

THE PALIMPSEST

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Corn Horticulture

It was not yet the "land where the *tall* corn grows," but already, before any white men had glimpsed the handsome limestone-capped bluffs of the Upper Iowa River Valley, Indian women were clearing the low river terraces in the early spring in order to plant corn. Their mat or bark-covered houses were in village groups back on higher flood-free terraces. These were probably villages of the Ioways, the very Indians whose name was perpetuated in the name of the State of Iowa.

Then, as now, fresh corn was prized for its deliciousness, even more so (if that could be possible) because of the variety it brought to a predominantly meat diet. Indian Agent Thomas Forsyth declared the Sauk and Fox felt "always at a loss without corn, even in the midst of meat." This seems to have applied to the Ioways as well as to other semi-horticultural tribes. Besides being tasty, nutritious, and "filling," corn could be dried or parched and thus kept for use when hunting was difficult or unrewarding.

Much has been learned about the aboriginal way of life in these once animated Indian villages along the Upper Iowa River as a result of archeological investigations in Allamakee County. These were conducted by Dr. Charles R. Keyes and Ellison Orr in the 1930's when Dr. Keyes was director of the State Archaeological Survey, a position established by the State Historical Society of Iowa. By that time, of course, only those stone tools, pottery fragments, and other cultural remains were left that had been able to survive the destructive forces of weather and soil, and the white man's agricultural and construction activities. There they have remained to give mute evidence of the long-vanished Indian hunters and gardeners.

In the course of this digging, bone hoes, charred corn and cobs, utensils for grinding corn into meal, pit "ovens" for roasting corn, and food storage pits were found. Obviously, these Indians had raised corn as one of their crops, raised enough in fact to store a quantity for winter use. Following the archeological leads, further knowledge of the gardening practices of these Indians and their ways of using corn can be gained by consulting a variety of written sources, especially since it is known from historical research that these villages were probably inhabited by the Ioways. There are many travelers' journals, ethnographic studies, and reports by Indian Agents and army personnel

that describe the Ioways and tribes closely related to them, like the Winnebago and Oto, as well as tribes with a similar hunting-horticultural economy who lived nearby, such as the Omaha, the Sauks and the Fox.

It becomes apparent at once that the precious corn crop at these Upper Iowa River villages was the result of strenuous effort. Nonetheless, gardening was a pleasure to many of the women in spite of the hard work it entailed. The family patches were not large. There was undoubtedly much variation in their extent, depending upon the size of the family, and particularly upon the number and industry of the women folk. It has been suggested that those Indians who lived as the Ioways did, supplementing constant hunting with some horticulture, cultivated one-third of an acre for each person in the tribe. Even one acre must have seemed at times never-ending when there were no metal tools at hand with which to prepare the field for planting.

Soon after sunrise, in the cool freshness of the morning, the women and girls would follow the paths to the lower terrace gardens. This was essentially women's work, whereas hunting was for men. Feelings regarding what was properly women's work and what men's was stronger among the aboriginal Indians than it is in our present-day society. Hunting, with its needs for endurance, strength, and cunning, was considered much more

difficult than cultivating a garden which was near village protection with accessible shelter from bad weather. In fact, this idea that gardening was the work of women was one of the fundamental reasons for the early resistance of many Indians in the middlewest area to government agricultural help. The Americans expected the Indian men to become full-time farmers. This many Indians scorned to do. A Pawnee chief on a visit to Washington in 1821 told President James Monroe that he would never "bruise his hands digging in the ground" while he could find a buffalo to hunt or a horse to steal.

The garden patches were usually burned off in the spring. Then the women and girls cleared the ground and loosened the soil for planting in hills. To do this they may have used pointed sticks of wood or bone, the ends of which had been greased and then hardened in fire, but none were found in the excavations. Present were hoes made by fastening wooden handles to the broad shoulder bones of elk or buffalo. No wonder many of the hoe blades retrieved from the villages have badly battered and split edges.

When the ground was in shape, the kernels of seed corn saved from the previous year were carefully placed in each hill, probably with certain ritualistic procedures intended to ensure a good crop. Sometimes beans were planted later in the same hills and grew to entwine and climb the corn

stalks. Charred beans were found in the excavations also.

The seed corn kernels may well have been blue in color, although charred kernels and cobs dug out of the Indian storage pits tell only that this was an 8-rowed corn. A favorite variety of many of the Indian tribes of the Lower Missouri and Upper Mississippi rivers was a dark blue flour corn, sometimes called "Omaha flour corn" or "blue squaw corn." Joseph Springer, an Ioway Indian, is quoted by George F. Will and George Hyde as saying that this was the "favorite common-purpose corn" among the Ioways. It was early and hardy, yet easier to grind (though less nutritious) than the harder flint corns planted by the Mandan and Arikara Indians in the Dakotas. Growing in Oto and Omaha gardens at a much later time, it was observed to reach a height of from seven to ten feet, and to have a somewhat bushy appearance due to a number of suckers coming from the roots. Two to three ears, about eight inches long, were borne rather low on the plants. According to Alanson Skinner, the Ioways may also have had other corns — white and yellow in color.

Evidently the Indians were quite aware of the dangers of mixing varieties of corn. Will and Hyde noted that the ears of native corn they collected gave evidence of pure strains in the early days. To avoid mixing, the plots of "sacred corn" were planted separately from the food gardens.

They were tended by certain men for whom this was an inherited duty as well as a privilege. Among the Ioways a kind of red flour corn, which had a reddish cob and kernels ranging in color from a dark to a salmon-red, was considered to have special attributes. One certain group of relatives (the Buffalo gens) raised it and performed prescribed ceremonies using it. It was never eaten by them.

More is known about the sacred corn of the Omaha Indians. Alice Fletcher and Joseph La Flesche were told by the Omaha in the last century that this corn was thought to have special properties of fertility. Consequently, four red kernels were given to each family to mix with their carefully selected seed corn, with the idea that propinquity would vivify the seed and help to secure an abundant harvest. It was a kind of sympathetic magic. The Ioways were also said to have a sacred brown flour corn.

Usually the corn patches were thoroughly hoed twice, aside from hand weeding, and then hilled up so they could be left untended while the tribe went on a buffalo hunt. Early settlers in Iowa and Wisconsin noted with interest cornhill rows still persisting in undisturbed areas near long deserted Indian villages.

When the silks were dry and the tassels dark, and the ears were in the green corn stage, but before any might be eaten, it was customary among

a number of tribes of this area to hold a ceremonial feast. This was a solemn ritual statement of gratitude for a successful harvest akin to the "first fruits" thank offerings that occur in many agricultural communities over the world. An Oto Indian told William Whitman: "If anyone broke the rules [that is, ate the corn before the ceremony] something bad would happen to him."

Many early 19th century visitors to Indian villages in the Upper Mississippi-Middle Missouri area wrote of enjoying the corn dishes set before them. They were more palatable to many than the dog stews and some of the other characteristically Indian dishes to which whites were unaccustomed. The Indians used corn in its fresh or green state as well as when hard and fully ripened. Both kinds were boiled, sometimes with meat — deer, buffalo, or bear; sometimes with just fat added — as bear grease or buffalo marrow; sometimes with sweetness in the form of honey or pounded-up tangy chokecherries. All these combinations were greatly relished. Succotash — corn boiled with beans — was also a favorite and frequent dish. Boiling of foods by the Ioways on the Upper Iowa River was still done in clay pottery vessels, and the smoke-blackened bottoms of many of these simple globular pots give evidence of their habitual use.

Sweet corn was also roasted in ashes, or in little "ovens" or "firepits" that were dug into the ground a foot or so. The pit bottom would be cov-

ered with stones, and a fire built on them. When, after an hour or more, the stones were red hot, the fire would be allowed to burn down and the ashes and some of the stones raked out. The unhusked corn would be laid in on the hot earth and remaining stones, the hot ashes and stones quickly replaced over the corn, and finally earth heaped on top of the filled pit. Such pits still remain in the Upper Iowa River villages, displaying now stratified layers of charcoal and ashes, some quite thick and hard packed. One pit, on Flatiron Terrace, had a number of charred ears of corn still in it when it was opened by Dale Henning and Dr. Henry Field of Decorah. What had happened to make an Indian housewife forget to open her oven in time?

To prepare corn for drying and storage, either the green or the ripe corn was boiled or roasted, after which the kernels were scraped off with mussel shells and spread on deer or buffalo skins to dry. If the corn was dried without cooking, that is, by braiding the husks together and hanging the chains of corn on frames to dry in the air, it was necessary to use stones or big sticks to knock off the hardened kernels.

Corn was stored as dried kernels, or frequently it was ground into cornmeal. In the Upper Iowa River villages were found large flat grinding slabs and smaller slightly hollowed mortars over which the women once bent as they ground the corn with

"bunshaped" grinding-stones. Probably the stone slabs were placed on large hides or on mats in order to catch the flying kernels that scattered in the process. The meal was cooked as mush; or might be boiled with beans, allowed to cool and harden over night, and on the next day be cut into slices for eating. Sometimes the slices were browned in the fire.

The Omahas and others also parched corn in the fire, and a number of tribes made hominy by boiling the corn with ashes. Parched corn was often carried in small bags at the waists of Indian hunters thereby making quick nourishment available.

It was customary to store dried corn for winter use in pits dug into the ground. Many of these on the Upper Iowa River were bowl-shaped; others were cylindrical. The pits, 30-60 inches deep, would be lined — perhaps with grasses, bark or mats — before the skin, birchbark, or woven fiber bags containing the corn were laid in. Sod, carefully placed over the top, would hide the pits from marauders and protect the cache from the vicissitudes of the weather. Although records of Indian corn storage pits are many, mention of spoilage is rare. Often this hoard of nourishing food seems to have made the difference between a winter of sufficient food and one of intense hunger.