LIVING IN THE RED RIVER GORGE: An Archaeological Story

For nearly 12,000 years, the beautiful landscape of the Red River Gorge has provided food, shelter, other resources, and inspiration for many different kinds of people.

Native Americans were the first ones to live here: hunters, gatherers, gardeners, and farmers. But they did not have written languages, so there are no history books for us to read about their time. Archaeology helps fill-in these gaps by studying the places these people lived and the things they left behind. Oral traditions of contemporary Native Americans also tell us about the lifeways of their ancestors.

People of European and African descent were the next to arrive: farmers, and moonshine makers; wage workers digging out saltpeter or cutting down trees; businessmen and teachers. They did write some things down, but their day-to-day lives do not appear in our history books. Archaeology can help us learn about them, too.

The Red River Gorge's unusual geological features, like the sandstone cliffs and rockshelters, as well as its difficult terrain and extreme elevation changes, have played a role in preserving fragile ancient materials that decay away in most archaeological contexts. These include seeds, nutshells, cordage, wood, leather, and textiles. They also include the remains of many historic period industries, like saltpeter mining.

For this reason, people around the world know about "The Gorge" and the important role it has played in telling the story of the past. Because of the Red River Gorge rockshelters, like the one pictured here, we have glimpsed the origins of plant domestication in the eastern United States. The Gorge is a very, very special place. As its most recent residents, we have a responsibility to preserve what remains.

This brief outline of Red River Gorge history is based on its archaeological resources. It is divided into nine different periods: four prehistoric and five historic.

Paleoindian *(about 12,000 to 10,000 years ago)*

The first people arrived in the Red River Gorge as the last glaciers were retreating. Because the climate was cooler and wetter than today's, an evergreen forest covered the area. Different types of plants and animals, including mastodons, mammoths, and giant bison, lived in the region at this time.

Paleoindian peoples were successful hunters and foragers who lived in small groups. They used spears tipped with distinctive stone points, and gathered wild plants. Because they moved their camps often, their belongings were portable. Archaeologists have not identified many Paleoindian campsites in the Red River Gorge.

Archaic *(10,000 to 3,000 years ago)*

By about 10,000 years ago, the climate had begun to warm up. A deciduous forest started to replace the evergreen forest, and the plants and animals we see today appeared.

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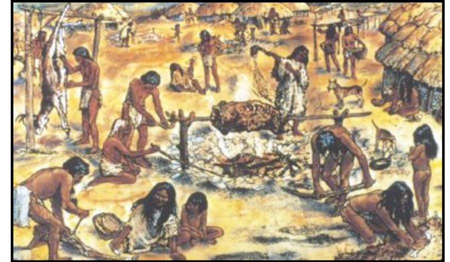
Like their ancestors, Archaic peoples were mobile hunters and gatherers. They developed a new weapon, the spearthrower or atlatl (at-uhl-at-uhl), and gathered wild plants for food, medicines, and dyes. They prepared nuts with ground stone tools, like mortars and pestles, or within stone-drilled depressions, called bedrock mortars or “hominy holes.” Some of these hominy holes still contain the residue from the foods processed within them. They may have used the mature fruits of gourds and another kind of squash as water bottles or storage containers.



People set-up their camps in rockshelters, at the base of slopes, and along floodplains. Larger groups lived at base camps for a season. They dug storage pits in the ground at these camps, like the one shown here to the right, since they knew they would come back for the stored foods. Smaller groups camped in different places for shorter periods as they collected particular foods and other resources.

As the centuries passed, Archaic peoples came to rely more on plants for food. They ate “weedy annuals” like sunflower and goosefoot, and “fleshy” squash. Archaic people returned to the same patches to collect the seeds and fruits from the largest and most productive plants. The people’s choices may have been intentional or serendipitous, but over time, their choices changed the plants physically. This was the beginning of plant domestication.

Painstaking archaeological investigation of an Archaic campsite at Cloudsplitter Rockshelter found parts of a 3,700-year-old squash rind preserved in the dry, sandy soil. Archaeologists also found chipped and ground stone tools, and pollen grains that showed how the climate had changed over time.

Woodland *(3,000 to 1,000 years ago)*

Around 3,000 years ago, the prehistoric gardeners of the Red River Gorge began to make jars from local clays. We call these pottery-making groups the Woodland peoples. Ceramics joined wooden and gourd bowls, and cane baskets as the containers they used for cooking and storage.

Hunting and gathering continued to play a major role in the economy of the Woodland people. They hunted with the atlatl until about 1300 years ago, when they replaced it with the bow and arrow. Like their ancestors, they planted seeds in gardens near their camps. These seeds included those of squash and weedy annuals, such as goosefoot, marshelder, sunflower, amaranth, and knotweed. With this predictable source of food, the Woodland gardeners began to live in certain spots for longer periods. They made short trips to other places for the raw materials they needed.

Hundreds of rockshelters along the many clifflines in the Gorge provided more than adequate shelter. Archaeologists have identified many important Woodland camps in the Gorge, like Cloudsplitter Rockshelter, Newt Kash Shelter, Haystack Shelter, and Rogers Shelters. At these sites, they have found the remains of Woodland peoples’ storage pits, trash pits, and the fires they built for heat, lighting, and cooking. They also have found pottery, spear points, cordage, textiles, leather items, grass beds, and a wooden cradleboard (used in caring for babies). Dried plant and fecal remains show a dramatic increase in the role garden plants played in people’s diet.

In addition to its dry rockshelters, the Gorge also is known for its rock art. Archaeologists think Woodland peoples were the ones who carved or chiseled images into boulders and cliff walls. These petroglyphs are mainly geometric designs, like circles and spirals; turkey, deer or bear tracks; and more rarely, human footprints and figures.

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Late Prehistoric *(1,000 to 300 years ago)*

Outside the Gorge, around 1,000 years ago, people began living in villages. Called Fort Ancient, they turned to a more settled way of life that farming provided. Like their ancestors, they still grew squash and sunflower, but they replaced most of the old crops with new ones, such as corn and beans. Tobacco became an important crop, too. They continued to hunt with bows and arrows and gather wild plants.

Within the Gorge, Fort Ancient people lived in rockshelters. The prehistoric farmers of central Kentucky also may have come to the Gorge to hunt at this time. At the William S. Webb Memorial Rockshelter and Raised Spirits Rockshelter, small groups set up temporary hunting camps. They left triangular arrowheads, a grinding slab, and a few ceramic jars, like the one shown here, as well as cornhusks, corn kernels, cut cane, and cordage.

By around 400 years ago, Native Americans were trading with Europeans indirectly. Evidence of this contact comes in the form of European glass beads and metal kettle fragments. European diseases, like smallpox, influenza, and measles, appeared in the late 1600s. Thousands of people died because they had never been exposed to these kinds of diseases before. Today, some people who live in the Gorge area count Native Americans among their ancestors.

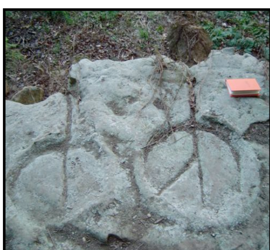
Early European Settlement & The Frontier *(300 to 180 years ago)*

After the first epidemics had passed, some native groups may have continued to live full-time in the area. They may have hunted in the Gorge as their ancestors had done. They would have traded their deerskins to colonials at trading posts like the lower Shawnee Town at the mouth of the Scioto River.

European pioneers arrived in Kentucky via the Ohio River and the Cumberland Gap. By the time the pioneers arrived in large numbers, native peoples had moved many of their central Kentucky villages north of the Ohio River.

Like the indigenous peoples, most of the Europeans who settled in the Gorge area also made their living farming. Crops included corn, tobacco, hemp, flax, and wheat. They also raised livestock – cattle, horses, and hogs. They used some rockshelters in the Gorge as animal pens.

Not long after they arrived, these people started to mine for saltpeter and to make pine tar. Saltpeter, also called niter, can form naturally in caves and rockshelters and is one ingredient in gunpowder. The miners processed the niter, then shipped it to places like Lexington, or they used it themselves in hunting, curing meat, and treating ailments. In the Gorge, Europeans mined saltpeter at D. Boone Shelter, a well-known and protected rockshelter. The vats and crushed rock are still there.



Pine tar was made by burning pine trees under pressure in kilns. Charcoal and tar were produced, with the tar collected in drainage grooves around the kilns, like those shown here. People used tar in many different ways: for sealing wooden buckets or boats and in roofing construction and maintenance. Tar also had domestic uses, such as a lubricant for wagon axles, as a decay preventive on fence posts, and as a cleanser. Pine tar production in the Gorge is interpreted near a former kiln site along Tunnel Ridge Road.

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The Civil War & Before *(180 to 140 years ago)*

The population of the Gorge at this time was likely very small. Farm sites are not numerous, since the narrow bottomlands and ridgelines do not provide much tillable land. Pine tar production continued.

It is not clear whether systematic niter mining occurred at this time, since neither the Confederates nor the Union would have wanted a gunpowder source to fall into the enemies' hands. It is possible that guerillas or local people produced saltpeter and gunpowder for their own consumption, but no one has yet found proof of that. It has been difficult to identify Civil War-related sites in the Gorge with any certainty. The three counties within which the Gorge is found, Menifee, Powell, and Wolfe, were created in the latter years of this period.

After the Civil War *(140 to 94 years ago)*

Kentucky's population increased dramatically in the decades following the Civil War. In the Gorge, farming became a money-losing activity, and many farmers were forced to search for wage-earning jobs elsewhere. However, until the railroads were constructed, the Gorge's isolated inhabitants had to travel far to get to a marketplace or a city.

The iron industry moved into the Gorge region during this time. The Red River Iron Works in Clay City claimed to be the largest of its kind in the world in the 1870s. It employed more than 1,000 workers. Within the Gorge itself, three sites are known to have been associated with the iron industry. These were places where tests for iron ore deposits had been carried out, but were found to be lacking in suitable materials.

The major industry in the Gorge at this time was logging. Initially, logging did not advance deeply into the Gorge because of its difficult terrain. The railroad came in with the Dana Lumber Company's construction of the Nada Tunnel, shown here, in 1911. After that time, it was much easier to get people and goods in and out of the Gorge. Evidence of past logging activities takes the form of splash dams, and logging-related residences and communities. Logging trails and roads also are still visible throughout the Gorge.

In the mid-1870s, a small community, known as Gladie or Gladie Creek, developed at the confluence of Gladie Creek and the Red River. The Ledford family and their friends moved into the area as the logging industry moved deeper into the Gorge. At one time, Gladie consisted of a post office, a school, and a cemetery, along with the houses and farms of its occupants.

Today, at Gladie, you can see the "Gladie Cabin", shown here. Assembled in the late 1900s, it consists of portions of an original cabin, once used as the post office, and sections of other buildings from the community. Gladie became part of the Daniel Boone National Forest in 1987.

Industrial & Commercial Consolidation *(93 to 63 years ago)*

As urbanization increased throughout Kentucky, more people in the Gorge worked wage jobs in nearby towns and cities. Access to stores and consumer goods became easier. Farming became more mechanized,

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but overall, as an occupation, it continued to decline in importance. One way farmers could supplement their decreasing agricultural income was by distilling alcohol from their grain crops (corn, wheat, and rye). "Moonshine" could be stored longer than fresh corn.

The Gorge a good place for alcohol production. The rockshelters, where they made the liquor, were isolated, and water and firewood were easily available. With Prohibition in 1919, it became illegal to make, sell, or transport alcohol. The remains of old moonshine stills are present today in some of the rockshelters in the Gorge.

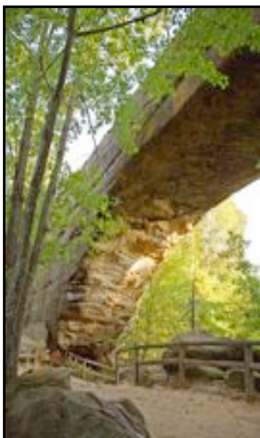
By the 1920s, the industrial era of the Gorge was ending. The timber was generally logged out: what you see today is the re-growth after logging ended. Oil and gas fields were depleted, and a shift from full-time farming to part-time farming/part-time wage earning had occurred.

During the Depression, the Federal government established programs to provide jobs to large numbers of people. The Civilian Conservation Corps (CCC), established in 1933, built two bridges, Tunnel Ridge Road, two powder houses, and a quarry in the Gorge. It also built the Pine Ridge CCC Camp, the archaeological remains of which are still visible today.

In the 1930s, people considered the logged areas of Menifee County a wasteland. So, the U.S. Forest Service began buying up land to establish the Cumberland National Forest. They started a program of reforestation. In 1966, the Forest Service was renamed it the "Daniel Boone National Forest." Although most land within the Gorge is under federal control, there still are land parcels that are privately owned.

The National Forest, Tourism, and Recreation *(63 years ago to today)*

The United States established the National Forest system to create a perpetual logging industry for the United States. But in the latter part of the twentieth century, people began to visit National Forests for recreational purposes. The Red River Gorge was no different.



The Gorge has a long history as a tourist destination, with people visiting Natural Bridge, shown here, as early as the late 1800s. A state park was established there in 1926. By the early 1920s and 1930s, new highways meant people could travel more easily to places for recreation. Archaeological research began in the Gorge Area at this time, partly due to the access these roads provided. A small log cabin alongside the road near Sky Bridge, known as "Sleepy Hollow Lodge," is said to have been built at this time as a get-away spot for landowners from Cincinnati.

The construction of the Slade Interchange on Mountain Parkway in the 1960s also helped open the Gorge up to more weekend visitors. Campgrounds, recreation spots, and private homes reflect these activities. Estimates of the number of visitors to the Gorge each year range from 250,000 to 750,000.

One of the Gorge's major attractions is its clifflines and the rockclimbing opportunities they provide. Some people consider the Red River Gorge to be among the top five climbing locales in the world. From the time climbers established the first climbing routes in the Gorge in the 1950s/1960s, people have traveled from all over the world to try their skills here. Other tourists visit the area for its hiking trails, camping spots, and for the Gorge's scenic beauty.

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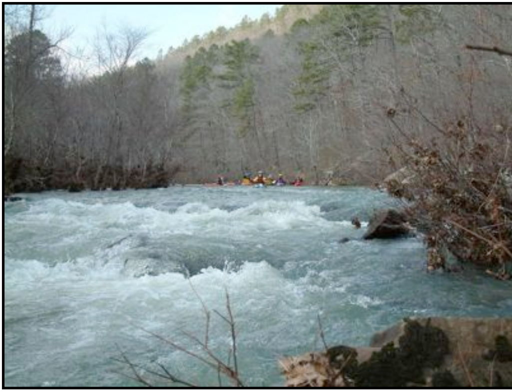

In 1966, the U.S. Army Corps of Engineers considered building a dam across the Red River. The resulting lake would have flooded the Gorge. Archaeological investigations revealed that a wealth of unique and nationally significant prehistoric sites were concentrated in the Gorge area, particularly in its rockshelters. Eventually, citizen protests and the growing controversy over the proposed dam put the project on hold indefinitely. This safeguarded the Gorge's cultural and natural resources, such as the river itself, shown here. The Red River Gorge District was listed in the National Register of Historic Places in 2003.

Although saved from flooding, expanded visitation and recreation in the Gorge since the late 1970s has increased impacts to its fragile prehistoric and historic sites. Looters routinely mine rockshelters for artifacts to sell or add to their own collections. Campers' overnight stays and the activities of rock climbers also impact these sensitive places.

Today, private citizens own 21 percent of the Gorge. This means they have the challenge to protect the cultural resources on their property. The Forest Service manages and protects the resources on federal land. It is meeting those responsibilities in several ways. In 2004, it closed all rockshelters to camping. Aided by the federal Archaeological Resources Protection Act legislation, Forest Service personnel have successfully prosecuted several men caught looting shelters in the Gorge. To educate visitors about the Gorge's cultural heritage, the Forest Service has held Living Archaeology Weekend annually since 1989, and in 2004, it opened the Gladie Cultural and Environmental Learning Center.

Still ongoing is the "Limits of Acceptable Change" process. With input from all interested parties, the Forest Service is devising a plan to safeguard the Gorge's cultural and natural resources for the future. They want to preserve what is unique about the Gorge. But they also want to give everyone the opportunity to experience the beautiful landscape of the Red River Gorge for another 12,000 years!

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Nada Tunnel *tedmuller.us/Outdoor/America/07-EasternStates.htm*
Natural Bridge *parks.ky.gov*
Red River Rapids *www.visitusa.com*

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