### THE PAPAW, OUR LOCAL 'TROPICAL' FRUIT

BY JOHN W. THIERET CURATOR OF ECONOMIC BOTANY

THE PAPAW, with its seemingly exotic foliage, flowers, and fruits, reminds some of a plant displaced from the tropics. And this it has been called, for of all the members of the Custard Apple family—including the bearers of such fruits as the cherimoya, sweetsop, soursop, and custard apple—the papaw alone is a venturer from tropical and subtropical regions. But no alien this, notwithstanding its host of cousins in warmer latitudes. On the contrary, its maroon

groups—cycads, figs, breadfruits, rosewoods, palms—disappeared entirely from what is now temperate North America, surviving only in warmer areas nearer the equator. Others were not completely wiped out; they left in the now cooler regions one or several representatives that could successfully adapt to the changed conditions. This is the story that present-day distribution patterns and the fossil record reveal to us.

Long before the advent of Europeans in the New World the papaw was known to the Indians who, along with various wild

animals-opossums, raccoons, squirrels, and skunks-relished the saccharine fruit. In the Mississippi Valley just over four hundred years ago, the followers of De Soto were the first white men to notice the papaw. In their journal they mention its "very good smell and ... excellent taste." Nearly two centuries elapse before we hear of it again. In 1736 the plant was introduced into cultivation by Europeans who brought seeds to England. The first illustration of the papaw appeared 18 years later in Catesby's Natural History of Carolina (1754). On the return journey of Lewis and Clark, in the early 19th century, the explorers found

the fruit a welcome supplement to their meager fare as did, at a still later date, the Kansas pioneers who subsisted partly on pecans and papaws in times of crop failure.

The common name papaw originated apparently from a fancied resemblance of our fruit to that excellent dessert fruit, the papaw of the tropics, better known in the United States as the papaya. The French New World colonists called the papaw "asiminier"-a gallicized form of the Indian name "assimin"-whence is derived the name of the genus to which the plant belongs, Asimina. There are eight species of Asimina, seven of which are confined to the southeastern United States, mostly in Florida. Our plant, Asimina triloba, ranges from Florida to Texas and as far north as the southern Great Lakes area. In the Chicago region, native stands of the papaw are found in several spots, including Black Partridge Woods, Indiana Dunes State Park, Pilcher Park, and, most appropriately, in Paw Paw Woods.

The papaw rises sometimes to a height of fifty feet and develops a trunk exceeding two feet in diameter, although the plant is usually a smaller tree or a shrub. Because of its suckering habit it is commonly found in clumps or thickets. In days gone by, some of these, particularly in the Mississippi Valley, were many acres in extent. The wood of the papaw is greenish-yellow, light, soft, brittle, coarse-textured, and has no uses. The inner bark, stripped off in early spring, has been used for weaving fiber-cloth, for making nets, and for stringing fish.



The papaw flowers in the spring while its leaves are yet young and covered with rusty down. The stigmas mature sometimes long before the pollen is shed, and, as a result, the early-opening flowers set no fruit. The fruits, which may weigh up to a pound and attain a length of over five inches, are borne either singly or in clusters and change from green to brown or nearly black as they mature. When they ripen-from August to November, depending on the localitythe fruits contain a creamy pulp surrounding several large, flattened, brown seeds. There are, it seems, two rather distinct forms of the papaw: one, bearing white-fleshed fruits said to be of insipid to even disagreeable flavor; the other, more frequent, bearing yellow-fleshed fruits that occasionally are of an excellence that inspires some papaw lovers to remark that this is the most delicious fruit known to man.

Compared with the temperate and tropical fruits that are familiar in the northern states, the papaw is relatively rich in nutritive material. The fruit is noticeably high in protein. In spite of its food value and the pleasing texture and taste of the better varieties, the papaw remains little known and used except by rural people. It is only rarely seen in the markets of our larger cities.

Of the various ways of using the fruit, one author has written: "It makes a splendid custard pie. There is no finer dessert than papaw eaten with cream and sugar. It is used to make beer the same as the persimmon by putting the fruit in a jar, mashing it, and putting water on it and letting it stand until fermented. It also answers to make pudding just the same as persimmon pudding is made. It is also said that brandy equal to peach brandy is made of papaws. Marmalade which is equal to that made of pears or peaches may be made of papaws. The custard [pulp] may be spread on a board and dried like pumpkin leather."

All this, of course, is fine, but what can compare to a ripe papaw, just picked from among the yellowed leaves on a frosty autumn day and eaten in the woodland. It is then that James Whitcomb Riley's



THE AMERICAN PAPAW-A FRUITING BRANCH

The drooping leaves, often nearly a foot long, and the clustered fruits make the papaw one of autumn's memorable sights. The specimen here shown was collected near Chesterton, Indiana. A life-like model of a fruiting branch is exhibited in Martin A. and Carrie Ryerson Hall (Plant Life, Hall 29).

flowers with the odor of over-ripe strawberries, its large leaves, and its pendulous clusters of heavy fruits are an integral and familiar part of the landscape in much of the eastern United States in the river bottoms and rich woods where this singular species dwells.

The distribution of the papaw in relation to the rest of the Custard Apple family is paralleled by a number of other temperate United States plants that are members of notably tropical groups. As examples might be cited our catalpa, trumpet-creeper, and cross-vine of the flamboyant Bignonia family; meadow beauty of the Melastoma family; the American persimmon, cousin of the ebonies; and the buckthorns of the Sapodilla family. These and others are considered remnants of a once luxurious subtropical flora that extended as far north as Alaska. Since that distant age the climate changed and became colder. Many plant

words in Hoosier dialect are recalled perhaps most vividly:

"And sich pop-paws! Lumps o' raw Gold and green,—jes' oozy th'ough With ripe yaller—like you've saw Custard-pie with no crust to."

NEGLECTED BY FRUIT GROWERS

Although its cultivation and improvement have been repeatedly urged, the papaw continues to be a horticultural Cinderella. There are few papaw orchards, perhaps a result of the fact that little is known about the cultural requirements and response of the species. The small number of attempts that have been made in hybridization and selection have had promising results. Several of the finer varieties have been named and propagated. Crosses have been made between these varieties and between our plant and other species of Asimina in efforts to improve the fruit. Those who have faith in the economic and gustatory possibilities of the papaw point out that even in the wild state it can produce fruits that compare favorably with our longcultivated Old and New World fruits. Thus, would not some attention from horticulturists result perhaps in the development of distinctly superior papaws?

As is the case with so many of our deserving native species, the papaw has been little used as an ornamental plant, although it has much to recommend it. It is notably free from diseases and pests. It may be raised fairly easily from seed, or seedlings a



FLOWERS OF THE PAPAW

The blossoms, up to two inches across, are green when newly opened, but soon change to brown and finally to maroon. These figures are reproduced from Charles Sprague Sargent's "Silva of North America" (1891).

foot or less in height may be transplanted from the woods. When grown from seed, the plant may take eight or more years to begin to fruit, although the fruiting of threeyear-old specimens has been reported. The papaw's handsome leaves, its attractive though somewhat inconspicuous flowers, and its curious, clustered fruits make it a horticultural novelty. In nature it occurs as an undergrowth plant, receiving shade and protection from wind. This suggests that in cultivation a sheltered position may be more to its liking than one in the open.

The American papaw is a species that deserves increased recognition and use, both as an ornamental and, of more significance, as a fruit tree. Perhaps someday it will be a plant of considerable economic importance. This is the end toward which papaw enthusiasts and breeders are striving.

# Books

(All books reviewed in the Bulletin are available in The Book Shop of the Museum. Mail orders accompanied by remittance including postage are promptly filled.)

THE STORY OF MAN. By Carleton S. Coon. Alfred A. Knopf, Inc., New York. 437 pages, 32 plates, 54 line drawings, 10 maps. \$6.75.

Books come and go, but here is one that will remain with us. The title is forthright and simple and so are the language and style. Dr. Coon undertakes to describe the main events of human history "from the time man appeared on the face of the earth until the present moment, when he has the power to destroy it." But this is not the ordinary dreary history. It is a sprightly one, as a glance at some of the chapter headings shows: "The Earliest Men," "Wheels, Metal, and Writing," "A Vision of Paradise."

The Story of Man begins about 700,000 years ago and follows the adventures of our ancestors to the present time. For the purposes of his book, Dr. Coon divides his material into four major phases:

The first of these deals with the biological phase of man's history. Because he possessed a superior capacity for culture, man had a great advantage over animals. Before the first phase ended, man had learned to make tools, probably to speak, and to keep warm with fire.

During the second phase of man's history, beginning about 35,000 years ago, man cooked food, made warm clothing, migrated into hitherto unoccupied regions (the Arctic and sub-Arctic and the New World), invented the bow, and domesticated the dog.

In the third phase, man domesticated all the barnyard animals that we know today, began to farm, invented pottery and writing, worked metals, and then moved swiftly on to other advances—money, cannon, printing, deep-water ships, coke, steam engines.

Man now stands on the threshold of the fourth phase of his history. At this time the trend toward increasing differentiation

between cultures has turned toward the direction of global cultural uniformity.

Perhaps one example of the kinds of ideas that Dr. Coon puts forward will entice readers of the BULLETIN to read The Story of Man. In Greek times and during the early centuries of the Christian era, a "school" consisted of one man who taught all subjects to the students of the day. Gradually it dawned on men that the fields of human knowledge were becoming too vast for one man to comprehend. A division took place, and universities came into existence. A student could now learn geography from one professor, law from a second, and mathematics from a third. Thus it now was possible for scholars to specialize, to conduct experiments, to do research. A new source of energy was discovered, not by accident but by objective research. This new source of energy was the correct formula for gunpowder that would explode instead of merely fizzling.

As a result of objective research and increase in consumption of energy through improvements in furnaces and harnessing water and wind power, three new inventions came into being: ocean-sailing ships, printing, and banking. These inventions united, as never before, all the independent and ancient civilizations and brought them into the orbit of western Europe. Gunpowder enabled the Turks to capture Constantinople, thus blocking trade routes from Europe to India and the Far East. Marine architects then came forward and designed ships that could cross vast oceans. The academic division of labor also stimulated another great advance in communicationthe invention of printing. Now thousands of ordinary people, merchants, and artisans learned to read and write. Communication could now take place among thousands of people who never saw one another. Economic and commercial institutions established trade relations with people of distant countries. Traders and manufacturers needed capital, and banks were formed to accommodate them. Thus a chain of events brought about vast unthought-of changes and united the parts of the world as never before

Dr. Coon has selected his material with such care that the reader never feels be-wildered even though the author takes him on many absorbing excursions. The author wisely resorts to speculation and imagination whenever necessary, but he plainly labels them as his personal guesses. His convictions he has stated with strength.

Because all of us are vitally interested in our futures, we can read this book with profit, enjoyment, and optimism.

PAUL S. MARTIN
Chief Curator of Anthropology

Saturday afternoon lectures and films will be given at the Museum in March and April.



Thieret, John W. 1956. "The Papaw, Our Local Tropical Fruit." *Bulletin* 27(1), 6–7.

View This Item Online: <a href="https://www.biodiversitylibrary.org/item/25546">https://www.biodiversitylibrary.org/item/25546</a>

Permalink: <a href="https://www.biodiversitylibrary.org/partpdf/371168">https://www.biodiversitylibrary.org/partpdf/371168</a>

### **Holding Institution**

University Library, University of Illinois Urbana Champaign

## Sponsored by

University of Illinois Urbana-Champaign

#### **Copyright & Reuse**

Copyright Status: In copyright. Digitized with the permission of the Chicago Field Museum.

For information contact dcc@library.uiuc.edu.

Rights Holder: Field Museum of Natural History

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at https://www.biodiversitylibrary.org.