

PREHISTORIC BOTANY

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Little of a definite nature can be said about the Mound Builder's knowledge of Science other than his broad knowledge of the cardinal points, the symmetrical nature of his earth-works and the beauty of his stonework and pottery. We do feel that he, as well as the Indians, knew his corn, beans and squashes and pumpkins, having developed these cultivated plants so far back that time does not know just how or when it was done. We do know that the Indian runner went for days on a small poke of parched corn and very little water and that corn was a matter of worship to him and basically so, for it was his real standby food, often grown communally and in much the same process as our present Illinois farmer, in hills and rows and hoed at least three times during growth. The plowing and tending was carried on in many respects like a religious service with a joyous aspect, with a song and dancing. The men had their part in the feebilities and helped with work as well as the squaws. Had it not been for the stores of corn that the eastern Indians were glad to share with the whites the first few winters they were on this continent, all the colonists would have perished. We make many things from corn but the food staples were all made and used by the Indians much as we use them now, corn flakes alone excepted. Parched sweet corn has a much better and finer flavor when carefully made. The Indian called popcorn, flowering corn, surely a fine name for this delectable food. He extracted sunflower seed oil and oil from nuts and acorns that he used as we use butter or salad oil. He knew his salads and greens also and here we must give the squaws particular credit, all agreeing that there were famous cooks among them whose art was studied and emulated by all ambitious young women. Harvey Lee Ross, who came to Fulton in 1821 and whose father improved the land that afterward became Lewisiana, Fulton County, says the Indians used to gather in numbers along Potato Creek in that county and gather roots weighing six to eight pounds that were not unlike our so-called Irish potato when cooked.

The botanists call it *Juncus purpureus*, Man of the Earth, and it is a close relative of the Loublosonic bindweed and morning glory of our corn fields. I find no reference that indicates its cultivation and it is seldom seen in these parts. The white man's hogs made short work of it when they roamed the woods pasture. The roots as well as the seeds of *Helianthus giganteus*, giant sunflower, were valued dinner pot fillers and our Indian turnip, Jack in the Pulpit, was made edible by roasting or boiling till the acrid taste was removed. *Cassia quinquifida*, a wild hyacinth, with a four to six-ounce bulb, was counted a delicacy as were its cousins the onions and garlic. Milkweed and berry sprouts were used, as we use asparagus and the Chinese bamboo sprouts, and the Indians introduced to our pioneers many plants that made good greens, quite a few of them better than the much joked about splash. Berries and cherries of all sorts were eaten fresh as well as dried for fall and winter. Nuts of all kinds including the acorns were carefully prepared and stored for the time of snow. Acorns were crushed, soaked and washed to extract the tannin, then dried and made into flour for baking, cooking or seasoning, being very nourishing. Chestnut meal was often mixed with cornmeal, and the reputedly poisonous buckeye was used in much the same way. I often find these nuts with squirrel marks and am tempted to try the taste but forbear because of the bad reputation. Nuts that were particularly oily were pounded in a mortar, shells and all, the shells floated off and the residue boiled, allowed to cool, and the grease or oil skimmed off and saved for seasoning, the bulky part making good porridge when mixed with cornmeal or other flour. Many of the larger grass seeds, particularly wild rice, were fully threshed and winnowed, then stored against a cold winter's need, when careful pounding made wholesome flour. The Missouri bread-root, pomme blanche, *Pteris aquilina*, with a deep growing turnip-shaped root, was highly prized and at one time the white man contemplated cultivating it instead of the Irish potato.

The French voyageurs found it very satisfying.

I must not forget that our first Americans knew and used many of the fungi or mushrooms and found them quite tasty as well as nourishing. Traces of many of these food items have been found in burial pots but are much harder to identify than are the bone remains of feasts prepared for the dead. We must except from this statement the various types of corn, the real food staple, many charred granaries of which have been exposed to the view of the modern digger.¹

The Indian knew and used maple sugar and often traded it to the whites for sundry trinkets. I think they taught us how to make it.

The gathering of medicinal plants by the Indians was attended by quite a deal of religious litany and ceremony. Everything that was used in the gathering had to be ceremonially clean and blessed, powdered tobacco seems to have been one of the purifying agents. Not only the medicine men but many of the older squaws went along in the search for "Nébezoon" or medicine. Among the plants gathered and used by the Indians such as we learned to use them as pioneers, were boneset, spikenard, grand-rake, prickly ash, calamus, wintergreen, lobelia, golden-seal, ginseng, cranesbill, jutefern, maidenhair-fern, fock, mint, sheep sorrel, witchhazel, Oswego tea, spruce and pine gum, saffaras, apple root, elder-bark, white oak bark, a sovereign remedy for poison ivy when made into strong tea and used as a wash after the parts were well scrubbed with common soap and brush. These were in our country, but we must not forget that the Peruvian Indians gave us quinine, and tropical and semi-tropical Indians used cacao leaves much as our Indians used corn on long journeys. Our modern use of chocolate as a concentrated food

dates back to their time. When gathering medicine, they were very careful to conserve the plants. They never took the first one they found and always passed it with a prayer and a tobacco ceremony and when they did take a plant they talked to it and made a point to plant three or four seeds in its place. The carefully gathered plants and bark were dried in the lodge, carefully tied up in little leather or cloth bags and kept in a dry place. Dr. Benjamin Rush, one of the founders of our republic and an able doctor for his time, studied the Indian remedies and wrote down many of their formulae for future reference and use. He made quite a study of alcohol and its effects, publishing a paper about it in 1785. Many of his medical followers still use some of the old tried remedies of our Indian predecessors, and doubtless they used many from Mount Builder contacts or knowledge. My mother was greased and fed with Seneca oil for colic when a child. This we now know as petroleum and use the clean vaseline, kerosene or paraffin oil made from it. Indian children were given slippery elm with calamus or wintergreen for belly-ache, and the elder folks mixed clay with Solomon's or golden seal for the same trouble; manihake was a good purge and blackberries or their roots a good astringent, as we know today. Boneset tea was sovereign remedy for colds and fevers with our grandmothers as well as the Indians. Of course we must remember that the medicine man had many incantations and weird ceremonies, but the above will help us to understand that there was much real knowledge behind his seeming conjuncture and that his natural remedies, with hot and cold baths and manipulations had much to do with the relief of the patient. Don't forget that our own doctor's personality and presence do much to help his medicine to be effective.

¹The so-called Irish potato was derived from the above because there seemed to be some controversy as to its origin, which has been claimed in Asia, in Colorado and in South America. Bailey's Horticultural Encyclopedia says: "Cuba is its native birth," and the best information I now get is that the Incas Indians developed it and introduced it to various islands by planting it in their valleys and well up into the mountains. The inference to be drawn is that it worked north through Mexico and into Colorado and is decidedly an American Indian development.