# Tobacco

in History and Culture

AN ENCYCLOPEDIA



VOLUME

2

## Tobacco in History and Culture

AN ENCYCLOPEDIA

JORDAN GOODMAN Editor in Chief

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Native Americans-Zimbabwe

Index

#### **CHARLES SCRIBNER'S SONS**

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#### Tobacco in History and Culture: An Encyclopedia

Jordan Goodman

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### Timeline

- c. 50,000 B.C.E.: Australia populated. Humans there may have begun chewing tobacco species: Nicotiana. gossei, N. ingulba, N. simulans, N. benthamiana, N. cavicola, N. excelsior, N. velutina, and N. megalosiphon.
- **c. 15,000–10,000 B.C.E.:** Americas south of the Arctic populated. Humans there may have begun to pick and use wild tobacco species.
- c. 5000 B.C.E.: Maize-based agriculture develops in central Mexico, probable beginnings of tobacco cultivation as well.
- c. 1400–1000 B.C.E.: Remains of cultivated and wild tobacco dating from this period have been found in High Rolls Cave in New Mexico. Dates established by radiocarbon methods.
- **1492:** Columbus sees Taíno (Indians of Greater Antilles) with leaves that are probably tobacco. Two men among Columbus's crew explore the interior of Cuba and see people smoking.
- **1518:** Juan de Grijalva, leader of expedition to Yucatan and Gulf of Mexico, accepts offerings of cigars or pipes.
- **1535:** Publication of Gonzalo Fernández de Oviedo's Historia general de las Indias, which has first published reference to tobacco. It condemns it as a "vile vice" but also notes that the habit spread to

- "Christians" and black slaves as well.
- **1535:** Jacques Cartier encounters natives using tobacco on the island of Montreal.
- **1555:** Franciscan Friar André Thevet of Angoulème (France) witnesses Brazil's Tupinamba Indians smoking tobacco; following year sows tobacco seeds in France.
- **1560:** Jean Nicot, France's ambassador to Portugal, writes of tobacco's medicinal properties, describing it as a panacea. Nicot sends *rustica* plants to French court.
- **1561:** Nicot sends snuff to Catherine de Medici, the Queen Mother of France, to treat her son Francis II's migraine headaches.
- **1565:** Sir John Hawkins's expedition observes Florida natives using tobacco.
- **1571:** Publication of Nicolas Monardes's *Segunda parte del libro, de las cosas que se traen de nuestras Indias Occidentales, que sirven al uso de medicina* [The second part of the book of the things brought from our Occidental Indies which are used as medicine], which has the most extensive and positive description of tobacco to that date.
- **1583:** Council of Lima declares that priests cannot consume

- tobacco in any form before saying mass, under threat of excommunication.
- **1585:** Francis Drake expedition trades for tobacco with Island Caribs of Dominica.
- **1587:** Gilles Everard's *De herba panacea* (Antwerp) is first publication devoted entirely to tobacco.
- **1588:** Thomas Hariot publishes *A Brief and True Report of the New Found Land of Virginia,* in which he describes Virginia native people smoking tobacco.
- **1595:** Anthony Chute publishes *Tabacco*, the first book in the English language devoted to the subject of tobacco.
- **1600:** Franciscan missionary presents tobacco seeds and tobacco tincture to Tokugawa Ieyasu, who will become Shogun of Japan in 1603.
- **1603:** Spanish colonies of Cumaná and Caracas (Venezuela) produce 30,000 pounds of tobacco.
- **1604:** King James I publishes *A Counterblaste to Tobacco*, in which he condemns tobacco smoking as unhealthy, dirty, and immoral.
- **1606:** King of Spain prohibits the cultivation of tobacco in Caribbean and South America to thwart contraband trade between Spanish settlers and English and

- Dutch traders. Edict rescinded in 1612.
- **1607:** Inhabitants of Sierra Leone seen sowing tobacco.
- **1607:** Jamestown, the first permanent English colony in the Americas, is founded.
- **1612:** John Rolfe raises Virginia's first commercial crop of "tall tobacco."
- **1617:** Mughal Shah Jahangir (reigned 1605–1627) bans smoking because tobacco consumption creates "disturbance in most temperaments."
- **1624:** Texts by Chinese physicians Zhang Jiebin (1563–1640) and Ni Zhumo (c. 1600) mention tobacco in section on pharmacopoeia.
- **1627:** Tobacco cultivation in Ottoman territory is banned.
- **1636:** First state tobacco monopoly established in Castille (Spain).
- **1642:** Papal Bull forbids clerics in Seville from using tobacco in church and other holy places.
- **1674:** Tobacco monopoly established in France.
- **1682:** Virginia colonists rebel when the government fails to decree a cessation in tobacco crops after bumper crops lead to low prices. Disgruntled planters destroy thousands of tobacco plants; six ringleaders are executed.
- **1698:** In Russia, Peter the Great agrees to a monopoly of the tobacco trade with the English, against church wishes.
- **1724:** Pope Benedict XIII learns to smoke and use snuff, and repeals papal bulls against clerical smoking.
- **1753:** Linnaeus names the plant genus *nicotiana*. and describes two species, *nicotiana rustica*. and *nicotiana tabacum*.
- **1760:** Pierre Lorillard establishes a "manufactory" in New York City

- for processing pipe tobacco, cigars, and snuff. P. Lorillard is the oldest tobacco company in the United States.
- **1794:** U.S. Congress passes the first federal excise tax on snuff, leaving chewing and smoking tobacco unaffected.
- **1827:** First friction match invented.
- **1828:** Isolation of nicotine from tobacco by Wilhelm Posselt and Karl Reimann.
- **1832:** Paper-rolled cigarette is invented in Turkey by an Egyptian artilleryman.
- **1839:** Discovery that flue-curing turns tobacco leaf a bright brilliant yellow and orange color. The bright-leaf industry is born.
- **1843:** French tobacco monopoly begins to manufacture cigarettes.
- **1847:** In London, Philip Morris opens a shop that sells handrolled Turkish cigarettes.
- **1849:** J. E. Liggett and Brother is established in St. Louis, Missouri, by John Edmund Liggett.
- **1854:** Philip Morris begins making his own cigarettes. Old Bond Street soon becomes the center of the retail tobacco trade.
- **1868:** British Parliament passes the Railway Bill of 1868, which mandates smoke-free cars to prevent injury to nonsmokers.
- **1880:** James Bonsack is granted a patent for his cigarette-making machine.
- **1881:** James Buchanan (Buck) Duke starts to manufacture cigarettes in Durham, North Carolina.
- **1889:** Five leading cigarette firms, including W. Duke Sons & Company, unite. "Buck" Duke becomes president of the new American Tobacco Company.
- **1890:** *My Lady Nicotine*, by Sir James Barrie, is published in London.

- **1890–1892:** Popular revolts against imposition of British-controlled monopoly on sale of tobacco take place in Iran.
- **1899:** Lucy Payne Gaston founds the Chicago Anti-Cigarette League, which grows by 1911 to the Anti-Cigarette League of America, and by 1919 to the Anti-Cigarette League of the World.
- **1902:** Imperial Tobacco (U.K.) and American Tobacco Co. (U.S.) agree to market cigarettes in their respective countries exclusively, and to form a joint venture, the British American Tobacco Company (BAT), to sell both companies' brands abroad.
- **1907:** The U.S. Justice Department files anti-trust charges against American Tobacco.
- **1908:** The U.K. Children Act prohibits the sale of tobacco to children under 16, based on the belief that smoking stunts children's growth.
- **1910:** Gitanes and Gauloises cigarette brands are introduced in France.
- **1911:** U.S. Supreme Court dissolves Duke's trust as a monopoly, in violation of the Sherman Anti-Trust Act (1890). The major companies to emerge are American Tobacco Co., R.J. Reynolds, Liggett & Myers Tobacco Company (Durham, N.C.), Lorillard, and British American Tobacco (BAT).
- **1913:** R.J. Reynolds introduces the Camel brand of cigarettes.
- **1913:** China has its first harvest of Bright leaf tobacco, grown from imported American seeds and using American growing methods.
- **1916:** Henry Ford publishes an anti-cigarette pamphlet titled *The Case against the Little White Slaver.*
- **1924:** Philip Morris introduces Marlboro, a women's cigarette that is "Mild as May."

- **1927:** Long Island Railroad grants full rights to women in smoking cars.
- 1933: United States Agricultural Adjustment Act of 1933 compels tobacco farmers to cut back on output by reducing acreage devoted to tobacco production, in return for price supports. They are saved from economic ruin.
- **1938:** Dr. Raymond Pearl of Johns Hopkins University reports to the New York Academy of Medicine that smokers do not live as long as nonsmokers.
- **1950:** Five important epidemiological studies show that lung cancer patients are more likely to be smokers than are other hospital patients.
- **1954:** Results from two prospective epidemiological studies show that smokers have higher lung cancer mortality rates than nonsmokers. The studies were conducted by E. Cuyler Hammond and Daniel Horn in the U.S. and Richard Doll and Austin Bradford Hill in the U.K.
- **1957:** First Japanese-made filter cigarette, Hope, is put on the market.
- **1964:** Smoking and Health: Report of the Advisory Committee to the Surgeon General, the first comprehensive governmental report on smoking and health, is released at a highly anticipated press conference. It concludes that smoking is a cause of lung cancer, laryngeal cancer, and chronic bronchitis and "is a health hazard of sufficient importance in the United States to warrant appropriate remedial action."
- **1965:** U.S. Congress passes the Federal Cigarette Labeling and Advertising Act, requiring health warnings on all cigarette packages stating "Caution—cigarette smoking may be hazardous to your health."
- **1970:** U.S. Congress enacts the Public Health Cigarette Smoking

- Act of 1969. Cigarette advertising is banned on television and radio.
- **1970:** World Health Organization (WHO) takes a public position against cigarette smoking.
- **1972:** First report of the surgeon general to identify involuntary (secondhand) smoking as a health risk.
- **1977:** American Cancer Society (ACS) sponsors the first national "Great American Smokeout," a grassroots campaign to help smokers to quit.
- **1986:** Congress enacts the Comprehensive Smokeless Tobacco Health Education Act, requiring health warnings on smokeless (spit) tobacco packages and advertisements and banning smokeless tobacco advertising on radio and television.
- 1988: Liggett Group (L&M, Chester-field) ordered to pay Antonio Cipollone \$400,000 in compensatory damages for its contribution to his wife Rose Cipollone's death (she died in 1984). First-ever financial award in a liability suit against a tobacco company. However, the verdict was later overturned on appeal, and the lawsuit was dropped when the family could no longer afford to continue.
- **1988:** Publication of *The Health Consequences of Smoking: Nicotine Addiction*, the first surgeon general's report to deal exclusively with nicotine and its effects.
- **1990:** Airline smoking ban goes into effect, banning smoking on all scheduled domestic flights of six hours or less.
- **1991:** U.S. Food and Drug Administration (FDA) approves a nicotine patch as a prescription drug.
- **1992:** World Bank establishes a formal policy on tobacco, including discontinuing loans or investments for tobacco agriculture in developing countries.
- **1994:** Six major domestic cigarette manufacturers testify before

- the U.S. House Subcommittee on Health and the Environment that nicotine is not addicting and that they do not manipulate nicotine in cigarettes.
- **1995:** *Journal of the American Medical Association (JAMA)* publishes a series of articles describing the contents of secret documents from the Brown & Williamson Tobacco Corporation indicating that the industry knew early on about the harmful effects of tobacco use and the addictive nature of nicotine.
- **1996:** President Bill Clinton announces the nation's first comprehensive program to prevent children and adolescents from smoking cigarettes or using smokeless tobacco. Under the plan, the Food and Drug Administration would regulate cigarettes as drugdelivery devices for nicotine.
- **1998:** California becomes the first state in the nation to ban smoking in bars.
- **1999:** U.S. Department of Justice sues the tobacco industry to recover billions of dollars spent on smoking-related health care, accusing cigarette makers of a "coordinated campaign of fraud and deceit."
- **1999:** Attorneys general of 46 states and 5 territories sign a \$206 billion Master Settlement Agreement with major tobacco companies to settle Medicaid lawsuits.
- **2000:** In Canada, Health Minister Allan Rock unveils new health labels that include color pictures.
- **2000:** U.S. Supreme Court issues a 5–4 ruling that existing law does not provide the Food and Drug Administration with authority over tobacco or tobacco marketing, thus invalidating the 1996 Clinton Administration's regulations.
- **2001:** BAT breaks into Vietnam market, announces that it has been granted a license for a \$40 million joint venture with

#### TIMELINE

Vintaba to build a processing plant in Vietnam.

**2003:** First stage of the Tobacco Advertising and Promotion Act 2002 bans new tobacco sponsorship agreements, advertising on

billboards and in the press, and free distributions. The ban also covers direct mail, Internet advertising, and new promotions.

**2003:** New York City's smoking ban goes into effect, forbidding

smoking in all restaurants and bars, except for a few cigar lounges.

**2004:** Complete public smoking ban goes into effect in Ireland.



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### Native Americans

**M**any Native Americans throughout North and South America believe that tobacco is so powerful that it was involved in the very act of creating the world. In the Pima or O'odham origin story, for example, Blue Gopher lit a huge cigarette made out of Coyote's tobacco wrapped in a cornhusk. He puffed toward the east in a great white cloud that cast a shadow over the land. A carpet of grass grew in the shadow. Blue Gopher scattered the seeds of other plants across the grassy area, thereby causing corn to grow.

In one version of the Navajo creation story, Sky Father and Earth Mother smoked tobacco, before creation began, to help them plan the awesome task that lay ahead. Morning Star—a Crow Indian deity—turned into the first tobacco plant after he fell from the sky. The first tobacco grew from the head of Earth Mother, one of the Haudenosaunee (Iroquois) creator spirits, while the Cahuilla creator Mukat drew the first tobacco and pipe from his heart, then made the sun to light them. After he was killed, tobacco grew from his heart. The Kickapoo creator Kitzihiat also used a piece of his heart to make the first tobacco. Pulekukewerek, one of the Yurok creator woges, grew from a tobacco plant; then tobacco continued to grow from the palms of his hands, so that he never ran out.

The Huichol in the mountains of western Mexico have similar beliefs, as do the Shipibo along the upper Amazon in Peru and the Haida and Tlingit in southern Alaska and many native peoples in between. In one version of the Huichol creation story, the first tobacco grew from the semen of Deer Person, one of their most powerful deities, who turned into corn and peyote and whose blood is still used to nourish corn and bless babies. Huichol tobacco belongs to Grandfather Fire—the most powerful deity of all—tobacco was once a hawk and even today it is the spiritual essence of the gods. Huichol tobacco (makutsi) is also the most powerful tobacco on earth, almost as powerful as peyote and able to cause visions, with up to 18 percent nicotine.

The belief that tobacco is so powerful that it figured into creation itself is widespread throughout North and South America. Even the tribes



that lack this belief have similar concepts; for example, that the spirits are addicted to tobacco. American Indians view tobacco, almost without exception, as an essential, core element of their religions and rituals. Taken together, these widespread beliefs and practices strongly suggest that tobacco use is a very ancient activity in the Americas, so old and elemental that it probably began very early on, in prehistoric humankind's existence in the Americas.

#### **Evidence for the Early Use of Tobacco**

Of the seven species of *Nicotiana* that have been and still are being used by Native Americans, two were domesticated by prehistoric Indians to the extent that the plant species could not survive, beyond a few generations, without the help of people who planted them, weeded them, and otherwise tended to their basic needs. These domesticated species and their regions of use by Native North Americans (exclusive of commercial tobacco and recent introductions) are as follows:

Species	Regions of Use
Nicotiana rustica L.	Eastern U.S. and Canada; MesoAmerica; Southwestern U.S.; probably Caribbean
Nicotiana tabacum L.	MesoAmerica; parts of U.S. Southwest; probably Caribbean

The five other tobacco species, in contrast, are wild plants that can and do thrive from generation to generation without the help of humans, though they do prefer disturbed environments, such as arroyo beds (stream sides), road cuts, and burned over areas, which humans readily provide. The species *Nicotiana quadrivalvis* is somewhere in between domesticated and wild: Two of its varieties (*wallacei* and *bigelovii*) are wild, though they are often cultivated, whereas the other two (*quadrivalvis* and *multivalvis*) are known only in cultivation. The wild species and their regions of use are as follows:

	Species	Regions of Use
	Nicotiana attenuata Torr.	U.S. Southwest; Great Basin; California; Pacific Northwest; extreme northern Mexico; southwest Canada
	Nicotiana quadrivalvis Pursh.	southern California to Washington; Missouri River Valley; Canadian Plains; extreme southern Alaska; upper Columbia and Snake River Valleys
	Nicotiana clevelandii Gray	northwest Mexico; possibly southern California
	Nicotiana glauca Grah.	Mexico; southern California; western Arizona
	Nicotiana trigonophylla Dun.	southwestern U.S.; southern California; Mexico

Archeological evidence from North America indicates the use of several tobacco species for thousands of years. The earliest known tobacco in South America is only a few hundred years old. Earlier evidence is

undoubtedly there, since the ancestors of all of these tobacco species originated in South America millions of years ago, then slowly expanded their ranges north through Central America and on into North America or later were carried there.

The archaeological evidence of tobacco comes primarily in the form of carbonized seeds and preserved pollen, which are very difficult to recover and identify. Even the largest tobacco seed is smaller than the period at the end of this sentence, which means that it takes a very fine mesh screen with holes no larger than one-quarter of 1 millimeter across to recover a seed. And while tobacco pollen is fairly distinctive down to the generic level (*Nicotiana*), it is not possible to distinguish among the various species (*rustica* or *tabacum*) based on pollen. Also, the pollen of one of tobacco's close relatives (*lycium*, or Wolfberry) is similar to *Nicotiana*, so the use of pollen can be problematic.

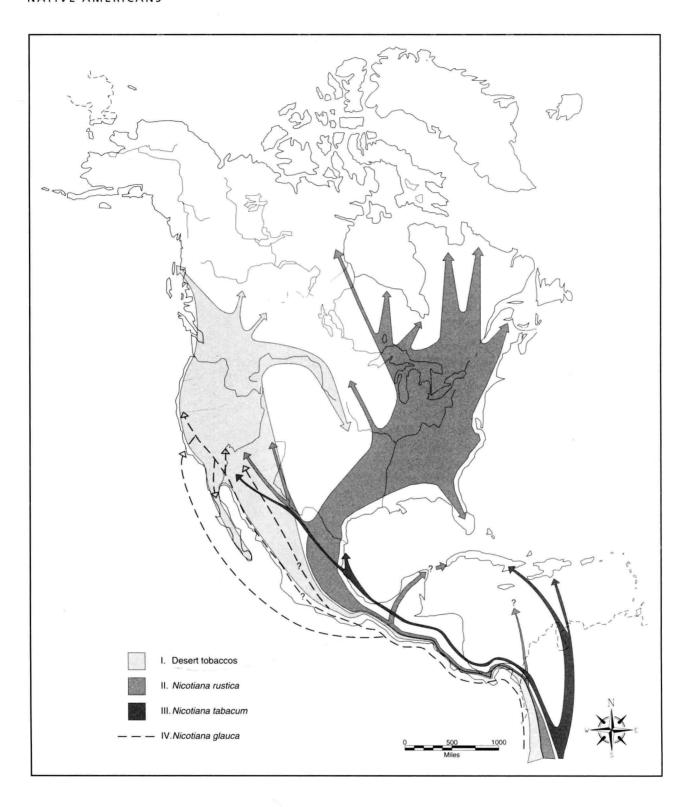
Despite these drawbacks, archeologists in North America have been successful in finding prehistoric tobacco, and there is good evidence for its initial use as early as 1400 B.C.E. in the Southwestern deserts, and by about 180 C.E. in the Eastern woodlands.

The sequence of development, as shown in the map, is summarized as follows. The roman numerals correspond to the map categories.

Species	Description
I. <b>Desert tobaccos</b> (N. attenuata, N. trigonophylla, N. quadrivalvis)	Ancestral South American species slowly expanded their ranges naturally, reaching Mexico after the end of the Pleistocene, when conditions warmed enough to allow them to spread north. Helped northward to present extent by human activity, beginning no later than 1000 B.C.E.
II. Nicotiana rustica	Domesticated 7,000 to 10,000 years ago in Andes Mountains, then taken north by early farmers, reaching American Southwest by 1000 to 1400 B.C.E. and Eastern Woodlands by 180 c.E.
III. Nicotiana tabacum	Domesticated several thousand years ago in the Andes Mountains, then taken east and north through the lowlands. May have reached Southwestern U.S. in late prehistoric times.
IV. Nicotiana glauca	Introduced accidentally into Mexico, California, Arizona, and Florida in historic times (for example, in the ballast of ships). Since then, the western Navajo, Barona Digueno, and a few other tribes have adopted it and now consider it traditional tobacco.

**ANCIENT FARMING.** In both the Southwest and the Eastern woodlands, domesticated tobacco first appeared with other cultivated plants as part of a larger horticultural complex that also included wild plants.

◆ See the map in "Origin and Diffusion."



Sequence of Development of Native American Tobacco Use. RONALD STAUBER In the Southwest, this gardening tradition consisted of cultivated tobacco, and two species of wild tobacco, along with maize, squash, beans, wild and cultivated amaranths, goosefoot and other weedy annuals that were encouraged or at least tolerated in the farm fields. In the East, early gardening focused on cultivated sunflowers, goosefoot,



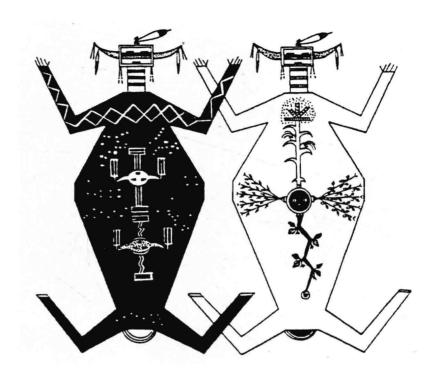
Native American pipes and cigarettes come in many forms. Upper left: Cochiti Pueblo pipe; upper center and right: Kayenta Navajo "cloud blower" pipes; lower right: Cocopa reed cane cigarettes; lower center: Hopi clay pipe; lower left: Navajo clay pipe. COURTESY OF THE MAXWELL MUSEUM OF ANTHROPOLOGY, UNIVERSITY OF NEW MEXICO. PHOTOGRAPHER DAMIAN ANDRUS.

and marsh elder, with corn and cultivated tobacco added 1,000 years later.

Wild plants were clearly involved in the adoption of corn, tobacco, squash, and beans by the prehistoric Native Americans. In both the Southwest and later the East, maize and tobacco did not arrive out of a vacuum, nor did they drop into one. They were already being grown to the south, in central Mexico, where maize-based agriculture began around 5000 B.C.E., then moved slowly north, as local hunters and foragers added it to their plant husbandry tradition. Or perhaps small agricultural groups expanded their ranges or maybe even migrated from one region to another. However it spread, farming was added to an already existing husbandry complex that involved the encouragement and even planting of a number of wild plants. Two species of wild tobacco, as well as amaranth, goosefoot, purslane, globe mallow, and other plants that preferred disturbed soils, were included in the complex in the Southwest. The early gardening culture in the east grew goosefoot, marshelder and sunflowers, and may have grown wild squash and gourds, maygrass, knotweed and a few other plants.

After the addition of cultivated tobacco, corn, squash, and beans, agricultural societies rapidly evolved throughout North and South America. By the eve of European contact, cultivated tobacco was traded far to the north of its range, into northern Canada, and even the wild *Nicotiana quadrivalvis* variety *multivalvis* was encouraged, if not cultivated, in southern Alaska. Similar processes were at work in South America, and by the time the Europeans arrived, the use and veneration of tobacco was a key, core element of all Native American cultures, with the exception of the Inuit (Eskimo) and Aleut, who were too far away to participate in the tobacco trade system.

From the southern tip of South America to southern Alaska, tobacco was ingested in many forms, including pipes, reed cane and corn husk cigarettes, even in maple and other wild plant leaves. It was also chewed, licked, snuffed, taken as eye drops, and even administered in enemas. Some tribes preferred to smoke tobacco in carved stone, calumet-style pipes, such as those used by the Plains Indians, while



The four sacred plants of the Navajo—corn, beans, squash, and tobacco—growing on Mother Earth. Father Sky and Mother Earth are sometimes shown in sandpaintings and on rugs. COURTESY OF JOSEPH WINTER

others used smaller stone and clay pipes, reed and leaf wrapped cigarettes, or, most simply of all, a wad of tobacco leaves packed between a person's cheeks and teeth or between the lips and teeth.

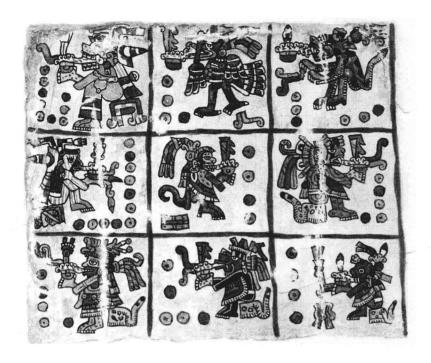
#### **Tobacco in Native American Religion**

Tobacco is the heart of Native American religion and the core of American Indian culture. Tobacco has remained a constant unifying force, linking all tribes together, linking all generations together for thousands of years. Even as Native American religions changed and became organizationally more complex, tobacco use also became more complex, as did the activities of the deities who created it and who were created by it.

Many Native Americans continue to use tobacco in a sacred manner, while others smoke, chew, and snuff it in the same manner as non-Indians, as a recreational drug. For the traditionalists, there is nothing recreational about tobacco, for it is considered a sacred plant, a lifeaffirming force, a food of the spirits, at times a god itself. From southern Chile to Alaska, Native Americans have used and continue to use Nicotiana rustica, N. tabacum, N. attenuata, and several other species of tobacco as a ritual narcostimulant—a psychotrophic, mind-altering substance that serves as a medium between the ordinary world of humans and the super-ordinary world of spirits. Tobacco leaves were and are smoked in pipes, cigars, and cigarettes. Leaves are chewed (often with lime from shells) and sometimes eaten. Resin and concentrates are licked. An infusion is drunk, occasionally with Datura and/or other hallucinogenic plants. Tobacco powder is snuffed. Tobacco smoke is blown on the body and leaves are used medically as a poultice. Tobacco incense is burned. Tobacco offerings are buried, cast on the ground, into the air, onto the water.



snuff a form of powdered tobacco, usually flavored, either sniffed into the nose or "dipped," packed between cheek and gum. Snuff was popular in the eighteenth century but had faded to obscurity by the twentieth century.



This detail from a larger illustration shows four Aztec deities "drinking" tobacco. The full illustration, showing nine panes, was redrawn from a figure in the Codex Vaticanus. © BRIGITTE FELIX

TOBACCO AND MEDICINE SOCIETIES. Beginning with individual medicine men and women who ministered to the religious and medical needs of their bands and other groups, American Indian religion became more organized as populations increased, beliefs changed, and outside political and economic relations evolved. After the individual medicine people came the medicine societies, composed of most if not all of the members of the group, with different societies providing different medicines and religious ceremonies. And eventually the societies evolved into priesthoods, whose memberships were restricted and often hereditary, and whose leaders became so powerful that theocracies often emerged, such as the Aztecs and Incas, whose leaders were the highest priests in the land.

But whatever the level and scope of religious power, tobacco was and is still used, with even the medicine people, medicine societies, and priesthoods taking on tobacco-oriented themes and identities. Thus there are Tobacco shamans in South and Central America who ingest the plant almost constantly, not only to heal and bless but also to commune directly with the tobacco spirits.

There are also tobacco medicine societies, such as among the Crow on the upper Missouri, whose sole function is to grow two kinds of sacred tobacco, *Nicotiana quadrivalvis* varieties *quadrivalvis* and *multivalvis*, which are essential for the survival of the tribe. And there are or were even tobacco priesthoods, such as the Cult of Cihuacoatl among the Aztecs, the mother of the other gods, the Snake Woman whose physical manifestation on earth was the tobacco plant and whose chief priest—also called Snake Woman—was second in power only to the great Montezuma himself.

Tobacco shamans, tobacco medicine societies, and tobacco priesthoods were part of an array of Native American religious groups that ranged from the individual medicine-people of tiny bands of Caribou hunters in northern Canada to the deified leaders of huge city-states in Peru that