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FAR VIEW SITES

Archeological Evidence and



Scientific Insights



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Welcome to the Far View Community, where the lives of ancient farmers, modern scientists and tribal descendants intersect. A thousand years ago, this community was a place of family homes and public buildings set among small farm fields. It was filled with people, vibrant life, and constant change. As you follow the woodland trail among six excavated archeological sites, read the trailside signs to learn about life on the farmsteads of the landscape around you.

Beginning in the early 1900s, Far View was a place of active research and public visitation. Use this guide to explore scientific evidence that help us understand this 1000-year-old community. The six excavated structures you will visit provide more than information about the Ancestral Puebloan homes and public places. Work on these sites helped establish the science of archeology in the American Southwest, and inspired present-day thinking about how to preserve and appreciate a cultural landscape. As you visit each stop, you'll read examples of how different sciences helped archeologists uncover valuable information for that structure, the Far View Community, and the Mesa Verde area.



Excavation crew at Far View House, 1916

Far View House and Tree-ring Dating



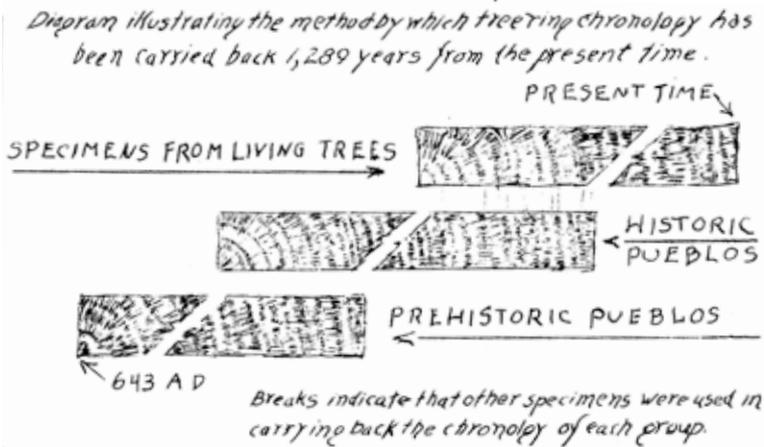
This 1934 photo shows wall sockets and stonework extending well above the sockets, indicators that this part of the ancient structure was at least 2 stories tall.

Far View House commanded a stunning view of the canyons of Mesa Verde and nearby mountains in four states. Trees block some of the view today, but in the CE 1000s (CE = current era, replaces AD) residents could look out to the far mountains from their second-story rooftops.

When this site was first excavated in 1916, archeologists found a large pile of building stone covering the lower walls and masonry foundations--far more stone than a one-story building would require. They also observed sockets, small openings built into the masonry to support wooden beams. The sockets still contained mortar showing impressions of the wooden beams that they once supported.

These beams, called vigas, formed the ceiling of the first story, and supported the floor of the second story.

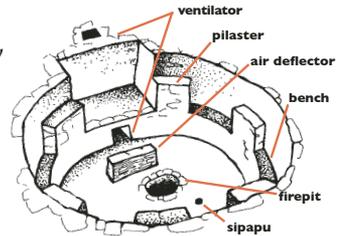
Archeologists use tree-ring dating (dendrochronology) to reveal the age of wood in archeological sites. It's an important scientific tool that requires samples of wood or charcoal from the excavation. Charcoal found buried beneath walls and floors of the structure you see today provided the oldest tree-ring dates: the trees were cut in the CE 800s and 900s. Later dates found in some rooms show that people repeatedly rebuilt portions or renovated structures on this location over 350 years.



How does dendrochronology work? Many trees produce one growth ring per year. Trees from the same region tend to develop the same distinctive patterns of ring widths year by year. These patterns can be compared and matched ring-for-ring with rings from trees growing at the same time, in the same geographical region and climate. Scientists match the growth pattern of tree rings to the years the tree lived, to determine when a structure was built, as shown in this illustration from a 1932 Park brochure.

What we see of Far View House today illustrates the final stage of Ancestral Pueblo occupation at this site. Beneath these walls, older buried foundations, beams, and broken pottery showed archeologists that different structures existed here for centuries. The kiva, or round underground room, at the east (right) end of the courtyard was no longer used and was buried when residents built the plaza that now hosts benches for visitors. Unused rooms gradually filled with soil and trash left by successive generations of residents, providing a wealth of information for archeologists who study the life cycle of this village.

Similar to other kivas in the Mesa Verde area, kivas at the Far View Sites were built to withstand the weather. Six upright stone pillars, called pilaster, supported a thick roof with a single roof-top entrance. Because the kiva was well insulated, a small fire in the central firepit could warm the space even with smoke rising through the entrance. A ventilator opening drew fresh air in from outside, and the deflector directed airflow away from the fire. A ventilator opening drew fresh air in from outside, and the deflector directed airflow away from the fire.



The "misfit" kiva: some archeologists propose reburying this kiva because it belonged to a structure that pre-dates Far View House as you see it today. Reburial would better protect the walls but would remove this older underground room from your view. What would you do?

Pipe Shrine House: Documentation and Analysis

Pipe Shrine House was excavated in 1922, before archeological procedures were standardized. Early excavation techniques were crude and inconsistent compared to current practices. During excavation, some walls were rebuilt or reinforced, but no one kept records of the changes. Excavators moved stones from fallen walls into piles that were convenient, sometimes covering or destroying evidence of how rooms and spaces were built and used. Field reports from that time are brief and lack detail, making it difficult for modern archeologists to decipher the excavation history of a site. And the Ancestral Pueblo builders had remodeled their homes and communities many times, challenging archeologists to distinguish ancient repair work from what was done in the past 150 years.

For example: Tree ring dates from wood recovered from Pipe Shrine House reveal several stages of building by Ancestral Pueblo people, spanning the mid CE 700s through CE 1000s. There is also one sample that dates to the CE 1200s, probably cut for the last remodeling and occupation of the structure you see today. But there are no dates from the CE 1100s. Why not? Were the beams cut in the 1100s removed by Ancestral Pueblo builders and re-used in a building elsewhere? Was this structure unoccupied for a hundred years or more, then reoccupied and remodeled shortly before its residents chose to move away from the region? Or was wood of that age simply not collected for sampling?

Modern archeologists practice careful documentation and analysis—much of which happens long before any excavation or stabilization takes place. The style of documentation changes as technology changes. Today, precise hand-drawn maps and sketches of surfaces and individual walls are supplemented by high-resolution digital site maps and images that provide detailed evidence for current condition and future study. Will these techniques be considered crude or inadequate in the future?

21st-century archeologist documents each stone on a digital image



In the park's early years, a dirt road around Far View House made these sites easy to visit. It was also easy to damage the ancient structures, and to collect artifacts for souvenirs. Faced with the destruction of the very sites the park was established to protect, managers removed the road and eventually prohibited climbing on walls. Today, these are common protection measures at archeological sites around the world.



Coyote Village: Ceramic Dating

By the 1960s, archeologists followed well-established techniques of study, artifact collection, and site preservation. When researchers excavated Coyote Village in 1968, they found and studied multiple layers of soil and buried artifacts, including pottery of different styles, walls built over older walls, and bits of wood, all of which helped determine that the site hosted multiple structures from the CE 700s into the early 1200s.

Ceramic pottery fragments, called sherds, provided clues to the ages of rooms. Shape, thickness, materials, and designs on pottery changed repeatedly during the 700 years the Ancestral Pueblo people lived in the area. Archeologists use a timeline of ceramic characteristics to identify the time period for the layer in which the sherds were found. Characteristics used in ceramic dating include the form of the vessel; the type, color, and sources of clay; the type of fine rock or ground pottery used as temper to strengthen vessel walls, the types and sources of paints, and the designs or decorations.



Although people lived in the Far View Community well into the CE 1200s, much of the pottery found here was made during the CE 1000s. What does that imply about occupation of Coyote Village?

Collections such as this one from the Far View community show how pottery styles changed through time, and provide clues to the occupation dates of each site.

Far View Reservoir: Stratigraphy and Pollen Studies

Dendrochronology, stratigraphy, ceramic dating, and palynology help archeologists interpret Far View Reservoir. Stratigraphy, the study of layers -- strata -- at or near the surface of the earth, is a scientific tool used to understand how an area changed over generations. Palynology is the study of plant pollen, and reveals much about plants growing in a region through time.

When was it built?

Pottery fragments (sherds) found under and outside the walls give us the building sequence and its age: the oldest sections date to about CE 950 and the final construction work was completed about CE1200.

What have we learned about life at Far View?

Buried soil layers contain sherds and corn pollen that accumulated here when the structure was surrounded by corn fields and frequently visited by Ancestral Puebloan residents. Pollen from water-loving plants such as cattails and ferns is present in buried soils between the older walls, and is found nowhere else in the area.

Why did they build it?

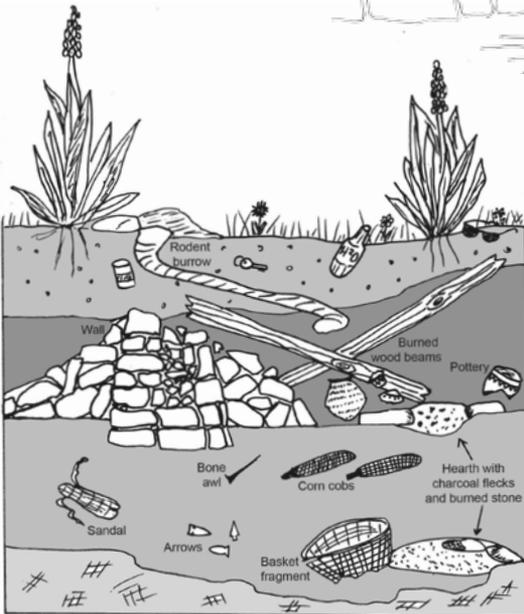
This may be the most intriguing question. Many believe that the presence of water plants and other clues from stratigraphy indicate it was built as a water catchment or reservoir, probably collecting water seasonally rather than year round. Some conclude the water was used for household purposes rather than irrigation.

Although the presence of water is indisputable, some researchers note similarities of the youngest, inner walls of this structure to dance plazas in modern and historic pueblos, or to great kivas. The site was used for 250 years: could the Ancestral Pueblo people have used it in different ways at different times?

What are those white pipes in the Far View Reservoir?

Plastic pipes you see within the Reservoir protect equipment used to determine if shallow groundwater is present under the structure. Installed in the 1990s, these water-measuring tools known as piezometers have never detected any groundwater presence or movement. Evidence from tree-ring widths indicates the amount of rainfall today is similar to rainfall a thousand years ago. This suggests that water stored in this Reservoir had to come from storm runoff and snow melt, in the absence of groundwater.

People ate the roots of cattails harvested from the reservoir, and used stems to weave baskets.



Within the study of stratigraphy, the 'law of superposition' is a critical concept for determining the age of a structure and its contents. The law of superposition holds that, in general, deeper layers in the Earth are older than layers closer to the surface. The

layers are never perfect: in an archeological site, burrowing animals, plant roots, and humans all can disturb the sequence revealed in the strata. But in general, artifacts within the deeper layers are older than artifacts in shallow layers.

Megalithic House: Studying remains of ancient plants

Why did the people of Mesa Verde choose to build Megalithic House and other farms and villages in this location while other people decided to live in the broad valleys north of the Park? Ecologists and climate scientists study the minute remains of plants collected from archeological sites to answer this question.

The geographic feature we call the Mesa Verde offers a wide variety of edible and useful plants, as well as excellent land for farming. Some desirable traits of this landscape include:

- areas of rich deep soil on the mesa tops and in drainages. People built hundreds of check dams across many small drainages, to collect water and soil washed downhill during storms. These pockets of moist soil made ideal farming terraces.
- warmer temperatures and a longer growing season. Because cold air sinks into the surrounding valleys and canyons, nights on the mesa tops tend to be warmer, and thus better for the successful growth of the food crops the Ancestral Pueblo farmers depended on.
- 1500-ft change in elevation in a short distance. Many different edible and useful plants grow at different elevations. Walking from their mesa top homes into the adjacent canyons, people could reach a great variety of edible plants that ripened at different times, and extend the season of gathering food and essential supplies.

What other characteristics of Far View area might have attracted residents for hundreds of years? If you were a farmer, a builder, or a potter of CE 1000, would you have chosen to live here?



Yucca flowers were food, and people worked the long fibers from yucca leaves into high-quality cordage, sandals, and woven mats

Although tiny, seeds from rice grass contributed to nutrient-rich meals



Nuts harvested from pinyon cones have provided food for residents of the Southwest for many centuries

Studying the remains of ancient plants helps archeologists learn about the lifeways of people who lived in the past. Such studies reveal much about diet; about materials used for weaving baskets and textiles; about plants that were gathered or farmed; and about changes in human activity through time.

Useful techniques for botanical studies include:

- **bulk soil analysis:** plant remnants recovered from soil when a site is excavated reveal the types of plants associated with specific tools or activities within in each room or area
- **flotation:** plant pieces that float in water are separated from bulk soil for identification
- **coprolite studies:** identifiable bits of plants preserved in ancient dried feces show what people and animals ate

Far View Tower and Modern Stabilization

Like Pipe Shrine House, Far View Tower was partially excavated in the 1920s to prepare it for visitors. In just a few weeks, workers removed fallen stones, dug wind-blown soil and debris from inside the rooms, and collected artifacts for distant museums. They took very few notes or photographs that could help later scholars learn details of Ancestral Pueblo life here.

Unskillfully and hastily applied concrete holds the tower stones together. In the early 1900s, archeologists thought this method of stabilizing walls would help protect these exposed sites from the weather. Although their methods seem inadequate and even destructive by modern science standards, these pioneers of Southwest archeology kindled widespread interest in the Ancestral Pueblo people and in the human history of the region.



An Ancestral Lands intern uses the painstaking process of replacing the surface layer of mortar between stones, called “repointing,” to weatherproof precious walls.

Today, Mesa Verde’s preservation team cares for the sites visited by the public using repair techniques and materials that are carefully selected to stabilize walls while maintaining their original appearance and character. Although past excavations all over the world were focused on finding objects or discovering new treasures, the specialists of today incorporate insights from dendrochronology, palynology, stratigraphy, ceramic dating, and plant studies to appreciate the complexity of cultural landscapes such as the Far View community.

Park preservation specialists frequently visit sites, looking for changes in the conditions of the structures and potential threats. Burrowing rodents, people walking, soil movement from summer storms or winter freezes, and weed infestations all can affect the safety of the site for visitors, or the integrity of the structure itself. Digital images and detailed measurements and notes help identify problems and suggest solutions.



Archeology draws on many sciences, but one of the most important sources of insight into Mesa Verde's past comes from the descendants of the people who lived here. These modern



Americans are the Pueblo people of the Four Corners region. Tribal members share their insights with Park staff and visitors to increase understanding and appreciation of Ancestral Pueblo life and culture.

To Our Visitors

Mesa Verde National Park offers a spectacular look into the lives of the Ancestral Pueblo people who made this land their home for over 700 years. Today, the park protects over 4,500 known archeological sites, including 600 cliff dwellings. These are some of the most notable and best preserved in the United States. Please do your part to protect them for all to visit and enjoy.

Most of the sites you see at Mesa Verde are over 750 years old.

- Please do not touch, sit, stand, or lean on their fragile walls.
- Since archeologists need to see everything in context to understand a site, do not disturb artifacts. Removing them is illegal.

Treat cliff dwellings and other archeological sites as you would a museum.

- No smoking or eating is permitted in the sites.
- Do carry and drink water.
- Only leashed service animals are allowed in sites or on trails.

Always stay on marked trails.

- Since people may be on trails below you, do not throw rocks or other objects into the canyons.
- Remember that the park is at a higher elevation than you may be used to; move slowly and drink plenty of water.
- If you have heart or respiratory conditions, be especially careful of your health.

We appreciate your help in preserving these priceless treasures for future generations.

This guide is dedicated to Florence C. Lister (1920-2016) and Robert H. Lister (1915-1990), world-renowned southwestern archeologists. They directed excavation of Coyote Village and nearby sites in the 1950s and 60s, and established the cultural sequence of the Far View Sites.



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Cover – Background: interior wall, Far View House.
Inset: petroglyph stone, Far View House

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