Introduction to the Paleoindian Period

>14,000 – 9,000 years ago

Topics Included:
- The Ice Age
- Migration into North America
- Technology and Lifestyle
- Sites in Western Colorado

The Ice Age

The history of the Paleoindians begins in the later part of Pleistocene epoch, also known as the Ice Age. During the ice age, climate oscillated between glacial periods, where massive sheets of ice covered much of the European, Asian and North American continents, and interglacial periods where ice and snow remained year-round only at the poles like today. In fact, we are still in the Ice Age! For much of the Earth’s history, it has been too warm for there to be any ice or snow year-round at the poles or on high mountains. The land isn’t the only thing affected by ice and snow, while the planet was in a glacial period, sea level dropped because much of the Earth’s water was trapped in glacial ice. As the planet warmed during interglacial periods, melting glaciers caused the sea level to rise.

How do scientists know which part of the continents were covered by glaciers, and which parts were not? Despite melting away, glaciers still leave their mark on the landscape. They can carve out wide, U-shaped valleys (instead of the narrow V-shaped valleys created by rivers). They also can gouge bowl-shaped depressions on the sides of mountains called cirques. Glaciers transport rocks and sediments that are left behind as they melt in the form of moraines. They can also transport large boulders and leave them in an otherwise flat area. As glaciers move past rock, they can also leave scratch marks called striations.

The changing climate and landscape also brought changes in the plants and animals living in North America at the time. While many of the animals and plants were the same as those we see today, they may have been found in different locations or over a wider (or smaller) range than today. The biggest difference in the animal communities would have been the presence of large animals or megafauna. Paleoindians would have had to share the landscape with giant animals such as mammoths, mastodons, large ground sloths and bison. They would have had to be wary of large predators such as saber-toothed cats, giant short-faced bears, American lions and dire wolves. These large animals completely died by the time the last glaciers receded approximately 11,700 years ago. The reasons for this are complex and cannot be attributed to a single cause. However, the changing climate and interactions with humans are considered by scientists to have had an influence on the extinctions.
Migration into North America

Paleoindians were the first people in North America. Native people living in North America today believe they have always lived here, and they have creation stories that reflect those beliefs. Scientific evidence shows that they have indeed lived here for quite a long time. Recent genetic studies have shown that Native North Americans separated from their northeast Asian ancestors between 24,900 – 18,400 years ago and expanded their range through North America between 16,000 – 13,000 years ago. Archaeological evidence supports human migration into North America by at least 14,000 years ago with new discoveries potentially shifting the date further back in time. This is quite a long time by human standards!

How did people make their way to North America so long ago? We are not entirely sure, but scientists have found evidence for multiple forms of potential entry into the continent. The different hypotheses for migration into North America fall into two different categories. The first category is the Ice Free Corridor. In this model, humans were believed to have crossed over from northeast Asia via a land bridge that connected the two continents, connecting what is now Siberia and Alaska. The land bridge would have been present during the last glacial period when sea levels were lower. Geologic and archeological studies have shown that there was a narrow corridor of land that was not covered by ice approximately 15,000 years ago. Humans could have traveled through this area and subsequently populated North America over the course of thousands of years. There are potential obstacles associated with travel along the Ice Free corridor. It would have been quite cold, and terrain would have been difficult for humans to travel. The amount of game animals in the cold region between massive glaciers may not have been enough to sustain humans.

The second category is the North Pacific Coastal Route model. More recent evidence has shown that humans living in northeast Asia were able to construct boats and travel along the coast, eventually reaching the Americas. Waters along the coast would have been rich in nutrients, providing food like kelp to fish that would have also fed humans. Traveling by boat along the coast would have been a quicker, and easier route than walking along the Ice Free Corridor; however, there also would have been obstacles. Sea ice and volcanism could have been potential hazards faced by those who traveled by this route.

While there is some disagreement among archaeologists as to which route was the likely path for the first people to occupy North America, most scientists agree that it was some combination of the two that led to the arrival and dispersal of the original inhabitants of the continent.

Technology and Lifestyle

Paleoindians were not a single culture, but rather several cultures living at the same time and interacting with one another through trade. In general, Paleoindians were hunter gatherers who survived by foraging for food. Their diet most likely consisted a broad range of plants and prey animals, regularly including small animals such as rabbits and birds and medium sized animals such as horse, camel, deer, mountain sheep, and pronghorn. On rare occasions, when the conditions were right, they would have also hunted larger prey like mammoths, mastodons, giant bison, or large ground sloths.

Paleoindians used a variety of tools made from stone, bone, antlers, and ivory. Tools made from materials other than stone are difficult to find because, unless the conditions were right for preservation, those materials would have decayed or rotted away. Despite this, archaeologists have found evidence for a variety of Paleo-Indian technology. Bone needles have been found at various sites, along with bone, ivory and antler rods that were used as awls, cooking instruments and to offset weight for spears. Evidence has also been found that shows that Paleoindians wore jewelry, made fire pits, built shelter, and used pigments as paints or dye.
Stone tools are more common than those made from organic material. These can include grinding stones and projectile points. Two of the best known styles of Paleo-Indian projectile points are the Clovis point and the Folsom point. Both of these points were named from different sites in New Mexico where they were first encountered by non-Native people. Both have a wide, central groove called a “flute” that allowed them to be attached to a spear shaft. Clovis points appeared early in the Paleoindian period and have been found in association with mammoth bones, while Folsom points appeared later in the Paleoindian period and have been found in association with bison bones.

Paleoindian Sites in Western Colorado

Eagle Rock Shelter is the oldest known human habitation in the state of Colorado and one of the oldest sites in the nation. The earliest occupation of the shelter was 13,000 and there is a near continuous record of occupation up until contact with Europeans. It is a large shelter that sits on the first terrace above the Gunnison River near the town of Delta. In the layers of sediment from the Paleoindian period, there are rabbit and grouse bones and seeds, but no evidence of megafaunal remains.

The Mountaineer Site is found on top of a mesa called Tenderfoot Mountain near Gunnison. Among the artifacts found at the site are Folsom Points, bison bones and a structure used as a habitation. The structure consists of a pit with a hearth (fire pit) in the center, and remnants of walls made of mud-plaster. Carbon-14 dating of the bison bone in the structure provided an age of 10,400 years ago. This site is important because prior to its discovery, it was believed that Folsom people did not inhabit the mountainous part of Colorado.

Introduction to the Archaic Period

8,000 – 2,500 years ago

Topics Included:

- Who are the Archaic People?
- Changing Landscape
- Technology and Lifestyle
- Sites in Western Colorado

Who are the Archaic People?

Archaic people are the direct descendants of Paleoindians. However, unlike their ancestors, they were generalists rather than specialists, meaning that the Archaic people focused on a wide range of food from varying sources. While they mainly hunted and gathered, toward the end of the Archaic period, they began to adopt agriculture as a means of accessing their food.

Changing Landscape

The transition from the Pleistocene epoch (Ice Age) to the Holocene epoch (geologically recent times) brought many changes to North America. During the last glacial period, a patchwork of environments filled the non-glaciated part of the landscape. With the diversity in environments there was also more diversity in the types and
availability of plant and animal resources for humans living at the time. As the glaciers receded, the climate was subjected to rapid changes. By the time glaciers had completely retreated to the polar regions 11,700 years ago, the megafauna that shared the continent with Paleoindians had completely gone extinct. The Holocene brought a warmer, drier, and more stable climate to this region. The environment became also more uniform instead of the patchwork from the previous epoch.

Technology and Lifestyle

The transition from the Paleoindian Period to the Archaic Period is reflected by shifts in human strategies brought on by the changes in climate. Technology exemplifying these changes first appeared 8,000 years ago, ushering in the Archaic period. While Paleoindian people traveled over wide distances and did not remain long in their temporary shelters, Archaic people traveled over a smaller territory and made use of their sites for longer periods of time. This change in mobility is reflected in the stone tools used. Paleoindians acquired stone from a wide variety of source locations, while Archaic people used stone from more local sources.

Both cultures lived a hunter-gatherer lifestyle; however, with the extinction of the megafauna, Archaic people had a less diverse diet in terms of prey available. Nonetheless, Archaic people adapted to become more efficient hunters than their Paleoindian ancestors. While Paleoindian people relied on stemmed points at the end of spears that forced them to get close to their prey, Archaic people developed spear-throwing technology called the **atlatl** that allowed them to attack from more of a distance. The atlatl was a rod with a hook at the end for holding a spear that allowed the hunter to propel it much further and faster than if it was thrown by hand. They also changed their hunting strategies from a broader to a more focused strategy, allowing them to get a better chance of capturing smaller prey that mainly traveled in large herds.

Projectile points that would have been at the end of the spear during the Archaic period were notched, as opposed to the stemmed variety used by Paleoindians. These notched projectile points more closely resembled what most people think of when they think of projectile points. One of the reasons archaeologists think this switch from stemmed to notched points occurred was because of the reusability in making such points. Notched points, if broken, can easily be reworked to do a similar task as they were before they got broken.

The widespread use of grindstones during the Archaic period allowed people to make more extensive use of seeds than their ancestors. To grind and pound nuts, seeds, and dried meat, people used flat stone metates with small hand-stones called manos. Manos and metates are still used in some cultures today and act somewhat like a mortar and pestle. The manos found at this time, however, are generally smaller, one-handed ones where later, more sedentary people used larger, two-handed varieties of the tools.

Archaic shelters were like those used by Paleoindians. They relied on both natural shelters and ones that they built. Because Archaic people moved throughout the year, their homes needed to be simple and easy to build. The man-made shelters used sticks, branches, brush, and mud to create a dome shaped structure over an oval or round pit or depression in the ground. Later in the Archaic period, the homes became more complex and could be used for longer periods of time.

By 8000 years before the present day, we see something the Paleoindians did not utilize: basketry. Crafting baskets is one of the indicators of settling down in a single place for longer periods of time because it requires being in one place long enough to sit down and weave as well as being in an area where you can access the supplies for the baskets. Another related technology we see is grass figurines. The style we find in this area feature a vertical wrapping with mainly quadrupedal figurines featuring. They often feature tail in addition to such intricate details as ears. These figurines are often seen in middens with domestic middens.
Timeline

Archaeologists divide the Archaic Period into three eras: the Early, the Middle, and the Late. During the Early period, the transition from mainly focusing on hunting to beginning gathering is quite clear.

The Middle Archaic Period, which lasted from 5500 and 3500 years before the present, is underrepresented in many timelines. Archaeologists think the reason why is possibly an extended drought that caused people to not leave as distinctive a mark on the landscape, but there is not enough information to make the reasons clear. Despite a lack of evidence of habitation, this is right around the time archaeologists start to see petroglyphs and pictographs. These examples of rock art continue to occur into the Late Archaic.

The Late Archaic, which lasted from 3500 to 2000 years ago, shows a dramatic increase in human activity with more settlements, trash middens, and sites than the previous two eras. This is around the time we also begin to see maize agriculture taking place. This begins the reliance on agriculture and the beginning of the decline of the use of hunting and gathering.

Sites in Western Colorado

Sites where you can find evidence of the Archaic people include Draper Cave, Bloomfield Site, Chance Gulch, and Curecanti.

Introduction to the Formative Stage

750 BCE – 1300 CE

Topics Included:
- Fremont People
  o Defining Characteristics
  o Technology and Lifestyle
  o What happened to the Fremont?
- Ancestral Pueblo People
  o Distinguishing Characteristics
  o Technology and Lifestyle
  o Depopulation

Fremont People

Who Were the Fremont?

During 750 BCE to 1300 CE, a group of people occupied the area that is now Utah and western Colorado known as the Fremont. This group got their name from the location where the Fremont Culture was initially discovered, the Fremont River valley. These people had a distinct culture distinct from the Ancestral Puebloans further to the south. You can find Fremont sites in Nine Mile Canyon, where you can see excellent examples of Fremont rock art, and Unaweep Canyon. The modern Ute tribe believe they are descended from the Fremont. The Fremont were a highly adaptive group, changing aspects of their culture to match the landscape; however, a few characteristics stayed the same.
Defining Characteristics
The Fremont primarily lived in pit-houses, a round room dug into the ground with a hearth at the center and covered with a roof made from brush that you would enter using a short ladder. They would sometimes use natural rock shelters and wickiups, a small lean-to made of sticks and brush, but did not build permanent vertical shelters, unlike the Ancestral Puebloans.

Fremont rock art is distinct, with trapezoidal anthropomorphic figures which are often depicted with headdresses, jewelry, clothing, and even facial expressions. Zoomorphic depictions included big horn sheep, deer, birds, snakes, and lizards. They also incorporated handprints, geometric designs, and abstract shapes. Archaeologists disagree on the meaning of these depictions. Some ideas on the significance of the rock art are documentation of various events or stories, telling tribal members of the location of resources, and celestial information. Other archaeologists think that the rock art was not merely human self-expression, but also a subtle way of imparting important information to observers within their culture.

There are several unique artifacts found among the Fremont that set them apart from other groups. One of their most distinct features is their basketry. The style of basketry they used was called one-rod-and-bundle, which used fibers from plants such as willow, yucca, and milkweed. They also had a unique form of pottery, which was mostly grayware that had smooth and polished surfaces or corrugated effects created by pinching designs into the clay. One of the most unique artifacts they left behind are unfired clay figurines. These figurines displayed the same intricate designs as their rock art. We don’t know if these figurines had any special significance, but archaeologists do have some ideas, including religious purposes or association with fertility rites. While the Fremont’s neighbors wore sandals made of plant fibers, the Fremont made moccasins from the shin hides of animals they hunted such as big horn sheep, deer, or bison.

The Fremont Lifestyle
The Fremont people were a semi-nomadic people, meaning they stayed in a single place for some of the year and then moved on to another site. They did a combination of agricultural activities and hunting and gathering. They would grow small plots of the three sisters (corn, beans, and squash) while also gathering local grasses, hunting local fauna such as mule deer, and gathering nuts such as pine nuts along with various berries and tubers. They also ate cactus fruits such as prickly pear, and they ate some other parts of cactus such as cholla buds and prickly pear pads; some of you might be familiar with eating prickly pear pads, known today as nopales.

Much like other people in the Southwest, the Fremont utilized ak chin farming, which utilized irrigation as a way of providing water to their crops. Some of these methods are still used today by the modern tribes. The Fremont people, much like the Ancestral Puebloans, utilized pits to store their food called cists or granaries, small pots and baskets that were kept safe from the elements on overhangs. The cists were kept near the back of their natural rock shelters or near their pit-houses. They also ground their corn in the same methods as their neighbors to the south, utilizing flat stones called metates that they would set the dried corn on and then apply a long, round stone called a mano to grind the corn into meal.

The social structure of the Fremont most likely consisted of small bands of people. These bands probably were made up of several families.

What Happened to the Fremont?
Very little is known about why the Fremont people depopulated their lands. Archaeologists have yet to come to a consensus, but some hypotheses include newcomers to the area, drought or other changes in weather patterns, and social changes. Still others suggest that the Fremont migrated to other lands.
Who Were the Ancestral Pueblo?
The Ancestral Pueblo, formerly known as the Anasazi (we no longer call them Anasazi because it was a derogatory name used by the Navajo; the word translates to ancestors of our enemies), lived in the Four Corners area. This area includes what is now Colorado, Utah, Arizona, and New Mexico. They lived from approximately 750 BCE to 1200 CE. Their descendants still live in much the same way as their ancestors; they can be found in the modern Hopi and Zuni tribes today.

Distinguishing Characteristics
The Ancestral Pueblo people initially lived very much like the Fremont people. They occupied pit structures and continued to supplement their diets by hunting and gathering, but unlike the Fremont, they stayed in more settled locations on top of mesas and within cliffs rather than out in the open or in rock overhangs. Much like the Fremont, they developed bow technology, which was more efficient and allowed them to shoot from farther away than atlatls, a type of thrown dart. They also used cists in the ground that had lids and were lined to keep out vermin, aid in preservation, and protect people accessing the food from getting hurt. While both groups did use weaving to make baskets, the Ancestral Puebloans used a technique called the spiral twilled technique to make their baskets.

We see a cultural divergence from the Fremont during what’s called the Basketmaker III period. During this time, the Ancestral Pueblo people began to rely more on farming, as evidenced by use of irrigation technologies such as reservoirs and check dams and the beginning of turkey domestication. While hunting and gathering did continue, it wasn’t used as frequently as it had during the previous period, known as Basketmaker II.

In about 750 CE, we start to see permanent vertical structures come up; this time is known as the pit-house to pueblo transition. This period is known as, you guessed it, Pueblo I. These people didn’t do anything half done, as these structures sometimes contained 100 rooms, and were appropriately called great houses. These buildings used stonemasonry and a method that is still used today, adobe. Pit-houses did not entirely go away, but rather were transformed into kivas, a large circular room that was used for ceremonial purposes. Cotton was introduced, and pottery got more intricate, with new shapes, decorations, and finishes. The colors of the pottery expanded from the grayware they used in previous years to featuring black on white and black on red as well as multicolored, or polychrome, styles. It’s around this time that we see the reduction in the popularity of basketry. Agriculture continued to expand, with mesa tops being used almost entirely for agriculture.

During the next period, known as Pueblo II, a greater variety of buildings were produced. In addition to great houses, hamlets and villages began to be prevalent. Even kivas began to get greater variety, with some being built inside towers and others just getting significantly larger.

During Pueblo III, cliff dwellings begin to develop and grow in popularity. One prime example in Colorado is Mesa Verde. While the buildings were built in cliff faces and recesses of canyons and began to be made from sandstone bricks held together with mortar made from mud and water, the architecture and structures stayed very much the same as they had in previous periods. One marked difference, however, was the placement of the kivas. The kivas moved from more central locations of villages past to the front of the buildings, where the roofs of the kivas would form open courtyards that would house daily routines in addition to ceremonies. There were also large, freestanding structures built along mesa walls that resembled modern apartments. These structures had anywhere from 20 to over 1,000 rooms with buildings up to 4 stories tall, and the population became more concentrated, with the hamlets and villages of Pueblo II becoming abandoned. Pottery and other forms of craftsmanship reached its peak at this point, and agriculture reigned supreme as the source of food.
The Ancestral Puebloan Lifestyle and Technology

The Ancestral Puebloan people were, first and foremost, farmers. Their diet of cultivated corn, beans, and squash was supplemented by wild berries, nuts, tubers, grains, and of course hunted meat. There were fewer pinyon and juniper trees than there are today, mainly because the Ancestral Puebloans would often cut them down for firewood and to build their homes, as well as to clear land for their farms. In addition to the turkey mentioned above, the Ancestral Puebloans also had domesticated dogs.

While the Ancestral Puebloans did not use metal, what they did have was building materials that they crafted from the environment around them. Stone, bone, and wood were used to create the tools they would use, such as simple scrapers and choppers. These same materials were also used to create tools meant for more advanced tasks, such as grinding or polishing.

You may think the Ancestral Puebloans were an isolated group who kept to themselves; however, evidence shows that they used their skills to trade with tribes much further away. It’s not uncommon to find seashells from the Pacific coast, parrot feathers, and turquoise from Mexico in Ancestral Puebloan sites. The famous Ancestral Puebloan pottery was most likely made by women and children. Modern Americans would be highly familiar with many of the items used, which included mugs, bowls, ladles, and canteens. Designs were personal in nature and passed down from mother to daughter. The design elements changed at a slow pace.

Depopulation

Much like with the Fremont, it is largely unknown what caused the Ancestral Puebloan people to depopulate their cliff dwellings. We know from dendrochronological data that there was an extensive drought to the area; however, this seems to be an unlikely factor on its own because the Ancestral Puebloans were accustomed to drought conditions and it had never stopped them from their societies in the past. Other possible factors that archaeologists hypothesize may have occurred are resource depletion and sociopolitical problems.