



GARDENS OF THE ANCIENT ONES

EARLY WOODLAND: 1000 BCE - CE 200

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Plant cultivation began when people started experimenting with the wild plants they preferred to eat. They chose plants with larger seeds, thinner seed “coats”, higher seed yields, or that did not spread their seeds widely. Over generations, people collected and planted seeds with these traits, moving plants to new locations. The goal was to increase the availability, yield, and predictability of their plant foods. As the plants changed, they became domesticated. In time, people and plants grew to depend on each other.

Several places on Earth are known as “world hearths” of plant domestication. Each location is where people first domesticated particular wild plants that became essential to local diets and cultures. Through trade and exploration, many of these domesticated plants spread across the world. A few world hearths and their well-known native domesticated plants include:

The Fertile Crescent in the Middle East --- wheat, barley, rye, oats

Mesoamerica --- corn, bean, and some squashes

Middle Africa --- soybeans, millet, sorghum, and teff

China --- short-grained rice and some millets

India --- rice and mungbean

South America --- squash, quinoa, potatoes, tobacco, peanuts, manioc, and chile pepper

Eastern North America, and particularly Kentucky, is also a world hearth. Archaeologists refer to native plants that were modified by this region’s ancient Indigenous peoples as the Eastern Agricultural Complex (EAC). These plants include bottle gourd, squash, sunflower, marshelder, goosefoot, maygrass, little barley, and erect knotweed. Native American hunter-gatherers domesticated several of these plants between 5000-3500 years ago. Native plant domestication accelerated after 3000 years ago, at the beginning of the Early Woodland period.

Native crops became essential foodstuffs for these increasingly sedentary peoples. In time, they added gardening to their hunting, fishing, and

wild plant gathering foodways. Women became the gardeners, tied as they were to home by virtue of their child rearing responsibilities. As gardening became more important, Native peoples began to make pottery in the forms of thick-walled jars and basins. Ceramic production quickly came into broad use in the Early Woodland period.



Archaeologists recognize the seeds of ancient, domesticated plants by comparing the burned examples they recover from archaeological sites to modern seeds of known related wild plants. The domesticated seeds are larger and have thinner outer seed coats than their wild relatives. The recovery of ancient burned seeds in a dense mass, such as from within a ceramic vessel or a storage pit,

also greatly helps identification. Archaeologists also find ancient seeds at sites outside a plant's natural range, indicating domestication. Much of this evidence comes from archaeological sites in Kentucky, especially the rockshelters in the eastern portion of the state.

Archaeologists use the flotation method to recover seeds and other plant remains from soil samples. This method uses agitated water within a fine-screened container to separate lighter-than-soil materials (roots, charcoal, charred seeds, and nuts) from heavier artifacts (rock, ceramics, bone) contained in the sample. The agitation allows the lighter materials to float (thus the term "flotation") to the surface. They are then skimmed off, air-dried, and examined under a microscope.

Squash and sunflower, two of the EAC plants, are modern agricultural crops. The "re-domestication" of other EAC plants through agricultural research represents an opportunity to increase the diversity of modern food resources. Besides being valuable foods, other parts of some EAC plants, such as the leaves and stems of erect knotweed and goosefoot, can be used as medicinal herbs.



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