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*Breathing Pink*  
Ruth Loveland

## NATIVE-MADE STONE TOOLS OF THE FLINT HILLS

For more than 13,000 years, people have been living in the Flint Hills region.

For most of this period, their primary material for making tough, durable tools was the flint or “chert” stone from which the Flint Hills derive their name. The use of bone, wood, antler, and limestone was also important, but the most durable and preserved aspects of these early technologies are the chipped stone tools and the debitage or flakes left from the manufacture of those tools.

The economies of the prehistoric cultural groups who lived in the Flint Hills were diverse, changing through time and adjusting to the seasons and resource availability. Spearpoints and arrowheads are commonly recognized artifacts, but many other types of tools were also made to serve a variety of purposes.

The stone artifacts typically represent only a portion of the original tools, many of which would have been attached to handles or shafts. A variety of hafting systems were created depending on the tool’s purpose, but wood, antler, rawhide, and bone were commonly used to make handles, which were attached using cordage, fibers, rawhide, and mastics from materials such as tree sap. Axes for cutting wood, knives for butchering, sickles for cutting grass to make thatch and for harvesting grass seeds for making meal, scrapers for hide processing, gouges for woodworking, hoes and picks for digging roots or storage pits, and awls and drills for perforating a variety of materials were all manufactured from Flint Hills flints.

Throughout the Flint Hills, from northern Oklahoma to northern Kansas, special places exist where, for thousands of years, people dug pits through the soil and limestone in order to access

the highest quality flint nodules for making tools. These sites are known in Butler, Chase, Cowley, Geary, Riley, Pottawatomie, Wabaunsee, and other counties in the Flint Hills. The colorful banded and fossiliferous flint stone was highly prized and was traded and carried throughout the Kansas and Oklahoma region and beyond since the earliest prehistoric time.

### CLOVIS

The first widely recognized and distinctive spear point type known to have been used in the Flint Hills area is the Clovis point, named after a site discovered in the 1930s between Clovis and Portales, New Mexico. When people first came to the New World, they were using spears and darts propelled with spear-throwers or atlatls. This same technology for hunting had been used for thousands of years and continued in use in the Kansas area until about 1,500 years ago, by which time bow and arrow technology had displaced use of atlatls. Clovis points, like many dart and spear points used later in time, were often multifunctional and could serve as knives and projectiles. Clovis points tend to be well made of fine quality stones and are characterized by a flute or large thinning flake removed from the base on each face. This enabled hafting onto relatively thin hafts that enabled penetration of the point and shaft when it was used in hunting.

### FOLSOM

Following Clovis people and technology, there were a number of distinctive technological traditions that were used in the Flint Hills. Folsom points, used by bison-hunting people between 11,000 and 12,000 years ago, were thin and delicate projectile point tips that were well fluted and not used as knives. Clovis, Folsom, and other Paleoindian projectile point types are distinctively well made, lanceolate in form, and lack notches. A variety of projectile point types were used by these early hunting and gathering peoples who lived at the end of the Pleistocene and during the earliest part of the Holocene or modern climatic era. Types such as Agate Basin, Scottsbluff, and Allen, among others, are found in the Flint Hills. Allen points are characterized by distinctive parallel oblique flaking. The transition from the Paleoindian to Archaic periods is marked by the Dalton period, which shares some characteristics of each of these adaptations. The Claussen site in the Flint Hills has an important series of occupations by Dalton peoples reflecting their diverse economy and resource use.

### DART POINTS

After 8,000 years ago, most projectile points have distinctive haft elements demarked by shoulders, stems, and/or notches near the base or hafted end of the blade opposite the tip. Much of the



*Munkers Creek Axe from the Foltz Site, Wabaunsee County*  
kansasmemory.org, Kansas State Historical Society

variation that occurs in these dart points (which archaeologists refer to as Archaic) is the result of reworking broken or damaged points, differences in the stone workers' abilities, quality of the stone, and specific functions or hafting systems used. There are distinctive types, however, that archaeologists have defined and which have limited periods and regions of occurrence. Distinctive types of dart points continued in use during the Woodland period and during the transition from spear throwers to bow and arrow technology.

### AXES, CHIPPED STONE

Axes were an important part of the technology of foraging peoples who lived throughout the Flint Hills since the beginning of the modern ecological era, or Holocene. Some of the earliest axes known

were made from metamorphic rocks, rather than flint, and were ground into shape. Later in time during the last 2,000 years, ground stone celts or non-grooved axes were commonly used. For many thousands of years, however, chipped stone axes made from flint were in common use. These axes are not known from the tool kits of the earliest Paleoindian hunters and foragers, perhaps because their homes were lightweight and portable to suit their more mobile lifestyles. After 9,000 years ago, people began to build more permanent structures and to repeatedly occupy the same locations. Logs were used for structures and canoes. Sheets of tree bark were used for structure coverings, and the inner bark of some trees, such as elm, was used for making cordage. Axes were also important for clearing forest parcels

to allow gardening and to encourage native plants, such as gourds and squash. Axes were commonly resharpened until they were too small to function as axes and then would be recycled for use in other purposes.

### GOUGES

Gouges and adzes made from chipped stone were important multi-purpose tools used primarily for working wood, antler, and bone. Before 9,000 years ago, people were making dugout canoes using a combination of fire and adzes to hollow out logs for such use. Gouges were also used for woodworking, particularly the final shaping of handles for tools and shafts for spears. Gouges were particularly common during the middle Holocene period from 3,000 to 7,000 years ago. Adzes were in use during the time of the Dalton complex, 10,000 years ago or soon after.

### MUNKERS CREEK KNIVES

These sickle-shaped stone knives were hafted to short handles and used to cut grasses as early as 7,000 years ago. Grasses were cut for use as thatch for roofing of structures and as matting or bedding. Grass seeds were also important for making flour and as boiled food. Other types of knives were also made, including those with steeply beveled edges that were used for butchering and filleting meat. These beveled knives often had four working edges and were common after about

800 years ago, with the latest versions being hafted at one end and having two working edges.

### SCRAPERS

Many products used by prehistoric people required preparation by cleaning or scraping, whether the items were made from wood, antler, or hide. Scrapers were commonly used for preparing hides, particularly for removing the inner membranes in the process of tanning or softening hides for use. Hides were used for a wide variety of purposes, including clothing, shelter, and cooking. Hides with the hair removed could be used to boil water, either suspended on a frame or lining a basin-shaped hole with heated rocks added to boil the water. Scrapers were often hafted, sometimes in bison ribs or deer antler tines, in order to provide more leverage. Scrapers used to soften dried hides developed very distinctive wear patterns on the working edge. Scrapers would be repeatedly resharpened until they were worn out, discarded, and replaced.

### ARROW POINTS

The introduction of bow and arrow technology began soon after 2,000 years ago, but the transition from spear throwers and darts was a relatively slow one with concurrent use of both spear throwers and bows and arrows for several hundred years. Arrows could be shot more rapidly



*Munkers Creek Knives from the Elliott Site, Geary County*  
kansasmemory.org, Kansas State Historical Society

and with less body movement than thrown darts, but darts had more mass and stopping power. Arrow points tended to be significantly smaller and lighter than dart and spear points, and the stem width where they were attached to shafts was significantly narrower. A variety of notched arrow point styles are found in the Flint Hills. Triangular arrow points were the last form of arrow point made from Flint Hills stone, and these continued in use even after the introduction of metals by European contact. The last stone arrow points were made and used during the early 1800s, but flint scrapers continued to be used in hide working, at least occasionally, into the early twentieth century.

It is easy to underestimate the ingenuity, creativity, and artistry of the early Flint Hills peoples who used Flint Hills stones

as key elements in their everyday lives. Their deep understanding and appreciation of the region enabled them to sustain their ways of life for thousands of years. The craftsmanship and artistry exhibited in Flint Hills stone tools should not be surprising since these people relied upon and worked to perfect these tool forms for more than 10,000 years. The stone tools are only a limited reflection of their life ways and of their understanding of the Flint Hills, which resulted from generations of occupation during a time before roads, stores, or manufactured and packaged goods.

Jack L. Hofman is Emeritus Professor, Department of Anthropology, University of Kansas. He is a native of Oklahoma.