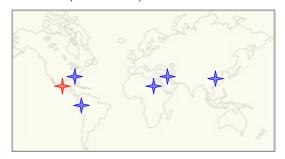
### **HEARTHS AND DIFFUSION**

The places people first domesticated native plants are called **hearths** of plant domestication. In these places, people selected seeds with certain desirable traits. Their choices, over time, domesticated the plants. Familiar hearths are Mexico (corn) and the Middle East (wheat). Eastern North America also was a hearth (sunflower).



Through diffusion, domesticated plant cultivation spreads across long distances to places where the plant is not native. People share seeds and the knowledge needed to grow the plants and prepare the foods.

Several plants domesticated elsewhere came to prehistoric Kentucky through diffusion. One example is **corn** or **maize**. Corn moved across several thousand miles over the course of as many years from Mexico (the red star shown above) to Kentucky.



The "Three Sisters" (L-R): squash, corn, and beans



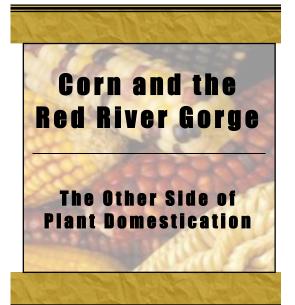
# SITE PROTECTION AND PRESERVATION

The archaeological sites in the Red River Gorge are like all cultural resources on government property. They are protected by state and federal laws.

Please help preserve our irreplaceable cultural heritage. Leave artifacts where you find them and do not dig sites. Report discoveries on public or private property to government agencies, professional archaeologists, resource managers, or local universities. The past belongs to all of us!

#### Living Archaeology Weekend 2011

Hosted by United States Forest Service Daniel Boone National Forest Organized by Kentucky Organization of Professional Archaeologists and Kentucky Archaeological Survey • Support provided by United States Forest Service Southern Regional Office, Kentucky Heritage Council, Kentucky Native American Heritage Commission, Brockington and Associates, AMEC Earth and Environmental Services, Wilbur Smith Associates, GAI Consultants-Cincinnati, Gray and Pape, BHE Environmental, Absentee Shawnee Tribe of Oklahoma, United Keetoowah Band of Cherokee Indians, University of Kentucky, William S. Webb Museum of Anthropology, UK Program for Archaeological Research, Western Kentucky University, Eastern Kentucky University, Red River Historical Society, Society for the Preservation of Old Mills-Kentucky Chapter, Weisenberger Mills, Frenchburg Job Corps, Southern and Eastern Kentucky Tourism Development Association, Leave No Trace Center for Outdoor Ethics, Subaru/Leave No Trace Traveling Trainers, Katie and Sophie McBride, and Robert McCullough www.livingarchaeologyweekend.org





September 23-24, 2011
Gladie Historic Site
Red River Gorge
Daniel Boone National Forest

## THE THREE SISTERS

In the middle Ohio Valley, corn appeared between A.D. 200 and 300. Archaeologists think corn played an important role in ritual and ceremony for 600-800 years before it became a major food source.

In eastern and central Kentucky, native peoples turned to corn farming around A.D. 1000. Native farmers grew Eastern 8-Row flint corn. They planted complementary crops together in the same field. It was a sophisticated, sustainable, and productive agricultural system.



In almost every agricultural community worldwide, farmers paired a cereal grain with a legume. In prehistoric Kentucky, the cereal grain was corn and the legume was beans. Add squash and you have what many Eastern North American native peoples still refer to as the "Three Sisters."



## CORN

Corn is the domesticated descendent of a wild grass native to Mexico. It likely diffused from Mexico to Kentucky via the American Southwest over the course of several thousand years. Because humans have so altered the plant from its wild form, corn can no longer grow without the direct input of humans.

There are scores of corn varieties, but three main kinds: flint corn, dent corn, and sweet corn. Popcorn is a kind of flint corn. Corn supplies carbohydrates and protein essential for good nutrition, but lacks certain amino acids. Rich in amino acids, beans nutritionally complement corn.

Native peoples picked corn green and roasted it. They made soups or gruels and fried, baked, or boiled breads. After parching it, they pounded corn into a meal they used when traveling. Corn was and remains deeply intertwined with the culture of Eastern North American Indian groups.

Archaeologists have found uncharred prehistoric corn husks, cobs, and kernels in only a few of the many rockshelters in the Red River Gorge. This means prehistoric farmers likely did live in villages or grow corn in the Gorge. Apparently, hunting parties in the Gorge brought corn they had grown near their villages with them to supplement their diet.



Charred prehistoric corn kernels

Corn was the dominant crop on the frontier and a pioneer dietary mainstay. Later in time, people lived on small farms in the Gorge, growing corn, among other crops. They took their harvest to mills, where it was ground into flour. These farmers fed dent corn to their livestock. In the rockshelters of the Gorge, they turned their corn into moonshine.

Today, we use corn as food for animals and humans. It also is an ingredient in gasoline, in beverages, in plastics, in inks, and in medicine. Corn is an amazing plant. It relies on humans for its existence, and we rely on corn for our existence.