

Prehistoric American Diet

BY GLEN A. BLACK

The first inhabitants of this country, regardless of where they came from, or when, were food hunters, depending entirely upon the resources of nature for their existence. Such a condition and mode of living necessitated a constant movement and search for food. In seasons of food failure death or a long movement to new localities was inevitable. Sir Arthur Keith has said that "A tribe numbering fifty souls, if they depend for a livelihood on the natural produce of soil or river, needs a fertile territory of 100 square miles for its subsistence." Such a condition would permit only a very low form of culture as no time or energy would be available for the development of the arts.

There was nothing edible that the aborigine would not eat if conditions required. All animal products of land, sea and lake, all fleshy roots and seeds went into his maw, but the first American was mainly a vegetarian.

Among such foods wild fruits perhaps came first in point of quantity. America abounded in berries—gooseberries, huckleberries, black raspberries, cranberries, blackberries, strawberries and others. Plums of three varieties white, red and black, wild grapes both white and red, crabapples, haws, persimmons, paw paws, and in some parts of the Americas, the pineapple, all contributed largely to his diet.

Father Allouez, a Jesuit Missionary toward the end of the seventeenth century, reported the natives of the Illinois country using "from trees and plants 42 different kinds of fruit all of which are excellent." Of course they ate every edible variety of nut and had known how to obtain maple sugar from the maple tree since time immemorial.

Early European explorers were much impressed by the amount of grain they found growing in America. The white observers were often ignorant of the fact, but much of this grain was wild. Wild rye was common on the Atlantic coast north of Virginia. It was this that the Norse explorers spoke of as growing in the form of "self sown wheat fields." It was also this grain that Captain John Smith found the Virginia Indians using as what he termed a "dainty bread buttered with deer suet." Who can read such phrases as this last, fre-

quent in the literature of early exploration in the Americas, and not believe that the early American lived well?

When the prehistoric Indian developed maize, or corn, from a wild seed bearing grass, believed to have been *teocintli*, and at the same time invented agriculture, that is, when he began to gather seeds and plant them under conditions favorable to their growth, he took a very great step upward in the cultural scale and towards civilization. We do not know when he took this step, or how, but that it was in the remote past is suggested by the fact that the wild grass, *teocintli*, is still found in Mexico but the intermediate steps or missing links between it and maize have never been identified and are probably lost in oblivion. Agriculture and the cultivation of at least a portion of his food permitted the Indian to become sedentary, somewhat independent of nature, and provided that residue of food necessary for leisure. As leisure is necessary for cultural attainments it was only at this time that he was able to make any appreciable progress. It is a fact worthy of note that the highest cultures are found exclusively within the agricultural area and then in a degree of development in direct proportion to the fertility of the area. Central America, where agriculture probably originated, is the highest culturally of any territory in the Americas with the exception of Peru, where climatic conditions were especially favorable to plant growth.

Of all agricultural items of the prehistoric American, corn ranks foremost in importance. Cultural development among the Indians was dependent upon it and even the colonization of the United States by the Whites owes its success largely to the Indian and his corn. It is one of our most important cereals and possibly the oldest. The present market price of corn certainly does not seem to support these statements but they are true nevertheless [December, 1932].

Few of us realize how completely we have absorbed the corn complex of the American Indian. The Indian method of hand planting in hills is still followed today under modernized methods. Squash or pumpkin, and beans were inseparable from an Indian corn field and are still so planted. The word *hominy*, with which we are familiar, is strictly American Indian in origin and meaning. It means hulled maize. The method of hulling by the use of wood ashes was Indian in origin and has given rise to our name *Lye Hominy*. *Succotash* is another word of Indian origin, meaning green corn and beans cooked together.

Squash is still another Indian word which has been adopted into the American language, and this product is extensively used as an item of our diet. Botanists have agreed that all of the common varieties of squash were generally used by prehistoric Americans. Every edible variety of bean with the exception of the soy-bean and the horse-bean were originated and extensively used by American Indians. The white potato and the sweet potato were the outstanding root crops cultivated by the southern Indians though little is known of their use in the Mississippi Valley. The true potato is the sweet potato, which belongs to the morning glory family. The miss-named *Irish potato* is of the nightshade family to which the tomato belongs. Many plants of this family are poisonous which accounts for the aversion to the "red poison apple," as the tomato was called until the nineteenth century. Nevertheless it was cultivated and eaten in Central America in pre-Columbian times.

By cultivating at least a part of the food items given above, together with what nature provided, Keith's same tribe of fifty, by cultivating only a hundredth of one square mile, could multiply the number of members by four and still subsist. It can readily be seen what a vital part agriculture played in cultural progress and in populating the prehistoric Americas.

Of the aboriginal methods of preparing foods the accounts on which we must depend are full but diverse. When we consider that their only way of cooking was at an open fire and their only utensil the earthen vessel, we can understand the surprise exhibited by the old chroniclers at the variety of dishes the prehistoric Americans were able to prepare from wild flesh, corn, beans, pumpkin, squash, dried fruits, roots, nuts and herbs. Of nuts they had a great variety and besides using them as we do, they pounded them in mortars and made them into bread and broth or used them to mix with their hominy.

Bartram, an early traveler in the south, speaks of hickory milk which he describes as being as sweet and rich as fresh cream. To make it they first pounded the nuts in a mortar or on flat stone and then cast them into boiling water, which, after being passed through fine strainers, preserved the most oily part of the fluid. It was used as an ingredient in most of their cooking especially in hominy and corn cakes, as well

as furnishing an agreeable drink. Sometimes they skimmed off the oil and left it in gourds or earthen vessels, using it as we do butter on their corn cakes or to give body and flavor to their broth when meat was scarce. Sunflower seeds were treated in a similar manner among the southern Indians.

Acorns were used extensively in making broth and bread after having first been soaked in lye to remove their bitterness. They were also boiled and the oil skimmed off and preserved in gourds and jars. Bread and gruel were made of the wild cane seed of the Mississippi Valley, and another cereal much used was wild rice, the same plant that hunters now disseminate to attract ducks.

In their constant search for vegetable products from which to make flour, the ancient Americans experimented with a great variety of nuts when making bread. Among these were the chestnut, hazelnut, walnut, pecan, the chinkapin and the acorn. The seed of the sunflower was used, and it also provided an oil much relished as a dressing. The Jerusalem artichoke, which is neither an artichoke nor from Jerusalem, was employed for the concoction of both bread and broth. This plant and the sunflower both became objects of intensive cultivation, whereas the nuts were everywhere so plentiful that cultivation was not necessary.

Corn, the foundation of all their cooking, was prepared in a number of ways. Among them there was one dish that was in such demand and favor that it may be said to be typical. To the French it was known as *sagamite*, while among the English it was variously termed *samp* and *hominy*. Both the latter words are Indian in origin as is the dish itself. It was made of ripe corn, either whole or crushed, and boiled with meat or fish, either dried or fresh. Sometimes in the spring or early summer, Indians used green corn and beans boiled together and which under the original Indian name *succotash* was included in our menu this evening.¹

Corn bread was made in a variety of ways, from ripe corn. Our term Johnny Cake was derived from an Indian word meaning "journey cake" and so called because of its extensive use while traveling about due to its portability and high nutritive value. The corn-pone is also Indian in origin.

¹ This paper was read at the dinner of the Local Historical Societies on December 9, 1932, held in Indianapolis in connection with the annual Indiana History Conference, as stated by the author of the paper, all the items on the menu of the dinner of the evening were articles of food used by American Indians, save coffee and butter.

We do not think of the potato as a cereal, but the ancient Americans treated it as such. Perhaps no vegetable is more widely used in the civilized world than this tuber, yet no plant has been so much misrepresented, not even the tomato. This common white root is usually referred to as the "Irish Potato" but, as the late W. E. Safford of the United States Department of Agriculture has pointed out, "It is only a potato by analogy and Irish by extraction."

The peanut, sometimes referred to as the ground-nut, was developed by the natives of South America. Soon after the discovery of America by Columbus, the Spaniards took the peanut to Africa and slave ships bringing negroes to North America at a later period brought the peanut with them. Thus the peanut, like the potato, had to cross the Atlantic from South America in order to get into North America. The potato was first introduced into the English Colonies of the United States in 1719, several hundred years after its aboriginal inception in the South Americas.

Tapioca pudding is still a fairly common dessert in the United States and has been included in our dinner tonight. But to few who are not specialists in botany do the words *yuca*, *mandepore*, *maihot*, *cassaba*, *cassava*, *manyoc* and *manioc* mean anything. Yet these are all native names for the plant which yields tapioca.

Manioc had a wide distribution in early America. Where the climate was too hot for maize, manioc was often the staple food. It is a root plant and the most interesting thing about it is that the juice is poisonous. Throughout the region where it was eaten the root was everywhere treated in an identical manner for the removal of this poisonous juice containing prussic acid. The root was grated and the pulp squeezed in basketry presses. When the juice had been pressed out of the pulp the residue was made into cakes and heated until the volatile poisoning remaining had been removed. The result was "cassava bread." Here we have an analogy in the process of poison removal from a root in South America with the process applied to the acorn in North America to remove its bitterness.

The bulk of the information we have regarding Indian foods and the methods of preparing them has been left us through the historical accounts of early explorers, missionaries, Jesuit Priests, travelers and traders. We are therefore

largely dependent upon the written word for our information. In Indiana we can also rely somewhat upon archeological methods and research for our data. Archeology has been termed "frozen history" and when we consider just what archeology really is the truth of the term becomes apparent. The archeologist reads the words contained in the earth making up the habitation sites and burial places of prehistoric peoples. The area under investigation is his volume and the articles left by the aboriginal inhabitants are the words contained therein. This type of word is just as legible as that of the printed record, if you know the language, provided of course, that the objects have not been removed from their proper setting. It is merely a matter of interpretation and the transformation of the earth-words to the printed form to make the story readable to all.

It is the village sites with their ever present refuse deposits, either in heap or pit form, that we must turn to obtain a record of the every day life of really prehistoric peoples in Indiana. From excavations in prehistoric sites in Indiana and Ohio we have material evidence that corroborates in every way the printed accounts left us from the early historic period.

In practically every pit, bones of the Virginia deer are found and figures show that this animal formed the major portion of the meat diet of the Indians formerly inhabiting this area. Bones of the elk, squirrel, muskrat, woodchuck, bear, panther and wildcat are found but in numbers far under those of the deer. It may be that the smaller animals were more difficult to capture with primitive weapons than was the deer. The bones of animals are almost always cracked open and crushed showing that the Indian did not overlook one of the most wholesome portions of the animal, the marrow of the bones. The buffalo, always associated with the Indian in mind at least, is rarely found in habitation sites east of the Mississippi. We know that the buffalo was present in this area in large numbers well back into the proto-historic period and the absence of its bones from refuse deposits is somewhat of a puzzle. It may be accounted for by a consideration of the size of the animal and by the difficulty that would be entailed in bringing the body entire into the village. It may be that such meat as was desired was stripped from the carcass at the point of capture and the residue left to be consumed by carnivorous

animals and the elements. This is merely an assumption however.

The wild turkey, ducks of several varieties, the trumpeter swan, quails, partridges, pigeons and the larger shore birds are represented in numbers in the pits. The bones of birds were largely used for the manufacture of beads, bone awls and needles which may account for their comparative rarity to those of animals, or again it may be due to difficulty of capture.

Terrapin shells are found in numbers showing that these animals provided food. The shells also served admirably as cups and small containers formed by cutting the marginal scutes and cleaning the interior of the shell. Shells of the fresh water mussel are found on all sites in every locality where that animal was obtainable. Judging from the amount of shells found the mussel was comparable to the oyster of the east coast in point of popularity as a food. Huge heaps, composed almost entirely of shells, isolated from village sites would indicate that the mussels were obtained and dried at points where they were numerous and carried back to the habitation sites.

Seeds of the paw paw, wild plum, wild grape and wild cherry have been found cached away under circumstances that would indicate that the seeds had been preserved after the fruit had been consumed. Hickory nuts, walnuts, butternuts and acorns are found in numbers. Corn and beans have been found stored together in grass lined cache pits. Sunflower seeds, shells of gourds and squash together with corn, corn cobs and nuts have been found in dry caves and rock shelters where atmospheric conditions were conducive to their preservation.

In Greene County, just surveyed for the Indiana Historical Society, hickory nuts were found in numbers in the pits of two village sites excavated. Corn was not found but shreds of pottery bearing a form of decoration on the exterior surface that had been made while the clay was still plastic by impressing a corn cob into the surface. This fact, together with the finding of many mortars and pestles such as were used to grind corn, provides good presumptive evidence that corn was known and used in the county during prehistoric times. It is also possible that wild rice abounded in the once extensive

marshes in the county which fact, if true, would account for the extreme density of aboriginal population as was revealed by the survey.

A list of the agricultural items and their by-products, which were grown and formed a part of the prehistoric American diet and in turn have become major items in our own diet, includes: maize or corn of several varieties, white potato, sweet potato, tomato, pumpkin, squash, lima bean, kidney bean, Jerusalem artichoke, peppers, cassava (from which tapioca is made), cocoa, yam, yam-bean, pineapple, strawberry, guava, the peanut and the avacado or alligator pear. Domestic animals and fowls include the muscovy duck, the guinea-pig and the turkey, which, strangely, enough, in the country of Turkey is called the American Bird.

Every item on our menu this evening with the exception of coffee and butter is typically American Indian in origin. We could have gone so far as to include cigars and cigarettes and, if you care to indulge, chewing gum. The justification for including the last item is the chicle chewing habits of the Indians of Central America.