Santa Fe railroad was built and brought with it White influence, liquor, and a frontier drinking style. In contrast to the Hopi who drank in a more secretive style, the Navajo drank openly to intoxication (Kunitz & Levy, 1974).

Great Basin

The Great Basin area included the large expanse of land north of the Southwestern tribes between the Sierra Nevada and Rocky Mountains including the states of Utah, Nevada, and areas of surrounding states. The Utaztecan language was the major language in the area and the Ute, Shoshoni, and Paiute were some of the diverse tribes. Agriculture did not exist in this area; food was scarce and procured by continual hunting and gathering in one of the driest and least suitable regions of the country. The production of alcohol in the Southwest did not extend to this area and Natives of this area did not have knowledge of alcohol until contact with Whites occurred in the 1700 and 1800s. There may have been one exception to this, Park reported that the Paiute (Paviotso) made a "fermented drink from a reed-like plant" (LaBarre, 1938). However, this practice was not wide-spread.

Northeastern Tribes of the United States

In the woodlands of the northeastern United States lived a large number of Indian groups that spoke primarily three languages: Algonquian, Iroquoian, and Siouan (Josephy, 1991; Spenser, et al., 1977). Their livelihood varied from hunting and fishing to forming large agricultural complexes. They lived south of Maine and in the Ohio River Valley. One of the agricultural complexes, the Hopewellian culture, was one of the most sophisticated societies north of Middle America. Alcoholic beverage use in this region is sparsely documented. There is some evidence that the Huron made a mild beer made from corn (Cherrington, 1925). They, apparently, placed unripe corn into a stagnant pool of water, left if for several months and from this made a fermented gruel. This was drunk at tribal feasts. Reference has been made to "maple wine" and "sassafras

beer" but it appears that these beverages were used before fermentation (Heath, 1983). The French, Dutch, and English colonists quickly settled this land, lured by the land's abundant resources. In the trade that ensued, alcohol emerged as a vital and often destructive commodity.

The colonists that immigrated from Europe placed a great deal of importance on their alcoholic beverages. "The Puritans set sail for the New World with 14 tons of water, 42 tons of beer, and 10,000 gallons of wine" (Anderson, 1988, preface). Samoset, a member of the Wampanoag Indians, assisted the Pilgrims in the first winter and became an enthusiastic participant in the use of alcohol in their first Thanksgiving feast (Lender & Martin, 1982). This convivial setting changed rapidly as the new settlers became concerned that the Indians could not hold their liquor and was the genesis of the long-term stereotype the "firewater myth" (Leland, 1976). As a result of this myth, there ensued a number of attempts by the colonies and later the United States to halt the sale of alcoholic beverages to the American Indians. This eventually succeeded in 1832 with passage of the Indian Intercourse Act which remained in force until 1953.

Southeastern Tribes of the United States

South of Tennessee to the Gulf of Mexico and east of the Mississippi River lived a large array of tribes, chiefly from the Muskogean branch of the Gulf language stock (Josephy, 1991). They lived in small farming communities cultivating a range of crops; corn, beans, melons, and tobacco, and harvesting nuts, berries, and sunflowers from the forests. First contact with Europeans occurred in 1513 when Juan Ponce de Leon discovered Florida. There is only limited evidence that alcoholic beverages existed prior to White contact, but there was no lack for ingredients; the southeastern tribes agricultural life style was an ideal setting for the production of alcohol. There is also conjecture that Indians from Mesoamerica may have made early contact with tribes along the Mississippi Valley; this could have occurred by sailing across the Gulf of Mexico (Josephy, 1991). If this had taken place, Mesoamerican Indians may have exchanged their knowledge of producing alcohol.

The Creek in Georgia were reported to have prepared a mildly intoxicating drink from berries, but there was little evidence of drunken behavior until White contact (Scomp, 1888). Likewise, persimmon wine was produced by tribes in the Southeast, but it was used prior to fermentation (Driver, 1969; MacAndrew & Edgerton, 1969). Finally, the Cherokee tribe located in the Carolinas made limited use of fermented juices of wild fruit (Cherrington, 1925).

"Black Drink" was made along the Atlantic Sea Coast. It was a non-alcoholic black liquid purgative made from the leaves of the cassina shrub and used for spiritual purification, mental power, and physical strength. This drink did not contain any alcohol but was an emetic and stimulate containing small amounts of caffeine.

Plains Indians

The Indians of the plains occupied the large expanse between the Mississippi River and the Rocky Mountains which extended north to Canada and south to north Texas (Josephy, 1991). They represent diverse cultural backgrounds. The Plains Indians varied from the semiagricultural tribes in the east to the nomadic buffalo hunters of the west who have come to be stereotyped as the "American Indian". First contact with European influence came in 1541 when Coronado's expedition reached the Wichita in Kansas. In the 1600s the French, English, and Dutch began to move into this area. Many of the northern tribes had increased contact with the White population between 1804–1806 when Lewis and Clark explored this area, by that time most tribes had knowledge of alcoholic beverages (Weibel-Orlando, 1986). There is no evidence that alcohol was produced in this region prior to White contact or that any of their ceremonies contained any ritual drinking of nonalcoholic beverages as in the Southeastern Tribes.

It was in the 1800s that contact between Whites and Indians intensified, so too, the trade that often included alcohol. Fur trappers and traders led the way followed by the military, miners, and the early settlers (Winkler, 1968). Trading practices were often deceitful and White merchants enticed Indians to drink until intoxicated and then ruthlessly exploited them. It was not infrequent that this would end in violence eventually leading to a ban on traders access to Indian camps (Winkler, 1968).

Alaska Natives

Alaska Natives can be divided into five major groups: Aleut, Northern Eskimo (Inupiat), Southern Eskimo (Yuit), Interior Indian (Athabascan) and Southeast Coastal Indians (Tlingit and Haida) (Langdon, 1989). Presently, there are about 70,000 Alaska Natives who occupy 533,000 square miles. This is an immense land mass with vast distances between populations. As a result of this and other geographic and climatic barriers, the Native groups had contact with Whites later than most Indians. Approximate times of contact were: Aleut, 1750–1780; Southern Eskimo, 1780–1840; Northern Eskimo, 1850–1870; Interior Indians, 1840–1860; and Coastal Indians, 1775–1800.

Agriculture did not have any base in Alaska; hunting and fishing are the main means of subsistence. Prior to White contact, there were several isolated accounts of aboriginal production of alcohol. This account of an Aleut village was told by Berreman (1956):

This story concerns a village which once existed near Nikolski whose inhabitants found an empty barrel washing up on the beach. They filled it with berries and put it in a storage house. The following winter, two servant girls were sent to get the berries but found only liquid in the barrel. They tasted some themselves and brought some back to the villagers who consumed it. After several such trips, everyone was acting strangely, including the girls, and no one knew why. On the final trip, the giddy girls tipped over their seal oil lamp on the grass floor, set the storage house on fire, and burned up the winter's store of food as well. According to informants, such potent liquid was not encouraged again until the Russians came (p. 504).

The other account was by Davydov (1977) who claimed that the Koniag, who were Southern Eskimo (Yuit), made an alcoholic beverage from fermented raspberry and bilberry juice (Cherrington, 1925; Horton, 1943). These Alaska Natives lived on Kodiak Island and on the proximal part of the Alaska Peninsula, adjacent to the Aleut. A tribal group of southeastern Alaska, named the Kolosh by the Russians, may have had a form of intoxicant made from roots. They chewed pitch from roots that produced intoxication (Anderson, 1988). Soon, after contact with Whites, many Native groups learned to manufacture their own alcoholic drinks.

The Aleut had first White contact with Russian sailors who brought with them and later manufactured "kvass". This was an alcoholic beverage that was made from grain, apples, or roots and thought to prevent scurvy (Fortuine, 1989). Initially, alcohol was only a problem for the Russian sailors but became a serious problem later for the Aleut. Natives of this region, too, learned to prepare kvass and had access to bootlegged whiskey.

Alcohol was next introduced to the Tlingit Indians in about 1790 and was brought to them by French traders and later by the Russians. During the early American occupation, the Tlingit learned to distill a liquor by the name of "hootch" which was named after the village of Hoochinoo of Kootznahoo on Admiralty Island.

In the 1850s Russian traders had contact with the Natives of Norton Sound and soon after this, the use of alcohol spread throughout the north (Fortuine, 1989). The last region to be influenced by the use of alcohol was the interior of Alaska. The Athapaskan of the interior had contact with liquor in the 1870s after the arrival of American traders and prospectors (Fortuine, 1989). As is the case in other parts of the United States, alcohol use, and later abuse, closely followed Native Alaskan contact with Europeans and Americans in the settlement of Alaska.

Tribes of the Northwest Coast and Plateau

On the thin strip of land along the northwest coast between Prince William Sound and northern California exists a diverse population of Native groups that includes the following groups: Tlingit on the Alaskan

panhandle; Haida on Queen Charlotte Island; Tsimshian, Bella Coola, and the Kwakiutl on the British Columbian coast; numerous Salish groups and other Native groups on the Washington and California coast (Josephy, 1991). None of these groups developed any agriculture, but lived off the abundance of the sea and surrounding forests. The Kwakiutl of Vancouver Island were reported to have produced an alcoholic beverage from elderberry juice, black chitons, and tobacco which produced a mild form of intoxication (Lemert, 1954). They were the only recorded group in this area to have made any alcohol prior to being introduced by European or American influence. White contact came in the 1700s when Russian fur traders came into the area; this was followed by Spanish, English, and American arrival later in the century. After White contact numerous cultural changes took place. One unique custom that unfortunately took on a new form was the potlatch (from the Nootka language "patshatl" meaning giving) (Josephy, 1991). This was a feast held on important occasions during which the host would give away his wealth to invited guests. This was banned in many tribes in 1884 and, unfortunately, replaced by the "Whiskey Feast" where alcohol became the primary gift (Jilek-Aall, 1974).

To the east and adjacent to the Northwest Coast Indians lived a diverse group of tribes between the Cascades and the Rocky Mountains including numerous Salishan speaking tribes, Athabascan speaking tribes, and Kutenai (Josephy, 1991). They lived primarily off the abundant fishing provided by the drainage of the Columbia and Fraser Rivers. No alcoholic drinks were made by this population prior to White contact which occurred later than most Indians in the continental United States.

Native People of California

California was a populous area with over 350,000 native people when first contacted by White men. Over one-hundred and five different groups lived in this area and six different languages were spoken with numerous dialects (Josephy, 1991). These Native people were primarily hunters, fishers, and gatherers and were not involved in agricultural pursuits due to the abundance and variety of foods. Many of the groups used acorns as a staple in their diet. Several tribes from California are reported to have made a cider from manzanita berries which was fermented (LaBarre, 1938). However, there is little documentation of this practice. American Indians in this area used other intoxicating substances in ritual ceremonies. For example, Jimpson Weed, a narcotic plant, was used. The Chingichnich Cult initiates drank this plant to produce hallucinations which purpose was to place them in contact with the supernatural (Josephy, 1991).

In 1769 the Spanish first colonized this region and in 1848 the United States acquired California. The Gold Rush that followed was disastrous for many American Indian groups and the population declined to

15,000 by the end of the nineteenth century. Many tribes were totally wiped out by disease or killed.

Conclusion

The use of alcohol originated in Middle America but rapidly diffused to Northern Mexico and from there to the Southwestern United States. The majority of aboriginal production and use of alcoholic beverages was in this region. However, there was a surprising number of scattered accounts of intoxicating beverage use throughout the United States prior to White contact. For the most part, the use of alcoholic drinks required an agricultural base, but not in all instances. The reason for this is primarily that alcoholic beverages were made from domesticated plants, although, there are examples of liquor being derived from wild plants (Driver, 1969).

Aboriginal use generally did not involve excessive drunkenness, but controlled and supervised use often in highly ritualized occasions. Further, accounts of American Indians' initial encounters with alcoholic beverages did not describe reckless or disinhibited behavior. The first recorded account where alcohol was given to American Indians was in 1545 by Jacques Cartier, this occurred without incidence, and as MacAndrew and Edgerton (1969) so aptly described, "when the North American Indians initial experience with alcohol was untutored by expectations to the contrary, the result was neither the development of an all-consuming craving nor an epic of drunken mayhem and debauchery" (p. 114).

It was with ongoing White contact that the use of alcohol assumed more destructive characteristics. The reasons for this are beyond the scope of this review to enumerate in detail and are reviewed elsewhere (MacAndrew & Edgerton, 1969). Several hypotheses are likely: alcohol became increasingly more available through the active commercial and fur trade; tribes did not have to divert valuable food supplies into producing alcoholic beverages; the content of alcohol in beverages increased dramatically with the introduction of distilled spirits, which was largely unknown to American Indians except by the Aztec who had some familiarity with rudimentary distillation processes (Bourke, 1894); and lastly, and perhaps most likely, massive social and cultural changes came about as the result of outside contact. Social rules governing drinking behavior shifted as a result of these changes. Alcohol became a menace, not necessarily because it was novel in use, but as an expression of a dramatic sociocultural shift.

Patrick J. Abbott, M.D. Center on Alcoholism, Substance Abuse, and Addictions 2350 Alamo SE Albuquerque, NM 87106

References

- Anderson, T. I. (1988). Alaska Hooch. Fairbanks, AK: Hoo-Che-Noo.
- Berreman, G. D. (1956). Drinking patterns of the Aleuts. *Quarterly Journal of Studies on Alcohol*, 17, 503-514.
- Bourke, J. G. (1894). Distillation by early American Indians. The American Anthropologist, 7, 297–299.
- Cherrington, E. H. (1925). Aborigines of North America. In E. H. Cherrington (Ed.), Standard Encyclopedia of the Alcohol Problem, Vol. I (pp. 3–42). Westerville, OH: American Issue.
- Davydov, G. I. (1977). Two Voyages to Russian America, 1802–1807. Kingston, Ontario: Limestone Press.
- Devereux, G. (1948). The function of alcohol in Mohave society. *Quarterly Journal of Studies on Alcohol*, *9*, 207–251.
- Driver, H. E. (1961). *Indians of North America*. Chicago, IL: University of Chicago Press.
- Driver, H. E. (1969). *Indians of North America*. Chicago, IL: University of Chicago Press.
- Fortuine, R. (1989). Chills and Fever. Anchorage, AK: University of Alaska Press.
- Heath, D. B. (1964). Prohibition and post-repeal drinking patterns among the Navajo. *Quarterly Journal of Studies on Alcohol, 25,* 119–135.
- Heath, D. B. (1983). Alcohol use among North American Indians: A cross-cultural survey of patterns and problems. *Research Advances in Alcohol and Drug Problems, Vol. 7.* New York: Plenum Publishing Co.
- Heidenreich, A. (1976). Alcohol and drug use and abuse among Indian-Americans: A review of issues and sources. *Journal of Drug Issues, 6,*(3, Summer), 256–272.
- Horton, D. (1943–1944). The functions of alcohol in primitive societies: A cross-cultural study. *Quarterly Journal of Studies on Alcohol*, 4, 199–320.
- Hrdlicka, A. (1904). Method of preparing tesvino among the White River Apaches. American Anthropology, 6, 190–191.
- Jilek-Aall, L. (1974). Psychosocial aspects of drinking among Coast Salish Indians. Canadian Psychiatric Association Journal, 19, 357–361.
- Josephy, A. M. (1991). *The Indian Heritage of America (Rev. Ed.)*. Boston, MA: Houghton Mifflin Co.
- Kennedy, J. G. (1963). Tesquino complex: The role of beer in Tarahumara culture. American Anthropologist, 65, 621–639.
- Kroeber, A. L. (1931). The Seri. Southwest museum papers, 6, Los Angeles.
- Kunitz, S. J., & Levy, J. E. (1974). Changing ideas of alcohol use among Navajo Indians. Quarterly Journal of Studies on Alcohol, 35, 243–259.

- LaBarre, W. (1938). Native American beers. American Anthropologist, 40, 224–234.
- Langdon, S. J. (1989). The Native People of Alaska (Rev. Ed.). Anchorage, AK: Greatland Graphics.
- Leland, J. (1976). Firewater myths North American drinking and alcohol addiction. New Brunswick, NJ: Rutgers Center of Alcohol Studies.
- Lemert, E. M. (1954). Alcohol and the Northwest Coast Indians. University of California Publications in Culture and Society 2, No. 6. Berkeley, CA: University of California Press.
- Lender, M. E., & Martin, J. K. (1982). *Drinking in America*. New York: The Free Press.
- Loeb, E. M. (1943–1944). Primitive intoxicants. Quarterly Journal of Studies on Alcohol, 4, 387–398.
- MacAndrew, C., & Edgerton, R. B. (1969). Drunken comportment a social explanation. Chicago, IL: Adeline.
- Newcomb, W. W. (1969). The Indians of Texas. Austin, TX: University of Texas.
- Ortiz, A. (1969). The Tewa world. Chicago, IL: University of Chicago Press.
- Paredes, A. (1975). Social control of drinking among the Aztec Indians of Mesoamerica. *Journal of Studies on Alcohol, 36*,(9), 1139–1152.
- Price, J. A. (1975). An applied analysis of North American Indian drinking patterns. *Human Organization*, 34,(1, Spring), 17–26.
- Reddy, M. A. (Ed.). (1993). Statistical record of Native North Americans. Detroit, MI: Gale Research Inc.
- Scomp, H. A. (1888). King alcohol in the realm of king cotton. Chicago, IL: Blakeley.
- Spenser, R. F., Jennings, J. D., Johnson, E., King, A. R., Stern, T., & Steward, K. M. (1977). The Native Americans ethnology and background of the Native American (2nd ed.). New York: Harper and Row.
- Spier, L. (1933). Yuman tribes of the Gila River. Chicago, IL: University of Chicago Press.
- Waddell, J. O., & Everett, M. W. (1980). *Drinking behavior among Southwestern Indians*. Tucson, AZ: University of Arizona Press.
- Weibel-Orlando, J. (1986). Indians, ethnicity, and alcohol. In L. A. Bennett & G. M. Ames (Eds.), *American Experience with Alcohol* (pp. 201–226). New York: Plenum Press.
- Williams, M. (1985). Alcohol and ethnic minorities: Native Americans an update. Research reports. *Alcohol and Research World, Summer,* 66–67.
- Winkler, A. M. (1968). Drinking on the American frontier. Quarterly Journal of Studies on Alcohol, 29, 413-445.2